Emergency Planning and Crisis Management for the Airport Business

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1. Introduction

The very nature of our business is such that it is essential to put measures in place in case of emergency or crisis situation and minimize the impact on airport operations. Any impairment to airport’s functions will not only lead to aircraft delays and other enormous disadvantages to airport users, but it could also tarnish the national reputation or its image and even damage its economy and vital activities. Furthermore, while not only functioning as a transport infrastructure, airports are a virtual city with the bustling activities of airlines, aviation-related companies as well as tenants, hospitals, hotels, etc. Consequently, we are required to undertake immensely diverse crisis management measures.

Around the globe, there have been a spate of incidents that have necessitated airports to put their crisis management and emergency plans into action.

In Japan, the havoc and confusion caused by the Great East Japan Earthquake and the ensuing tsunami in March last year clearly reminded us at Narita Airport of the importance of crisis management.

Any airport in the world could face disasters and risks at any time and, therefore, structuring and regularly maintaining a proper crisis management program is a common requirement to all airports.

This paper attempts to introduce and provide observations on Narita Airport’s crisis management program and the airport’s response to the Great East Japan Earthquake. In addition, we will also try to describe in this paper the importance of utilizing the information network among airports around the world, collection and dissemination of accurate information, implementation of practical training exercises, and mutual assistance among airports in terms of human and material resources, which are all helpful in order for such crisis management program to function effectively.

2. Definitions

The understanding of crisis management and emergency planning may vary from country to country, airport to airport, and person to person. Therefore, we need to first define those terms before proceeding.

2.1 Crisis Management

Crisis management (CM) means preparatory action plan put in place in case of a natural disaster, accident or other crisis and a range of actions subsequent to the crisis appropriate to the circumstances at that location, for the purpose of minimizing the scope of damage consequent to the crisis and restoring the normal condition.

2.2 Emergency Plan

Emergency plans set out guidelines for actions to be taken after a crisis has occurred and are part of the crisis management program. For the purpose of clarity, the term of Emergency Response Plan (ERP) will be used in this paper.

An ERP is a plan, a manual or something to that effect in responding to an individual crisis which has been analyzed as part of crisis management. Emergency action plans in case of aircraft accidents and other emergency situations, plans in the event of malfunctioning of a key piece of equipment, and snow and ice clearing plans are all considered as ERPs.

3. Conceivable Crises and Risks at Airports

The many and varied crises that could occur at an airport can broadly be divided as follows:
3.1 Natural Disasters

In addition to meteorological phenomena such as typhoons, heavy rain, heavy snow and thunderstorms, this category also includes earthquakes, tsunami and volcanic eruptions.

The meteorological phenomena can be predicted in advance and we normally have the time to make preparations. Their effects being temporary, we may say typhoons represent a crisis that we can deal with adequately based on our past experience.

Some earthquakes on the other hand may be foreseen, but the time of occurrence and the extent/scope of impact are difficult to be estimated in advance. The important point here is how to minimize the damage and how to promptly restore the normal operation of the airport, while taking into consideration the secondary damage such as general panic and harmful rumors, as well as shortages of supplies and looting, etc.

3.2 Aircraft Accidents

An aircraft accident is a serious crisis that should not happen. A disproportionately high number of accidents take place prior to landing or soon after take-off. This, in turn, means a high proportion of aircraft accidents occur around airports.

Such accidents cannot be foreseen but it is essential that we give consideration to the measures to save human lives, to prevent the ripple effect from the accident, and to maintain airport operations.

3.3 Disease Control

With aircraft frequently crisscrossing the world, (pathogenic) viruses are spread at a rapid rate. Particularly at airports which are gateways to other nations, we not only need to deal with infected passengers entering the country but also with the spread of infection to airport employees. Pandemics cannot be forecast but we can specify with some accuracy when influenza breaks out and, therefore, we should be prepared every year.

3.4 Terrorism, Hijacking, Wars, etc.

The airport security environment has changed dramatically since the terrorist attacks of September 11. Given the expectation that terrorist attacks may continue to target airports and airlines, we need to deal with this issue.

