"A2-BCP" Guidelines (revised)

- Aiming to create a disaster-resistant airport -

June 2024

Ministry of Land, Infrastructure, Transport and Tourism

Civil Aviation Bureau

Introduction

Considering the occurrence of large-scale natural disaster, which Japan's airports have never experienced before, a document entitled "Preparing for an era of frequent disasters! - Shifting to comprehensive disaster management at airports" was compiled in April 2019 with the aim of ensuring Japan's aviation network remain operational if similar situations arise in the future. As a result, airport-related parties across the country will share the concept of "comprehensive disaster management," and each airport will be required to formulate an "A2 (Advanced/Airport)-BCP" as a plan for the airport as a whole to respond together, rather than each of the relevant agencies at the airport responding individually, with the aim of creating airports that are resilient to natural disasters. Since the guidelines (first edition) were formulated in March 2020, 95 airports across the country have formulated "A2-BCP"s and have implemented disaster response measures and training based on the guidelines.

However, in recent years, in order to deal with natural disasters that have become more severe and frequent, once the "A2-BCP" is formulated, the plan is not finished; a spirit of constantly improving it into an even better "A2-BCP" is also required. The revised guidelines aim to strengthen the effectiveness of the A2-BCP by shifting the focus to its implementation after its formulation. To this end, the guidelines (reference section) will describe specific measures and their thinking, with the aim of accumulating and passing on the know-how of airports that have experienced disasters and spreading that know-how to airports that have not experienced disasters.

Chapter 1: What is "A2-BCP"?

- The A2-BCP clarifies the target time for ensuring the functionality of the airport as a whole and for early recovery, as well as the division of roles among related organizations, and aims for related organizations to act together based on the concept of "comprehensive disaster management."

In order to respond to the occurrence of a variety of complex and continuous risks, and based on the idea that "the airport is, so to speak, the city itself," it is necessary to operate the "A2-BCP" based on the concept of "comprehensive disaster management" in order to maintain the function of ensuring the safety and security of all airport users (and in some cases, surrounding residents).

1) Strengthening adaptability regarding various disaster
2) Pursuing the Ideal Form of "Comprehensive Disaster Management"
3) Appropriate risk management

4) Maintaining the airport's functions as a "city" and an airport in the "region"
5) Fundamental improvements to emergency service provision from the perspective of airport users
6) Establishing a robust transportation access management system in emergencies
7) Promoting hardware measures to maintain functionality as social infrastructure
8) Maintaining electricity, an essential part of airport operations
9) Transfer of experience and ensuring flexibility in responder levels
10) Use of "A2-BCP" in situations other than natural disasters

