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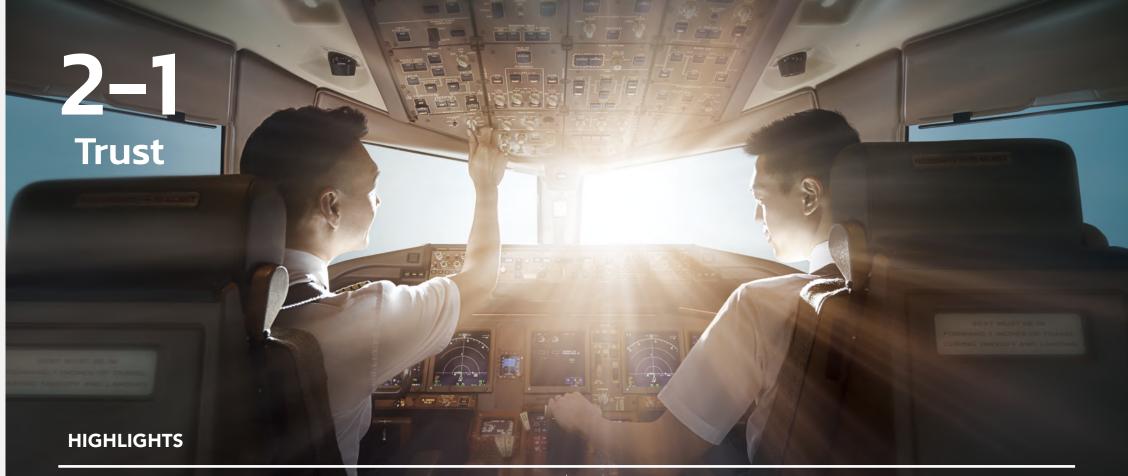
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## Preemptive protective measures

CAL actively cooperates with the national disease prevention regulations in response to the COVID-19 pandemic. We implemented advanced preparation and protection measures to ensure the health and safety of passengers and crew members to jointly protect public safety and health.

## **ISMS and PIMS introduced** to certify core information systems



The Company began implementing annual reevaluation of the core Information Security Management System (ISMS) and certification of the Privacy Information Management System (PIMS) in 2020 to ensure that the management system can effectively operate and control risks. The Company also obtained credit card transaction system data security certification in 2020 to ensure the security of the Company's credit card transaction environment and protect passenger rights.

# 

#### Improving distribution capability

CAL obtained certification for Level 4 New Distribution Capability of the International Air Transport Association (IATA) on August 20, 2020 and became the first airline company in Taiwan to obtain the certification. Level 4 certification signify improvements in technical capabilities. If it is widely adopted in commercial applications, it can effectively reduce the cost of booking fees for the global distribution system (GDS).



#### **Hosted** aviation security seminar

CAL, China Aviation Development Foundation, and CAA of MOTC co-organized an aviation security risk management seminar in 2020.



## 9<sup>th</sup> passed IOSA Certification

CAL has successfully passed the IATA Operational Safety Audit (IOSA) of the International Air Transport Association (IATA).



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## Management Approach GRI 103-1, 103-2, 103-3

#### ►- Importance of Material Issues

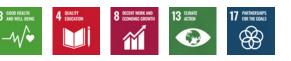
Zero accident is the foundation for creating sustainable value for customers. Therefore, providing reliable and safe service is not only the core value of CAL, but also our way to sustainability. As a professional transportation service provider, the sustainable operations of CAL depend on the quality of transportation service provided. To create sustainable value for customers, CAL is dedicated to protecting customers' privacy, providing premium service that meets their expectations and needs, and continuing optimizing the quality of service.

#### Commitment and Long-term Goals

#### • Commitment

Flight safety is CAL's most solemn and important commitment to customers and the public in its 61 years of history. We are committed to compliance with regulations and zero flight safety accidents and we pledge that we shall do all we can to ensure the safety of all passengers and cargo on each journey. We shall also uphold our consistent service ideals of "respect for customers" and "protecting customer rights" during the global COVID-19 pandemic by monitoring international development while complying with national policies and full consideration of customer interests to create a reliable and high-quality service experience. We have adopted a brand-new national flight team slogan during the pandemic — "We fly, we fight. We will all be fine." We shall continue to fulfill our corporate mission of "creating more wonderful moments through flying".

• Long-term Goals



1. Implementing personal data management systems in accordance with GDPR and personal data protection laws

- 2. Increasing the cargo service customer satisfaction rate to 88%
- 3. Continuing to secure development of core business application systems and launch innovative application services as needed in order to increase revenue and reduce costs for the company and enable more efficient routines
- 4. Performing aviation data study and analysis for future release

5. Enhancing the SMS performance review mechanisms

2025

- 1. Receiving ISO27701 Privacy Information Management certification in the collection, processing, and use of personal data in the Passenger Service Management Procedure (including Taiwan and EU headquarters)
- 2. Increasing the cargo service customer satisfaction rate to 89%
- 3. Promoting smart airports: Establishing a smart airport at Terminal 3 of Taiwan Taoyuan International Airport; and improving customer satisfaction through digital innovation initiatives
- 4. Publishing aviation study results to improve aviation industry technical capacity

5. Strengthening the safety culture

2030

- 1. Maintaining validity of ISO27701 Privacy Information Management certificate, and keeping a score of 90 or higher in the DJSI personal data protection criteria
- 2. Increasing the cargo service customer satisfaction rate to 90%
- 3. Promoting intelligent tourism: Achieving horizontal and vertical integration of tourism-related industries to provide a one-stop smart travel eco-system
- 4. Developing innovation initiatives with other airlines to drive innovation momentum

5. Continuously enhancing the SMS

## - Objectives and Plans GRI 102-44

Key Deint	SPI (Note 1) / KPI	2020			2021
Key Point		Objectives	Performance	Achievement	Objectives
Flight Safety	Fatal and Hull Loss Accidents	0	0	100%	0
	Runway Excursions (RE)	0	0	100%	0
	Controlled Flight into Terrain (CFIT)	0	0	100%	0
	Loss of Control in Flight (LOC-I)	0	0	100%	0
Customer Service	Overall Passenger Satisfaction	87.8	88.6	100%	87.8 (Note 2)
	Overall Cargo Service Satisfaction	88.0	88.5	100%	88.0
	Overall Maintenance Satisfaction	8.40	8.57	100%	8.40

Note 1: SPI refers to safety performance indicators.

Note 2: In response to the COVID-19 pandemic, the Chairman agreed, after discussions in the meeting for setting quality targets, that the overall customer satisfaction target for 2021 shall be the same as that of 2020.



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#### ➤- Unit in Charge

Corporate Sustainability Committee — Trust Task Force and Corporate Safety Committee

#### Management Mechanisms

- The Corporate Sustainability Committee convenes a meeting at least twice every year
- The Corporate Safety Committee convenes a meeting every quarter on a regular basis
- The quality review meeting is convened every half year on a regular basis
- The Trust Task Force submits the KPI report to the Corporate Sustainability Committee every quarter
- The personal information protection management review meeting is convened every year on a regular basis

#### ► Grievance Mechanism

- Passenger: Passenger Branch Office Website
- Cargo: Cargo Branch Office Website
- Aircraft Maintenance: Engineering and Maintenance
   Organization —
   E-mail: emo.customer@china-airlines.com



Stakeholder Passenger Contact Branch Office



Cargo Branch Office

Aircraft Maintenance

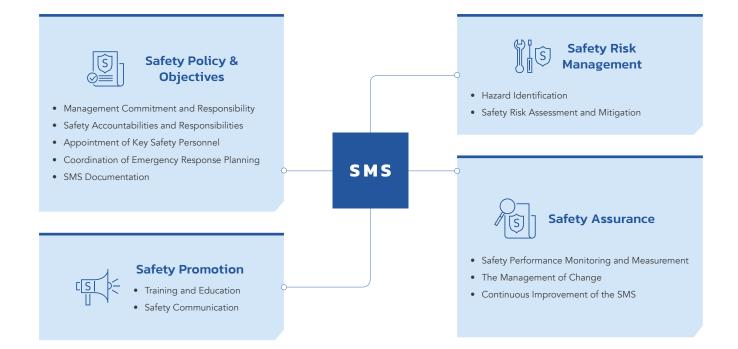


Safety is the core value of CAL and our absolute commitment to customers. We always take a consistent and uncompromising stand on flight safety. With a zero tolerance on flight safety accidents, CAL has comprehensive control over flight safety through management systems. CAL continuously improves overall flight safety and endeavors to reinforce the corporate culture of safety to make sure that securities are fully in place to provide passengers with safe and reliable flights.