3.5 Malfunctions or Damage to Key Airport Equipment

In recent years, airports have introduced state-of-the-art equipment such as in-line screening and IT systems, which have dramatically boosted user convenience. At the same time, however, if a malfunction affects the use of such equipment, an airport can be thrown into a major turmoil. Preventative maintenance is important, as is the preparation of proper trouble-shooting manuals to deal with incidents, or the installation of a backup system so that there is no ill effect on operations.

4. NAA’s Crisis Management and Emergency Response Plans

Emergency response plans for the crises mentioned above were drawn up by the respective departments in charge at Narita International Airport Corporation (NAA), but there was no central management system to coordinate company-wide actions and counter-measures. Therefore, we have listed up possible risks at our airport, and have drawn up a business continuity plan (BCP) to ensure the continuity of our operations as a highly essential social infrastructure.
4.1 Business Continuity Plan (BCP)

A business continuity plan sets out in advance the ways and means by which a business entity can minimize the damage to management resources, including the lives of its employees and its assets, in the event of a major disaster while ensuring the continuation of essential business activities to be sustained under normal circumstances as well as those priority duties in case of emergency, so that key activities can be sustained and normal operations restored as quickly as possible. Because of the sudden nature of disasters, a thorough preparation of a BCP must be carried out under normal conditions to sustain a business during a disaster and restore it back to normal as quickly as possible. A company that does this will retain the confidence of its customers and other stakeholders, enjoy a strong reputation throughout the community and, as a result, can maintain and enhance its corporate value.

4.2 An Airport BCP

Generally speaking, companies may continue their business by shifting their essential functions to locations not affected. However, for an airport, it is not possible to relocate the focus of its operations. During a major disaster such as an earthquake, airports must accept their social responsibility as disaster relief centers handling aid from other countries, accommodating stranded travelers and, depending on the situation, functioning as an evacuation shelter for local residents. In the event of global and domestic pandemics when airport staff have been infected and are unable to work, airports must still continue to function as a key social infrastructure. At Narita Airport, we have developed a BCP in place respectively for earthquakes and for pandemics.

A BCP at an airport is not an isolated company effort. Sustaining the business of airport operation must be seen as a social and national mission.

4.3 [Example 1] BCP for a Major Earthquake

In the event of a major earthquake, we are required to have comprehensive measures in place to enable us to play an emergency response role, function as a base for the transportation of emergency supplies and personnel and, by maintaining the aviation network, sustain and preserve the economic activities of the region we serve.

![Diagram 1: BCP concept for earthquakes and other major disasters](image)

4.3.1 Estimating Damage

When formulating a BCP, we must firstly estimate the extent of damage or loss.
Table 1: Assumption of primary damage by earthquake

<table>
<thead>
<tr>
<th>Extent of damage or loss</th>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damage to airport, fatalities and injuries</td>
<td>Damage to airport facilities</td>
<td>Little damage to airport facilities</td>
<td>Little damage to airport facilities</td>
</tr>
<tr>
<td>Large funds required to restore facilities</td>
<td>Access to city cut</td>
<td>Damage to ports and harbors</td>
<td>Damage to ports and harbors</td>
</tr>
<tr>
<td>Large numbers of stranded persons</td>
<td>Large numbers of stranded persons</td>
<td>Depleted aviation fuel supply capability</td>
<td>Depleted aviation fuel supply capability</td>
</tr>
<tr>
<td>Little damage to airport facilities</td>
<td>Drop in annual passenger figures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large numbers of stranded persons</td>
<td></td>
<td>Focus on maintaining aviation fuel supplies</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Key business continuation points</th>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency response measures in the airport</td>
<td>Assist persons stranded by lack of access to the city</td>
<td>Focus on maintaining aviation fuel supplies</td>
<td></td>
</tr>
<tr>
<td>Establishment of staff first response system</td>
<td>Measures to counter medium- to long-term declines in user figures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial countermeasures</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3.2 Priority Activities after a Disaster

It is extremely difficult to maintain 100% of the functions of an airport or a company after a major disaster. Therefore, we need to identify essential priority tasks. By doing so, we are able to concentrate manpower on such priority tasks and utilize the limited human resources more effectively.

