Kansai Airports BCP

[Summary]
KIX/ITAMI/KOBE

Shaping a New Journey

KANSAI AIRPORTS
Kansai International Airport (KIX) was severely damaged by a typhoon in 2018. Through the experience of crisis encounter, emergency response and speedy restart, we learned the importance of perceiving any risks, even unprecedented ones, as real threats and making preparations for them. A crisis can be caused by accident or negligence arising from natural and human-made risks. As an airport operator, Kansai Airports needs to be fully prepared for these risks.

Airports are supported by an airport community. If an airport faces a disaster affecting wide areas such as Nankai megathrust earthquakes, it needs to work together with airport stakeholders in order to secure the safety of airport users and employees, take emergency response actions and put efforts towards a speedy restart.

From these perspectives, we have developed our emergency/crisis management plan, including the business continuity plan (BCP). These plans provide specific procedures and practical information that can be utilized immediately in the event of emergency.

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2 Policies and targets of BCP
3 Components of BCP
4 Main initiatives: Prevention, disaster resilience and response, and speedy restart
5 Emergency response: Functional plan
6 Contingency response: Function-specific response plan
Concept 1  **Cooperation with stakeholders**

- Regularly share information on internal and external cooperative frameworks with stakeholders to prepare for disasters
- Coordinate with stakeholders to activate the Joint Crisis Management Group (JCMG) in the event of any disaster
- Enable diverse authorities to gather and cooperate with each other to solve an emergency situation

Concept 2  **All phases covered by BCP**

- The BCP covers three phases: prevention, disaster resilience & response, and speedy restart.

Enhanced day-to-day operational framework  
Enhanced training programs  
Attentive passenger service  
Various public address equipment  
Speedy Restart
**Policies**

- Establish a resilient crisis management framework that enables us to flexibly respond to existing or potential crisis
- Build a crisis management framework that allows us to promptly and consistently respond to any type of crisis
- Prioritize people first and serve them
- Make Kansai Airports as the most reliable source of crisis information
- Provide information honestly and transparently on a regular basis during emergency
- Assign trained and competent staff to all levels of the crisis management organization
- Regularly audit and review the BCP

**Specific recovery targets in the event of a natural disaster (flood damage caused by earthquake, tsunami, typhoon or other disasters)**

- During the first 24 hours after a disaster: Secure an environment equivalent to normal daily situations so that passengers and other individuals can stay at the airport with a sense of security.

- During the first 72 hours after a disaster: Provide an environment where passengers and others can safely stay at the airport while securing transportation means to evacuate them out of the airport. Immediately request support from Self-Defense Forces (SDF) or other organizations if evacuation within the first 72 hours is judged to be difficult.
Overview of Kansai Airports BCP

- Covering all hazards, the BCP consists of basic, functional and function-specific plans. Combined together with manuals for each risk and agreements with stakeholders on emergency cooperation, the BCP ensures preparedness for all emergency situations, playing a critical part of the crisis management plan.

Crisis Management Plan

BCP

Basic Plan
Crisis management policies, structures, roles

Functional Plan
Details of emergency responses and speedy restart from functional point of view

1. Airport Operation Center
2. Severe incident response
3. Irregular flight operations control
4. Customer evacuation/support
5. Customer support in aircraft accident
6. Resource management
7. Firefighting/rescue
8. Security
9. Crisis communication

Function-specific Response Plan
e.g., Access bridge closure, loss of electrical power

Agreements with stakeholders on emergency cooperation

Manuals for each risk
e.g., Natural disasters (quake, typhoon), aircraft accident, hijacking, pandemic
Infrastructure preparedness

Measures to prevent overtopping waves

- Seawall raising, tetrapod placement and other measures

The volume of floodwater will be reduced significantly if a flood of the same scale as Typhoon Jebi occurs

Simulation result

The volume of floodwater will be reduced significantly if a flood of the same scale as Typhoon Jebi occurs

- Extend cut-off walls
- Raise RWY-A TWYs as necessitated by east seawall raising
- Improve drainage systems
- Raise flood-prevention seawall on the north side
- Raise south seawall
- Place tetrapods for south seawall
- Reinforce seawall
- Raise east seawall
- Place tetrapods for east seawall
- Reinforce seawall
- Raise north seawall
- Reinforce seawall

