

# Progress on new BCP and preparedness for flood season

April 17, 2019



Shaping a New Journey



**KANSAI  
AIRPORTS**

# Enhancement of crisis management (starting this April)

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1. Strengthening stakeholder cooperation and operational capabilities (day-to-day & emergency)
2. Outline of new BCP

# 1. Strengthening stakeholder cooperation and operational capabilities (day-to-day & emergency)

## ➤ KIX JCMG (Joint Crisis Management Group)

- Newly established at KIX to deal with all types of emergency situations
- Participated by 30 stakeholders both on and off airport
- Stakeholders sharing information on a daily basis and pulled together in an emergency

**=> Share information during emergency, accelerate cross-organizational decision making, strengthen cooperation with stakeholders**

## ➤ New KOC (KIX Operation Center)

- Added passenger service, airport access and facility monitoring operations and supervision to KOC on top of the functions already put in place: security; disaster management; and airfield operations and maintenance in the restricted area
- Closer inter-functional coordination and centralized information collection

**=> Enhance day-to-day operations (Emergency responses and speedy recovery as an extension of normal duties)**



# 1. Strengthening stakeholder cooperation and operational capabilities (day-to-day & emergency)

## - KIX JCMG -

- Activate JCMG in an emergency that occurred at or near KIX
- Collect information, understand the big picture and share the information
- Coordinate with stakeholders to ensure safety of passengers and speedy recovery

Participated by 30 organizations inside and outside KIX (Officially launched in April 2019 after three study meetings)

Case Type	Gathering organization	JCMG		Gathering Criteria
		General Manager	Deputy General Manager	
<b>Disasters</b> Typhoon, earthquake, tsunami, etc.	30 organizations	KAP CEO (*1, *2)	-NKIAC President(*2) -Administrator of KIX Office, CAB -Airport Crisis Management Administrator	<ul style="list-style-type: none"><li>• If a typhoon, classified as “Very Strong” or more severe, is projected to take the path that may significantly affect KIX, have a prior discussion with participating organizations and decide, at least 24 hours earlier than when the typhoon is forecast to be closest, whether to activate JCMG.</li><li>• In the event of an earthquake with a seismic intensity of 5 or higher at KIX</li><li>• When an Major Tsunami Warning or Tsunami Warning is issued to Osaka Prefecture</li></ul>

(\*1) Acting order: (1) KAP CEO (2) KAP Chief Operating Officer (3) KAP Deputy Chief Operating Officer

(\*2) NKIAC President may be assigned to JCMG General Manager depending on situations

# 1. Strengthening stakeholder cooperation and operational capabilities (day-to-day & emergency)

## - KIX JCMG -

■ Participated by **30 organizations** (on and off airport)

### [Public agencies (on airport): 9]

- JCAB (KIX office)
- Airport Crisis Management Administrator
- Coast Guard Air Station
- Customs
- Quarantine
- Local meteorological observatory
- Police
- Senshu-Minami Fire Department
- Immigration Bureau

### [Public agencies (off airport): 6]

- Kinki District Transport Bureau
- Osaka Prefecture
- Izumisano City
- Sennan City
- Kinki Regional Development Bureau
- Tajiri-cho

### [Private sector: 8]

- KAP
- NKIAC
- AOC
- JAL
- ANA
- Peach
- FedEx
- (\*Airlines represented by each user group)
- Cargo operator