Table 2: Priority task selection criteria

<table>
<thead>
<tr>
<th>Ensure Customer Safety</th>
<th>Maintain Essential Airport Functions</th>
<th>Local Contributions</th>
<th>Maintain Business Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tasks directly concerned with the lives and physical safety of customers</td>
<td>Essential tasks for ensuring the operation of aircraft</td>
<td>Respond to needs of the local community</td>
<td>-Crisis management program&lt;br&gt;-Risk finance assessment</td>
</tr>
</tbody>
</table>

(a) Responding to Customers’ Needs

It is important to ensure the safety of all customers and airport employees by using advance measures to limit damage and respond immediately after damage has occurred. In meeting the needs of stranded passengers, particularly where large numbers are expected, we need to secure all means of transport, consider measures for providing basic food and shelter and to provide the appropriate and accurate information.

(b) Sustaining Core Airport Functions

Airport functions must be restored as soon as possible and the airport must serve as a base for transporting emergency supplies and personnel while continuing to function as an international hub. To achieve this, we will build collaborative, cooperative ties with the relevant government agencies, airlines and airport-related companies and organizations. Every effort must be made to provide information to external organizations concerning the scope of damage and recovery schedule.
(c) Local & National Contributions

Given the fact that the region and the nation will suffer enormous damage in the event of a major disaster, the airport will work with government agencies on housing evacuees, providing assistance to local residents, and transporting emergency supplies.

(d) NAA’s Crisis Management Program and Business Continuity

To achieve the guidelines set out above, we have established a crisis management program and work with the relevant organizations to carry out emergency relief measures. We will assess the impact on airport management, including loss of income and additional cost of countermeasures, secure the human resources required to respond to the disaster and to deal with the various emergency situations, while considering the measures required to sustain business.

4.3.3 Setting a Recovery Time Objective (RTO)

Setting recovery time objectives before commencing priority tasking after a disaster is important when developing manuals.

The recovery time objectives here indicate the targeted time for re-commencement of a specific duty or task. In the event of an earthquake, the resumption of normal operations at NAA is set at roughly 7 days.

4.3.4 Emergency Response Headquarters

When a disaster strikes, an emergency response headquarters must be set up immediately. At Narita Airport, we established an emergency response headquarters in accordance with the Emergency Response Procedures to facilitate an immediate response and decision-making.

4.3.5 Collection and Dissemination of Information

(a) Liaison with Medical Organizations

In the event of injuries within the airport, NAA staff and airport workers will work together to carry out necessary emergency relief activity and work smoothly with airport and regional medical organizations in treating the injured properly. NAA also strives at normal times to build good working relations with local hospitals and other related organizations.

(b) Liaison with Government Agencies and Airlines

In determining whether or not an airport is available for service or in coordinating requirements to operate aircraft, it is highly important to have close ties with the government and civil aviation authorities, pertinent government agencies and the airlines. Even where the runways are physically available, if an increase in stranded passengers is feared to hinder operations in the airport, NAA may limit the airport operation in consultation with the relevant government organizations.

(c) Responding to Local Residents

NAA will provide information at regular intervals on the impact on the region and respond to inquiries and requests from the local community. Those details and the results of the responses are reported to the emergency response headquarters.

4.3.6 Public Relations Activities

Public relations activities are important and we must be fully prepared in the event of a crisis. The intended
audience of these public relations activities are, of course, the mass media, passengers, airlines, airport-related companies and their employees. Since Narita is an international airport, public relations activities will involve not only handling inquiries from international organizations such as ACI, IATA and ICAO, but also actively releasing timely information to them to avoid misunderstandings and confusion caused by inaccurate information.

4.4 [Example 2] NAA’s Influenza Pandemic Countermeasure Action Plan

Unlike an earthquake or some other form of disaster, a pandemic outbreak does not damage airport facilities but does require a united approach to border disease-control measures as well as other urgent action such as preventing an outbreak in the airport. In the long term, we should assume that many employees would be unable to work due to illness and even the possibility of airport-related companies closing down. Depending on the type of job, there may also be the risk of infection being spread among employees and airport users.

In a situation like this, such preparatory measures as suspending activities where infection is a major risk, selecting only necessary general work items that need to be continued and securing essential work forces will be effective.

In the event of a pandemic outbreak, steps need to be taken based on an action plan that has been set out in advance. The basic concept is largely the same for natural disasters such as earthquakes but there is a significant difference in the estimated damage as well as the selection of priority tasks. The following shows only those features which are different to the points described in Chapter 4.3.

