John F. Kennedy International Airport

Operational Plan

Airbus - A380

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INTRODUCTION:

The Operational Plan for the Airbus A380 movement at John F. Kennedy International Airport (JFK) has been developed in accordance with Modifications of Standards (MOS) submitted by the Port Authority of New York and New Jersey (PANYNJ) and subsequently conditionally approved by the Federal Aviation Administration (FAA) for A380 operations at JFK. The conditions of acceptance of the MOS included operational restrictions that are required under certain conditions. These conditions for approval are attached as Appendix A to this document and serve as the foundation for the A380 operational plan and need to be referenced in the future as the operational plan is updated. The operational plan will be updated as future airfield improvements are implemented and as A380 operations increase or any other time that is deemed appropriate by the FAA and/or the PANYNJ.

I. AIRLINE IMPLEMENTATION SCHEDULE

John F. Kennedy International Airport will accommodate the Airbus – A380, the Airlines scheduled to operate are:

Emirates – 2008 – 3rd Quarter Air France – 2009 Singapore Airlines - 2009 Lufthansa -2009 Korean Air Lines - 2010 Federal Express Qantas Airways - 2012 Thai Airways International

II. AIRPORT TERMINAL INFORMATION

Initially, Terminal 1 and Terminal 4 will handle A380 operations. Terminal 1, Gates 1, 2, 5, 7 and 8 will accommodate passenger traffic and aircraft servicing. Terminal 4, Gates 6 and 7 will be design to accommodate passenger traffic and aircraft servicing.

III. OPERATING RESTRICTIONS

Operational restrictions established for A380 Operations at JFK.

- a. Departures from Runway 13L are not permitted. Taxiway obstructions prohibit the ground maneuverability of the aircraft.
- b. Departures from Runway 31R are not permitted. Taxiway obstructions prohibit the ground maneuverability of the aircraft if a departure is aborted.
- c. Arrivals to Runway 31R are not permitted. Taxiway obstructions prohibit the ground maneuverability of the aircraft.
- d. Parallel Taxiways 'A' and 'B', 'P' and 'Q' are prohibited from simultaneous A380 operations (**Figure: Restriction # 1**)
- e. Taxiway 'B' is restricted from normal A380 operations. However, use under special operational scenarios is permissible. (Ref. Sec. IV. b., c., and d.)
- f. Taxiway Bridge Restrictions; (Figure: Restriction # 2)
 - i. South Bridges (Van Wyck Expressway) A380 must cross bridges alone. All simultaneous aircraft crossings with an A380 are prohibited. JFK ATCT will instruct aircraft to hold at the intersections prior to the bridge. Aircraft traveling North will be held prior to the intersection with Taxiway 'NA'. Aircraft traveling South will be held prior to the intersection with Taxiway 'NB'. Intermediate Holding Position Markings will identify this holding point on the taxiways.
 - ii. North Bridges (JFK Expressway) A380 operational restrictions (Reference Section III. d.)
- g. During Runway 13L CAT II approaches A380 aircraft are restricted from operating on the parallel taxiways; (**Figure: Restriction # 3**)
 - i. Taxiway 'B' between taxiways 'D' and 'U' (Ref. Sec. IV. d.)
 - ii. Taxiway 'U' between taxiway 'B' and RWY 13L end (Ref. Sec III. i.)
 - iii. Taxiway 'C' between taxiway 'D' and RWY 13L end' (Ref. IV. a.)
- h. A380 aircraft shall not be instructed to hold short of Taxiways 'A' or 'B' after crossing of exiting Runways 4L/22R, 13L/31R, and 13R/31L and Taxiway 'C' after crossing or exiting Runway 13L/31R. An A380 must be established on the centerline of Taxiways A, B, C, K, P, U, YA or ZA, in order to be considered clear of the parallel runway.
- i. Separation Standards to the vehicle service road restrict the A380 from operating on; (**Figure: Restriction # 4**) (Reference Section IV for Special Operational Scenarios).
 - i. Taxiway 'Q', West of Taxiway 'PA'
 - ii. Taxiway 'C', West of Taxiway 'E'
 - iii. Taxiway 'B' between Taxiways 'N' and 'U'

- j. A380 aircraft are restricted from operating on Taxiway 'U' and Taxiway 'V' south of Runway 13L/31R. The Runway 13L Glide Slope Equipment is located a minimum of 137' from each taxiway centerline. (Ref. Sec. III. a., b., & c.)
- k. One A380 is permitted on Taxiway K south of Runway 13R/31L, during 4L arrivals (**Figure Restriction # 6**).
- 1. Weight limitations prohibit A380 aircraft operations on Taxiway 'Q' between Taxiways 'N' and 'PA'; (**Figure: Restriction # 5**)

- IV. SPECIAL OPERATIONAL SCENARIOS (limited use only when necessary):
 - a. A380 operations on the following taxiways are permitted when positive control of vehicle operations on the adjacent vehicle service road (130'separation) is established and confirmed by JFK Airside Operations Duty Supervisor. (**Figure: Restriction # 4**) (Ref. Sec. III. h.)
 - i. Taxiway 'Q', West of Taxiway 'PA'
 - ii. Taxiway 'C', West of Taxiway 'E'
 - iii. Taxiway 'B' between taxiways 'N' and 'U'
 - b. Taxiway 'B' A380 Operations
 - i. Unrestricted, A380 operations are permitted conditions permitting:
 - 1. Taxiway A is closed.
 - 2. Reported weather is greater than 800-foot ceiling and 2 miles visibility.
 - ii. One, A380 may operate on the identified area of Taxiway 'B' (**Figure Restriction** # 6) conditions permitting:
 - 1. Taxiway A is closed.
 - 2. Weather is reported below 800' ceiling and 2 miles visibility.
 - 3. CAT I approaches are being conducted to the parallel runway (**Figure Restriction #6**).
 - iii. No A380 may operate on the identified area of Taxiway 'B' when CAT II approaches are being conducted to Runway 13L. (Figure Restriction # 3)

V. PREFERRED TAXIING ROUTES: (Note all taxiways are primarily designed for aircraft JUDGMENTAL-OVER-STEERING.)

Figure # 11 – Identifies all taxiways available under normal operations.

ARRIVALS

Runway 4R – Exiting at; (Figure # 1)

Taxiway 'E', turn left onto TWY 'Y', proceed to RWY 31R-13L, with ATC clearance cross RWY 31R-13L, turn right onto TWY 'G', proceed to RWY 4L-22R, with ATC clearance cross RWY 4L-22R:

Terminal 1 - turn left onto TWY 'A', turn right onto TWY 'N', to the ramp.

Terminal 4 – continue straight ahead on TWY 'G', to the ramp.

Taxiway 'FB', turn left onto TWY 'Y', proceed to RWY 31R-13L, with ATC clearance cross RWY 31R-13L, turn right onto TWY 'G', proceed to RWY 4L-22R, with ATC clearance cross RWY 4L-22R:

Terminal 1 - turn left onto TWY 'A', turn right onto TWY 'N', to the ramp.

Terminal 4 – continue straight ahead on TWY 'G', to the ramp.

Runway 22L – Exiting at; (Figure # 2)

Taxiway 'J', to:

Terminal 1 - proceed on TWY 'J' to RWY 4L-22R, with ATC clearance cross RWY 4L-22R, continue straight ahead onto TWY 'A', turn right onto TWY 'N', to the ramp.

Terminal 4 – proceed on TWY 'J' to RWY 4L-22R, with ATC clearance cross RWY 4L-22R,

<u>ATC Option 1</u> - turn right onto TWY 'A', turn left onto TWY 'G', to the ramp.

<u>ATC Option 2</u> - continue straight onto TWY 'A' continue around the CTA (Central Terminal Area), turn right onto TWY 'G', to the ramp.