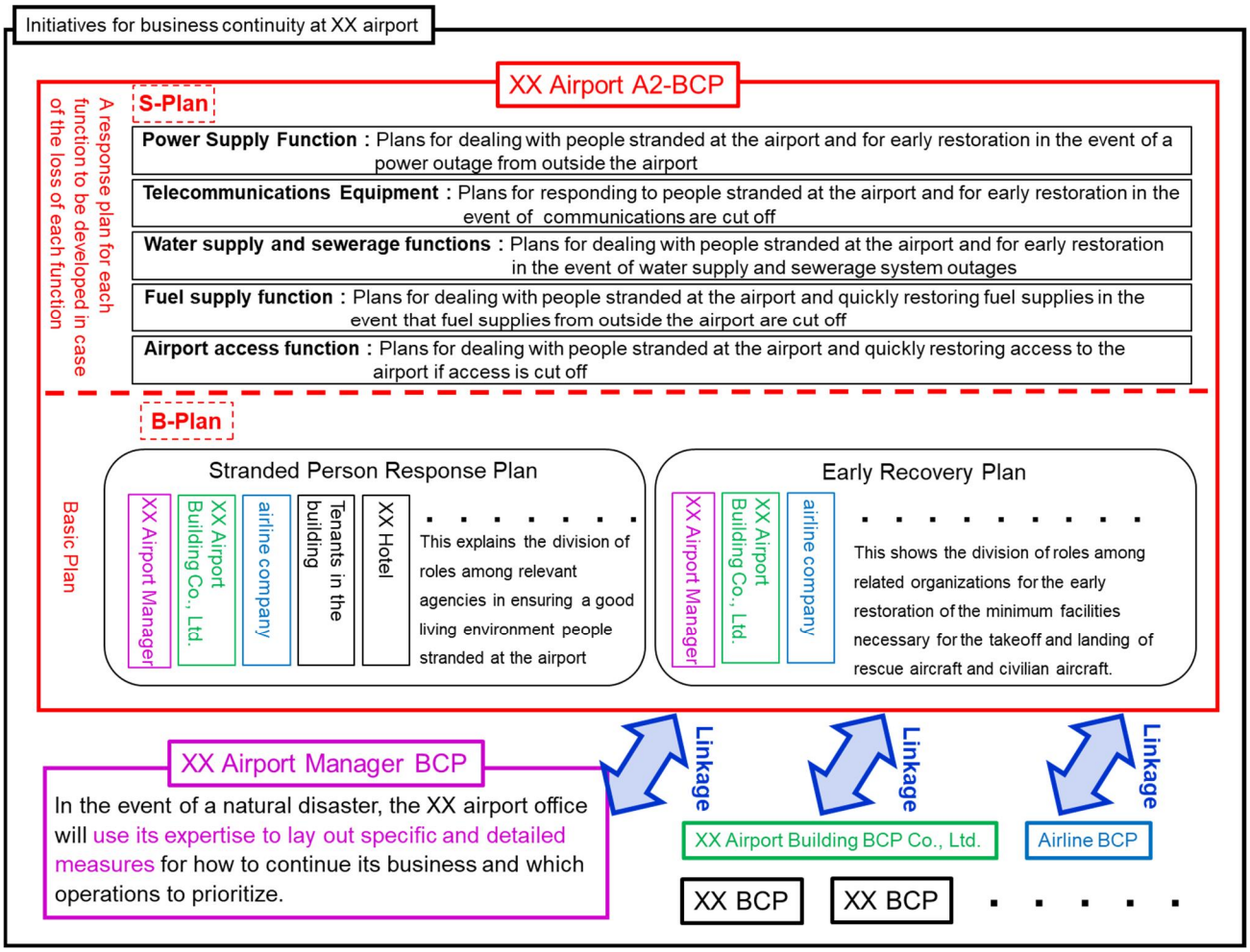


Figure 1: Initiatives for business continuity at each airport

*The A2-BCP shows countermeasures for people stranded at airports to stay safe and secure, as well as the roles and responsibilities of relevant agencies to quickly restore the minimum facilities necessary for civilian aircraft to take off and land, such as runways and passenger terminals. Therefore, details such as how individual airlines will procure the necessary equipment, personnel, fuel, etc., and which operations will be prioritized, are stipulated in individual BCPs formulated by relevant agencies using their expert knowledge and are not covered in the "A2-BCP."

Chapter 2: Concept of ensuring necessary functions for airports in the event of a disaster

● The goal is to ensure the safety and security of airport users and to resume operations as soon as possible.

(1) Ensuring airport functions according to their characteristics

(2) Functions required in the event of a disaster

○The guidelines aim to ensure these three functions within 72 hours after a disaster.

- Ensuring the safety and security of all airport users, including air passengers
- Support for the hinterland
- Maintaining the aviation network

This works should be done taking into consideration the following points.

(3) Specific efforts to ensure functionality

○ Ensure the safety of all airport users, including air passengers (people stranded in the airport).

- Proper evacuation guidance and information provision for air passengers (including foreigners)
- Identifying the number of people stranded at airports and securing the necessary space to accommodate them
- Providing a safe and secure environment for people stranded at airports including and those who require special assistance during disasters

○ Ensuring the function of emergency and life-saving activities and for transporting emergency supplies and personnel as quickly as possible For hinterland support. And also recovering the minimum necessary airport facilities, such as runways and passenger terminal buildings, to a state where civilian aircraft can take off and land for keeping aviation networks.

In addition, we will promptly restore

[Function for emergency and life-saving activities]

- Facilities capable of helicopter parking

[Function for accepting the transport of emergency supplies and personnel]

- Securing the necessary runway length, and taxy ways and aprons to accommodate aircraft takeoffs and landings

[Functions that enable civil aircraft to take off and land]

- Ensuring the functionality of basic facilities (runways, etc.), radio facilities, and airfield lighting facilities.
- Ensuring safe passage for air passengers within passenger terminal buildings.