![Diagram 2: Business Continuity Concept in the Event of a Pandemic](image)

4.4.1 Presumed Impact from a Pandemic Outbreak

After an outbreak has been confirmed the impact spreads out in stages. Therefore, we need to establish stages of response such as shown below in conjunction with announcements by the government and WHO and define a fundamental course of action for each stage.
### Table 3: Projections for the Spread of Influenza and Other Infections

<table>
<thead>
<tr>
<th>Stage (Level)</th>
<th>Other Stage Transition Triggers</th>
<th>Situation Summary</th>
<th>Ongoing Period (Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1 (Outbreak overseas)</td>
<td>• Suspected pandemic victim overseas • Authorities order increased border measures • Suspected victim arrives at airport</td>
<td>Border measures boosted and Immigration personnel numbers temporarily boosted</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Stage 2 (Initial outbreak in country)</td>
<td>• Victim detected in country</td>
<td>Continuation of situation where border measures boosted and Immigration personnel numbers temporarily boosted</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Stage 3 (Diffusion/remission periods)</td>
<td>• State of emergency declared • Border measures terminate with domestic diffusion of pandemic • Increase in measures to prevent domestic diffusion of pandemic</td>
<td>Domestic diffusion of pandemic depletes shipment volumes</td>
<td>13 weeks</td>
</tr>
<tr>
<td>Stage 4 (Respite period)</td>
<td>• Government directive to resume normal operations • Airlines resume normal operations</td>
<td>Return to normal in aircraft and airport operations requested</td>
<td>17th week onwards</td>
</tr>
</tbody>
</table>

#### 4.4.2 Priority Tasks in the Event of an Influenza Pandemic

(a) Ensuring the Safety of Human Lives

Advance measures are thoroughly enforced to prevent infection and transmission. Depending on the situation, non-priority duties may be scaled down or suspended in phases. An isolation and transport system is established for personnel suspected of being infected.

(b) Maintaining Airport Functions

Although pandemics cause no damage to airport facilities, we will have to respond to government and quarantine directives to step up containment measures at national borders, and deal with the rush of people returning to their home countries. Pandemics that are in their diffusion stage would affect airport employees too and human resources could become limited. Therefore, priority tasks need to be narrowed down to a minimum so that they can be carried out by a skeletal number of staff.

#### 5. Great East Japan Earthquake - Experience, Response and Observations

At 14:46JST on March 11, 2011, Japan was hit by the Great East Japan Earthquake (M9.0) originating off the north-eastern seaboard. Strong tremors were felt at Narita Airport too, but there was hardly any damage to our facilities and no one was injured. As it was necessary to immediately ascertain the safety of our facilities, evacuate the customers and deal with cancelled flights and stranded passengers, an emergency response headquarters was set up as prescribed in the BCP.

Of particular note is that we had to deal with a flood of non-Japanese customers arriving at Narita to escape from the country in fear of large aftershocks and even larger earthquakes, and anxious about the nuclear accident.

The earthquake, which occurred soon after we had set down the BCP, was Narita’s first-ever large scale disaster since the opening of the airport. We conduct regular drills on fire response, evacuation, aircraft accidents, earthquakes, etc. with relevant organizations. Had we not prepared a BCP in advance in addition to
these drills, there would likely have been more confusion in our response. In fact, our actual response differed considerably to our anticipated scenarios.

5.1.1 Operational Data Immediately After the Earthquake

![Diagram 3: Flight cancellations and delays after the Great East Japan Earthquake](image)

Diagram 3: Flight cancellations and delays after the Great East Japan Earthquake

Although operations at Narita Airport resumed approximately 4 hours after the earthquake, there were around 180 flight cancellations over the 2 days immediately following the quake, and flight operations were down to around 30% of normal levels. The number of cancelled flights came down to double-digit figures from the third day onward and lingered at that level due to cancellation of leisure and other non-essential travels.

The number of stranded passengers on the other hand exceeded 8,000 on the day of the quake as shown in Diagram 4 but this was due to flight cancellations and the suspension of rail and bus services for one day to conduct safety checks. Public transport to/from the airport resumed the following day and was almost back to normal by the third day, reducing the number of stranded passengers. However, the number rose again on the fourth day owing to the release of evacuation advisories by countries concerned about the nuclear accident. Although the situation quieted down to some extent by March 20, there still remained a few hundred passengers stranded at the airport and it took nearly 1 month for the situation to resolve completely.