## Safety Management System (SMS)

CAL follows the requirements in the civil aviation regulations of Taiwan and references the guidelines in the International Civil Aviation Organization (ICAO) DOC. 9859 Safety Management Manual (SMM). CAL has implemented the Safety Management System (SMS) since 2007. After more than a decade, the benefits have started rolling in. The core of CAL SMS is safety risk management. CAL analyzes and manages operational risks systematically through continuous risk identification and management. We also set Safety Performance Targets (SPTs) to implement overall tracking and control, or mitigate risks.





## Safety Risk Management

#### 1. Setting and Monitoring Safety Performance Indicators / Targets (SPI / SPT)

Based on past performance and Safety Reporting System, requirements of authorities in charge of civil aviation, plus official safety reports provided by international organizations, CAL sets its annual SPIs / SPTs. The annual safety performance indicators are monitored in executive meetings and reviewed and discussed in review meetings of the safety task force of each unit on a regular basis, to meet flight safety management requirements to meet domestic and international safety standards and attain the highest safety standards.



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#### Safety Management Meeting

- **Board of Directors Risk Committee**
- Corporate Safety Office reports CAL's overall risk

#### Corporate Safety Committee

- Corporate Safety Office reports the implementation of quarterly safety management
- Discuss critical safety issues

#### Airline Safety Review Committee

- Report the implementation of monthly safety management
- Report critical safety issues

#### Safety Action Group

Flight Operation Division, Engineering & Maintenance Organization, Cabin Crew Division, Ground Service Division, System Operation Control Division, Inflight Supply Chain & Marketing Division, Cargo Sales, Marketing & Services Division, and other support divisions

#### 2. Safety Reporting System

To enhance their awareness of flight safety, CAL encourages employees to use the Safety Reporting System to proactively identify potential risks and report possible safety issues in their daily work. Through risk reporting, CAL prevents unsafe incidents from occurring and increases its overall security level. In addition, CAL conducts risk analysis and assessments based on seasonality, trends of flight safety, and changes in internal and external environments. Making a further effort to control risks, we also communicate safety-related discipline and conduct to our employees in announcements or meetings. The Company also established reward mechanisms to encourage employees to file reports. Although the number of flights has decreased significantly due to the impact of COVID-19 in 2020, employees remained committed and actively filed safety reports. A total of 1,058 safety reports were filed this year and rewards were presented 141 times, demonstrating the effectiveness of the active reporting system.



#### 3. Safety Risk Management

Through risk identification, risk assessment, risk control, monitoring, and review, CAL not only mitigates risks to a level as low as reasonably practicable (ALARP), but also predicts potential safety issues in normal system operations and solves them early to prevent accidents from occurring. To instill the concept of risk management into the operation units and strengthen employees' use of risk management, CAL has, since 2015, provided regular safety risk management (SRM) training and assigned frontline units to implement self-evaluations and execute risk management operations. They must implement safety risk management in accordance with internal and external information, changes in the operation environment, adjustment of regulations, and changes in procedures and equipment.



#### 4. Flight Operations Quality Assurance

CAL utilizes Flight Operations Quality Assurance (FOQA) and the Flight Operations Quality Information System (FOQIS) developed by CAL to quickly identify the potential risks of the flight crew operations and promptly provide guidance for them to take corrective measures. Apart from producing monthly trend analysis report of FOQA for CAL's fleet as references, CAL shall conduct a necessary investigation and analysis, take corrective measures, and continuously monitor the effectiveness of subsequent improvements and corrective measures in accordance with the regulations for operations, thereby lowering flight operation risks and ensuring flight safety.

#### 5. Fatigue Management

In addition to fatigue management regulations set forth in domestic civil aviation laws, CAL follows the Fatigue Management Guide for Airline Operators (2<sup>nd</sup> Edition) established by the International Air Transport Association (IATA), International Civil Aviation Organization (ICAO) and the International Federation of Air Line Pilots' Associations (IFALPA) in 2015 to implement crew fatigue management mechanism using a prescriptive approach. In 2019, CAL incorporated the fatigue management system into the safety policy and introduced a new crew scheduling system (AIMS) and a flight crew fatigue management system (FRMSc-SAFE). Through predictive risk identification and proactive actions, CAL plans to optimize crew scheduling and fatigue management. Due to the impact of the pandemic in 2020, CAL referenced the IATA's "Guidance for managing crew fatigue during a crisis (1<sup>st</sup> Edition)" to manage crew fatigue. CAL actively reviewed the fatigue conditions and changes in safety behavior to identify potential risks for evaluations and adopt suitable mitigation measures.



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## Government Rule CAL Stricter Than Government Rule **CAL Flight Operation Manual (FOM)** Bio-Mathematical Model (SAFE) Crew Scheduling Regulations — Rule — Aircraft Flight Operation Regulations Regularly Examine Flight Crew Crew Fatigue Reports Review Keep Optimizing Rosters Complement and Fatigue Risk Assessment Bio-Mathematical Model Monitoring Flight Crew Flight • Flight Dispatch Changes Application Time Limitations

#### **Flight Task Evaluation**

**CAL Flight Crew Fatigue Risk Management** 



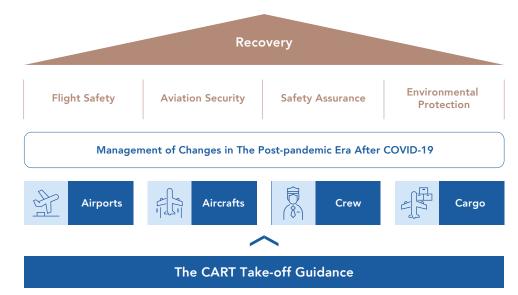
#### 6. Alcohol Test Mechanism

According to the Aircraft Flight Operation Regulations of the Civil Aeronautics Administration, CAL has established the alcohol test mechanism to conduct alcohol tests for operations personnel, such as flight crew, cabin crew, flight dispatchers, and maintenance personnel, and increase their alertness of flight safety.

## Implement Changes in Response to the Pandemic and Ensure Flight Safety Management

Due to the impact of the COVID-19 pandemic, the International Civil Aviation Organization (ICAO) published "The CART Take-off Guidance" (TOGD) in 2020 to provide the aviation industry with disease prevention guidelines for airports, flights, crew, and cargo. It requires airlines to adopt public health risk mitigation measures such as employee training, social distancing, facemask usage, regular disinfection, health examination, contact tracing, passenger health declaration, and virus tests. In response to the operational risks created by the pandemic, CAL referenced "The CART Take-off Guidance", disease prevention regulations of Taiwan, and disease prevention guidelines published by civil aviation authorities of different countries to implement comprehensive flight safety risk management. We use comprehensive response mechanisms to mitigate to the impact and changes brought forth by the pandemic. In the post-pandemic era, we use risk management to control and manage the restoration (restart) of operations in each phase. Domestic and foreign units and overseas branches have completed a total of 66 risk management evaluations based on their work duties and implemented mitigation measures based on risk trends to ensure continuous safe operations.





## **Safety Promotion and Training**

To ensure flight safety, CAL organizes educational and entertaining safety events every year to instill the significance of safety among all employees and constantly enhance their awareness of flight safety. Our safety events in 2020 were based on the themes of "safety identification, active implementation, participation, and continuous improvement". We aimed to enable all employees to act safely through experiential learning and positive motivation together reinforcing the safety culture in CAL and achieve the highest flight safety standards.



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#### 1. Safety Management System Recurrent Training

CAL completed the safety management system (SMS) recurrent training, and conducted an all-hands safety culture questionnaire. The results of evaluations by external professional institutions help CAL learn about the safety culture of the Company and improve safety management. A total of 11,403 employees in domestic and foreign units completed the training.

#### 2. Safety Promotion — "Safe Experience and Contests"

CAL organized the "Taoyuan Airport Safety Mini-Tour" to provide a learning experience for flight safety and collaboration with a walking tour for the safety operation contact person of each safety work group visited Taoyuan International Airport. To encourage employees to use the bow-tie analysis to identify hazards and formulate appropriate risk mitigation measures, we organized the Bow-Tie group contest for first-line operation units. The contest encourages them to use teamwork and share knowledge to improve employees' safety management skills.



Taoyuan Airport Safety Mini-Tour

Practical Risk Management Group Contest

#### 3. Safety Promotion — Hosted Aviation Security Seminar



CAL, China Aviation Development Foundation, and CAA of MOTC Co-organized an Aviation Security Risk Management Seminar on December 4, 2020.

## Flight Crew Management

#### Professional Training and Evaluation GRI 404-2

CAL differentiates risk factors and implements risk management mechanisms based on the three perspectives of "Prediction", "Proactive", and "Passive" through complete internal and external environmental change response trainings, such as training for new airports, routes, aircrafts, systems, protocol procedures, systematic flight training / qualification, flight operation quality assurance (FOQA), and periodic appraisal of trainers / examiners, pilots who graduate from our training programs are highly professional, reliable, and fully capable of safeguarding passenger safety.