Taxiway 'Z', proceed to RWY 13R-31L, with ATC clearance cross RWY 13R-31L:

Terminal 1 - turn left onto TWY 'J', proceed to RWY 4L-22R, with ATC clearance cross RWY 4L-22R continue straight ahead onto TWY 'A', turn right onto TWY 'N', to the ramp.

Terminal 4 – continue on TWY 'Z', turn left onto TWY 'G', proceed to RWY 4L-22R, with ATC clearance cross RWY 4L-22R, continue straight ahead on TWY 'G', to the ramp.

Runway 13L - Exiting at; (Figure # 3)

Taxiway 'ZA' (right turn), turn right onto TWY 'F', turn left onto TWY 'A':

Terminal 1 - turn right onto TWY 'N', to the ramp.

Terminal 4 - turn right onto TWY 'G', to the ramp.

ARRIVALS (Continued)

Runway 13L (continued) - Exiting at; (Figure # 3)

Taxiway 'Y' (right turn), turn right onto TWY 'G', proceed to RWY 4L-22R, with ATC clearance cross RWY 4L-22R:

Terminal 1 - turn left onto TWY 'A', turn right onto TWY 'N', to the ramp.

Terminal 4 - continue straight ahead on TWY 'G', to the ramp.

Taxiway 'YA', turn left onto TWY 'Y', turn right onto TWY 'G', proceed to RWY 4L-22R, with ATC clearance cross RWY 4L-22R:

Terminal 1 - turn left onto TWY 'A', turn right onto TWY 'N', to the ramp.

Terminal 4 - continue straight ahead on TWY 'G', to the ramp.

Runway 31R – (Figure #4)

Arrivals to Runway 31R are not permitted. Taxiway obstructions prohibit the ground maneuverability of the aircraft.

Runway 4L - Exiting at; (Figure # 5)

Taxiway 'G' (left turn):

Terminal 1 – turn left onto TWY 'A', turn right onto TWY 'G', to the ramp.

Terminal 4 – continue straight ahead on TWY 'G', to the ramp.

Taxiway 'F' (left turn), turn left onto TWY 'A':

Terminal 1 - turn right onto TWY 'N', to the ramp.

Terminal 4 - turn right onto TWY 'G', to the ramp.

Taxiway 'C' (Opt #1), turn left onto TWY 'E', proceed to RWY 31R-13L, with ATC clearance cross RWY 31R-13L, turn left onto TWY 'A':

Terminal 1 - turn right onto TWY 'N', to the ramp.

Terminal 4 - turn right onto TWY 'G', to the ramp.

Taxiway 'C' (Opt #2), turn left onto TWY 'ZA', proceed to RWY 31R-13L, with ATC clearance cross RWY 31R-13L, turn right onto TWY 'F', turn left onto TWY 'A':

Terminal 1 - turn right onto TWY 'N', to the ramp.

Terminal 4 - turn right onto TWY 'G', to the ramp.

Taxiway 'ZA' (**left turn**), proceed to RWY 31R-13L, with ATC clearance cross RWY 31R-13L, turn right onto TWY 'F', turn left onto TWY 'A':

Terminal 1 - turn right onto TWY 'N', to the ramp.

Terminal 4 - turn right onto TWY 'G', to the ramp.

ARRIVALS (Continued)

Runway 22R - Exiting at; (Figure # 6)

Taxiway 'K', turn right on TWY 'K' proceed to RWY 13R-31L, with ATC clearance cross RWY 13R-31L:

Terminal 1 – on TWY 'K', turn left onto TWY 'A', turn right onto TWY 'N', to the ramp.

Terminal 4 – ATC Option 1 - continue straight ahead transitioning onto TWY 'KA', continue straight ahead on TWY 'A', turn left onto TWY 'G', to the ramp.

<u>ATC Option 2</u> - on TWY 'K', turn left onto TWY 'A' continue around the CTA, turn right onto TWY 'G', to the ramp.

Runway 13R - Exiting at; (Figure # 7)

Taxiway 'KA', to:

Terminal 1 - turn left onto TWY 'A', turn right onto TWY 'N', to the ramp.

Terminal 4 - ATC Option 1 - continue straight ahead transitioning onto TWY 'KA', continue straight ahead on TWY 'A', turn left onto TWY 'G', to the ramp.

<u>ATC Option 2</u> - on TWY 'K', turn left onto TWY 'A' continue around the CTA, turn right onto TWY 'G', to the ramp.

Taxiway 'Z', to:

Terminal 1 - turn left onto TWY 'J', proceed to RWY 4L-22R, with ATC clearance cross RWY 4L-22R, continue straight ahead onto TWY 'A', turn right onto TWY 'N', to the ramp.

Terminal 4 – continue on TWY 'Z', turn left onto TWY 'G', proceed to RWY 4L-22R with ATC clearance cross RWY 4L-22R, continue straight ahead on TWY 'G', to the ramp.

Runway 31L - Exiting at; (Figure # 8)

Taxiway 'N', to:

Terminal 1 – continue straight ahead on TWY 'N' to the ramp.

Terminal 4 – <u>ATC Option 1</u> – turn left onto TWY 'A' continue around the CTA (Central Terminal Area), turn right onto TWY 'G', to the ramp.

<u>ATC Option 2</u> - turn right onto TWY 'A', turn left onto TWY 'G', to the ramp.

Taxiway 'PA', 'PC', 'PD' or 'PE', turn right onto TWY 'P':

Terminal 1 - turn left onto TWY 'N', to the ramp.

Terminal 4 – <u>ATC Option 1</u> – turn left onto TWY 'N', turn left onto TWY 'A', continue around the CTA (Central Terminal Area), turn right onto TWY 'G', to the ramp.

<u>ATC Option 2</u> - turn left onto TWY 'N', turn right onto TWY 'Q', continue straight ahead transitioning onto TWY 'A', turn left onto TWY 'G', to the ramp.

Terminal 1 to; (Figure # 9)

- **Runway 13R** Exit Ramp via TWY 'N', continue straight on TWY 'N', turn right onto TWY 'P', turn left onto TWY 'PE', proceed to RWY 13R await ATC instruction for departure.
- Runway 31L (1) Exit Ramp via TWY 'N', turn left onto TWY 'A', transition straight ahead onto TWY 'J', proceed to RWY 22R-4L, with ATC clearance cross RWY 22R-4L, turn right onto TWY 'Z', proceed to RWY 31L await ATC instruction for departure.
 - (2) Exit Ramp via TWY 'N', turn right onto TWY 'A', turn left onto TWY 'G', proceed to RWY 22R-4L, with ATC clearance cross RWY 22R-4L, turn right onto TWY 'Z', proceed to RWY 31L await ATC instruction for departure.
- Runway 22R Exit Ramp via TWY 'N', turn right onto TWY 'A', turn left onto TWY 'E', proceed to RWY 13L-31R, with ATC clearance cross RWY 13L-31R, turn right onto TWY 'C', turn left onto TWY 'ZA', proceed to RWY 22R, await ATC instruction for departure.
- Runway 4L Exit Ramp via TWY 'N', turn left onto TWY 'A', turn right onto TWY 'K', proceed to RWY 31L-13R, with ATC clearance cross RWY 31L-13R, proceed to RWY 4L await ATC instruction for departure. (Note: The 4L Holding Pad must be clear of aircraft for A380 to pass.)
- Runway 13L Departures from Runway 13L are not permitted. Taxiway obstructions prohibit the ground maneuverability of the aircraft.
- Runway 31R Departures from Runway 31R are not permitted. Taxiway obstructions prohibit the ground maneuverability of the aircraft. In the event a departure is aborted.
- Runway 4R (1) Exit Ramp via TWY 'N', turn left onto TWY 'A', continue straight onto TWY 'J', proceed to RWY 22R-4L, with ATC clearance cross RWY 22R-4L, turn right onto TWY 'Z', proceed to RWY 31L, with ATC clearance cross RWY 31L onto TWY 'Z', proceed to RWY 4R await ATC instruction for departure.
 - (2) Exit Ramp via TWY 'N', turn right onto TWY 'A', turn left onto TWY 'G', proceed to RWY 22R-4L, with ATC clearance cross RWY 22R-4L, turn right onto TWY 'Z', proceed to RWY 31L, with ATC clearance cross RWY 31L onto TWY 'Z', proceed to RWY 4R await ATC instruction for departure.

