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4/20
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**RUNWAY EFFICIENCY ENHANCEMENT PROCEDURE
 FOR REDUCING RUNWAY OCCUPANCY TIME AT JEJU INTL AIRPORT**

1. PURPOSE

The purpose of this AIC is to inform the operation status of Jeju Airport and the importance of reducing the runway occupancy time, and to introduce the operation procedures of Jeju Airport's runways that will be operated in the future.

2. BACKGROUND

Jeju Airport is the second busiest airport in Republic of Korea, and the number of flights has increased by an annual average of 6.04 percent over the past decade. In 2019, a total of 175 366 aircraft (a daily average of 480) were operated, the largest number since the opening of Jeju Airport, and congestion is expected to intensify in the future due to increasing tourism and business demand.

Under these circumstances, Korea Airports Corporation has expanded its airside infrastructure, including establishment of rapid exit taxiways and holding bays, in order to increase the capacity of Jeju Airport by reducing runway occupancy time, and is continuously making efforts to achieve the maximum effect of the expansion of facilities.

However, It's not enough to reduce runway occupancy time by just expanding airport facilities, and it has been proven empirically throughout the world that the effect can be maximized only the efforts of airlines are combined.

Therefore, all airlines operating at Jeju Airport need to actively participate in the runway operation procedures to reducing runway occupancy time so that Jeju Airport can be operated more efficiently.

3. STATUS OF JEJU AIRPORT

3.1 The ratio of the use of the Jeju Airport's rapid exit taxiway and the runway occupancy time of each taxiway are as follows :

< Rapid exit taxiway usage ratio and Runway occupancy time >

(2019.1.1. ~ 12.31)

RWY	Rapid exit taxiway	Average aROT for each taxiway (sec)	Ratio (%)	Runway Average aROT(sec)
07	P6	56	13.0	63.7
	P5	64	48.5	
	P4	66	38.6	
25	P7	59	24.9	62.3
	P8	63	62.5	
	P10	67	8.6	

3.2 The runway occupancy time for each group of airlines operating at Jeju Airport is as follows :

< Runway occupancy time by airline group >

(2019.1.1. ~ 12.31)

Airlines group	Average aROT(sec)		
	RWY 07	RWY 25	TOTAL
LCC (S.Korea)	62.9	61.1	62.2
FSC (S.Korea)	64.7	63.6	64.2
Foreign Airlines	66.2	67.5	66.8

4. OPERATION PROCEDURE

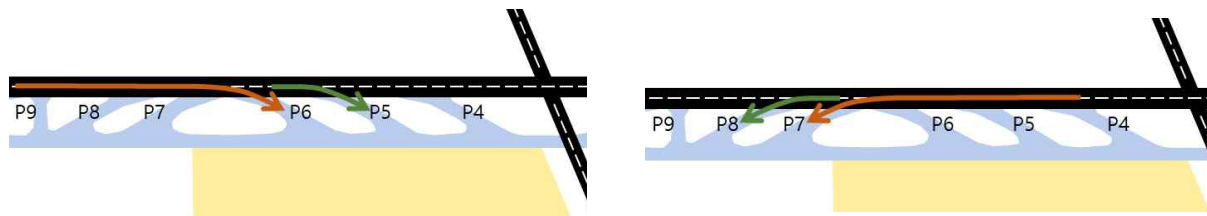
Runway operation procedures for Jeju Airport to enhance runway operation efficiency are as follows.

4.1 Arriving aircraft



Minimizing arrival runway occupancy times can be made by :

4.1.1 Pilots should pre-plan the runway exit strategy that will minimize occupancy time.



4.1.1.1 Select the most suitable exit taxiway(preferred rapid exit taxiways) that provides the least runway occupancy time taking into account safety, operational and company considerations.



RWY 07 ARRIVALS

-  LDA 1 520 m In Vacating via P6
-  LDA 1 750 m In Vacating via P5

RWY 25 ARRIVALS

-  LDA 1 520 m In Vacating via P7
-  LDA 1 750 m In Vacating via P8

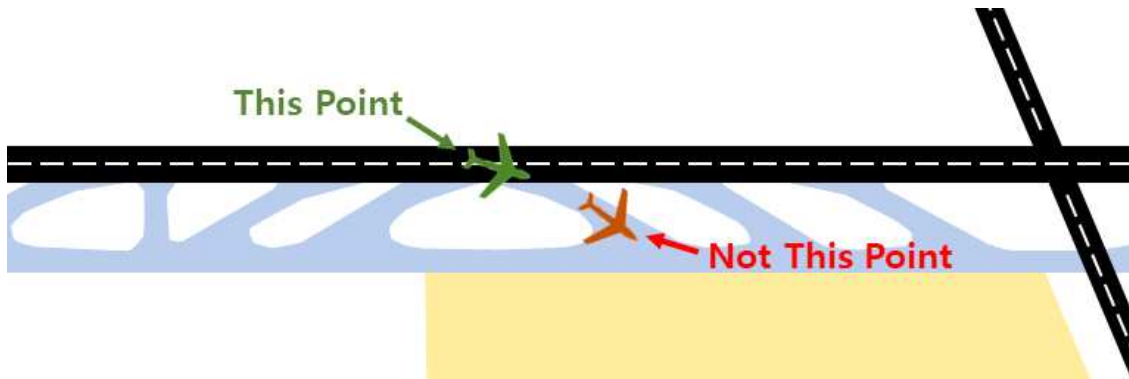
4.1.1.2 Adjust proper deceleration and use braking to expedite exit at appropriate speed at the selected exit.