Note: The goal of FOQA is to reduce the risk of accidents and hull loss by using past flight data and flight log excerpts to discover abnormal incidents and to analyze each fleet's operational characteristics. We then evaluate the findings to look for and rectify potential safety risks.

#### 1. Stringent Training and Objective Testing

In order to implement our commitment of flight safety with a surge of demand for flight crew on the global market, CAL strictly requires our cadet pilots to complete at least 10 months of training programs at well-known flight training schools in the United States or Australia. To ensure the flight training is solid, they must pass the performance evaluation at the training school and pass the training for new aircraft models, upgraded ranking, and switching between aircraft types.

CAL has introduced evidence-based training (EBT) to replace traditional recurrent training and tests. The EBT is guided by risk and crisis management, utilizing big data collection and analysis to enhance the ability of handling abnormal situation by individual behavior, fleet performance, operation sites, and historical record of events etc. Since January 1, 2018, CAL has implemented annual "Flight Crew EBT" refresher training and fitness tests and achieved 100% EBT for a total of 2,391 flight crew in 2020.

#### 2. Professional Training Facilities

As the first airline to introduce civil flight simulators in Taiwan, CAL is equipped with various types of simulators for flight training. In addition to simulating various adverse weather conditions, simulators can incorporate a variety of contingencies for constant simulation training; they can also display the tolerance limits of aircraft designs and carry out training in any possible extreme and dangerous situations without incurring any risk in the exercise. The training process can also be recorded as a basis for review and improvement for flight skill and expertise.

CAL's flight simulators and ground / water escape training facilities have been certified by international aviation administrations. The flight simulators are available for domestic and international training. CAL will continuously invest in and upgrade training equipment to ensure flight safety.

#### 3. A Comprehensive Management System

The Integrated Pilot Training System (IPTS) was since 2014 to comprehensively E-training records and integrate training course information. In 2020, 348 CAL flight crew have participated in a variety of short- and long-term training courses. CAL also completed the system connection and integration for IPTS with the new crew scheduling system (AIMS) introduced in 2019 to ensure the effective management and use of training resources.

In response to the impact of the COVID-19 pandemic in 2020, CAL has arranged regular flight simulator training, tests, and actual flights for all pilots in accordance with civil aviation regulations. CAL also formulates and implements continuous simulator training programs for all pilots of B737-800 aircrafts whose operations were most affected, and co-pilots of long-range aircrafts with fewer landings to maintain their flight familiarity and attain flight safety quality targets.



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#### Health and Emotional Management

CAL sets strict standards not only for pilot training, but also for pilots' health and emotional management. CAL has adopted proactive planning, crew feedback and prediction in crew roster management to prevent and reduce the physical and mental stress of pilots in long-haul flight duties.

#### 1. Life Management

To prevent and reduce the physical and mental stress of pilots in long-haul flight duties, CAL sets requirements higher than statutory ones and manages flight crew's physical and mental health so that all flight crew members are fully ready for each duty.

#### 2. Stress and Health Management

To enhance flight crew's awareness of stress issues, human factors and crew resource management (CRM) are included in flight crew training and retraining courses. For the flight crew, appropriate stress can improve the quality of work, but excessive stress can affect attention and emotional issues. In view of this, the perception of personal stress is especially emphasized in training, and problem solving and emotional regulation are proposed for flight crew members to choose as the most appropriate way to deal with their stress. CRM training provides the concepts of teamwork and workload management to help flight crew properly face and deal with stresses caused by bad weather and schedule delays and any unexpected situation. CAL provides free psychological courseling service, where psychological consultants work with flight crew members to find feasible solutions to problems they face in their daily life.

#### 3. Alcohol and Drug Management

CAL has established strict regulations and test procedures to prohibit the use of alcohol and drugs. This includes alcoholic beverages and food containing alcohol, as well as narcotic drugs or other drugs that may affect the normal performance of employees. CAL flight crews are not allowed to drink alcoholic beverages 12 hours prior to a flight. Since April 10, 2017, CAL has conducted alcohol test for all flight crew in accordance with the regulations of the Civil Aeronautics Administration.

#### 4. Improved Communication

To improve communication with crew members and cohesion between them, CAL organizes all types of meetings on a regular basis to streamline the channels of communication and quickly respond to and resolve their problems and needs during flight duty period. Through improved communication, we hope to provide a comfortable and secure work environment for all crew members.

Since the outbreak of the COVID-19 pandemic in February 2020, CAL Flight Operations Division has implemented disease prevention measures so that the crew members can work in a safe environment. Related response measures are as follows:

- 1. Provide crew members with information on the pandemic and provide them with comprehensive disease prevention equipment when they are on duty.
- 2. Plan disease prevention arrangements for outstation stays and request branch office to provide assistance to ensure crew members stay in hotels in accordance with the Company's disease prevention requirements. Protect crew members from being exposed to risks and prepare snack packages for them when they cannot go out and purchase food in outstations.
- 3. Establish real time communication channels in CAL real time communication application to ensure instantaneous communication regardless of the time zone.
- 4. With regard to crew members for whom quarantine at home is inconvenient, Flight Operations Division arranges them to reside at Company's hotel as the home quarantine site.

#### **Proactive Planning**

#### • Monthly review and discuss next month schedules with fleet office

- Better rosters for flight crew's dispatch and rest time
- If performed a night flight, the maximum duty duration is reduced by 2 hours
- Monitor crew pairing by their performance in each fleet
- Schedule a day off after a specific flight duty
- Plan home quarantine dates in accordance with the regulations of the CDC and CAA during the pandemic

#### Crew Feedback

- Investigate crew report regarding fatigue issue and mitigate by adjusting flight duty, crew number or layover as appropriate
- The dispatcher immediately adjusts the schedule of flight crew if they report fatigue or ask sick leave. The care team also inquires about flight crew's physical and mental conditions

#### Prediction

• Crew number and crew pattern for new routes will be determined by fleet office after evaluation. The evaluation will also include the regulations of different countries during the pandemic

#### Inflight Monitoring and Control

CAL System Operation Control Division monitors flights and flight safety worldwide in real time. It uses a variety of communication tools to monitor all site operations and closely monitors all factors that may affect them, including weather conditions and emergencies. The information is immediately relayed to flights enroute, along with contingency plans.

Despite the impact of the pandemic, disease prevention conditions, and sudden closure of routes without warning in 2020, CAL's punctuality rate calculated based on the "punctuality rate of international and cross-strait flights of the national airline" averaged 96.10% in 2020 which was 13.1% higher than the Company's target punctuality rate (KPI was 83%). The dispatch reliability rate exceeded 99% which was also higher than those of domestic peers.

The System Operation Control Division continues to provide passengers with high-quality flight services and continues to improve and tracking and monitoring software to meet regulatory requirements. The System Operation Control Division has set up comprehensive dynamic monitoring for designated seats and provides real-time updates of the latest hazardous weather events to aircrafts to help pilots change routes and avoid hazardous areas. Reputable meteorologists are also employed for weather forecasts for each station to provide reference information for making decisions for flights, increase flight efficiency, avoid hazardous weather at stations, and ensure flight



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safety. In terms of airport monitoring, ground monitoring software and hardware are continuously upgraded to connect with the CDM system of domestic and foreign airports for flight information, air traffic radar, and the self-developed CCTV management and monitoring dashboard to monitor flight status with precision. These measures improve the punctuality rate and service quality of flights and reduces inconveniences for passengers.

#### Maintenance Quality

Ensuring maintenance quality is an important foundation of flight safety. With the Company's Reliability Control Program, we proactively manage the maintenance status of all aircraft. By compiling and analyzing data related to common abnormalities and technical parameters from daily operations, appropriate maintenance strategies and plans are developed; this allows us to maintain the reliability of all systems on the aircraft to enhance maintenance guality and flight safety.

#### 1. Professional Maintenance Capacities

The Company's maintenance organization is certified by 11 countries and regions, including the European Union, the US, and China. We have the largest modernized maintenance facilities, including two hangers that can accommodate 5 wide-bodied aircraft at once, as well as an Engine Test Cell with up to 120,000 lbs. of thrust capability. The Company's maintenance capability can satisfy different level of maintenance checks for various type of aircrafts. To expand maintenance service to airlines in Southeast Asia and East Asia, CAL was approved as a repair station by the Philippines in April 2019. CAL will continue to expand maintenance services for customer aircrafts and third-party equipment and plans to obtain maintenance certificates from countries such as Japan in 2021.