Chapter 3: Structure and contents of ″A2-BCP″

I. Composition of "A2-BCP"

● In addition to the basic plan (Plan B) consisting of the "Airport Strandees Response Plan" and the "Early Recovery Plan," a specific functional plan (S-Plan) has been developed for the loss of each of the five essential functions required for the airport to function: power supply, communications, water and sewerage, fuel supply, and airport access.

[Typical configuration]

1. Damage Estimation
2. Setting goals for comprehensive disaster management
3. Establishment of "A2-HQ"
4. Plans that should be formulated at all airports
   (1) B-Plan
      4-1. Plans for dealing with stranded people at airports
      4-2. Early recovery plan
   (2) S-Plan
      4-3. Power supply function
      4-4. Communication functions
      4-5. Water supply and sewerage functions
      4-6. Fuel supply function
      4-7. Airport access function
5. Plans to be formulated as necessary based on the usage status and position of the airport
      5-1. Emergency takeoff and landing coordination plan
      5-2. Cargo facility restoration plan
      5-3. Agreement on division of roles
6. Collaboration with external organizations
7. Information transmission
8. Training Plan
9. Assignment of departments and technicians of each facility

II. Contents of "A2-BCP"

1. Damage Estimation

- Taking into consideration the geographical conditions of the airport, the layout and performance of airport facilities etc., all relevant organizations at the airport will use their "disaster imagination" and, through training and other means, clarify and share various emergency situations (hazards) that are expected to occur in the event of a disaster.

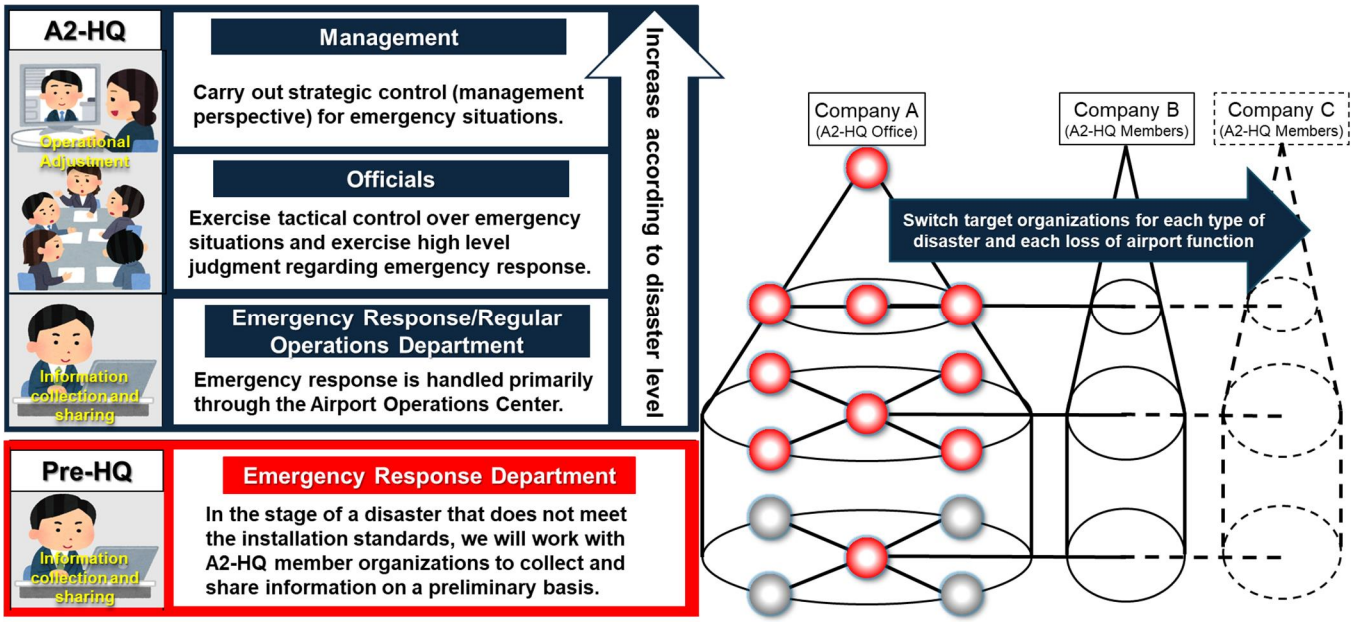
2. Setting goals for comprehensive disaster management

- In the event of a disaster, it is necessary to constantly verify and review the preparation and time targets set for the entire airport, such as the amount of time that people stranded at the airport can stay, and the time required to restore airport facilities such as runways, as well as the state of preparation.