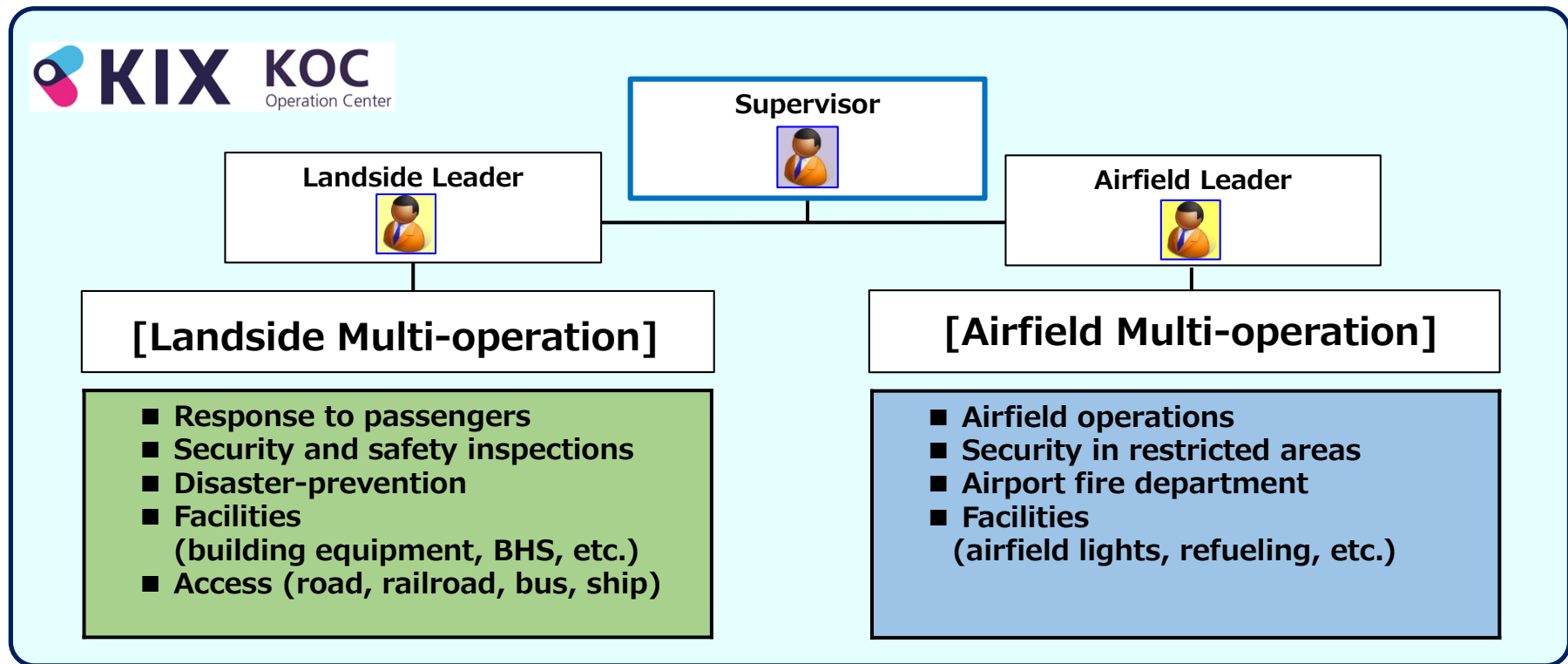
### [Transportation: 7]

- JR West
- Nankai Electric Railway
- NEXCO West
- Taxi operators association
- Limousine bus operators association
- Nankai Bus
- OM Kobe

# 1. Strengthening stakeholder cooperation and operational capabilities (day-to-day & emergency)

## - New KOC structure -

- Assign Landside and Airfield Leaders under Supervisor to supervise the entire KOC
- Added passenger service, airport access and facility monitoring operations and supervision functions to KOC on top of the functions already put in place (airfield operations, security and disaster control)



# 1. Strengthening stakeholder cooperation and operational capabilities (day-to-day & emergency)

## - Reorganization of Special Disaster Corps -

### Reorganize airport firefighting organizations to **respond quickly to disasters 24/7**

- Management and operation of disaster response materials and equipment
- Implementation of necessary education/training for disaster preparedness
- Response in the event of a disaster in a neighboring area

#### [Special Disaster Corps]



Disaster response



Management and operation of equipment



Education and training

## 2. Outline of new BCP

### (1) Overall picture

- ✈ Developed KAP's new BCP that covers all hazards  
(The previous BCP lays out plans for specific incidents/events)
- ✈ Combined basic/functional plans with a function-specific plan to ensure preparedness for all emergency situations

Related laws/regulations

New BCP

### Emergency Response Basic Regulations

(incl. centralized/expedited decision making during an emergency)

#### Crisis management plan

**Basic Plan** (Crisis management policy, structure, role)

**Functional Plan** (Details of each response/recovery function)

- (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

#### Plans to address loss of functions

Access bridge closure, loss of electrical power, etc.

#### Manuals

Ex.: Natural disasters (quake, typhoon), aircraft accident, hijacking, pandemic, etc.