#### 2. Establishing a New Maintenance Training Center

In response to rapidly growing demand for maintenance service at home and abroad, CAL was certified to establish the CAL Technical Training Center (CTC) in 2015. In 2017, CTC also obtained certification from the Civil Aviation Administration of China. CTC was the first certified institution in Taiwan to provide aircraft maintenance training for CAL-EMO and other airlines. Since CTC's foundation, a total of 152 training courses have been offered, and 1,706 trainees have completed training.

#### 3. Elevating the Quality Management System

CAL has acquired ISO 9001 certification and continuously maintain the effectiveness of the system since 1996. In May 2017, the EMO became the first repair station in Taiwan to receive certification for the AS9110 Quality Maintenance Systems - Aerospace from the International Aerospace Quality Group (IAOG). In December 2019, CAL renewed its three-year re-evaluation contract with the accreditation institution. Consistent with its pursuit of improvement of quality, CAL-EMO will periodically conduct Plan-Do-Check-Act (PDCA) through the quality management system for continuous improvement and customer satisfaction.

Note: IAQG members include Boeing, Airbus, GE, and Rolls Royce. To manage and regulate the guality of suppliers, suppliers are required to comply with a series of established standards for quality management system, including AS 9110

## 2–1–2 Passenger Service GRI 102-44



## **Preemptive Protective Measures** — Safeguarding Public Health and Safety

As the COVID-19 pandemic loomed over the industry in 2020, CAL immediately implemented "body temperature measurements for work and shuttle buses". CAL also dedicated full efforts to integrating the passenger aircrafts of the CAL group for active business management to ensure the survival of the Company, while fulfilling social responsibilities. Through the hard work, resolve, and strength, CAL has shown to the public that CAL is not only proud to be a member of the "National Air Team" but is also willing to work with institutions and organizations to jointly protect human health and safety. The key disease prevention measures taken by CAL during the pandemic in 2020 are summarized below:

When the COVID-19 pandemic broke out, CAL immediately established a COVID-19 information services section on its official website to respond to the large quantities of flight changes and cancellation in order to provide passengers with flight information (flight status. and flights operating within 43 days), regulations for ticket refunds and changes, and entry regulations of different countries. In response to passenger demands, CAL

also launched services such as "buy tickets and change any time", "no ticket changes required for outbound and inbound flights to and from Hong Kong", "full promotion of online check-in services", "additional seat for economy class", "automatic extension of the validity period of member mileage, awards, and award tickets", and "charter flights for passengers in countries where international flights are suspended". These services were provided to respond to passengers' strong demand for disease prevention when boarding aircrafts.



COVID-19 Information Services

In terms of meals, CAL has adjusted the in-flight meals in accordance with the global pandemic ratings announced by the Taiwan Centers for Disease Control (level 1: warning, level 2: alert, and level 3: watching). Preventing diseases, fighting diseases, and reducing transmission risks were adopted as the highest principles. CAL actively provided "Cold Sandwich Boxes" or "One Tray Hot Meal Services" based on changes in the development of the pandemic in different countries and the required in-flight disease prevention requirements of different governments to satisfy passengers' food and beverage need.

To implement national epidemic prevention policies in the cabin, CAL provides all crew members with personal epidemic prevention kits to ensure the health and safety of passengers as well as medical personnel and crew members. CAL also require crew members "to measure and record their body temperature when reporting for duties", "wear comprehensive epidemic protective equipment provided by the Company after boarding", and "wear facemasks at all times except when eating or drinking". Cabin crew are also required to use hypochlorous acid solutions to wipe door knobs and disinfect the environment after passengers use the lavatory to enhance cabin hygiene and cleanliness.



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To comply with "Passenger Safety Protection Rules" of the CAA, CAL carry out "real-name registration of changed seats", "maintenance of safe social distancing", "broadcasting of entry regulations and matters for compliance on board", and "simplify catering service procedures" to ensure the effectiveness of domestic epidemic prevention measures.



Maintain Social Distancing Onboard, On-board Broadcast of Entry Regulations, Cabin Inspections, and Ensuring the Cleanliness of the Environment

CAL established the "Crew Health Management System" platform to strengthen crew members' health control measures. When crew members end their missions, CAL will help arrange quarantine hotels for those that have entered level 3: Warning areas, are required to measure their body temperature twice every day and fill out results on the aforementioned platform. When crew members report irregularities or fevers, the Cabin Crew Division actively contacts them and helps arrange medical services for them. It also reports to the Medical Affairs Department to create disease prevention records and implement health management of crew members.

In response to the impact of the pandemic, CAL monitors the development of the pandemic at all times. When airport operations are affected by the pandemic and airports adjust entry regulations such as the maximum number of inbound passengers per aircraft or crew member screening procedures, the System Operation Control Division will immediately deliver the latest information to all related units through the Company's internal communication system and take prompt response measures. The System Operation Control Division also monitors aircraft and flight status at all times.

When a passenger on a flight shows signs of illness, the flight crew will actively notify the System Operation Control Division which shall deliver related information to all units through the Company's internal communication system. The units will then arrange quarantine measures, disinfect the aircraft, and change seat covers after the aircraft lands.

CAL has also established multiple disease prevention management measures in all destination airports to meet the entry quarantine regulations of different countries and manpower allocation requirements. The measures include encouraging passengers to check in early online, reminding passengers to maintain social distancing, wearing masks throughout the flight, cooperating with comprehensive baggage disinfection at Taoyuan Airport, body temperature measurement before boarding, and arrangements for employees to work from home in Taiwan and in foreign countries.



Implement Disease Prevention Management Measures for Charter Flight from Shanghai



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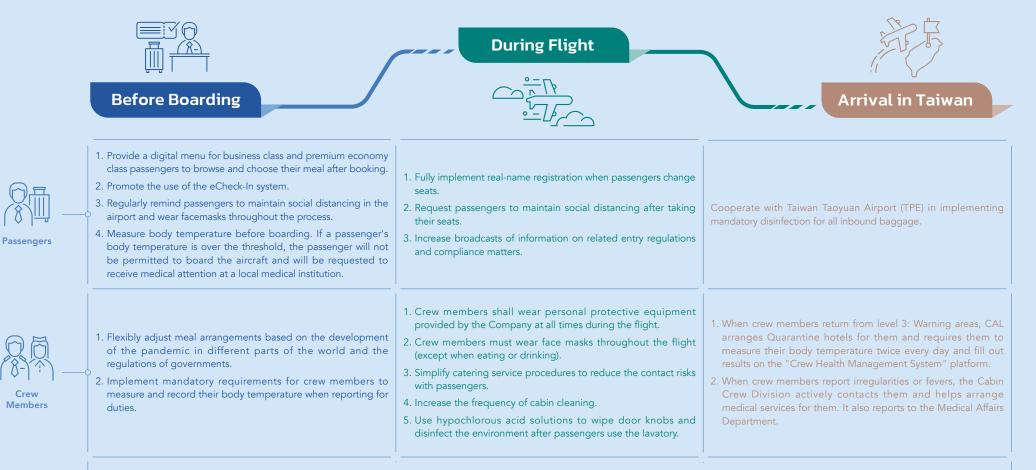
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Key Disease Prevention Measures in 2020

- 1. CAL established the "COVID-19 Information Services" on the official website to provide the latest information.
- 2. Launched special services such as easy ticket changes and charter flights for passengers in countries where international flights are suspended.
- 3. Automatic extension of the validity period of member mileage, awards, and award tickets.
- 4. Integrated group resources to support flights of Mandarin Airlines to domestic destinations such as Penghu and Kinmen to meet passenger demand.





1. Monitor the development of the pandemic in different countries at all times. When countries adjust their entry regulations, collect the latest information and deliver it to related units to facilitate immediate response.

2. Monitor flight status in real-time to obtain information on the latest developments and initiate response operations.

Logistics

3. When the pandemic first broke out, CAL immediately established and activated body temperature measurement and office separation mechanisms to protect the health of employees and retain sufficient manpower to maintain the normal operations of the Company in the unfortunate event of disease transmission in the Company.



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## Integrate Passenger Transport Aircraft Resources of CAL Group

As the COVID-19 pandemic gradually fell in Taiwan in July 2020, we integrated passenger transport aircraft resources of CAL Group to satisfy demand for the transportation of residents of offshore islands and travel demand during the peak season in summer. We made full use of CAL's B738 aircrafts, Mandarin Airlines' E190 and ATR72 aircrafts, and Tigerair Taiwan's A320 aircrafts to increase the number of flights to Penghu and Kinmen. According to statistics, the total number of available seats increased by 114% for flights to and from Penghu and increased by 32% for flights to and from Kinmen from July to October compared to the same period in 2019. The total number of passengers on flights to and from offshore islands increased by approximately 80% compared to the same period in 2019.