3. Establishment of "A2-HQ" ("A2-BCP" - Headquarters: General Response Headquarters)

- In the event of a disaster, under the Director of the Disaster Management Headquarters, related organizations work together to maintain and restore the functionality of the entire airport and to respond to people stranded at the airport.
- It is also necessary to consider a response policy in the event that it becomes difficult for A2-HQ members to assemble, for example in the event of a tsunami.

  * Methods of collecting information from related organizations, changes to meeting locations, holding meetings by video conference, etc.



<Image of the "A2-HQ" structure>

[Example]

(1) Establishment of "A2-HQ"

- At XX Airport, in the event of a disaster that meets the installation criteria, an "A2-HQ" will be set up.
- The installation standards are as follows:

  1. Earthquake

  2 Bad weather (*Set based on the geographical factors of each airport, such as heavy rain and typhoons)

  3 Regardless of 1 and 2 above, if a natural disaster is predicted and the airport needs to maintain its functions

(2) Composition of "A2-HQ"

- The composition of "A2-HQ" shall be as per the attached table *1, with the Director General being XXX and the Deputy Director General being XXX.

*1: Compiling a list of airport-related organizations. Airport-related organizations include government agencies (national organizations*2, police, fire departments, relevant local governments, etc.), passenger terminal building operators, airlines, cargo transport companies, ground handling companies, access transport companies, etc.

*2: National government agencies expected to include not only airport offices, but also CIQs and regional development bureaus (port and airport development offices) that are responsible for large-scale disaster recovery work.

*3 Change the level of responders and response organization according to the type and level of disaster and the loss of each airport function.

(3) The Role of "A2-HQ"

- "A2-HQ" will mainly carry out the following tasks:

1 Centralized collection, sharing, recording, organization, and dissemination to external organizations of information on disasters such as their damage, and the status of recovery, etc.

*This includes sharing information with the Ministry of Land, Infrastructure, Transport and Tourism Civil Aviation Bureau and relevant local governments and providing information to the media.

2 Deciding on a response policy based on the damage situation

*It goes without saying that information on the damage situation should include not only airport facilities such as runways but also access to the airport.

*This includes measures to reduce the number of people stranded at airports, such as restricting aircraft traffic and taking other measures in airport operations.

3 Requests to related organizations based on the decisions

*This includes requests for cooperation from relevant agencies in dealing with people stranded at the airport.

4 Various requests to external organizations depending on the damage and restoration status of airport facilities and airport access, etc.

4. Plans that should be formulated at all airports

(1) B-Plan (Basic Plan)

4-1. Plans for dealing with stranded people at airports

- It is necessary to establish an acceptance system, including stockpiling necessary supplies such as food and blankets, so that all people stranded at the airport can stay safely and securely for a certain period of time even in the event of a disaster. In addition, it is necessary for all relevant organizations, including not only airport managers and passenger terminal building operators but also airlines, to share the philosophy of "providing services from the perspective of airport users" and to work together in a unified manner.
- At airports where tsunamis are expected, evacuation measures are required for aircraft (including pushback) that are in motion on the ground when a tsunami warning is issued.

Points to keep in mind, especially at airports expected to be used by foreign tourists visiting Japan

・It is necessary to establish a system for providing information in multiple languages (English, Chinese, Korean, etc.). In addition, the use of multilingual megaphones, automatic translators, pictograms (a type of visual symbol displayed to convey some kind of information or warning), etc. should also be considered.

・When dealing with foreign tourists visiting Japan, it is also effective to estimate in advance the breakdown by country (or language) of those expected to be stranded at airports.

・At airports where foreign airlines fly, it is recommended that frameworks for cooperation with the AOC and each airline be coordinated in advance, and that relationships be built in peacetime through training and other means.

・When attracting foreign airlines, it is necessary for local government tourism departments and airport managers to work together to ensure that they are aware of the need for disaster response. In addition, it is recommended that airlines prepare an English version of the executive summary so that overseas airlines can understand the A2-BCP guidelines.

・At airports where embassies or consulates are located nearby, it is recommended that they coordinate frameworks for cooperation with these organizations in advance and build relationships in peacetime through training and other means.