Terminal 1 (Continued) to; (Figure # 9)

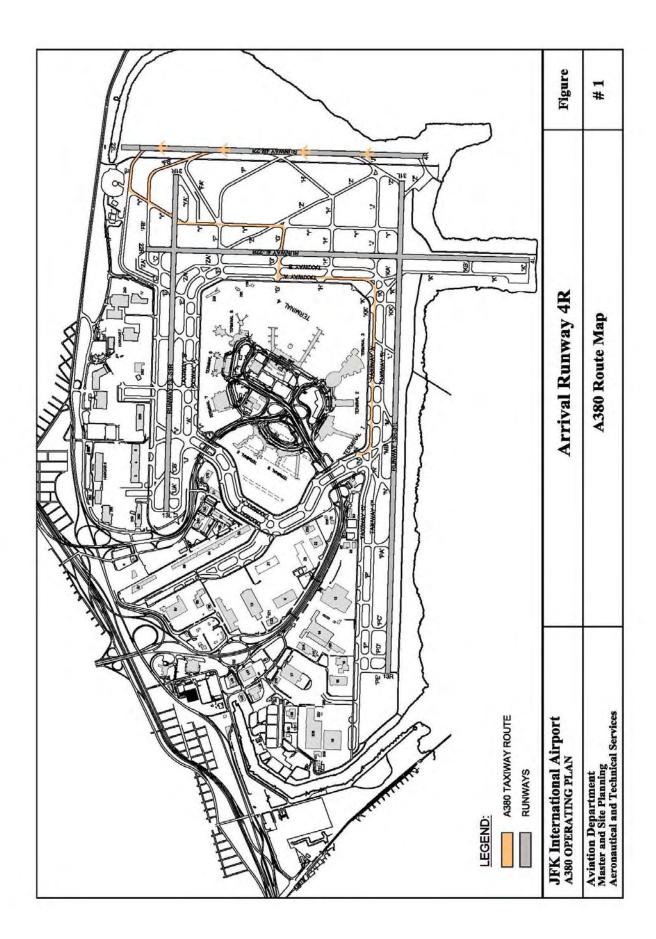
Runway 22L - Exit Ramp via TWY 'N', turn right onto TWY 'A', turn left onto TWY 'E', proceed to RWY 13L-31R, with ATC clearance cross RWY 13L-31R, turn right onto TWY 'C', turn left onto TWY 'ZA', proceed to RWY 22R, with ATC clearance cross RWY 22R onto TWY 'FB', turn left onto TWY 'Y', turn right onto TWY 'E', proceed to RWY 22L await ATC instruction for departure.

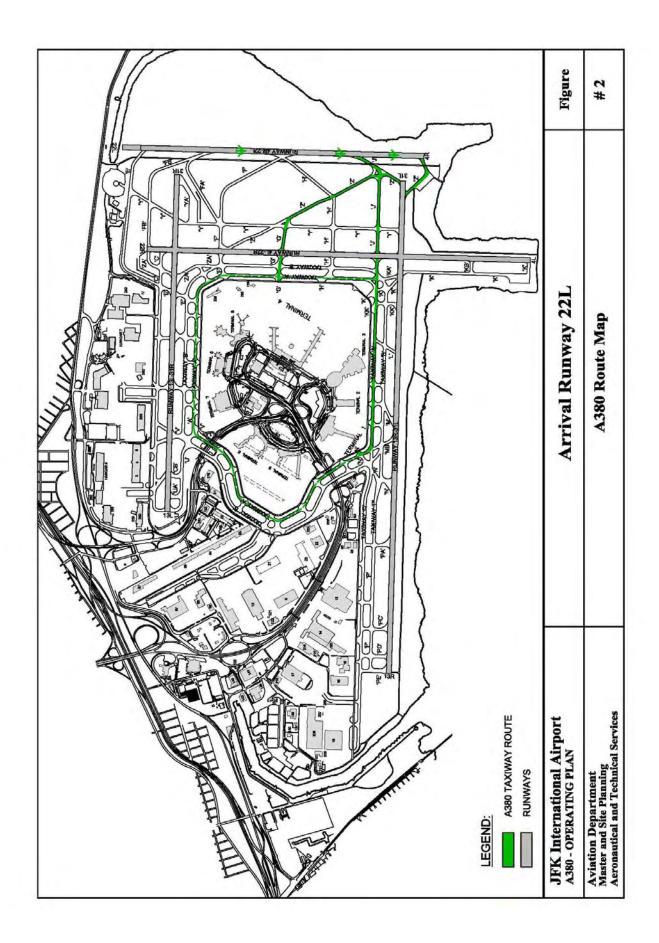
Terminal 4 to; (Figure # 10)

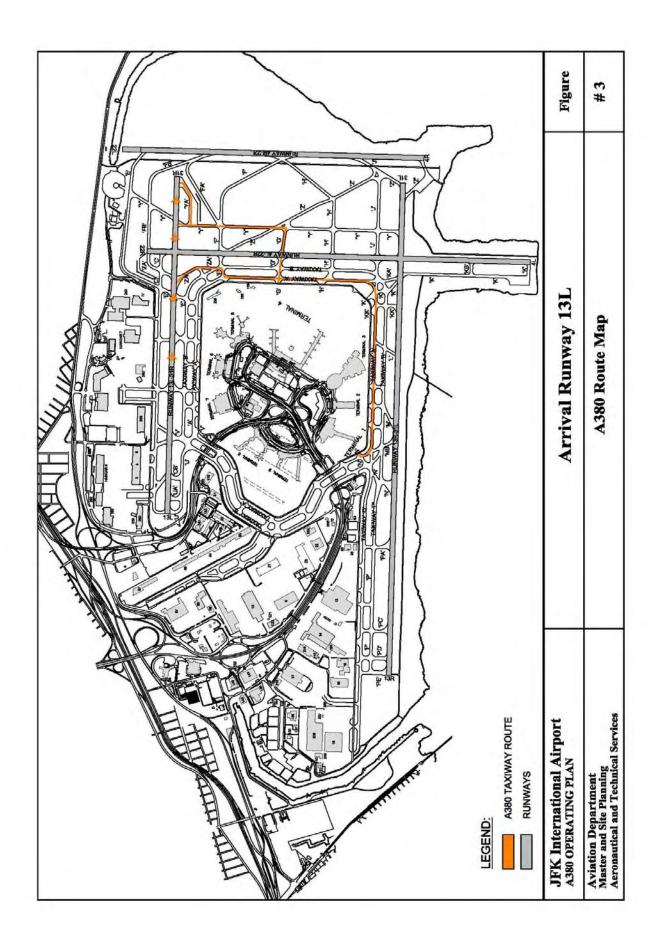
- Runway 13R Exit Ramp via TWY 'G', turn right onto TWY 'A', continue straight on TWY 'Q', turn left onto TWY 'N', turn right onto TWY 'P', proceed to RWY 13R await ATC instruction for departure.
- Runway 31L Exit Ramp via TWY 'G', proceed to RWY 22R-4L, with ATC clearance cross RWY 22R-4L, turn right onto TWY 'Z', proceed to RWY 31L await ATC instruction for departure.
- Runway 22R (1) Exit Ramp via TWY 'G', turn right onto TWY 'A', continue around the CTA (Central Terminal Area), turn left onto TWY 'E', proceed to RWY 13L-31R, with ATC clearance cross RWY 13L-31R, turn right onto TWY 'C', turn left onto TWY 'ZA', proceed to RWY 22R, await ATC instruction for departure.
 - (2) Exit Ramp via TWY 'G', turn left onto TWY 'A', turn right onto TWY 'E', proceed to RWY 13L-31R, with ATC clearance cross RWY 13L-31R, turn right onto TWY 'C', turn left onto TWY 'ZA', proceed to RWY 22R, await ATC instruction for departure.
- Runway 4L Exit Ramp via TWY 'G', turn right onto TWY 'A', continue straight onto TWY 'KA', proceed to RWY 31L-13R, with ATC clearance cross RWY 31L-13R onto TWY 'K', proceed to RWY 4L await ATC instruction for departure. (Note: The 4L Holding Pad must be clear of aircraft for A380 to pass.)
- Runway 13L Departures from Runway 13L are not permitted. Taxiway obstructions prohibit the ground maneuverability of the aircraft.
- Runway 31R Departures from Runway 31R are not permitted. Taxiway obstructions prohibit the ground maneuverability of the aircraft in the event a departure is aborted.
- Runway 4R Exit Ramp via TWY 'G', proceed to RWY 22R-4L, with ATC clearance cross RWY 22R-4L, turn right on TWY 'Z', proceed to RWY 31L, with ATC clearance cross RWY 31L onto TWY 'Z', proceed to RWY 4R await ATC instruction for departure.