[Before] When Typhoon Jebi hit KIX in 2018

Floodwater 2.7 million m³

[After] 2020 (plan)

Floodwater 10,000 m³

- The simulation assumes that a flood of the same scale as Typhoon Jebi (same height of waves/tides) hits KIX from the east and south
- Floodwater of 10,000 m³, which is expected to flow into KIX in the simulation, can be pumped up by the existing drainage pumps (installed in 10 locations on Phase 1 Island; pumping capacity of about 200K m³/hour)
Measures to prevent flood damage

■ Terminal area
  • Relocate electric equipment from the basement to the upper floor (currently underway in phases)

  • Take measures against flooding in T1 basement
  • Install large water barriers and water-tight doors, and equip large pump trucks

■ Cargo area and drainage pump

  • Equip waterproof sheets to prevent flooding to warehouses
  • Secure temporary power generators to maintain drainage pump functions
Main initiatives - Prevention -

Operational preparedness

Cooperation with stakeholders for improvement of operations (from day-to-day to emergency situations)

Joint Crisis Management Group (JCMG)

- With the participation of relevant organizations, JCMG operation officially started on April 2019
  - Activate JCMG in the event of an emergency that occurs in and around the airport
  - Collect information on emergency situations, get the whole picture and share information
  - Cooperate with stakeholders to ensure the safety of people and restore the airport

<table>
<thead>
<tr>
<th>Case</th>
<th>Organizations</th>
<th>JCMG</th>
<th>Activation criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>General Manager</td>
</tr>
<tr>
<td>KIX</td>
<td>CEO, Kansai Airports</td>
<td></td>
<td>President, NKIAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KIX JCMG</td>
<td>[Public sector (on airport): 9] JCMG KIX Office, Kansai Aviation Weather Service Center, Cabinet Secretariat for Airport Crisis Management, KIX Police, KIX Coast Guard Air Base, Senshu-shi-mintai Regional Fire Department, Osaka Customs KIX Branch, Osaka Regional Immigration Bureau KIX Branch, KIX Quarantine Station</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Private sector (on airport): 8] Kansai Airports, New Kansai International Airport Company (NKIAC), KIX Airline Operators Committee (AOC), Japan Airlines, All nippon Airlines, Peach Aviation, FedEx Express, KIX Cargo Operators Committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Public sector (off airport): 7] Kinki District Transport Bureau, Kinki Regional Development Bureau, Osaka Prefecture, Izumisano City, Sennai City, Tajiri Town, Rinku General Medical Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITAMI</td>
<td>CEO, Kansai Airports</td>
<td></td>
<td>President, NKIAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Transportation: 2] Osaka Airport Transport, Osaka Monorail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KOBE</td>
<td>CEO, Kansai Airports Kobe</td>
<td></td>
<td>Mayor of Kobe City</td>
</tr>
<tr>
<td>KOBE JCMG</td>
<td>[Public sector (on airport): 4] Airport Promotion Division of Kobe City, Crisis Management Office (Kobe City Aircraft Accident Prevention HQ, Disaster Prevention HQ), JCMG Kobe Office, Kansai Aviation Weather Service Center Kobe Station</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Public sector (off airport): 16] Kobe City Fire Department (incl. Aviation Maneuver Squad), Kobe City Suijo Fire Station, Kobe City Suijo Fire Corps, Kobe City Secondary Emergency Hospital Association, Japan Red Cross Hyogo Branch, Kobe City Medical Center General Hospital, Kobe University Hospital, Hyogo Emergency Medical Center, Hyogo Prefectural Police, Kobe City Suijo Police Station, Airport Police Station, Kobe Security Dept of Japan Coast Guard, Civil Policy Planning &amp; Admin Dept of Hyogo Prefecture, Ground Self-Defence Force Himeji Base, Marine Self-Defence Force Hanshin Base, Hyogo Provincial Cooperation Office</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Private sector (off airport): 1] NTT West Hyogo Branch</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Transportation: 1] Kobe New Transit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Main initiatives
- Prevention -

Crisis Management Structure (KIX, ITAMI and KOBE)

- Build a complementary framework for the 3 airports
  [Complementary to head office functions]
  - Establish a mutual support system
  [Complementary to operational functions]
  - Share operational information
  - Provide equipment and materials necessary for recovery

Kansai Airports’ crisis management organization consists of:

**GOLD Team**: Exercise strategic control over emergency situations (corporate management perspective)

**SILVER Team**: Exercise tactical control over emergency situations and make high-level decisions on responses (BRONZE Team support)

**BRONZE Team**: Perform emergency responses mainly at airport operation centers

Incidents are escalated up the chain of command according to the situations

- Group companies
- Area Operation Centers
- Work sites

Business partners (security, facilities, etc.)