5.1.2 Specific Actions and Issues

(a) Staff Safety Confirmation System

Safety of all staff and availability of human resources were confirmed immediately after the earthquake. The safety of staff was to be ascertained via the internet, which is a relatively more stable communication means than telephones. Because the earthquake occurred in the daytime on a weekday, it was easy to confirm the safety of most of the staff. However, a surge in mobile phone usage led to restrictions being placed on the use of the lines by the communications companies, which made it difficult to contact employees working outside the office depending on mobile phones for communication.

For emergencies that occur during work hours on a weekday, we have a paper-based staff roster in each department to promptly confirm staff’s whereabouts. This is a method that does not depend on computer
systems. To improve the method for confirming staff safety during holiday periods, various means of communication via mobile phones, computers at home, etc. have been pre-arranged in each department.

(b) Emergency Response Headquarters

Although an emergency response headquarters was set up promptly, we had to assign more field teams to deal with stranded passengers than anticipated. Consequently, we ran out of radio sets we had set aside for contingencies like this and had no choice but to rely on mobile phones for communication between the headquarters and the front line. Due to usage restrictions placed by communications companies, this too became impossible. In the meantime, while focusing our efforts on priority tasks in accordance with the BCP, we organized shift rotations for around-the-clock work.

As we had no dedicated communication lines during the disaster to the aviation fuel terminals, our Tokyo office and other remote areas, we have now drawn from the lesson and established a fixed land-line video phone system between the airport and these remote areas because of better and more stable reliability.

Several employees living close to the airport have been selected and are trained on a regular basis so that preparations to establish an emergency response headquarters and to collect initial-stage information can be carried out swiftly if an incident occurs during holidays or at night.

(c) Responding to Customers

When the earthquake struck, we evacuated the customers outside the terminal buildings, provided medical aid to those in need and checked that there was nobody trapped in the elevators, etc. For the stranded passengers due to flight cancellations, we distributed relief supplies such as sleeping bags, food and water. From our past experiences in dealing with stranded passengers due to heavy snowfall and during the volcanic eruptions in Iceland, we had stockpiled enough sleeping bags, light meals and water for 10,000 people. The airlines and airport tenants also offered assistance.

We further provided free telephone services, installed dedicated help desks and organized a special medical team while collecting and disseminating as much information as possible on flight operations, airport facilities and the disaster itself. Patrols were conducted to maintain order within the terminals. Moreover, it became necessary to secure a passenger holding area that offered some privacy particularly for a large number of the elderly and families who were stranded for extended periods.

(d) Maintaining Airport Functions

Ad-hoc inspections were carried out on the airport facilities immediately after the earthquake, whereby we did discover minor water leaks and some ceiling panels missing in the buildings. There was no damage to the essential facilities such as runways, taxiways or aprons, and there were no operational problems.

The fuel facilities had only minor problems with the ancillary equipment but nothing affecting operations. Water and sewage and electricity supplies were fine and normal services continued.
We also approached oil companies, who gave assurance to do all they could to ensure that the airport had a stable supply of aviation fuel, fuel oil and gasoline.

(e) Public Relations Activities

The situation at Narita Airport was observed with keen interest at home and abroad because of people fleeing abroad and those stranded due to flight cancellations, and due to the airport's high profile as a key public transport infrastructure. In addition to those from the media, we had to handle numerous inquiries from the airline industry. Of their particular concern were our aviation fuel supply situation and radiation levels. We then continued to report on our fuel supply status and remaining reserves on a real-time basis to the government as well as to IATA for about a month after the earthquake.

As for the radiation issue, we installed our own equipment at the airport to monitor and publish readings. Information was provided in both Japanese and English without delay. Room for improvement was identified in the use of Chinese and Korean—languages which are relatively widely-spoken at Narita.

Furthermore, access to the official Narita Airport website became difficult owing to the surge of activities to find out what was happening at the airport. The problem was resolved by replacing the top page with a simplified, low-volume emergency information page.