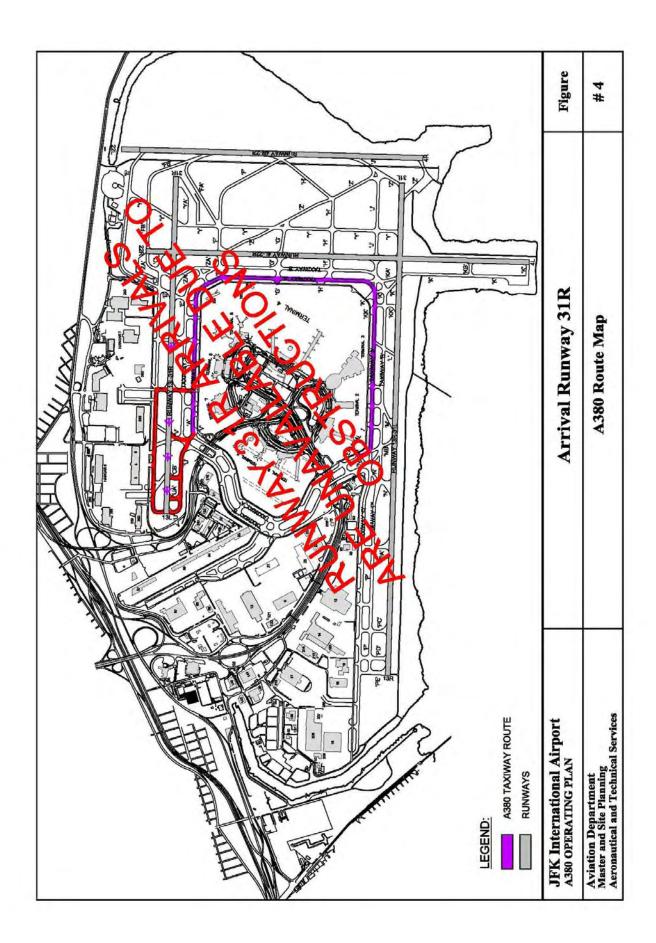
Terminal 4 (Continued) to;

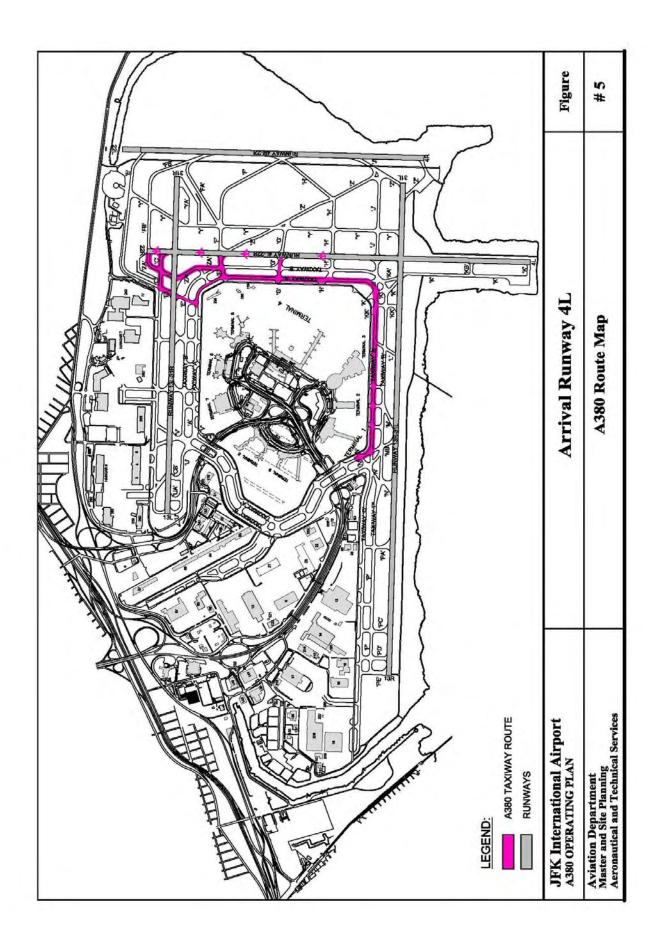
- Runway 22L (1) Exit Ramp via TWY 'G', turn right onto TWY 'A', continue around the CTA (Central Terminal Area), turn left onto TWY 'E', proceed to RWY 13L-31R, with ATC clearance cross RWY 13L-31R, turn right onto TWY 'C', turn left onto TWY 'ZA', proceed to RWY 22R, with ATC clearance cross RWY 22R onto TWY 'FB', turn left onto TWY 'Y', turn right onto TWY 'E', proceed to RWY 22L await ATC instruction for departure.
 - (2) Exit Ramp via TWY 'G', turn left onto TWY 'A', turn right onto TWY 'E', proceed to RWY 13L-31R, with ATC clearance cross RWY 13L-31R, turn right onto TWY 'C', turn left onto TWY 'ZA', proceed to RWY 22R, with ATC clearance cross RWY 22R onto TWY 'FB', turn left onto TWY 'Y', turn right onto TWY 'E', proceed to RWY 22L await ATC instruction for departure.