BRONZE Team
- Mainly comprised of shift staff members necessary for emergency response and speedy restart
- Its staffing plan has been developed taking into account staff’s skills (e.g., language proficiency, driver’s license for heavy equipment vehicles)
New KIX Operation Center (KOC)

- Led by a supervisor, serving as the head, and airfield/landside leaders
- In addition to carrying out the previous KOC functions (airfield operations, security, and disaster prevention), monitor and manage passenger terminal operations, transportation and other facilities in order to improve day-to-day operations

[Supervisor]

[Landside leader]

- Passenger assistance
- Security/screening
- Disaster prevention
- Facilities (building facilities, BHS, etc.)
- Transport (road, railway, bus, ferry)

[Landside multi-task operation]

[Airfield leader]

- Airfield operation
- Restricted area security
- Airport firefighting
- Facilities (airport lighting, fueling, etc.)

[Airfield multi-task operation]

- Open in June 2020 (planned)
## Enhanced disaster supplies

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of stockpiles</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food supplies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>108,000 meals</td>
<td>• Quick cooking rice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Canned bread</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Biscuit</td>
</tr>
<tr>
<td><strong>Drinking water</strong></td>
<td>144,000 bottles</td>
<td>500ml plastic bottle</td>
</tr>
<tr>
<td><strong>Sleeping bag</strong></td>
<td>12,000 units</td>
<td>Supplies for overnight stay</td>
</tr>
<tr>
<td><strong>Emergency blanket</strong></td>
<td>10,000 sheets</td>
<td></td>
</tr>
<tr>
<td><strong>Portable toilet</strong></td>
<td>36,000 units</td>
<td>Restore the bathroom within 24 hours</td>
</tr>
<tr>
<td><strong>Baby formula</strong></td>
<td>180 boxes</td>
<td>Care for people of all ages and sexes who need support</td>
</tr>
<tr>
<td><strong>Disposable diaper</strong></td>
<td>50 packs for adults, 75 packs for infants/kids</td>
<td>Care for people of all ages and sexes who need support</td>
</tr>
<tr>
<td><strong>Women's sanitary items</strong></td>
<td>250 packs</td>
<td>Care for people of all ages and sexes who need support</td>
</tr>
<tr>
<td><strong>Battery</strong></td>
<td>50 units</td>
<td>Charging for customers' smartphones</td>
</tr>
<tr>
<td><strong>Battery-type charger</strong></td>
<td>2,000 units</td>
<td></td>
</tr>
</tbody>
</table>
Special Disaster Corps

- Reorganize airport firefighting organizations to enable quick response to disasters 24/7
  
  - Manage and operate disaster response materials and equipment
  - Provide necessary education on disaster preparedness
  - Respond to a disaster in a neighboring area
Main initiatives - Prevention -

Knowledge Center

- Plan to establish **Knowledge Center**, a training center, in KIX
  - Provide education for Kansai Airports Group employees and on/off-airport operators
  - Externally share information about initiatives taken by Kansai Airports

- Develop **specialized training space** for Kansai Airports Group and stakeholders (aircraft accidents, terrorism, natural disasters, etc.)
- Provide **education and training** on airport disaster responses for business operators
- Offer education sessions on airport operations (Academy)
- Provide airport users with **information** about actions and initiatives taken by Kansai Airports
- Offer **working space** that can be used by everyone working at the airport on a daily basis
Main initiatives
- Disaster resilience and response -

Customer support and evacuation

- Estimated number of passengers stranded at the airports is as follows:

<table>
<thead>
<tr>
<th>Airport</th>
<th>Passengers at the airport</th>
<th>About</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIX</td>
<td></td>
<td>12,000</td>
</tr>
<tr>
<td></td>
<td>International arrival</td>
<td>3,874</td>
</tr>
<tr>
<td></td>
<td>Domestic arrival</td>
<td>791</td>
</tr>
<tr>
<td></td>
<td>International departure</td>
<td>6,532</td>
</tr>
<tr>
<td></td>
<td>Domestic departure</td>
<td>791</td>
</tr>
</tbody>
</table>

