Capacity Expansion Program for Tokyo Metropolitan Airports

Japan Civil Aviation Bureau

November 2018
### Functional Enhancement of Metropolitan Airports

#### Current annual slots at metropolitan airports

<table>
<thead>
<tr>
<th>Airport</th>
<th>Annual slots:</th>
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<tbody>
<tr>
<td>Haneda Airport</td>
<td>447,000 (Domestic: 357,000, International: 90,000)</td>
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<tr>
<td>Narita Airport</td>
<td>300,000</td>
</tr>
</tbody>
</table>

#### Further functional enhancement of metropolitan airports

<table>
<thead>
<tr>
<th>Policies to be developed on future functional enhancement at metropolitan airports</th>
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<tbody>
<tr>
<td>based on the interim report of Subcommittee for Technical Review to Enhance Functions of the Metropolitan Airports</td>
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<table>
<thead>
<tr>
<th>Possible technical measures to be implemented by the 2020 Tokyo Olympics and Paralympics</th>
<th>Possible technical measures to be implemented after the 2020 Tokyo Olympics and Paralympics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Haneda Airport</strong></td>
<td></td>
</tr>
<tr>
<td>- Re-examination of runway capacity</td>
<td>- Building a new runway</td>
</tr>
<tr>
<td>- Revision of runway operation and flight routes</td>
<td>(• Building a new runway)</td>
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<tr>
<td><strong>Narita Airport</strong></td>
<td></td>
</tr>
<tr>
<td>- Upgrading ATC systems</td>
<td>- Extending existing runways</td>
</tr>
<tr>
<td>(• Building a new runway)</td>
<td>(• Building a new runway)</td>
</tr>
<tr>
<td>+ approx. 20K per year</td>
<td>+ approx. 160K per year</td>
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<tr>
<td>- Building high-speed exit taxiways</td>
<td></td>
</tr>
<tr>
<td>+ approx. 20K per year</td>
<td></td>
</tr>
<tr>
<td>- Relaxing restrictions of curfew</td>
<td></td>
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<tr>
<td>+ α per year</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td><strong>Total: approx. 830K slots</strong></td>
<td><strong>Total: approx. One million slots</strong></td>
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<tr>
<td>(750K + approx. 80K per year)</td>
<td>(approx. 830K + approx. 160K per year)</td>
</tr>
<tr>
<td><strong>+ approx. 100 per day</strong></td>
<td><strong>+ approx. 200 per day</strong></td>
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</tbody>
</table>

※Descriptions in red letters are the measures to achieve the goal of the tourism vision
Capacity expansion of the Metropolitan Airports (Haneda/Narita) over recent years

- **Commencement of D-runway service at Haneda**
- **Expansion of the International Terminal at Haneda**
- **Construction of the LCC terminal at Narita**

### Haneda
- 2010S: 30.3
- 2010W: 37.0
- 2013S: 41.0
- 2014S: 44.7
- 2015S: 44.7

### Narita
- 2010S: 22.0
- 2010W: 22.0
- 2013S: 27.0
- 2014S: 27.0
- 2015S: 30.0

For International
- Daytime: 60,000 Slots
- Night: 30,000 Slots

For Domestic
- Daytime: 30,000 Slots
- Night: 30,000 Slots

**Note:** All values are in thousands of slots.
Need for Further Functional Enhancement at Metropolitan Airports

Take in the growth potential from the world including burgeoning Asian countries (Japan Revitalization Strategy, etc.)

Increase of Foreign Tourists

- 2017
  - Travel consumption: 4 trillion 416.1 billion yen (QE)
  - Foreign tourists: 28 million
  - 91 thousand (Provisional value)

Tourism vision to support the future of Japan

- Foreign tourists to Japan
  - 2020: 40 million
  - 2030: 60 million
- Travel consumption by foreign tourists
  - 2020: 8 trillion yen
  - 2030: 15 trillion yen

Increase of foreign tourists and expansion of travel consumption

Enhancement of International Competitiveness of Metropolitan Industries and Cities

- Promotion of establishment of enterprises
  - Utilization of comprehensive special zones such as Asian HQ special zone
  - Invitation of 500 foreign enterprises or more including head quarters from Asian region (Tokyo)
  - Study of national strategic special zones
  - Improvement of investment environment in Japan

Activating movement of people and goods

Revitalization of Japanese economy

Regional Activation across the Country

- Largest home and abroad aviation network in Japan
  - International routes 106 cities
  - Domestic routes 48 cities

Activating cross-border movement of people and goods

Spread of the overseas growth potential to local regions

Smooth and successful holding of 2020 Tokyo Olympics and Paralympics

Need for further functional enhancement of metropolitan airports

Note: The number of cities denotes the cities in service as at October 2017
Haneda Airport
Possible Measures by 2020
Change of Runway Operation & Flight Routes (South-wind operation)

**Current Flight Routes**

- **Arrival routes** (in fine weather)
- **Arrival routes** (in bad weather)
- **Departure routes**

**Legend**

- Arrivals and departures marked with different colors and symbols.
- Dotted lines indicate assumed flight routes at an altitude of approx. 6,000ft or more.