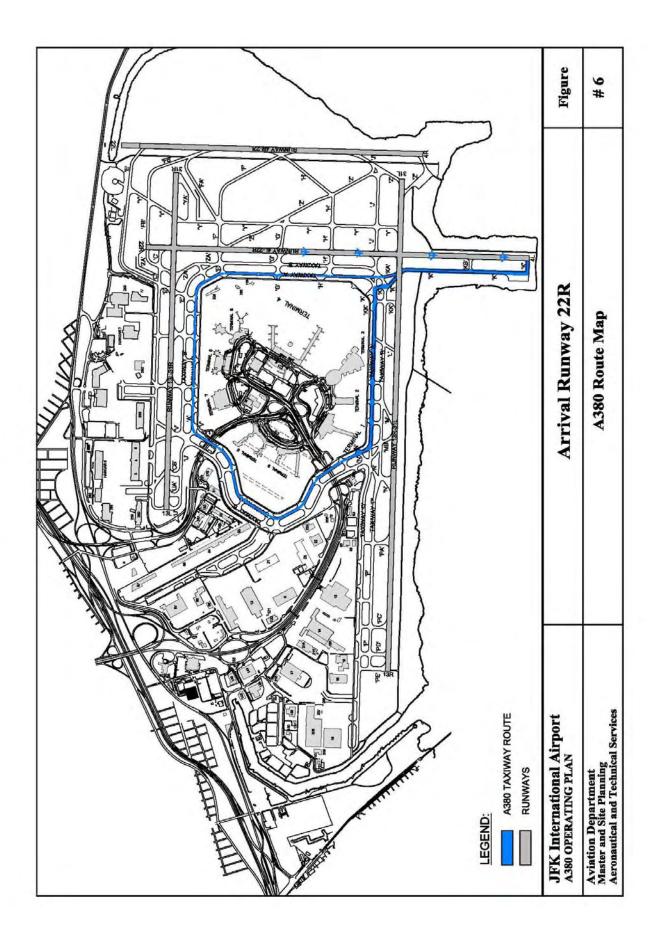


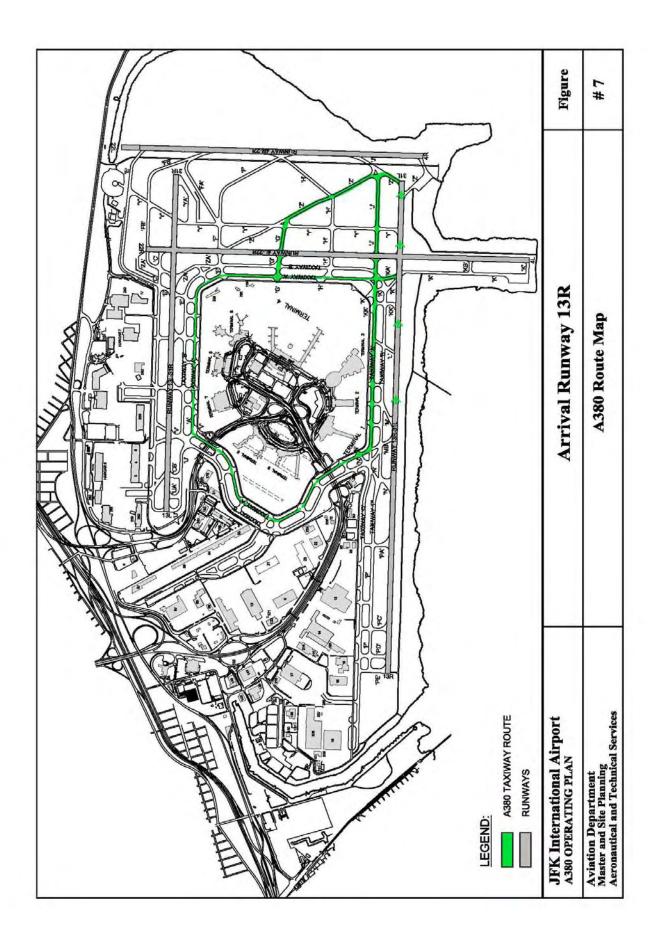


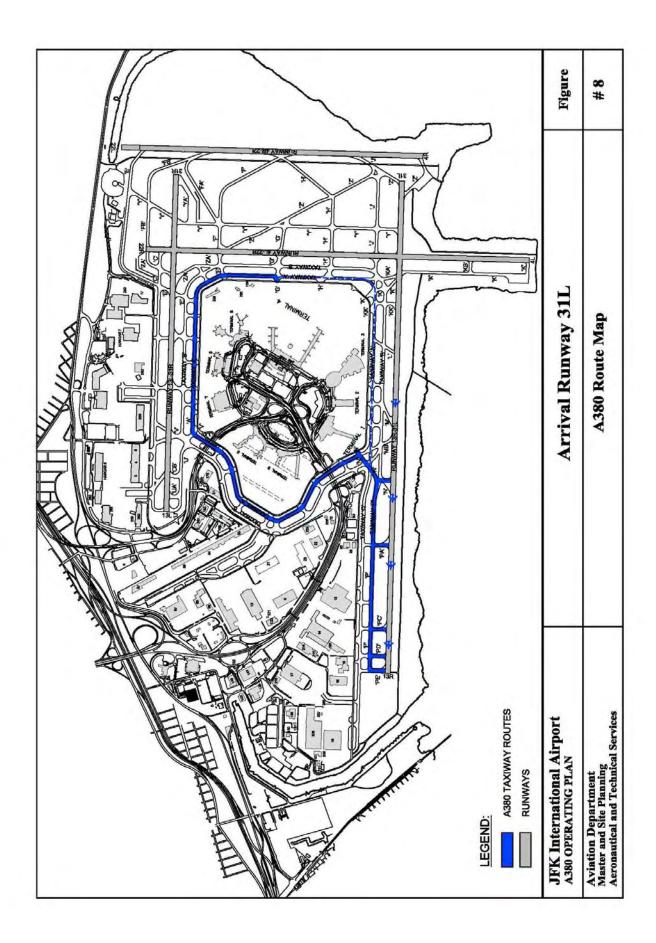


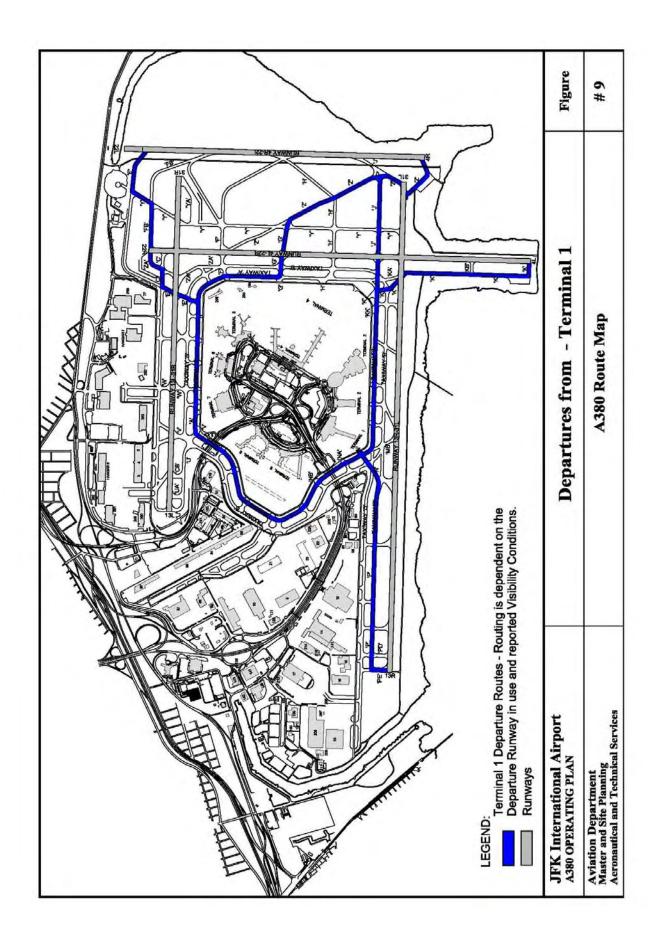


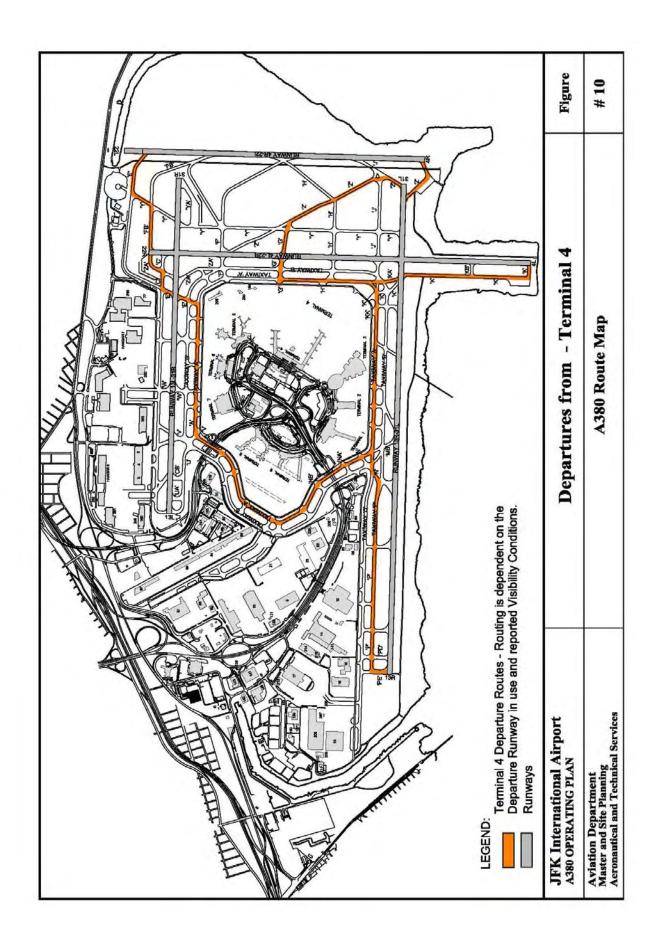