[Breakdown]
- Non-Japanese: 7,400
- Persons with disabilities: 5
- Japanese: 4,200
- Infant: 100
- Elderly persons: 300

<table>
<thead>
<tr>
<th>iTAMI</th>
<th>Passengers at the airport</th>
<th>About 4,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic arrival</td>
<td>1,199</td>
</tr>
<tr>
<td></td>
<td>Domestic departure</td>
<td>2,397</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KOBE</th>
<th>Passengers at the airport</th>
<th>About 700</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic arrival</td>
<td>442</td>
</tr>
<tr>
<td></td>
<td>Domestic departure</td>
<td>221</td>
</tr>
</tbody>
</table>
Main initiatives
- Disaster resilience and response -

Customer support and evacuation

Ensure to provide smooth passenger guiding and services even in an emergency by pre-defining priority criteria for customers in need of care and allocation of secondary evacuation shelters (site options).

### Flow of evacuation support at KIX (in the case of a massive earthquake)

<table>
<thead>
<tr>
<th>Reception (in front of T1 Operation Center on Level 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Collect Emergency Information Cards (distributed at the primary evacuation site)</td>
</tr>
<tr>
<td>b) Receive cards from Japanese and non-Japanese customers (in cooperation with foreign embassies/consulates)</td>
</tr>
<tr>
<td>c) Distribute sleeping bags, blankets and drinks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Those who are sick, injured, disabled, pregnant and suffering from intractable diseases, and their family</td>
</tr>
<tr>
<td>(2) Babies, small children, and the elderly, and their family</td>
</tr>
<tr>
<td>(3) An unattended minor</td>
</tr>
<tr>
<td>(4) Other customers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary evacuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Guide each passenger group to their evacuation shelters</td>
</tr>
<tr>
<td>(1) On-airport hotels</td>
</tr>
<tr>
<td>(2) On-airport meeting rooms</td>
</tr>
<tr>
<td>(3) Resting rooms in Aero Plaza</td>
</tr>
<tr>
<td>(4) T1 VIP rooms</td>
</tr>
<tr>
<td>(5) Public area on Level 2 of T1 and domestic gate area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>● Provide food and drinks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(6) Lounges</td>
</tr>
<tr>
<td>(7) Level 4 of Terminal 1</td>
</tr>
<tr>
<td>(8) Terminal 2</td>
</tr>
</tbody>
</table>

- Out-of-airport transport
  (1) Transport people by shuttle buses in the order of their priority
  (2) Distribute bus or ferry tickets to those who do not require support and ask them to wait in a line according to their ticket numbers
  (3) Set up signs or assign staff at certain intervals to guide customers to a point of embarkation (Staff members carry communication tools in case of the customers falling ill en-route)

- Airport operations are not likely to resume soon & Staying inside the airport is not safe

- Transport people to the outside of the airport

An emergency transportation agreement with airport access operators (bus and ferry) will be concluded
Out-of-airport evacuation drill (Earthquake and Tsunami drill carried out on March 5, 2019)
Main initiatives
- Disaster resilience and response -

Color coded Emergency Information Card

- The color on top of the card indicates a language
  - Blue: Japanese
  - Green: English
  - Red: Chinese
  - Orange: Korean

- The color of a neck strap indicates one of the four levels of customer priority
  - Red: Those who are sick, injured, disabled, pregnant or suffering from intractable diseases, and their family
  - Orange: Babies, small children, and the elderly, and their family
  - Green: An unaccompanied minor
  - Blue: None of the above

- The card provides the minimum information necessary for customer assistance
Main initiatives
- Disaster resilience and response -

Improved information dissemination

<table>
<thead>
<tr>
<th>Resilient public address systems</th>
<th>• Equip KOC with centralized control over emergency broadcasting to all buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Deploy portable emergency speaker systems and disseminate emergency information across the airport including outdoor areas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stronger multi-lingual support</th>
<th>• Disseminate information using SNS and airport website</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Prepare additional multi-lingual megaphone translators ‘Mega Speaker’ (2 units → 72 units)</td>
</tr>
<tr>
<td></td>
<td>• Beef up a pool of multilingual staff members in cooperation with passenger guiding and handling staff</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Future functional enhancement (2020)</th>
<th>• Centrally controlled dissemination of information (The information on displays instantly switches to an emergency information mode)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Provide emergency information in multiple languages (4 languages)</td>
</tr>
</tbody>
</table>