(f) Coordination with Relevant Organizations

Since we had no prior arrangement with the national and regional governments regarding the decision-making to close the airport after a disaster or on securing necessary lifelines to maintain its functions, we autonomously coordinated with the relevant organizations. With some prior arrangements, these efforts should have been unnecessary.

We received inquiries from individual airlines on our plans to resume airport operation but this too could be centralized by utilizing, for example, Narita Airline Operators’ Committee (AOC).

We also coordinated with the Japanese government, airlines and cargo warehouse operators on incoming rescue flights and relief supplies and were able to deliver them smoothly to the afflicted areas. However, the space required for storing the supplies exceeded our expectations and we had to urgently set aside some space in the baggage sorting area.

5.2 Observations

Based on these analyses, we feel that information dissemination and sharing was particularly important. From collecting accurate information in the field and relaying it to the headquarters in real time, conveying the decisions and guidelines for action by the headquarters to the rank and file, and liaising between airport organization, to providing information to stranded passengers, customers and organizations outside the airport, it would not be an overstatement to say that the situation involved a constant succession of information dissemination and sharing. We had to provide easy-to-understand information in various formats because of different needs of the intended recipients. While our BCP did specify general rules on information sharing and dissemination, there were many things that came to light through actual experience.

Moreover, although we were able to instigate an initial response promptly because the earthquake occurred during the day when a lot of the staff were on duty, if it were to occur during the night or on holidays, much would be required of the limited staff that are on hand, including initial response actions. It is vital to clarify the roles and provide education, training and information to ensure the safety of the airport customers.

Moreover, on the subject of information dissemination and sharing, it is particularly important to be well
prepared in advance as to the timing, format, means and method in detail.

6. Recommendations

The Great East Japan Earthquake reminded us that preparing ourselves in normal times is of paramount importance in crisis management. Japan is prone to natural disasters and we have had many large-scale earthquakes in our history. We are therefore always mindful of provisions of manuals and BCP’s against disasters.

Although this paper discusses crisis management particularly citing earthquakes as an actual example, large-scale disasters are not limited to earthquakes alone. Nonetheless, our perception of these events and basic principles for BCP preparation procedures should apply and serve as a reference for other types of natural disasters. Diagram 5 provides an outline of the procedures for compiling a BCP for crisis management. We recommend that these procedures be used as a reference in analyzing local crises unique to our fellow airports and in formulating their BCP’s accordingly.

6.1 BCP Preparation Procedures

(a) Setting Basic Policies

In a big airport, differences in information transmission speed can result in discrepancies in understanding between front-line employees and headquarters. To prevent this, the basic policies of the headquarters should be formulated (specifying what and whom the BCP is meant for) in advance with a clearly defined scope of authority, and thereby the process of collection and dissemination of information under a crisis situation must be centralized at the headquarters.

During the recent earthquake, whilst the information flow network from the emergency headquarters had been in place, we did identify some issues relating to accurate and timely transmission and sharing of information. It is important for each of us in our daily routine to understand our roles so that such information flow network may function effectively in case of emergency.

(b) Estimating Damage

Disasters that are seen as threats vary from one country to another and, therefore, it is necessary to start by considering conditions prevalent in the respective countries. Tectonic plates, the source of earthquakes, are found in various parts of the world. Given the fact that many airports are located in coastal areas, ACI member airports should be aware that earthquakes and tsunamis are not just somebody else's problem.

Anticipated damage will include damage to airport facilities and casualties/injuries among passengers and airport employees. Assuming that an actual disaster will most likely differ from anticipated scenarios, airports should be prepared for at least 3 different patterns (serious, moderate and slight) so that the emergency response headquarters may respond flexibly to provide adequate instructions on site.
(c) Work Analysis & Impact Assessment

Priority tasks in the event of disasters (emergency response actions & general tasks to be sustained) must be considered. Emergency response tasks are those tasks arising from the disaster (attending to the injured, facility restoration, emergency equipment response, handling of stranded passengers, etc.) and general duties to be sustained are those that would have a major adverse impact on the company’s business if they were to be discontinued. Diagram 6 is a sample format that can be used in clarifying and analyzing priority tasks. This can be used to determine what action is required of each task and to identify in detail any issues to be expected while performing the task.