Agreements, MOU, etc. with stakeholders



## 2. Outline of new BCP

### (2) Basic & Functional Plans

#### [Key points]

- All hazard preparedness
- Pragmatic & effective (experience-/feedback-/data-based plan, clearly-defined structure & process)
- Focus put on cooperation & information sharing with stakeholders

#### Basic Plan

##### Rules for crisis management policy/structure/role

- Policy
- Structure & headquarters
- Role & responsibility
- Incident level

Team (working with JCMG)		Objective & Role
BRONZE team (Field operation team)	Available 24 hours, 365 days	Perform emergency responses mainly at the airport operation center in cooperation with local sites
SILVER team (Crisis management team)	Formed during emergency	Exercise tactical control over emergency situations and make high-level decisions on responses (BRONZE team support)
GOLD team (Management level)	Formed during severe emergency	Exercise strategic control over emergency situations (corporate management perspective)

#### Functional Plan

[ Detailed rules on responses/recovery for each function ]

- (1) Airport operation center
- (2) Severe incident response
- (3) Irregular flight operations control (Coordination with CAB/ALs required)
- (4) Customer evacuation/support
- (5) Customer support in aircraft accident (Coordination with ALs required)
- (6) Resource management
- (7) Firefighting/rescue
- (8) Security
- (9) Crisis communication

## 2. Outline of new BCP

### (3) Function-specific plan

#### [Key points]

- Assume that essential functions are lost regardless of the causes
- Develop plans for emergency responses for customers and speedy recovery for each function lost
- Ensure effectiveness (Perform analysis based on experience/feedback/data)

	Function	Scenario
1	Electrical power	<ul style="list-style-type: none"> <li>• Power outage at each facility (T1 &amp; T2, aviation security facilities, drainage facilities, cargo warehouse, etc.)</li> <li>• Power outage at all facilities above</li> </ul>
2	Communications	Inoperable communications functions (phone, Internet, Free WiFi)
3	Water supply (tap)	No water supply from outside of the airport island
4	Recycled water	All toilets are rendered unusable
5	Wastewater treatment	Unable to treat wastewater
6	Airport access	Airport access bridge rendered unusable, roads and railways are inoperable for more than 24 hours
7	Basic facilities (1)	Runway A or B is closed down, impact on arrival/departure capacity
8	Basic facilities (2)	Use of both Runways A and B are suspended
9	Basic facilities (3)	Inoperable airfield lighting

	Function	Scenario
10	Terminal building (1)	Unable to use both T1 & T2
11	Terminal building (2)	Unable to use T1 or T2
12	Passenger Boarding Bridge (PBB)	Unable to use all PBBs
13	Baggage Handling System (BHS)	Unable to use all BHSs
14	Aircraft fuel supply	Supply from fuel storage tank facility is suspended
15	Cargo handling facilities	Unable to handle air cargo
16	Air traffic control	Inoperable ATC-related functions
17	Key systems	Suspension of all key systems (internal LAN, security system, stand management system, international flight check-in system, passenger service information system, etc.)
18	Human resources	Cases where employees essential to the continuance of airport operations cannot report to work

# Enhancing crisis management preparedness before flood season (by end-June 2019)

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**1. Facilities/infrastructure preparedness**

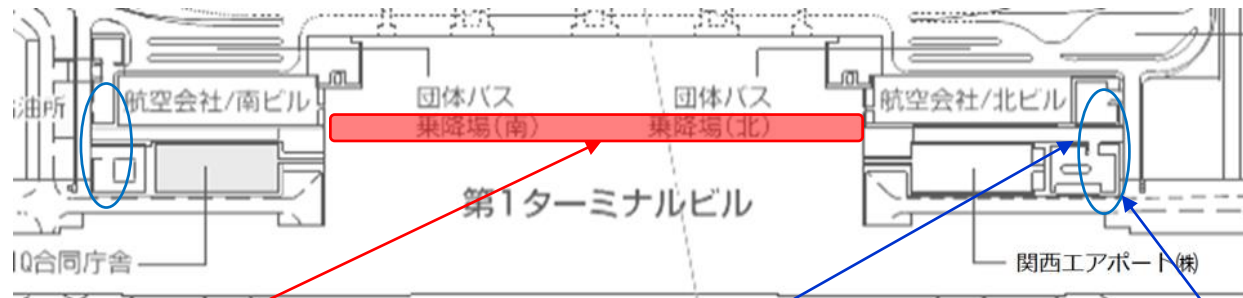
**2. Enhanced customer/partner assistance**

# 1. Facilities/infrastructure preparedness

## (1) Terminal building

- Installed barriers to prevent flooding of T1 basement
- Installed watertight doors to prevent water intrusion into electric rooms
- Deployed large pump trucks

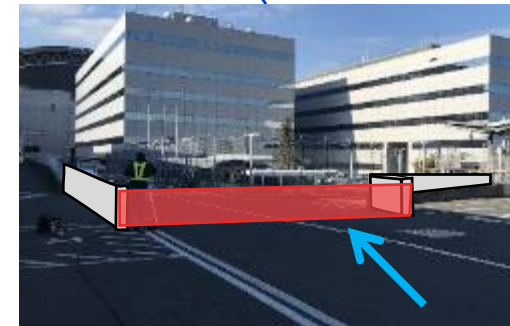
**=> Mitigate the risk of power outage in PTB due to flood**