Mandarin Airlines / Tigerair Taiwan Added Flights to Penghu and Kinmen

## **Customer Relations Management**

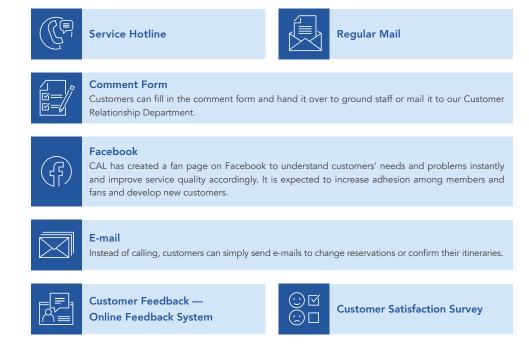
Providing customer-oriented and quality service is the key to earn customer trust. CAL has established the quality policy and has designated a unit in charge of service quality control. Every year, the quality review meeting is held to set annual objectives and review service performance. Moreover, CAL has introduced the ISO 9001 Quality Management System and the TABLEAU big data analysis system to process and analyze customer satisfaction questionnaires to ensure the quality of service beyond passengers' expectations. In 2020, CAL recovered 53,801 passenger satisfaction questionnaires which accounted for approximately 2.3% of the total number of passengers. The overall satisfaction rate was 88.6%.

#### Service Quality Management Mechanism



Ahead of other domestic airlines, CAL has set up a variety of communication platforms for different groups of customers, including Customer Service on Facebook and bulletin board on the Instagram and WeChat, to collect problems which passengers encounter during their journeys and provide the updated information. By responding to customers' needs with empathy and sincerity, we endeavor to improve their travel experience. To better understand customers' needs, CAL integrates all customer feedback through the Customer Service System (CSS) (in 2020, 42.6% of customer feedback was provided via CAL's website and 57.4% provided in other ways) and has units in charge of responding to customers within a given time limit in the hope of becoming passengers' most trusted airline.

#### **Communication Channel**



## Connect with the Innovative Generation with Youthful Thinking

The Company continues to implement the "Youth Innovations" action plan to pursue the goal of increasing "Brand Awareness" in the sustainability strategy. We have launched innovative and unique promotional campaigns and products as we continue to engage the younger generation. The "#WhatTravelBringsYou" campaign launched in 2019 described the meaning of travel in a humorous manner and it has received 24 major domestic and international awards. We also published the "National Team of the Sky" video on YouTube and Facebook to provide records of CAL flights for transporting medical supplies and citizens, which struck a chord with many people. CAL adopted the "XIAO-HUA" as its avatar on social media. It was used to continuously remind passengers to pay attention to disease prevention during the pandemic and share information on CAL's sustainable development achievements. We also worked with high-quality local companies in launching sustainable products such as the "CAL Foldable Platinum Silicone Cups" which won two "Buying Power Awards" presented by the Ministry of Economic Affairs.



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## Customer Health and Safety and Sustainability

#### Food Safety

To ensure food safety and environmental sustainability, CAL requires catering service providers to strictly comply with international safety and health standards mechanisms. This covers each process from preparation, storage, and transportation at a standard temperature. Microbiological examinations are required for all products, materials, and food equipment. In addition, quality audits are carried out from time to time, and aimed at requesting catering service providers to correct non-conforming items within given time limits. If these conditions are not met, penalties will be imposed in accordance with their contracts. Training courses are also organized regarding HACCP and catering services, in order to increase employees' awareness of food safety and quality.



#### Onboard Drinking Water Safety

The quality of potable water is an important part of a premium customer's experience. The quality of potable water is strictly controlled by our industry-leading In-flight Potable Water Management Procedures, which are stricter than environmental regulations and bottling facility sanitation regulations.

- The safety of potable water is included in the preliminaries of new destinations
- We have rigorous safety standards for our drinking water suppliers. Audits are performed every year to ensure compliance
- CAL conducts safety audits on potable water at outstations
- CAL implements a maintenance plan for potable water facilities according to the manufacturer manual

#### Local Procurement

CAL plans and designs meals in line with the "Responsible Consumption and Production" goal and moves toward renewable energy, carbon reduction, and local procurement to achieve "Decent Work and Economic Growth". From 2019 to 2020, we actively used local brands and high-quality

agricultural products such as the procurement of large bottles of mineral water from renowned domestic brands. In 2021, we purchased small bottles of mineral water from domestic brands, domestic meat products, and beverages and frozen products made with fresh domestic vegetables. These measures help support local cultural and creative industries as well as quality agriculture in Taiwan as we seek to attain the goals of responsible consumption and production and environmental protection by reducing the carbon footprint, and fulfill our social responsibility to the earth.

#### **Enhanced Disease Prevention in Airports**

#### 1. Safe Flight Plan

To effectively reduce the amount of time passengers spend at the airport, Passengers are advised to complete eCheck-in operations before arriving at the airport. Online check-in services can be used for all CI / AE flights departing from applicable airports to reduce the risks of virus transmission during the journey.

#### 2. Social Distancing

CAL sets up signs in airports to remind passengers to maintain social distancing. The Company has produced posters and images on the flight information display system (FIDS) to remind passengers to maintain social distancing. We also requested the employees at checkin counters and boarding gates of different airports to set up posters or use screen displays to post notices for reminding passengers to maintain social distancing.



#### 3. Wear Facemasks and Measure Body Temperature

In response to the COVID-19 pandemic, passengers must wear facemasks at the check-in counter, waiting room, and the cabin at all times in accordance with the government's disease prevention measures and instructions to ensure the safety of all passengers, ground staff, and flight crew. They must complete body temperature measurement before boarding. The standard for forehead temperature measurement is 37.5 degrees Celsius (99.5 degrees Fahrenheit). If the passenger's body temperature exceeds the standard, the passenger will be requested to receive a health inspection at a local medical institution.



#### 4. Baggage Disinfection Upon Entry in Taiwan

Starting from the end of March 2020, all inbound baggage at Taiwan Taoyuan Airport (TPE) must be disinfected. All inbound baggage shall be disinfected with chemical sprays in the basement before they are loaded on the baggage carousel to reduce the risks of infections.

#### 5. VIP lounge Disease Prevention Measures

Although the VIP lounges were temporarily closed due to the pandemic, the Company restarted VIP lounge services at Taoyuan Airport in September 2020 to continue to provide high-end VIP services for passengers. The Company formulated disease prevention catering procedures for VIP lounges on the basis of protecting the health of passengers and employees. During the pandemic prevention period, employees must wear facemasks and gloves, measure the temperature of VIPs,



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and provide disinfection alcohol solutions. The VIP lounges canceled the buffet and adopted the "meal box" service in which an employee personally presents the meticulously designed box with nine partitions to each VIP.

Ninety percent of the dishes in the box with nine partitions are made with ingredients sourced in Taiwan. The famous chef of Novotel painstakingly designed and used unique food materials from different places in Taiwan to create different delicacies. The main dish "tea fragrance roast chicken" was marinated with "Alibang Black Tea" tealeaves sourced from Shihmen and Caoling, New Taipei City in Taiwan. The tea leaves used are the "hardcore red heart" parts of the tea, which is one of the four famous tealeaves. The tea buds bathed in the heat of the sun and its color turns dark red after a series of complicated procedures including withering, twisting, and fermentation. The taste is warm and tender and the texture is rich and sweet. It gives off a delectable fruity fragrance after the marinated chicken is roasted. The rice used in the meal box was also carefully selected and the local "Taoyuan No. 3 rice" variety was used. The Taoyuan No. 3 rice has always been known as the "new fragrant rice" which is chewy and gives off a hint of taro fragrance. Its taro-like texture leaves a lasting fragrance in the mouth.

The VIP lounges in Taoyuan Airport provided VIPs with delicious meals and paid closer attention to the disinfection and sanitation of the meal environment. They have fully dedicated themselves to providing passengers with a safer meal environment.



#### **Highlight Services**

In 2020, CAL introduced a number of innovations and employee training programs to passenger services to improve service quality. In addition, CAL continuously studied sustainable practices in order to maintain customer service to the highest standards and stay in a leading position in the aviation industry, relevant achievements are listed below:

#### 1. Teamwork in the Creation of the "National Team of the Sky"

Due to the impact of the COVID-19 pandemic, CAL and the national epidemic prevention team have, since February 2020, completed the charter flight for citizens onboard the Diamond Princess in Japan, charter flight from Wuhan, charter flight from Shanghai, and charter from Delhi to bring citizens home safely. We have successfully completed our mission. The Cabin Crew Division organized volunteers to form teams. Cabin crew receive protection equipment training after assignments and comply with the CDC's high-level epidemic prevention guidelines. The flight crew and ground staff worked together to help passengers return home. Wrapped under facemasks, goggles, and protective equipment, they used their eyes and body language to convey CAL's warm welcome when they arrived home. The "National Team of the Sky" worked together and completed yet another wonderful journey through teamwork.