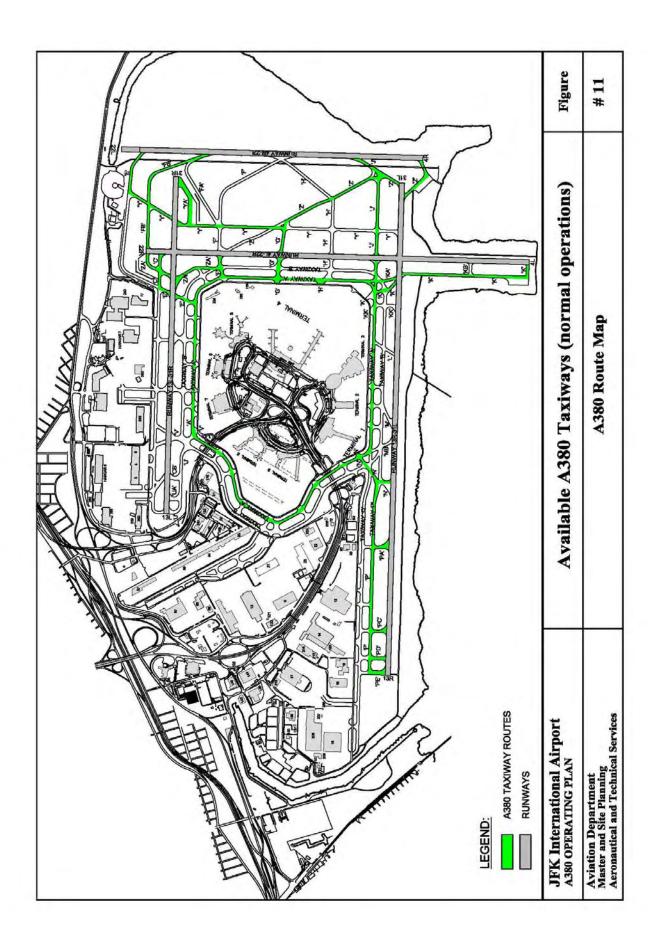


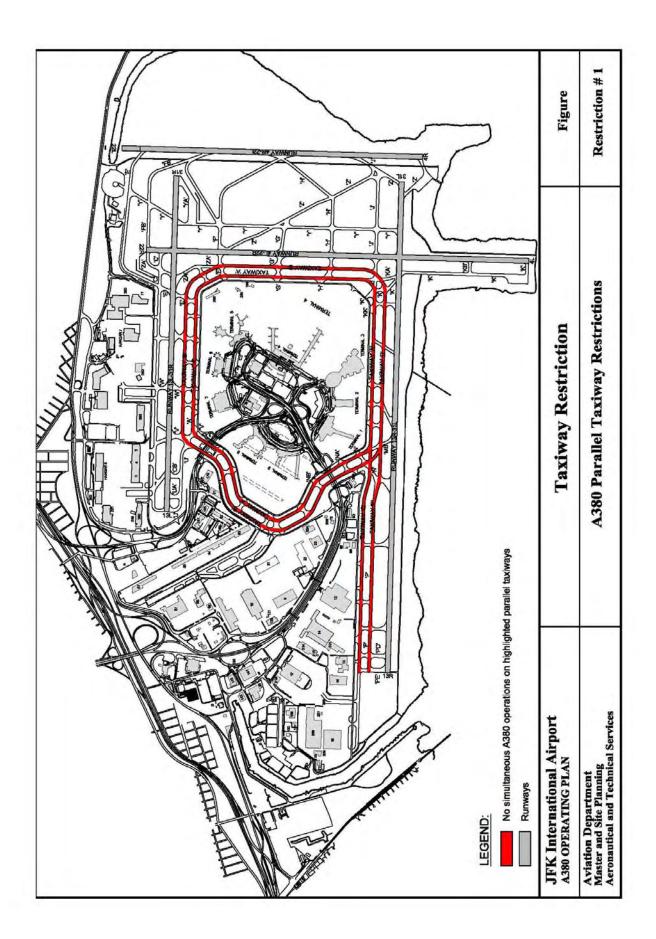


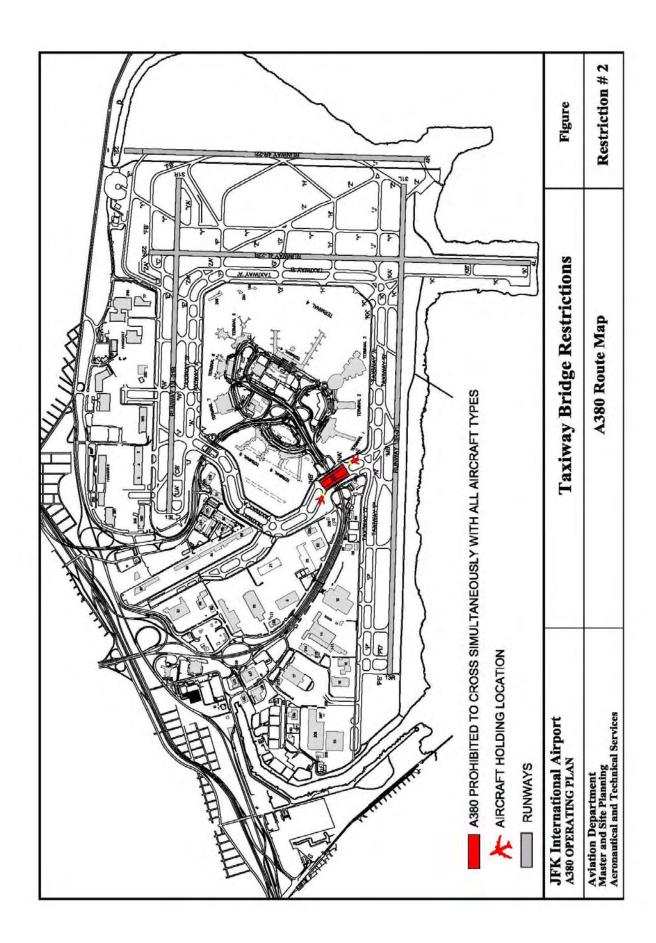


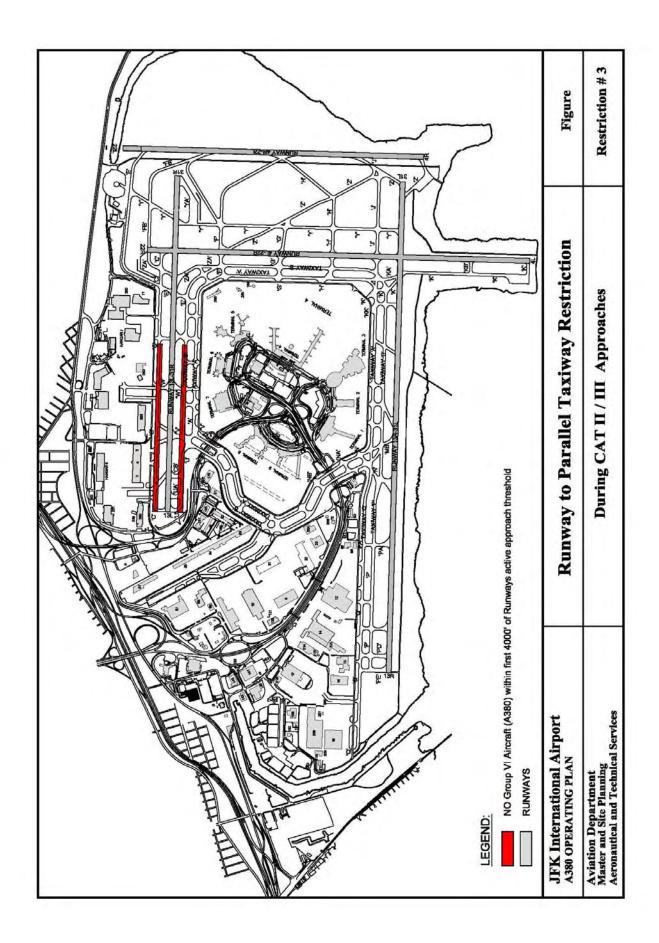


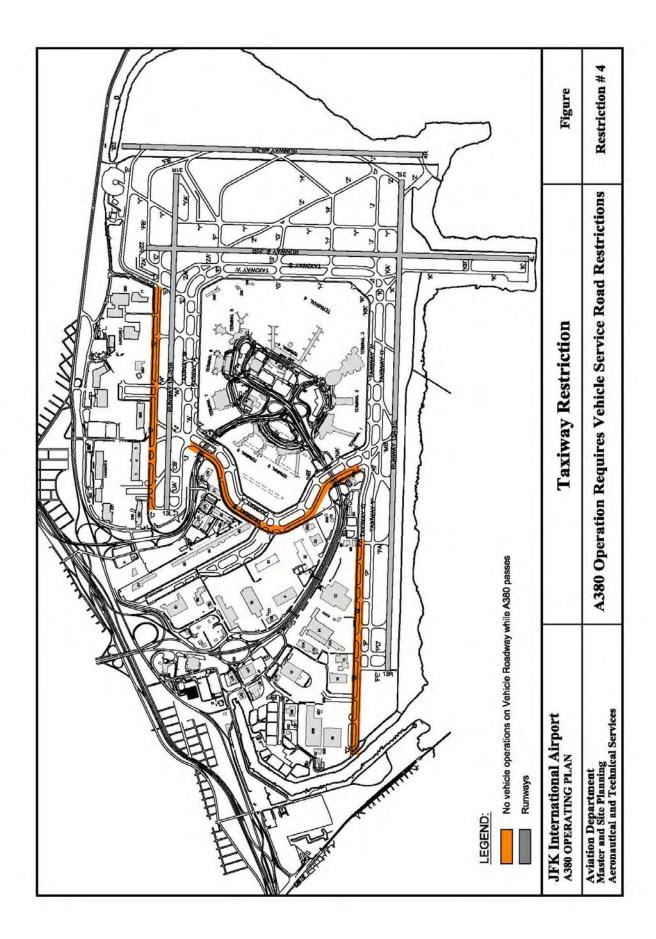