Watertight door



Large water barrier



# 1. Facilities/infrastructure preparedness

## (2) Cargo area & drainage pump

- Secured water seal sheets to prevent flooding to warehouses
- Secured temporary power generators to maintain drainage pump functions



Water seal sheet



Temporary generators



Sandbags



## 2. Enhanced customer/partner assistance




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- (1) Daily & emergency operations**
- (2) Prioritization of customers**
- (3) Emergency supplies**
- (4) Information dissemination**
- (5) Smooth evacuation to mainland**

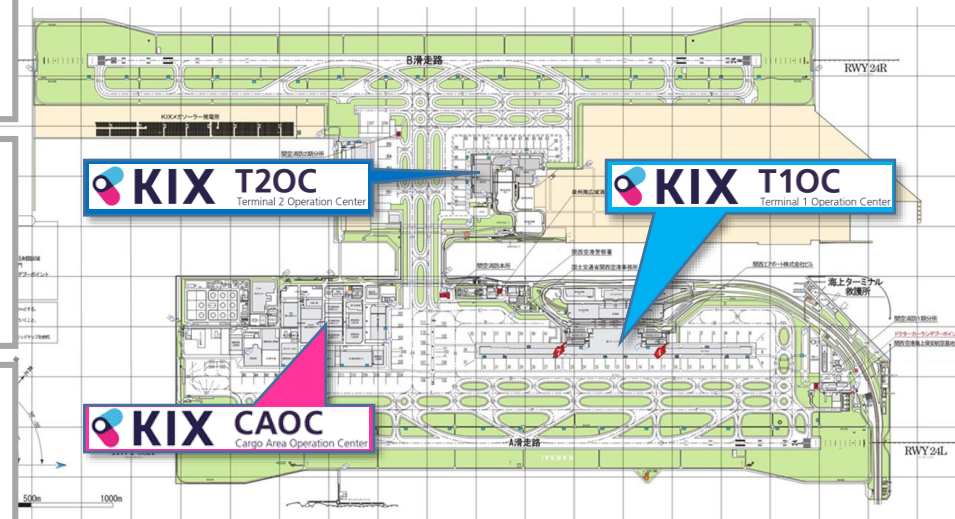
## 2. Enhanced customer/partner assistance

### (1) Daily & emergency operations

Establish **Area Operation Center** for each area to set in place a structure that **facilitates communications/cooperation with stakeholders** both in day-to-day and emergency operations

<b>T1 Operation Center</b>  Terminal 1 Operation Center	<p>[Location] T1, Level 2</p> <p>[Function] Subcenter for providing assistance to customers in the T1 area (Temporary foreign mission booth to be set in an emergency)</p>
<b>T2 Operation Center</b>  Terminal 2 Operation Center	<p>[Location] T2 Domestic</p> <p>[Function] Subcenter for providing assistance to customers in the T2 area</p>
<b>Cargo Area Operation Center</b>  Cargo Area Operation Center	<p>[Location] #5 int'l cargo bldg.</p> <p>[Function] Subcenter for supporting operators in the int'l cargo area</p>

\*To be launched in phases from July 2019





## 2. Enhanced customer/partner assistance

### (2)-1 Prioritization of customers

#### Policy

- Exert utmost effort to provide an environment equivalent to normal daily situations during the first **24 hours** after a disaster
- Provide an environment where customers can stay safely during the first **72 hours** after a disaster

#### ■ Assumed number of stranded pax: 12,000\*

##### Breakdown

- Foreign pax: 7,400
- Elderly: 300
- Physically disabled: 5
- Infant: 100
- Other Japanese pax: 4,200

#### [Basis of assumed number]

1. Based on the passenger numbers of the previous fiscal year during busy times (weekends, holidays, and New Year holidays) factoring in recent growth rates
2. Departing/arriving flights are concentrated in 16 hours from 7:00 to 23:00.  
→ Average daily passengers divided by 16 hours
3. Dwell time is taken into account
4. The number of foreign passengers is estimated based on statistic data, etc.

#### ■ People counted as stranded

- a) Passengers, meeters/greeters
- b) Hotel guests
- c) Airport staff (tenants, airlines, handling companies, govt agencies, cargo operators, transport operators, etc.)