Passengers Boarding the Charter Flight from Wuhan Group Photo of the Flight and Ground Teams

#### 2. Outstanding Customer Satisfaction

In 2020, we upheld hold the ideals of respect for customers and disease prevention, and provided high-quality services, disease prevention products, and protective measures to all passengers to ensure that passengers can travel safely. The results are shown in our customer satisfaction scores.

## 2-1-3 Cargo Service

## Building Momentum for Reopening of Cargo / Passenger Transport — Combination Strategies



CAL cargo services devised response strategies soon after the pandemic started. The team made full use of the cargo transport capacity provided by 18 747-400F aircrafts, and scheduled flights and allocated space as needed. The team also promoted customized cargo charters, and tried to expand in express delivery, e-commerce shipping, and temperature-controlled goods. Meanwhile, the belly capacity of passenger aircrafts was increased, and passenger cabins were repurposed to transport cargo. These measures allowed CAL to maintain a cargo capacity of more than 8.8 billion freight revenue ton kilometers (FRTK), which was an increase of approximately 10% from the previous year (2019). The shipment volume reached 6.36 billion FRTK which was an increase of almost 20% from the previous year (2019).

The impact of the pandemic has caused CAL's overall cargo response strategy to change as time progressed. The outbreak of the pandemic in early 2020 quickly spread to different countries which imposed lockdown of cities / countries. The belly capacity of passenger aircrafts on the market dropped drastically and CAL began organizing large-scale cargo flights to China / Hong Kong to transport medical and disease prevention supplies as



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the demand for such products rapidly increased. Due to the restrictions in the disease prevention measures of different countries and Taiwan's disease prevention regulations for crew members, CAL reduced long-haul cargo routes by concentrating on the Luxembourg route for the European routes and concentrating on the Los Angeles and Chicago Airports for the American routes to reduce manpower consumption. CAL also actively made use of idle transportation capacity for charter flights to help different countries transport disease prevention materials.

The tourism market could not recover quickly in the second quarter and the short-term market capacity continues to be limited. However, the increase in the demand of disease prevention supplies increased freight rates on the market and the crash of oil prices reduced operating costs. CAL adjusted its business strategy and actively increased cargo aircraft flights to airports in Western United States, Europe, and other regional routes to an average of more than one thousand flights each month. CAL added passenger and cargo flights to Oceania to help transport local agricultural and fishery products and effectively replenish emergency imports for these areas. Due to changes in the policies of China and the United States on disease prevention supplies, the export supply of disease prevention supplies such as facemasks gradually shifted from China to Southeast Asia towards the end of May, and the Company also began expanding passenger and cargo flights to Southeast Asia in June.

The passenger transport market was devastated by the pandemic but demand for cargo transport has remained strong. CAL maintains a positive outlook on the cargo transport market and plans to retain certain 747-400F cargo aircrafts, which were set to be replaced when 777F cargo aircrafts arrive, for a period of time to make full use of the market opportunities. CAL will continue to adjust the aircraft replacement schedule based on changes in the future cargo market.



## Four Cargo Services

Express S		Specialized @	
Introduction You will get the premium express cargo service and handle with money back guarantee. CAL handles Equation shipment with top priority from acceptance to delivery, and guarantees boarding on the first available flight.	Introduction A complete, top quality solution will be offered. Designed to meet your requirements, it is a perfect scheme under the tripartite contract among the Shipper, Freight Forwarder and CAL Cargo.	Introduction This is a specialized solution for special cargo with experience, attention and expertise that can transport to the final destination quickly and safely.	Introduction This general cargo solution is an airport to airport service with economic and reliable ways to manage your goods.
<ul> <li>Advantages</li> <li>Airport-to-airport express service</li> <li>Top priority for load planning</li> <li>The earliest pick-up time</li> <li>The latest possible booking</li> <li>Extensive worldwide network</li> <li>Money back guarantee</li> </ul>	<ul> <li>Advantages</li> <li>Customized service with loading priority and fixed rate</li> <li>Regular performance report</li> <li>Advanced techniques ensuring cargo safety</li> <li>Various cargo types and long-distance freight capacity</li> <li>A broad global service network</li> </ul>	Advantages We have variations for precious artwork, heavy & oversize shipments, dangerous goods, perishable goods, live animals, pharmaceutical products, valuable goods, and all types of vehicles. Each variation is tailored to fit the specialized handling and loading procedures, as well as guarantee reliable service from our staff.	Advantages <ul> <li>24 / 7 online track and trace</li> <li>Standard drop-off and delivery times at each station</li> </ul>

## **Quality Cargo Service**

According to the latest IATA statistics, CAL's FTK ranked sixth worldwide and first in Taiwan in 2018. CAL is committed to green transportation. In addition to continuously upgrading our passenger fleet, we will introduce the Boeing 777 Freighter in 2020 to greatly improve fuel efficiency. With extensive passenger and cargo fleet and network, CAL has been the industry's first choice to deliver diversified products, such as engines, perishables, temperature-controlled cabinets, precision equipment, and e-commerce cargo. In the future, CAL will optimize cargo service and provide better service quality for its customers.

#### 1. Special Cargo Service

CAL cargo aircrafts fly around the world and have a wealth of experience in carrying general goods, precision instruments, large equipment, precious antiquities, live animals, and other special goods. CAL makes good use of the Boeing 747-400F cargo aircrafts to transport special-sized goods to provide safe and professional transportation services under the close supervision of dedicated CAL personnel.

CAL often helps transport critical national cultural relics and relief supplies. With its diverse experience in transportation and excellent quality of service, CAL has promoted cultural exchanges



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between Taiwan and other countries. In response to the pandemic, CAL also provides new service models such as cargo flights with passenger aircrafts and using the passenger cabin for cargo transport. These measures help ensure employee safety and support disease prevention policies as we actively develop a variety of flexible cargo transport business models to ensure continuous operations of international logistics.

#### 2. Upgraded Cold Chain Service

In response to increased demand for air transport of temperature-controlled goods (such as pharmaceuticals and vaccines), CAL has significantly improved its cold chain service. This included transportation of temperature-controlled containers, SOP for active / passive temperature-controlled cargo, and upgraded refrigeration / freezing equipment. In April 2019, Taipei Station passed the audit and obtained the CEIV Pharma certification, making CAL Taiwan's first airline to earn this certification. In the future, CAL will offer customized, refined cold chain service to provide diversified and quality temperature-controlled cargo service for customers around the world.

CAL actively prepares cold-chain transportation for vaccines and pharmaceuticals With comprehensive risk assessment and personnel training as well as compliance with the regulations of domestic and foreign civil aviation authorities and the aircraft manufacturers, CAL began relaxing restrictions on the maximum amount of dry ice permitted for various aircrafts and developed active / passive temperature-controlled container products for the transportation of vaccines under safe conditions. CAL actively provides major vaccine and pharmaceuticals manufacturers with logistics solutions to contribute to the protection of citizens' health. This demonstrated the innovation and flexibility of the CAL cargo transport team and demonstrated to citizens CAL's commitment and strength for becoming the "National Team of the Sky".

#### 3. Cargo Safety Management

CAL has strengthened risk management measures, such as Safety Report System, cargo service management platform, ground damage database, and abnormal weather reporting mechanisms. CAL has also established a risk prevention mechanism with the risk assessment of the Safety Report System to prevent irregularities. In addition, CAL implemented walkaround check to enhance the management of warehouse and hanger operations. CAL also implements improvements based on the feedback provided in the quarterly service quality questionnaire for the ground service agency to ensure the quality of services.

#### 4. e-Air Waybill & e-Freight

CAL promotes the e-air waybill and exchanges information with forwarders through electronic transmission, which reduces the operating costs of airlines and forwarders and avoids delays caused by input errors and missing documents. According to the latest e-AWB penetration rate released by IATA in 2019, CAL achieved its annual target ahead of schedule and ranked among the world's top 10 airlines.

In 2020, CAL continued to carry out paperless operations and e-air waybills for cargo service to / from Hong Kong, Singapore, Frankfurt, and the Americas. Starting from April, CAL expanded paperless operations for cargo service to / from Kuala Lumpur, Penang, Tokyo, Osaka, Fukuoka, Nagoya, and Amsterdam. CAL also gradually reduces the use of any documents for cargo on board the aforementioned routes to fulfill our responsibility for environmental sustainability.