Better emergency information dissemination by introducing Display Integrated Management System

Information provided both through images and audio using displays and broadcasting systems
BRONZE Team, consisting of a supervisor, Airport Operation Centers, Area Operation Centers, group companies, business partners and others, provides passenger support and makes efforts towards speedy restart of the airport, using various equipment and tools.

**Time-line (e.g., Speedy recovery from flooding of runway)**

- **Safety check**
- **Runway**
- **Taxiway**
- **Apron**
- **Airline**
- **Coordination with JAB**
- **Coordination with CIQ**

**Equipment and tools**

- Large pumping vehicles
- Small drainage pumps
- Emergency lights
- Sweepers

**Organization structure**

- **Supervisor**
- **KOC / IOC / UOC (tentative name)**
- **Area OC and group companies**
- **Business partners (security, facilities, etc.)**

(Ref.) Human resources, equipment/tools and materials allocated in the aftermath of Typhoon Jebi. Operating hours: 8 hours (80 workers, 16 sweepers, 22 dump trucks, 2 loaders, and 7 backhoes)

*CIQ: Customs, Immigration and Quarantine*
Develop action plans to tackle an emergency by combining the pre-determined plans so that they are practical and best fit the nature of the crisis. The flow of such plan development and activation is illustrated below:

<table>
<thead>
<tr>
<th>Time-line</th>
<th>Predictable incident (e.g., Typhoon)</th>
<th>Unpredictable incident (e.g., Earthquake)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before incident</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictable incident (e.g., Typhoon)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[SILVER Coordinator]</td>
<td>[Supervisor]</td>
<td></td>
</tr>
<tr>
<td>Collect and analyze information from KOC or the Internet</td>
<td>Instruct the provision of evacuation guidance according to the preparation plans</td>
<td></td>
</tr>
<tr>
<td>Select plans</td>
<td></td>
<td>Instruct to provide evacuation guidance at the discretion of Supervisor</td>
</tr>
<tr>
<td>Coordinate</td>
<td></td>
<td>Report on the evacuation status</td>
</tr>
<tr>
<td>Activate the plans for advance preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Supervisor]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruct to provide evacuation guidance according to the preparation plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report on the evacuation status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unpredictable incident (e.g., Earthquake)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[SILVER Coordinator]</td>
<td>[SILVER Coordinator]</td>
<td></td>
</tr>
<tr>
<td>Collect and analyze information from JCMG, KOC or the Internet</td>
<td>Collect and analyze information from JCMG, KOC or the Internet</td>
<td></td>
</tr>
<tr>
<td>Adjust plans</td>
<td>Change plans</td>
<td></td>
</tr>
<tr>
<td>Adjust or change plans if any changes from the preparation phase</td>
<td>Select necessary plans according to the nature of the incident</td>
<td></td>
</tr>
<tr>
<td>Coordinate</td>
<td>Coordinate</td>
<td></td>
</tr>
<tr>
<td>Coordinate with JCMG and each team to implement the selected plans</td>
<td>Coordinate with JCMG &amp; each team to implement the selected plans</td>
<td></td>
</tr>
<tr>
<td>Obtain approval from GOLD Team</td>
<td>Obtain approval from GOLD Team</td>
<td></td>
</tr>
<tr>
<td>Explain the plans to GOLD Team to obtain approval</td>
<td>Explain the plans to GOLD Team to obtain approval</td>
<td></td>
</tr>
<tr>
<td>Activate the plans to respond to the emergency and restart the airport as quickly as possible</td>
<td>Activate the plans to respond to the emergency and restart the airport as quickly as possible</td>
<td></td>
</tr>
</tbody>
</table>
Airport Operation Center

■ Roles and responsibilities of Airport Operation Center

- Area Operation Centers (AOC) make judgment on the severity levels of an incident and report to KIX Operation Center (KOC) and SILVER Team on the occurrence of a severe incident. AOCs also plan resource allocation and request off-duty operation staff to come to the airport.