**New Flight Routes**

- **Percentage of a south wind operation**
  - About 40% (Annual average)

- **Operation time of new flight routes in a south wind**
  - 15:00 ~ 19:00 (including a switching time)

**Legend**

- **Arrival routes** (in bad weather)
- **Arrival routes** (in fine weather)
- **Departure routes**

- Dotted lines show assumed flight routes at an altitude of approx. 6,000ft or more.

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**Map Details**

- **Altitude markings:** 2,000ft, 3,000ft, 4,000ft, 5,000ft, 6,000ft.
Change of Runway Operation & Flight Routes (North-wind operation)

Current Flight Routes

The current departure route heading north from Runway C is restricted due to conflict with the departure route from Runway D unless it is changed.

Legend

※ Dotted lines show assumed flight routes at an altitude of approx. 6,000ft or more

New Flight Routes

Percentage of a north wind operation
About 60% (Annual average)
Operation time of new flight routes in a north wind
07:00 ~ 11:30 & 15:00 ~ 19:00 (including a switching time)

Legend

※ Dotted lines show assumed flight routes at an altitude of approx. 6,000ft or more
### Process toward Functional Enhancement at Haneda Airport

#### Decision on Process

- **2015**
  - Interactive dialogs (Briefing, etc.) Phase ①
  - Necessity of functional enhancement, implementation measures, etc.

- **2016**
  - Interactive dialogs (Briefing, etc.) Phase ②
  - Environmental measures, operation procedures of new flight routes, etc.

- **2017**
  - Development of measures with consideration for environmental impact, etc.
  - Partial revision of new flight routes, direction of safety measures

- **2018~2019**
  - Interactive dialogs (Briefing, etc.) Phase ③
  - Rough estimate of a budget of construction cost, etc. for facility construction

- **2020**
  - Interactive dialogs (Briefing, etc.) Phase ④
  - Holding of Tokyo Olympics and Paralympics

#### Budget Request, etc.

- **2015**
  - Rough estimate of a budget of survey and design cost, etc. for facility construction

- **2016**
  - Rough estimate of a budget of construction cost, etc. for facility construction

- **2017**
  - Rough estimate of a budget of construction cost, etc. for facility construction

- **2018~2019**
  - Rough estimate of a budget of construction cost, etc. for facility construction

#### Required Preparation for Survey and Design of Facility Construction

- **2015**
  - Interactive dialogs (Briefing, etc.)

- **2016**
  - Survey, etc. on subsidy for sound proof work

- **2017**
  - Start subsidizing sound proof work

#### Facility Construction

- **2015**
  - Interactive dialogs (Briefing, etc.)

- **2016**
  - Facility construction

- **2017**
  - Facility construction

#### Operation of New Flight Routes

- **2018~2019**
  - Operation of new flight routes

### Timeline

- **28 July**
  - Development of measures with consideration for environmental impact, etc.

### Publicity

- **2017**
  - Publicity utilizing the media, etc.

- **2018~2019**
  - Interactive dialogs ( Briefing sessions for residents to be held in series moving from one area to another)

- **2020**
  - Follow-up (state of progress, etc.)
Narita Airport
Possible Measures by 2020
Simultaneous parallel takeoff and landing system was introduced at Narita Airport in October 2011.

By upgrading ATC systems (through introduction of WAM*), air traffic controllers can locate aircraft precisely under the condition of poor visibility due to bad weather, thereby enabling simultaneous parallel takeoff and landing with an independent operation of two runways and as a result, maximum hourly value of 68 movements was achieved.

Implemented from the 2015 summer schedule (29 March 2015)

By building high-speed exit taxiways at appropriate positions of Runways A and B respectively, hourly value is expected to increase by approx. 2.

*Wide Area Multilateration: Monitoring device required for ATC upgrade
Further Functional Enhancement at Narita Airport

Quadripartite Council on Narita Airport (composed of the government, Chiba Pref., 9 municipalities around the airport, and the airport company)

17 Sept. 2015  Started to study on the third runway
27 Sept. 2016  Proposal including the RWY location, coverage of airport and alleviation of restriction of night time flights
12 June 2017  Resubmit proposal to review the plan to alleviate night flight restriction

July 2017 ~ Holding of briefing sessions for local residents
31 Jan. 2018  Request from the local municipalities to the Minister
19 Feb. 2018  Reply to the requests from the Liaison Council of Narita Airport area municipalities
13 Mar. 2018  Final agreement at the quadripartite council

※Liaison Council of Narita Airport area municipalities: Council composed of 9 municipalities around Narita Airport
※Quadripartite Council: Council composed of the government, Chiba Prefecture, 9 municipalities around the airport and the airport company

Airport capacity will be expanded from 0.3 million to half million by further functional enhancement