#### 5. Apron Mobility

Through wireless transmission, all cargo information and loading statuses are instantly transmitted to mobile devices for users to monitor cargo status after shipment from the warehouse and load cargo correctly.

The apron mobile plan was launched in 2017 and mobile system was used starting from August 2018. Before the launch, GHAs were trained and the programs and procedures were modified based on test results to avoid loading errors and omissions when pallets / containers are loaded onto aircrafts. By using handheld mobile device as a channel of communication with GHAs, CAL has reduced the idle time of field supervisors and improved cargo service personnel's productivity.

#### 6. Professional Training

CAL organizes professional training courses, including dangerous goods regulations training / retraining, live animal and temperature-controlled goods regulations training, and heavy (Above 10 tons) & over-sized (Above 6 meters) cargo and engine delivery training on a regular basis to improve service quality and ensure that goods are carefully managed and professionally handled throughout the transportation process. To transport special goods, CAL has also trained professional handlers and formulated operational regulations to provide safe and professional transportation services.

#### 7. Embargo on Illegal Animals and Plants

CAL supports IATA and UN's Sustainable Development Goals by signing the Buckingham Palace Declaration. CAL has also taken the following four concrete actions to fight against illegal wildlife trade and achieve environmental and ecological sustainability: "Expression and demonstration of agreement to tackle the illegal wildlife trade," "Information sharing and detection," "Practical measures to stop the transportation of illegal wildlife products," and "New mechanisms tackling illegal wildlife trade."

#### 8. Authorized Economic Operator (AEO)

Being an authorized economic operator (AEO) helps CAL stay competitive in expanding business in the international trade supply chain and to cooperate with trading partners. After earning the AEO certification on January 19, 2012, CAL has carried out self-inspections based on safety evaluation items and certification standards every year and applied to the Customs for a field certification and audit every three years. Next year marks the ninth year after the certification. Starting from September 2020, the Cargo Sales, Marketing & Service Division has formed a management committee comprising the Cargo Sales, Marketing & Service Division, Corporate Safety Office, Human Resources Division, Information Management Division, Administration Division, Cargo Sales & Service, Taiwan, Engineering Division, and Inflight Supply Chain & Marketing Division to carry out annual self-inspections. A team from Taipei Customs of the Customs Administration for the authorized economic operator (AEO) and was found to meet regulations in the review.

## 2-1-4 Information Security Management GRI 206-1, 418-1

## **Cyber Security Framework**

CAL IT operations meet the standards of international cyber security standards and domestic cyber security regulations which are implemented in regular ICT operations. For this purpose, CAL has established the CAL Cyber Security Team with the Vice President of the Information Management Division as its convener. The convener reports the status of cyber security management to the Board of Directors every year. Chairman Su-Chien Hsieh is well qualified and has extensive experience in management and cyber security. He has earlier served as the chairman of Sabre Travel Network Taiwan Ltd. (Sabre), and is familiar with cyber security governance. He implements timely monitoring of information operations from an independent and objective perspective.



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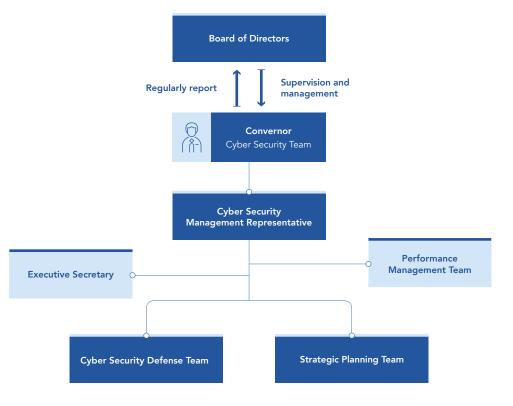
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## **Cyber Security Management**

In response to ever-changing nature of cyber-attacks, CAL has deployed relevant defense mechanisms and engaged external experts to conduct penetration tests and cyber security checks (including network architecture, detection of malicious activities, etc.) every year. In addition, CAL proactively reports cyber security issues and carries out contingency drills to review the effect of defense and resilience to such incidents. In each stage of system development and maintenance, weakness identification and repair are performed with various testing technologies to ensure the availability of service usage.

## **Cyber Security Operation & Maintenance**

#### 1. Regular Evaluations and Exercises

CAL conducts risk assessment of information and information and communication systems every year in accordance with the Cyber Security Management Act, and evaluates the cyber security responsibility levels of the core information and communication systems in aspects of confidentiality, integrity, availability, and compliance. We also develop a business continuity plan for the core information and communication systems and conduct business continuity exercises at least semiannually to ensure that the Company can rapidly and effectively restore normal operations and minimize potential losses. In addition, we also review and evaluate the business continuity plan to ensure the availability and integrity of the plan.

#### 2. Cyber Security Education and Training

Each year, at least 4 cyber security and information technology personnel shall receive the cyber security professional program training or the cyber security competence training for not less than 12 hours. All employees must receive at least 3 hours of cyber security training every year and at least one social engineering exercise is implemented every 6 months to strengthen information security awareness. By using diverse methods for cyber security training, the Company also incorporates ethical management into employee performance evaluations and human resources policies. CAL has established a clear and effective rewards and disciplinary system to ensure compliance and implementation with the code of conduct for the workplace. The Information Management Division conducts self-inspections and compliance assessments every six months. Audits are carried out by the audit unit independently to ensure the operations of overall mechanism.

#### 3. Notification of Cyber Security Incidents

The cyber security incident notification and response mechanism is initiated based on the level of cyber security incidents, and emergency preparedness, notification and response procedures are in place to control their impact and post-incident recovery. In this regard, CAL develops the security incident notification & contingency drill plan at the beginning of each year and completes internal cyber security exercise by the end of each year.



Flowchart

## Cyber Security Certification and Audit

The Company has established a more comprehensive management system to maintain the effectiveness of the certification. The Company implemented the annual Information Security Management System (ISMS) re-inspection for the core ICT systems in 2020 in accordance with ISO/ IEC 27701:2013. The Company also made first attempt to implement the ISO/IEC 27701:2019 Privacy Information Management System (PIMS) standards that ISO released in August 2019. We expanded the requirements and implementation of the PIMS on the existing ISMS and obtained the certification in November 2020. Per examination by the Information Management Division in 2020, neither the monitoring nor warning information from the defense system, which detects threats to information security, was confirmed to be a security incident caused by hacker intrusion or virus infection.

## Measures for Responding to the COVID-19 Pandemic

In response to the COVID-19 pandemic, Information Management Division of the Company established the "Office Isolation and Employee Home Isolation Information Operation Response Regulations" in February 2020. It also established the "Information Management Division Major Pandemic Response Regulations" and "Application System Operations and Maintenance Major Pandemic Response Regulations" so that if employees in Taiwan and abroad working from home encounter cyber security incidents or other disasters that cause the information system or network to fail, they can immediately report the failure and implement response measures. The Information Management Division regularly inspects firewall records and supervises network usage of VPN connections in accordance with company regulations. It also removes accounts without usage records, expired accounts, and accounts of transferred / former employees to reduce cyber security risks.



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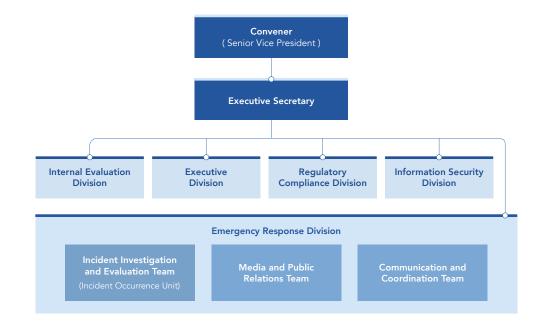
## 2-1-5 Privacy Management GRI 206-1, 418-1

## **Personal Data and Privacy Protection**

CAL is committed to protecting personal data and customer privacy. We fully comply with the Personal Data Protection Act of the Republic of China, General Data Protection Regulation (GDPR), California Consumer Privacy Act (CCPA), and other relevant personal data protection regulations. This is expressly provided in the "Privacy Protection Policy and Statement" on the Company's official website. The applicable scope includes all employees of the Company as well as cases where the Company provides the personal data of a party to specific third parties. The Company shall also require such third parties to abide by the aforementioned "Privacy Protection Policy and Statement". CAL also established operation quality documents to regularly evaluate third-party contractors and audit personal data protection.

## Personal Data Management Framework

To enhance our internal audit and personal data management, we have appointed a Data Protection Officer (DPO). We established the Data Protection & Quality Management Office in 2019 and created a personal data management system to implement, operate, monitor, review, maintain, and improve the Company's personal data protection targets and policies and ensure compliance with regulations. The Company has established a personal data management organization in accordance with the Personal Data Management System. The convener organizes the establishment of the Personal Data Management Committee to take charge of the implementation of the personal data management system. The organization of the aforementioned Personal Data Management Committee is shown in the figure. The responsibilities of the units are described in the operation quality documents for the procedures and operations of the Company's Personal Data Management Committee.