4-2. Early recovery plan

- In preparation for the occurrence of a disaster of the scale assumed during the design of each facility within the airport, advance measures should be taken to minimize damage, such as preventing flooding and making facilities earthquake-resistant. As a result, after a disaster occurs, necessary facility inspections should be carried out and resume normal operations also be done as quickly as possible. In the unlikely event that operations are suspended, restoration will be made as quickly as possible.
- In order to achieve a rapid recovery, it is also necessary to consider how to bring external resources into the airport and how to utilize them.

・The target time for airport facilities, such as runways, to be restored to a state where civilian aircraft can operate is within “72 hours”.

・In the event of a disaster, operational forces such as the Self-Defense Forces and police will use airports that are available near the affected area. If an airport in a disaster-stricken area becomes inoperable, nearby airports will be called upon to serve as alternative airports. Depending on the scale of the disaster, it may be necessary to ensure the operational readiness of not only airports in the affected area but also neighboring airports.

(2) S-Plan (Specific-functional Plan: a response plan for the loss of each function)

4-3. Power supply function

- If the electrical equipment stops functioning due to damage such as flooding, it could be fatal to airport operations, including not only the airport's core functions but also its urban functions. Additionally, securing electricity is extremely important for airport users in modern society.

4-4. Communication functions

- With the spread of smartphones, the means of gathering information have diversified, and it is necessary to provide more accurate responses from the perspective of those stranded at the airport.

4-5. Water supply and sewerage functions

- It is necessary to take measures, such as arranging for drinking water and portable toilets, assuming that people will remain at the airport for a certain period of time.

4-6. Fuel supply function

- Even if fuel supplies from outside the airport are cut off, it is necessary to make effective use of the remaining fuel at the airport and take measures to quickly secure additional supplies.

4-7. Airport access function

- An airport can only function properly if it has airport facilities such as runways and passenger terminal buildings, as well as access function to the airport.
- In order to ensure access to airports during disasters, it is important to cooperate with relevant organizations, such as police, road managers, and relevant local governments, in addition to transportation operators, depending on the situation. To achieve this, it is necessary to proceed with consideration towards establishing a comprehensive access traffic management system.

5. Plans to be formulated as necessary based on the usage status and position of the airport

5-1. Takeoff and landing coordination plan in the event of a disaster.

- If restrictions on take-off and landing capacity arise during a disaster, it will become difficult for airlines to operate their take-off and landing slots in peacetime, and at airports where a reduction in take-off and landing slots is necessary, the airport office, airlines, etc. will work together at "A2-HQ" to develop a slot allocation plan.
- The adjustment methods for aircraft takeoff and landing depending on whether or not there is damage to facilities such as runways and terminal buildings are summarized in the table below.

Classification	Response period	overview
Arrival and Departure Coordination Plan	Mid- to-long term	• If damage to runways, terminal buildings, etc. occurs, making it difficult to operate airline slots under normal circumstances and requiring a reduction in slots, A2-HQ will be established to adjust airline slots. • At large airports*2, it is advisable for airport managers, airlines, airport offices, etc. to make arrangements in advance.
Arrival Restrictions Notam	Short term (within a few days)	• In cases where there is no damage to facilities such as runways and terminal buildings, but the airport is inaccessible (secondary transportation services are suspended or access roads are closed) and it is difficult to prevent an increase in the number of people stranded at the airport by providing alternative transportation services or securing waiting space within the airport, the airport administrator will consider excluded flights*1 and issue an arrival restriction NOTAM with the consent of A2-HQ (there are no restrictions on departing aircraft).
Flow Control	Short term (within a few days)	• In cases where there is no damage to facilities such as runways and terminal buildings, but access to the airport is reduced (secondary transportation services are suspended and access roads are closed), and it is difficult to prevent an increase in the number of people stranded at the airport by simply providing alternative transportation means and securing waiting space within the airport, after A2-HQ reaches an agreement on the number of arrivals per hour and which aircraft are exempt from the restrictions, the Air Traffic Management Center (ATMC), via the relevant airport office, will implement air traffic flow management measures such as adjusting departure times and restricting flights. • At large airports*2, it is advisable for airport managers, airlines, airport offices, etc. to make arrangements in advance.