- Individual AOCs collect and relay information from Airport Operation Center to customers, workers and on-airport operators in their jurisdiction.

[KIX] [Area Operation Centers will be established across the airport]

Severe Incident Response Plan

■ This plan describes organization structures and processes to address severe incidents.

- Bronze Team consists of front-line and emergency response teams, assisted, as needed, by specially organized emergency team.

- SILVER Team commands tactical control and addresses the incident directly. The team gives instructions to BROZE Team in matters except for initial firefighting responses that require special expertise.

- GOLD Team commands strategic control over a severe incident and gives instructions to SILVER Team.

- JCMG gathers airport stakeholders in the case of an incident and facilitates information sharing and mutual cooperation.

<table>
<thead>
<tr>
<th>Severe incident</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Aircraft accidents</td>
</tr>
<tr>
<td>(2) Incidents due to turbulence, etc.</td>
</tr>
<tr>
<td>(3) Aircraft explosion, etc.</td>
</tr>
<tr>
<td>(4) Aircraft hijacking</td>
</tr>
<tr>
<td>(5) Fires at the terminal building, etc.</td>
</tr>
<tr>
<td>(6) Leakage of hazardous substances, etc.</td>
</tr>
<tr>
<td>(7) Natural disasters</td>
</tr>
<tr>
<td>(8) Medical emergencies such as contagious diseases, mass food poisoning, etc.</td>
</tr>
<tr>
<td>(9) Terrorism, armed attacks, etc.</td>
</tr>
<tr>
<td>(10) Critical facilities’ functional loss</td>
</tr>
<tr>
<td>(11) Other matters deemed likely to have a material impact on the management and operation of the airports</td>
</tr>
</tbody>
</table>
Irregular flight management

- This plan specifies how to manage irregular flights (scheduled airport closure, operational restrictions due to damage)

  - In principle, this plan is activated when an airport is scheduled to be closed, affecting operations of passenger flights.

  - This plan also sets forth processes leading up to a decision to close the airport, processes during the closure and those up to the reopening of the airport. A slot allocation plan is also included in this plan when slots need to be restricted.

Evacuation support, customer assistance, and information dissemination

- This plan specifies how to provide customer support and guidance during emergency evacuation and how to disseminate sufficient information

  - This plan is activated in an emergency such as a natural disaster, aircraft accident and fire that poses a direct threat to the safety and health of customers and employees.

  - The chart on the right illustrates a flow of assistance for those who are stranded in an airport. For more details, please refer to “Chapter 4: Main initiatives - Disaster resilience and response –”.

Decision making flow of airport closure

- Discuss with representatives of airlines
- Consider a planned closure

- Discuss with representatives of airlines
- Decide to put in place a planned closure
- Issue NOTAM

- Decide to assemble JCMG members
- Issue a press release of the airport closure

Assistance for people stranded in airport

- Group customers depending on the need of assistance
  - Allergy, etc.

- Determine a shelter for each group
- Provide food and drinks

- Transport in order of customer priority
- Distribute tickets to get on a vehicle or ferry to groups who do not require support
Customer support (aircraft accident)

- This plan stipulates how to assist customers in the case of an aircraft accident in cooperation with airlines

- An airline is responsible for providing passengers and their family with support in the case of an aircraft accident. However, if an airline is not sufficiently staffed or equipped at an airport to support customers, we assist the airline until it is sufficiently staffed and equipped.

- Kansai Airports Group employees and business partners who have agreed to cooperate in such a case will be mobilized to support the airline.

- The chart on the right illustrates processes of customer support provided in cooperation between Kansai Airports and the airline.

Resource management

- This plan sets forth processes to manage resources (human and material resources) necessary for an emergency

- Processes to manage resources such as emergency supplies necessary upon the occurrence of a severe incident as well as equipment and tools needed for recovery efforts (including how to procure and allocate such resources and how to mobilize human resources) are detailed in this plan.