## Inquiry Channels for Personal Data Rights

The Privacy Protection Policy and Statement on the Company's official website specifies how CAL collects, processes, or uses personal data in a reasonably secure manner within the specific purpose authorized by each customer, there is no secondary use other than the purposes authorized by customers and ensures that the customer can exercise their rights to inquiries, amendment, removal, restriction of personal data use, and withdrawal of consent under the applicable data protection law / regulation. Where a customer wishes to exercise any of the aforementioned personal data rights, the customer may use the "Enquiry and Request for Personal Data" online form or the DPO mailbox (DPO@china-airlines.com). The Company shall assign a designated unit based on the internal division of duties to process the case, and respond to the customer's request as soon as possible within the statutory period specified in the applicable data protection law / regulation.

## Personal Data Risk Assessment Mechanisms

In order to implement legal compliance and identify the related risks in processing of personal data, the Company established operation quality documents to visualize and document all personal data processing. The members of the execution team formulate, review and update the business information framework and personal data inventories for the aforementioned personal data inventory operations each year. They also regularly review the categories of personal data held by the Company, execute risk assessments every year, and propose improvement plans based on the results of the assessment.

## Personal Data Incident Response Mechanisms

For theft, alteration, leakage or loss of data, CAL has also prescribed a contingency plan and sound personal data protection mechanisms in accordance with the Regulations Governing Personal Information File Security Maintenance Plan and Processing Method for the Civil Air Transport Enterprise to ensure the accuracy and security of personal data.



Accident Contingency

Flow

CAL executed desktop personal data incident simulations and exercises in 2020 to ensure that related units handle personal data incidents in accordance with procedures in a prompt and appropriate manner. We also use the results of the exercise to review the effectiveness of operating procedures and the horizontal communication and response capabilities between units.

## Personal Data Internal Audit and Training

The Company established the "Personal Data Audit and Continuous Improvement Management Procedures" to review whether the personal data management targets, management procedures, and safety management systems are fully implemented in accordance with plans, and ensure the effectiveness of the personal data management system. The personal data audit standards are established in accordance with the Personal Data Protection Act of the Republic of China, GDPR, Regulations Governing Personal Information File Security Maintenance Plan and Processing Method for the Civil Air Transport Enterprise, local personal data law / regulation, the "requirements for



properties of customers or external providers (including personal data)" in Article 8.5.3 of ISO 9001: 2015 Quality Management System, and related operation quality documents of the Data Protection & Quality Management Office for the execution of personal data audits. An internal audit is performed every year for auditing domestic personal data. The Company also audits oversea branch offices based on the personal data inventory progress. The "Corrective Action Response Form" issued based on the results of the audit is submitted to the "Personal Data Management Committee" for review. The Committee also tracks the corrective and preventive measures and the improvements for the results of risk assessments.



The Company provides all employees with regular training to enhance their personal data protection knowledge and code of conduct. The internal assessment teams regularly receive training for personal data management and audits. The Company organized personal data protection e-learning training in 2020 and more than 10,000 flight crew, ground staff, and maintenance personnel completed training. The Company also publishes personal data newsletter every quarter to update latest news / information and case studies with employees.

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## 2020 Personal Data Protection Milestones

- 1. Expansion of personal data protection to domestic and foreign branches
- 2. Completed personal data inventory, internal audit, and risk assessment across divisions / departments in Taiwan and foreign countries
- 3. Organized personal data protection training for all employees
- 4. Carried out regular contingency drills on personal data incidents
- 5. Held annual personal data management review meeting

## Annual Personal Data Incidents

#### 1. Internal: 0

F

#### 2. External: (leak of customer data) 1

Note: The contingency team has been formed by relevant departments / divisions to handle personal data accident in accordance with Personal Data Accident Contingency Management Procedure. It effectively prevents damage within the required time and proposes review and improvement plans after the accident.

## **Future Plans**

## Flight Safety

#### 1. Renewing Flight Safety Certifications

After obtaining the IATA Operational Safety Audit (IOSA) certification in 2005, CAL has participated in revaluation every two years in accordance with IATA regulations to ensure flight safety. The Company passed the IOSA revaluation for the ninth time in 2020. Due to the pandemic, the reevaluation was a comprehensive inspection performed through a remote audit. However, as the IOSA Remote Audit certificate is only valid for one year, the Company will organize the tenth IOSA Renewal Audit this year (2021) to continue to meet the highest international safety standards and offer passengers quality and reliable services.

#### 2. Enhancing Resilience to Abnormal Flight Operations

CAL will continuously enhance aircraft monitoring systems, aircraft control personnel's professional knowledge, and emergency response to improve on-time performance and provide passengers with quality and reliable service.

#### 3. Improving Weather Forecast Effectiveness and Enhancing Resilience to Abnormal Flight Operations

The Company signed a contract with Weathernews Inc. (WNI), a Japanese weather information company, for the purchase of an exclusive early warning system for volcanic ash clouds. The objective and accurate third-party information is used as the basis for dispatching and assigning flights. We also continue to enhance the professional weather knowledge of flight management personnel to ensure flight safety.

#### 4. Improve Internal Communication Efficiency

The Company makes full use of its internal communication system to enhance the delivery of flight information and changes to all units. We established a communication platform on Team+ at the beginning of the pandemic to quickly announce flight Information and changes to all units.

## **Passenger Service**

#### 1. Enhancing Mobile Devices and Official Website Services

We will launch more user-friendly apps, website functions, and self-service initiatives online.

#### 2. Cabin Management System Upgrade and CRM

To effectively monitor flight and important passenger information and increase overall customers' satisfaction, we have upgraded the Cabin Mobile Service Management System (iCS 2.0) and incorporated special remarks and other basic information of passengers and flights. The data is processed through backstage management and screening and the CRM system uses big data analysis to convert the data into effective information which can be used by related units.



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#### 3. Upgraded Airport Services

To promote touchless services, reduce contact between airport personnel and passengers, and increase the security control level, the Company activated facial recognition boarding services with airport equipment in airports in the Americas such as San Francisco (SFO) and New York (JFK). Passengers can use the facial recognition system for boarding. If passenger data cannot be accessed by the facial recognition system, passengers can still obtain assistance from personnel on duty at the gate.

4. The Company will Continue to Implement Passenger Satisfaction Survey during the Pandemic to Maintain Service Quality

## Cargo Service

#### 1. Adjusting Capacity Flexibly in Response to Market Needs

CAL will continue to develop the network adjustment plan and optimize crew scheduling based on market needs to improve labor-management relations.

#### 2. Introducing the Boeing 777 Freighter

Featuring superior performance and fuel efficiency, the Boeing 777 Freighter (B777F) will be introduced on major routes to effectively reduce operating costs, increase competitiveness, and achieve environmental sustainability in noise management and carbon emissions.

#### 3. Continuously Promoting Premium Air Freight Cargo & Customized Service

With extensive cargo handling experience and B777F features, CAL aims to deliver more precision equipment, aviation supplies, temperature-controlled cargoes, and other high-priced cargoes, add more value to sales with excellent service, and promote revenue diversification.

## **Information Security**

#### **Obtaining Cyber Security Certifications**

We obtained the PCI DSS and ISO 27001 Information Security Management System surveillance audit and the ISO 27701 Privacy Information Management System certification in order to maintain the validity of our credit card receipt system and privacy protection, reduce cyber security risks, and protect passengers' rights and interests.

## **Privacy Management**

#### 1. Personal Data Management System

The post-pandemic era has accelerated the digitalization of all industries as telework becomes an emerging trend. It has given rise to increased cyber security risks and requirements, and demonstrated the importance of personal data risk management. The Company complies with government policies during the pandemic and adopted various preventive measures and guidelines for workplace safety and sanitation (e.g., body temperature measurement and access control). We shall adhere to applicable personal data law / regulation and in an honest and good-faith manner, to use personal data within the necessary scope for specific purposes to legally collect, process, and use customers' personal data, and fulfill data security maintenance obligations. CAL will continue to implement the personal data management system, strengthen crisis management ability to personal data breaches and reduce risk of personal data accidents, and maintain customer trust.

#### 2. Personal Data Protection Audit

The Company shall continue to execute the personal data protection audits for all domestic units. As the personal data protection audits in foreign countries are affected by the COVID-19 pandemic, the Company shall adjust the 2021 personal data audits for offshore sites in accordance with the government's disease prevention policies, and execute the personal data protection audits in the form of document reviews.