4.1.1.3 The following table is based upon the design information for the preferred rapid exit taxiways (PETs) and is provided to assist pilots determine the most suitable exit.

RWY	Preferred Rapid Exit Taxiways (PETs)	Distance from THLD (LDA)	Exit Angle	Design Exit Speed
07	P6	1 520 m	30°	40 kts (74 km/h)
	P5	1 750 m		
25	P7	1 520 m		
	P8	1 750 m		

4.1.2 Tactical requests to extend the landing roll the reduce ground taxi/exit nearer to parking stand are not to be made to ATC.

4.1.3 To prevent the delayed instruction of taxi routes and to exit with the progressive smooth deceleration at the rapid exit taxiways, the radio transfer point will be changed. Pilot shall contact to JEJU GROUND when turning onto the rapid exit taxiways to vacate the runway.



4.1.4 If aircraft can not vacate a runway via preferred rapid exit taxiway, pilot shall report the reasons to the ground controller.

4.1.5 After landing, aircraft do not stop on the rapid exit taxiway to awaiting instructions from ATC. Unless otherwise instructed by ATC, pilots should use following the standard taxi routes.

- a. RWY 07 - P6/P5 → P → G1 → Apron
- b. RWY 25 - P7/P8 → P → G3 → Apron

4.1.6 The runway is only vacated after the entire aircraft has passed the holding line.

4.2 Departing aircraft

Minimizing departure runway occupancy times can be made by :

4.2.1 Cockpit checks should be completed prior to line up and any checks requiring completion while on the runway should be kept to the minimum.

4.2.2 Pilot reacts promptly to all ATC clearances.

4.2.3 Departures will not always be cleared as the order "First Come, First Served", the ATC can optimize the departure sequence to facilitate the maximum number of departure with the least average delay considering following factors:

- a. Routes to be followed after preceding departure.
- b. Need to apply wake turbulence separation minima.
- c. Aircraft subject to ATFM requirements.
- d. Types of aircraft and relative performance.

4.2.4 All aircraft shall initiate ground maneuvering after confirming whether it is possible to perform intersection departure.

GENERAL	RWY 07			RWY 25		
	P12	P11	P9	P2	P3	RWY31
TORA	3 090 m	2 788 m	2 235 m	3 090 m	2 788 m	2 634 m

5. CONCLUSION

Reducing runway occupancy time is a key component to maximize airport capacity. It will help Jeju Airport prepare for future growth. Cooperation and understanding between pilots and air traffic controllers is vital to achieving this goal. By anticipating the actions that pilots will take and the time they will spend on the runway, controllers can eliminate the need for margins and improve the movement rate. This will support consistent delivery of optimum separation between arriving and departing aircraft. Enhancing runway capacity will help Airlines achieve consistent performance by decreasing the delay and build the confidence of pilots and controllers.

6. OTHER

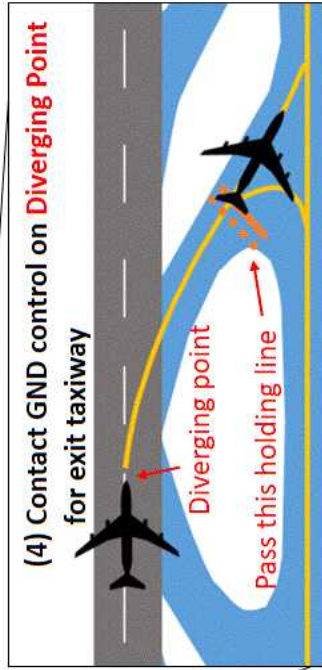
New runway operation procedure will be applied on a trial basis From 1 AUG 2020 To 30 AUG 2020, and will be effective in accordance with AIRAC AIP Amendment 10/20. (Effect 5 NOV 2020)

7. RWAY EFFICIENCY ENHANCEMENT PROCEDURE KEY POINTS

ARRIVAL PROCEDURE

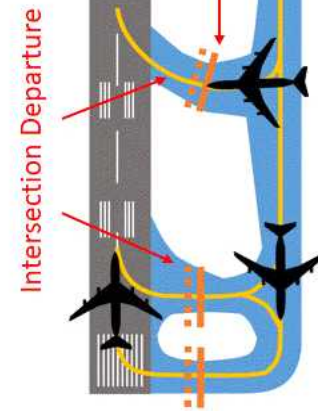
- (2) Optimize **Deceleration** speed
- (3) Taxi-out with appropriate speed

- (1) Pre-plan the runway exit strategy
- target to vacating the **PETs**



- (5) Vacate runway completely. The runway is only vacated after the entire aircraft body has passed the **Holding Line**

- (6) If GND contact is delayed, Proceed with standard taxi route



DEPARTURE PROCEDURE

- (1) React promptly to all ATC clearance
- (2) If not ready **advise ATC** before reaching **holding point**
- (3) **NOT** always "**First Come, First Served**"
ATC optimize the departure sequence to increase efficiency
- (4) **Check Intersection Departure Available** or **Not before taxiing**