<table>
<thead>
<tr>
<th>Emergency supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food supplies</td>
</tr>
<tr>
<td>Water</td>
</tr>
<tr>
<td>Emergency blankets</td>
</tr>
<tr>
<td>First aid kits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment and tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweepers</td>
</tr>
<tr>
<td>Floodlight vehicles</td>
</tr>
<tr>
<td>Dump trucks (4t)</td>
</tr>
<tr>
<td>Loaders (0.6 - 1m)</td>
</tr>
</tbody>
</table>
Fire fighting and rescue operation

- This plan describes emergency firefighting and rescue organization structures at airports

- The airport firefighting activities are performed by the firefighting team of each airport as well as external partners.

- Medical services are provided by Airport Clinic (KIX), Medical Center (ITAMI) and external medical institution (KOBE). Each airport has concluded a mutual support agreement with external fire and rescue departments.

- In the case of an aircraft accident, Aircraft Accident Joint Crisis Management Group will exercise overall command while on-site coordination headquarters take command of operations.
### Contingency response - Function-specific response plan -

<table>
<thead>
<tr>
<th>Function</th>
<th>Scenario</th>
<th>Response outline (some excerpts)</th>
</tr>
</thead>
</table>
| **Power supply**          | Damaged commercial power supply equipment and emergency power generators which supply power to all or part of critical facilities (no power supply from Kansai Electric Power Co’s Energy Center) | • Assist passenger evacuation  
• Establish temporary power supply especially to:  
  • Operate equipment/tools for recovery efforts  
  • Manage airports and secure telecommunications (for activities by JCMG/GOLD/SILVER/BRONZE Teams)  
  • Secure safety and security of airport users  
  • Restore airport functions to restart airport operations |
|                           | Inoperable commercial power supply equipment and emergency power generators |                                                                                           |
|                           | Inoperable commercial power supply equipment and emergency power generators |                                                                                           |
| **Telecommunications**    | Loss of communication means such as telephones, Internet, free WiFi, etc. | • Establish an first-response organization by using emergency communications means such as EMC (Emergency Call), BCPortal (emergency communication tool), satellite mobile phone, MCA radio, government emergency radio, etc.  
• Obtain support from mobile phone companies for securing telecommunications using their base transceiver station vehicles |
| **Drinking water supply** | Loss of water supply from the mainland (due to damaged pipes along the access bridge) | • Supply water at a normal-level from drinking water tanks (24 hours)  
• Distribute emergency water bottles  
|                           | Loss of water supply from Furue Water Treatment Plant | • Supply water at a normal-level from drinking water receiving tanks (48 hours)  
• Distribute emergency water bottles  
|                           | Loss of water supply from the mainland (due to damaged pipes along the access bridge) | • Supply water at a normal-level from drinking water tanks (24 hours)  
• Distribute emergency water bottles |
| **Gray water supply**     | Inoperable gray water supply pumps                                        | • Supply gray water at a normal-level from gray water tanks (24 hours)  
• Set up temporary toilets and provide portable toilet sets  
(N/A due to no use of gray water) |
|                           | Inoperable gray water supply pumps                                        | • Supply gray water at a normal level from gray water tanks (24 hours)  
• Set up temporary toilets and provide portable toilet sets  
|                           | (N/A due to no use of gray water)                                         | • Supply water from the drinking water facility in the case of the suspension of gray water facility |
| **Drainage**              | • Inoperable relay pumps that transport water to the waste water treatment plant  
• Inoperable wastewater treatment plant | Restore functions of relay pumps and the wastewater treatment plant  
(N/A as wastewater treatment is performed at a municipal facility) |
|                           | (N/A as wastewater treatment is performed at a municipal facility)         |                                                                                           |
| **Airport access**        | Unusable airport access: access bridge, roads and railway                 | • Assist out-of-airport evacuation  
• Review and notify an airline-flight plan, and allocate stands |
|                           | • Long-term suspension of the monorail service                             | • Assist evacuation on foot  
• Review and notify an airline-flight plan, and allocate stands  
|                           | • Traffic restrictions due to impassable Hansin Expressway and surrounding roads |                                                                                           |
|                           | Impassable airport access: access bridge, roads and Port Liner            | • Assist out-of-airport evacuation  
• Review and notify an airline-flight plan, and allocate stands  
| **Basic facility (1)**    | Inoperable runways (both or either of RWYs A and B)                        | • Assist evacuation on foot  
• Explain noise issues (due to increased use of RWY-A) to local communities  
• Review and notify an airline-flight plan, and allocate stands  
|                           | Closure of RWY-B or inoperable runways (both RWYs A and B)                | Review and notify an airline-flight plan, and allocate stands  
| **Basic facility (2)**    | Inoperable runways                                                         | Review and notify an airline-flight plan, and allocate stands  
|                           | Inoperable airfield lights                                                | Install back-up lights stored at KIX |
|                           | (N/A due to no use of gray water)                                         | Install back-up lights brought from KIX |
|                           | (N/A as wastewater treatment is performed at a municipal facility)         | Install back-up lights brought from KIX |