● Aim to resume civilian aircraft operations as soon as possible by assessing the damage to facilities, setting up A2-HQ, and coordinating with related agencies.

5-2. Cargo facility restoration plan

● Since airports are not only passenger transport hubs but also logistics hubs, efforts to maintain their functions are also necessary. In particular, it should be noted that the impact of damage to cargo facilities, etc. on logistics functions will be long-lasting.

5-3. Agreement on division of roles between airport administrator and operator

● For concession airports, it is necessary to clarify the roles of the airport administrator and the operator and, in light of these roles, to clarify procedures to ensure the appropriate application of various authorities based on legal systems and concession agreements.

6. Collaboration with external organizations

- In order to make the most of available resources effectively, it is necessary to establish in advance a system of cooperation and collaboration with external organizations for emergency response and lifesaving, passenger evacuation, facility restoration, etc.

7. Information transmission

- In order to avoid confusion over information, it is necessary to consolidate information held by relevant agencies at "A2-HQ" and to continuously disseminate shared information through a variety of means, including social media.

8. Training Plan

- In order to ensure the effectiveness of the A2-BCP, it is necessary to conduct regular and realistic training, to share the contents of the A2-BCP with related organizations, and to strive to foster disaster imagination.

9. Departments and technicians assigned to each facility

- In order to enable early restoration of functions so that civil aircraft operations can be resumed even in the event of a disaster, advance measures such as making facilities earthquake-proof are important, and it is necessary to ensure organizational structures in place in peacetime.

[Training status]

Information transmission training, General Response Headquarters Training (Narita International Airport, May 2019)

Reception for stranded people at the airport (Kansai International Airport, June 2019)

Ship evacuation drill (Chubu International Airport, May 2019)

On-site response training (wheelchair accessible) (Takamatsu Airport May 2019)

On-site response training (installation of waterstops) (Nagasaki Airport, May 2019)

Message from the Chairman of "The Committee on Natural Disaster Prevention Measures at Airports"

A2-BCP: Five Basic Principles

This guideline was formulated following the typhoon disaster at Kansai International Airport and have now been revised based on various experiences gained since then. If there are any basic principles or axioms, what are they? After discussions with the committee members as well as with practitioners from various parties, I have compiled the following five basic principles as my personal views.

First: There is no such thing as a "perfect BCP".

A BCP is a plan that imagines emergencies in advance, determines the necessary procedures, and prepares so that you won't panic when the time comes. However, humans are not gods and are not wise enough to imagine every situation that may occur in the future. The basic idea of "A2-BCP" is to recognize that "there can be other situations" outside of the anticipated situations.

Second: Consider the essence of BCP to be BCP&M.

We should not assume that events will occur and progress as expected. Variations are inevitable. Therefore, the important thing is to respond flexibly according to the situation. In other words, the essence of BCP in an emergency shift from planning to management.

Third: The effectiveness of a BCP lies in communication during normal time.

The success of responding to variations depends largely on whether the many related departments can cooperate and share their ideas based on empathy. It is not documents that make this possible. It is a shared awareness supported by communication during normal time.

Fourth: There is no "completion" of a BCP. Continuous learning and evolution are essential.

As there is no "perfection," there is no "completion." However, the history of mankind is also a history of reflection, learning, and efforts to evolve. The "Advanced" in "A2-BCP" should be understood to mean that it has "continuous evolution built in."

Fifth: The greatest source of "learning" is found in accidents and disasters.

The "opponents" of BCP are accidents and disasters. While these are the cause of tragedy and hardship, they also provide seeds for reflection and hints for evolution. BCP is a device for creating the evolution of systems toward the future. Of course, BCP itself must also evolve.

If you visit any transportation-related office in Japan, you will almost certainly find a Shinto altar. In addition, for example, at Haneda Airport, an Aviation Shrine is enshrined on the second floor of the first terminal building (open to the public). However, it is a mistake to think of this as irresponsible "praying to the gods". Praying in front of a Shinto altar or shrine is an expression of a stance that reaffirms the recognition that, although we have taken every precaution, "there may still be times when we fall short", in other words, a self-affirmation of the first basic principle. "A2-BCP" is nothing more than a systematic reorganization of the crisis management concepts we've cultivated since ancient times. The same goes for other principles. This is also an important point that I would like to note.

June 2024

Chairman of "The Committee on Natural Disaster Prevention Measures at Airports"