During the process of selecting priority tasks, open disclosure of information should not be overlooked. At Narita Airport, we vigorously disclosed information using a set template and transmitting e-mail updates at a fixed time each day. Under emergency situations, such an exercise could easily be overlooked, unless well prepared in advance.

<table>
<thead>
<tr>
<th>Task</th>
<th>Response HQ Team</th>
<th>Supervising Dept.</th>
<th>Acting Dept.</th>
<th>Assigned Persons</th>
<th>Scope of Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation Period</td>
<td></td>
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<tr>
<td>Immediately</td>
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<tr>
<td>1 hour later</td>
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<td>3 hours later</td>
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<td>On the day</td>
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<td>1 day later</td>
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<td>3 days later</td>
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<td>7 days later</td>
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<tr>
<td>Resource Requirement</td>
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<tr>
<td>Human resources (no. of qualified personnel, etc.)</td>
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<td>Material resources (needed supplies)</td>
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<td>Information resources (systems used)</td>
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<td>Issues</td>
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Diagram 6: Priority Task Selection Format

(d) Developing Action Plans

Once the priority tasks have been identified, individual action plans and manuals need to be drawn up for each task such as damage control and recovery of airport facilities, attending to the injured or handling of the stranded passengers. As any damage to the airport facilities needs to be dealt with urgently, it is important to routinely maintain a cooperative framework in place with civil engineering companies.

Many of the tasks at an airport depend on the support of airport-related companies, and extensive cooperation among the airport operator, government agencies, airport-related companies and airlines is essential for the airport business to continue. Such cooperative partnership with external organizations should be incorporated in any airport BCP.

6.2 Need for Practical Training

After crisis management policies including BCP’s have been developed, practical training needs to be implemented repeatedly on a regular basis. It is advisable for this to be done in conjunction with other organizations and that methods for relaying information be practiced over and over again. Feedbacks from such drills will afford an opportunity to improve the contents of the plan and help management and staff to understand
and familiarize themselves with the BCP.

6.3. New Initiative

The description so far relates to conventional BCP’s with additional elements drawn from our experiences during the recent earthquake. In order to make this paper more practical and effective, we would like to recommend, as a new initiative, that an inter-airport information sharing and cooperation mechanism be considered.

6.3.1 Sharing Information between Airport Administrators

BCP and other crisis management plans will no doubt be enhanced further and prove beneficial in their actual use if various perspectives and experiences are incorporated into them. Therefore, sharing and discussing BCPs and crisis management plans between airports through ACI will help airports to offer greater safety and stability in their operations.

6.3.2. Inter-airport Cooperation

In the event of natural disasters and other emergencies, many measures need to be taken without delay. In the chaos and confusion immediately following the disaster, an airport alone may not be possible to cope on its own, while it cannot expect any assistance from the local authorities.

On the other hand, as compared with a city or a transport network which are widely spread out, airport premises are confined in a limited expanse of space and thus are resilient to disasters and are quick to recover. Through pre-arranged partnership agreements, airports can offer mutual assistance to each other in terms of human resources or emergency supplies in case of any unexpected emergency. We would thus like to recommend our fellow ACI member airport operators to initiate a study or a dialogue into such partnership agreements.

7. Conclusion

Today, not only Japan but the whole world faces an increasing number of crises in the form of major disasters and pandemics. When such crises occur, airports must fulfill their mission as a key part of the public transport infrastructure and ensure that duties are thoroughly performed. The recent earthquake disaster in Japan highlighted our awareness of this important task.

In the face of this national crisis, a nationwide all-out effort was made to restore the vital transport infrastructure and its key elements were restored within a few weeks to a month. At Sendai Airport, in particular, even though the passenger terminal and other essential facilities suffered catastrophic damage from the tsunami, the airport managed to re-open quickly, resuming its domestic operation only a month after the disaster. This is a proof of our previous statement that airports are quick to recover in the event of a disaster compared with rail or road service network, and of the great significance of airports’ role as emergency rescue bases.

It must be noted that we received generous support from countries all over the world. This gesture of goodwill not only provided much needed help to those affected but also was a source of great encouragement for a disheartened nation. We will not forget this. Narita Airport is proud to have served as a relay station for this support and is eternally grateful to the friends around the globe.

We hope that this paper will serve as a reference for crisis management in other members’ countries.