Legend: 3 airports  
KIX  
ITAMI  
KOBE  
KIX  
▆▆  
ITAMI  
▆▆  
KOBE  
▆▆  
3 airports
## Contingency response - Function-specific response plan -

<table>
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<tr>
<th>Function</th>
<th>Scenario</th>
<th>Response outline</th>
</tr>
</thead>
</table>
| Terminal buildings 1 and 2 | Inoperable passenger terminal buildings (both or either of Terminals 1 and 2) | • Guide passengers to move between the 2 terminals and assist out-of-airport evacuation  
  • Review and notify an airline-flight plan, and allocate stands  
  • Handle landing and refueling of aircraft that cannot be diverted  
| | Inoperable passenger terminal building | • Assist passengers with evacuation on foot  
  • Handle landing and refueling of aircraft that cannot be diverted  
| | Inoperable passenger terminal building | • Assist out-of-airport evacuation  
  • Handle landing and refueling of aircraft that cannot be diverted  
| PBB and BHS | Inoperable all PBB and BHS | [PBB] Assist passengers in boarding and disembarking using ramp buses and air-step vehicles (Coordinate with airlines and handling companies)  
  [BHS] Transport baggage using alternative methods and return checked baggage  
| | | [PBB] Assist passengers in boarding and disembarking using ramp buses and air-step vehicles (Coordinate with airlines and handling companies)  
  [BHS] Transport baggage using alternative methods and support airlines with their BHS on departure side  
| | | [PBB] Assist passengers in boarding and disembarking using ramp buses and air-step vehicles (Coordinate with airlines and handling companies)  
  [BHS] Transport baggage using alternative methods and support airlines with their BHS on departure side  
| Aircraft fuel | Loss of fuel supply from on-airport fuel tank facilities (hydrant) | Support fuel supply by using fuel tank lorries (Coordinate with airlines and oil companies)  
| | Loss of fuel supply from on-airport fuel tank facilities (hydrant), fuel tank lorries (JAL) and refuel facilities (ANA) | Support fuel supply by using fuel tank lorries from outside the airport (Coordinate with airlines, oil companies, and refueling operation companies)  
| | Loss of fuel supply from on-airport fuel tank facilities (fuel tank lorries) | Support fuel supply by using fuel tank lorries from the mainland (Coordinate with airlines, oil companies, and refueling operation companies)  
| Cargo facility | Inoperable cargo facilities (warehouses and other necessary warehousing functions) | • Support transportation of stranded cargoes  
  • Support evacuation of service vehicles if there is a risk of flooding  
| | Inability to handle air cargoes | Support transportation of stranded cargoes  
| | (N/A as no cargoes are handled) |  
| ATC function | Loss of ATC functions | CAB guides aircraft using gun sets and light guns. If slots are restricted, allocate stands according to the airline flight plans  
| Important information system | Inoperable important information systems (KIX-LAN, mechanical security systems, airport management support systems, international check-in systems, ITV system to monitor apron operations, passenger information systems) | Have airport staff manually address the situations (e.g., have airport staff close access points and increase the patrol frequency, etc. in the case of an inoperable mechanical security system)  
| | Inoperable important information systems (internal LAN, security systems, stand management systems, passenger information systems) | Have airport staff manually address the situations (e.g., have airport staff set up passenger information boards working together with airlines in the case of an inoperable passenger information system)  
| | Inoperable important information systems (internal LAN, airport perimeter fence security systems, terminal monitoring systems, passenger information systems) | Have airport staff manually address the situations (e.g., increase the number of security checkpoints and the frequency of patrol in the case of an inoperable airport perimeter fence security system)  
| Human resources | Shortage of human resources for airport operations and facility management | Assign back-up staff members in advance  

Legend: 3 airports KIX ITAMI KOBE
Shaping a New Journey

KANSAI AIRPORTS