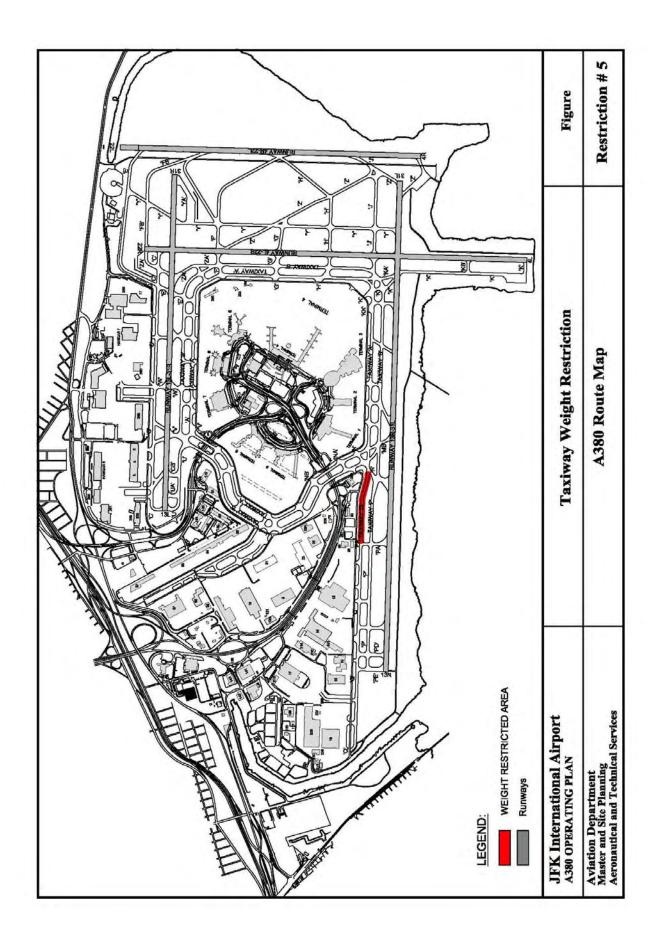


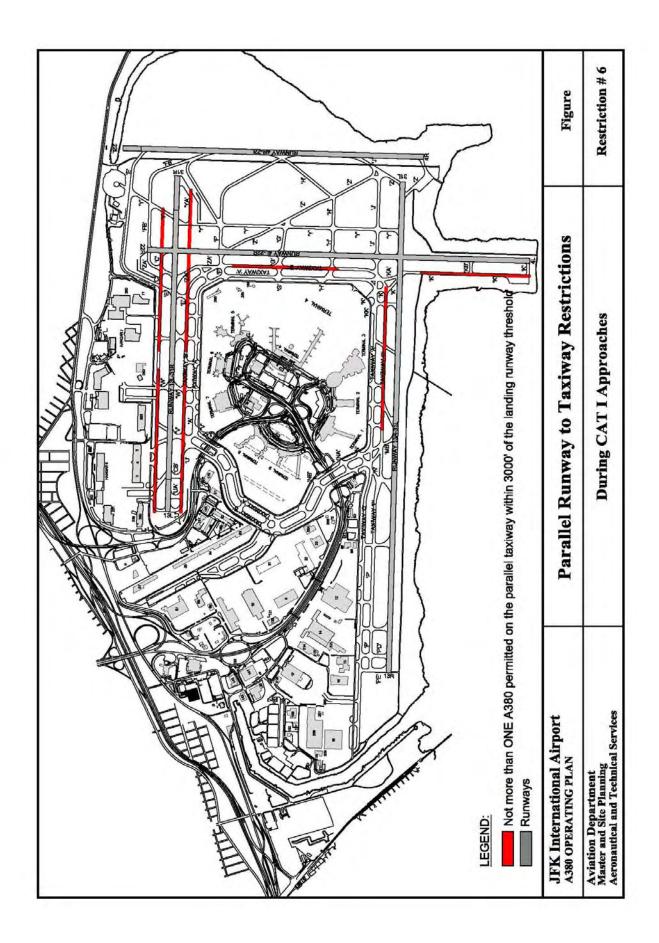












Appendix A

JFK INTERNATIONAL AIRPORT A380 MODIFICATIONS OF STANDARDS

III) Taxiway A centerline to fixed/moveable object:

Standard being Modified: Group VI Taxiway centerline to fixed or moveable object separation, AC 150/5300-13, "Airport Design", Table 2-3

Required: 193 feet taxiway in accordance with Table 2-3 Required: 167 feet taxilane in accordance with Table 2-3

Proposed: 146 feet

CONDITIONS FOR APPROVAL

MOS - Taxiway A Centerline to Fixed or Moveable Object

- MOS type: Conditional Approval
- 2. Conditions for Approval:
- a. Taxiway A, except for bridge sections, must be moved 16 feet towards parallel Twy B.
- b. Taxiway Q closed for all A380 operations. PANY&NJ will add a taxiway connector from Twy A to Twy P, thus avoiding taxiing operations on Twy Q.
- c. Taxiing Speed. Taxiing speed for A380s is limited to *taxilane* speed criteria, i.e., maximum of 15 mph. Research from the sites evaluating Boeing 747 taxiway centerline wander rates demonstrated comparable taxiing speeds.
- d. Taxiway Centerline Lighting: Taxiway centerline lighting must meet the longitudinal spacing requirements detailed in Table #1 of AC 150/5340-28, Low Visibility Lighting Systems, for below 1200 feet RVR.
 - e. Taxiway Edge Delineators spacing will be reduced to 75 feet.
 - f. Maintain existing 14-foot maximum vehicle height restriction of all vehicles using the Restricted Vehicle Service Roads.
- g. We recommend the PANY&NJ investigate the possibility of relocating the Restricted Vehicle Service Road away from Twy A wherever practicable, if there are changes in the PANYNJ/ Airlines' future development plans for the build-out of the Central Terminal Area (CTA).
 - h. Jet Blast Effects along designated A380 taxiway routes:
- Pre-A380 Introductory Service. PANY&NJ must place road signs warning vehicle drivers traveling south of possible jet blast from an A380 on RVSR just south of 150th Street Bridge and just north of the Van Wyck Bridge for drivers traveling north.

- 2) **Post-A380 Introductory Service**. PANY&NJ must take remedial actions to minimize excessive jet blast exposures from A380 taxiing operations for newly identified areas that become troublesome after the introductory of A380 service.
- New Taxiway. Construction for new taxiways for DG VI airplane operations must be in accordance with DG VI design criteria detailed in AC 150/5300-13, Airport Design.

JFK INTERNATIONAL AIRPORT A380 MODIFICATIONS OF STANDARDS

I) Taxiway Width for Straight Sections:

Standard being Modified: Group VI Taxiway width, AC 150/5300-13, "Airport Design", Table 4-1

Required: 100 feet with 40-foot shoulders in accordance with Table 4-1

Proposed: 75 feet with expanded shoulders.

CONDITIONS FOR APPROVAL

MOS - Taxiway Width

- MOS type Interim Conditional Approval
- 2. Conditions of Approval: Modifications will be in accordance with FAA Airport Engineering Division Engineering Brief 63, *Use of Non-Standard 75-Foot Wide Straight Taxiway Sections for Airbus A380 Taxiing Operations*.

April 14, 2004

John F. Kennedy International Airport A380 Modification to Standards (MOS)

JFK MOS #1 Runway CL to Parallel Taxiway CL Separation

- MOS Type Conditional Approval
- General Conditions for Approval:
 - a. For the PANY&NJ designated A380 runway usage and taxiing routes at JFK, ATCT implements an A380 Operational Plan that ensures compliance with established Flight Standards operational restrictions. As described below, the A380 Operational Plan must comply with the acceptable Collision Risk Model analysis for taxiing aircraft when any aircraft is on approach. That is, the taxiing restrictions are independent of the aircraft design group on the approach. NOTE: For runway centerline to taxiway centerline separations distances falling between two adjacent values given below, use the restrictions of the lesser separation.
 - (1) CAT I Operations:
 - (A) Runway Centerline to Taxiway Centerline at least 400 feet: Not more than one Design Group VI aircraft (e.g., A380) may be on the first 3000 feet of the taxiway from the threshold.
 - (B) Runway Centerline to Taxiway Centerline at least 500 feet: Design Groups VI aircraft may taxi unrestricted.
 - (2) CAT II/III Operations:
 - (A) Runway Centerline to Taxiway Centerline at least 400 feet: No Design Group VI aircraft may be on the first 4000 feet of the taxiway from the threshold.
 - (B) Runway Centerline to Taxiway Centerline at least 500 feet: Not more than one Group VI aircraft may be on the first 3000 feet of the taxiway from the threshold.
 - (C) Runway Centerline to Taxiway Centerline at least 550 feet: Design Groups VI aircraft may taxi unrestricted.
- 3. Taxiway markings and signs that indicate the start of restricted taxiing sections as outlined in item #2 above must be placed to ensure compliance. NOTE: The FAA Office of Airport Safety and Standards will determine in the near future the final taxiway marking and signage to be installed at required points outlined in item #2 above.
- Construction of new taxiways for DG VI airplane operations must be in accordance with AC 150/5300-13, Airport Design.

JFK INTERNATIONAL AIRPORT A380 MODIFICATIONS OF STANDARDS

II) Taxiway Centerline To Taxiway Centerline Separation:

Standard being Modified: Group VI Taxiway centerline to taxiway centerline separation, AC 150/5300-13, "Airport Design", Table 2-3

Required: 324 feet taxiway in accordance with Table 2-3. Required: 298 feet taxilane in accordance with Table 2-3.

Proposed: 284 feet between parallel Taxiways A & B and P & Q

CONDITIONS FOR APPROVAL

MOS - Taxiway Centerline to Taxiway Centerline

- 1. MOS type Conditional Approval
- 2. Conditions for Approval:
- a. Taxiway A, except for bridge sections, must be moved 16 feet towards parallel Twy B.
- b. A380 operations will be prohibited on Twy B, which is parallel to Twy A, and prohibited on Twy Q, which is parallel to Twy P.
- c. Simultaneous taxiing operations on parallel taxiways are restricted to single A380 taxiing operations with the other aircraft limited to a wingspan of no larger than 214 feet, that is, maintain a 47-foot separation between aircraft wingtips (no larger than the Boeing 747-400 at wingspan of 214 feet).
 - d. Bridge Operations (150th Street and Van Wyck).
- 1. No simultaneous aircraft operations of any type will be permitted on either bridge when an A380 crosses a bridge.
- 2. For the 150th Street Bridge, the PANY&NJ must place signs on Twy A before and after the 150th Street Bridge that read "Hold Here for A380 Bridge Crossing (or similar text)." The signs must be placed at the point where taxiway to taxiway centerline separation decreases to below 284'.
- e. Taxiing Speed. Taxiing speed for A380s must be limited to *taxilane* speed criteria, i.e., maximum of 15 mph.
 - f. Twy edge delineators must be reduced to 75 feet.
- g. Taxiway Centerline Lighting: Taxiway centerline lighting must meet the longitudinal spacing requirements detailed in Table #1 of AC 150/5340-28, Low Visibility Lighting Systems, for below 1200 feet RVR.
 - h. Jet Blast Effects along designated A380 taxiway routes:
- Pre A380 Introductory Service. PANY&NJ must place road signs warning vehicle drivers traveling south of possible jet blast from an A380 on RVSR.

just south of 150th Street Bridge and just north of the Van Wyck Bridge for drivers traveling north.

- Post A380 Introductory Service. PANY&NJ must take remedial actions to minimize excessive jet blast exposures for newly identified areas that become troublesome after introductory A380 serve.
- New Taxiway. Construction for new taxiways for DG VI airplane operations must be in accordance with DG VI design criteria detailed in AC 150/5300-13, Airport Design.