#### ■ How to count

- a) Designated evacuation sites: Periodic counting (every 2-3 hours)
- b) Non-designated evacuation sites: Periodic counting by patrol guards (every 2-3 hours)
- c) Hotel guests and airport staff:  
Counts collected by the department in charge or KOC



## 2. Enhanced customer/partner assistance

### (2)-2 Prioritization of customers

#### Assumption

The priority of passengers who need care as well as the secondary evacuation site (candidate site) are determined in advance so that passenger guidance and services can be provided smoothly in the event of an emergency

Evacuation guidance  
(in a massive quake)



#### Reception at T1 Operation Center, L2, T1

Distribute the "Emergency Information Card" and divide customers into groups according to their needs.

Primary shelter

a	Receive "Emergency Information Card" (Cards are distributed at the primary shelter)
b	Separate Japanese & Non-Japanese (Collaboration with foreign missions)
c	Distribution of sleeping bags and water

#### Emergency Information Card

緊急連絡先(氏名・住所・電話番号)  
氏名  
年齢  
性別  
国籍  
職業  
住所  
電話番号  
備考

#### [Pax priority]

1	The injured/disabled/pregnant, those with intractable disease and poor health; and accompanying families
2	Families with nursing infants; and the elderly and accompanying family
3	Unattended minor
4	Other passengers

#### Secondary shelters

- Select evacuation sites for each group
- Provide foods and beverages



#### [Secondary shelter priority]






1	Nikko Hotel/First Cabin's available rooms
2	Nikko Hotel conference rooms
3	Aeroplaza rest area
4	Special waiting room, T1
5	Public and Dom gate areas, Level 2, T1
6	KIX lounge, other lounges
7	Level 4, T1
8	T2

## 2. Enhanced customer/partner assistance

### (3) Emergency supplies

- Store adequate and enhanced **emergency supplies** for up to 12,000 people

Item	Number of stockpiles	Remarks
Food 	108,000 meals (*)	<ul style="list-style-type: none"> <li>• Quick cooking rice</li> <li>• Canned bread</li> <li>• Biscuit</li> </ul>
Drinking water 	144,000 bottles (*)	500ml plastic bottle
Sleeping bag 	12,000 units	Supplies for overnight stay
Emergency blanket 	10,000 sheets	
Portable toilet 	36,000 units	Restore the bathrooms within 24 hours

Item	Number of stockpiles	Remarks
Powdered milk for childcare 	180 boxes	Care for people of all ages and sexes who need support
Disposable diaper 	50 bags for adults 75 bags for infants/child ren	
Women's sanitary item 	250 bags	
Battery 	50 units	Charging for customers' smartphones
Dry battery-type charger 	2,000 units	

## 2. Enhanced customer/partner assistance

### (4) Information dissemination

#### Enhanced broadcasting equipment

- Integrated control of emergency broadcasting from KOC to each building
- Deployment of portable disaster speakers, covering all areas, including outdoors



Portable emergency speakers

#### Enhanced multilingual customer support

- Information dissemination using SNS and airport websites
- Additional emergency multi-language megaphone translator "Mega Speak" (2 -> 72 units)
- Enhanced system for customer communications in foreign languages in cooperation between guide and handling staff



SNS and airport websites

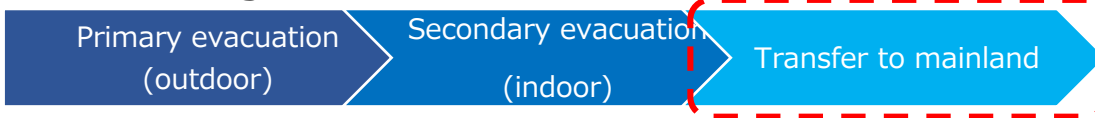


Multilingual support through staff collaboration

## 2. Enhanced customer/partner assistance

### (5) Smooth evacuation to mainland

#### Evacuation guidance flow



No prospect of airport operations restored soon

&

Staying in the airport deemed inappropriate

**Evacuation to mainland**

#### [Evacuation to mainland]

1. Transfer each group by shuttle bus **in order of priority**
2. For groups that do not need assistance, **hand out numbered tickets for bus/ferry boarding**
3. For on-foot guidance to the boarding yard, guide signs will be installed at regular intervals or attendants will guide the guests (In case of a passenger feeling ill on the way, the attendants possess a communications tool)



Exercise of evacuation to mainland  
(March 5, 2019, Earthquake and Tsunami Disaster Prevention Exercise)

**Emergency Transportation Agreement with bus<sup>1</sup> and ferry<sup>2</sup> operators to be concluded**

\*1: Kansai Airport Transportation Enterprise,  
Nankai Bus

\*2: OM Kobe