



U. S. Department  
of Transportation

**Federal Aviation  
Administration**

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December 8, 2003

Mr. Kevin Bleach, Manager  
Aeronautical & Technical Services Division  
The Port Authority of NY & NJ  
233 Park Ave. South, 9<sup>th</sup> Floor  
New York, NY 10003

**RE: John F. Kennedy International Airport (JFK), Jamaica, New York  
Conditional Approval of Three (3) Modification of Standards (M.O.S.) for  
the Airbus A380 New Large Aircraft (NLA)**

Dear Mr. Bleach:

Our office, in conjunction with the FAA Eastern Region Safety and Standards Branch (AEA-620), and FAA headquarters Airport Engineering Office (AAS-100) reviewed the following requests for Modification of Standards (M.O.S.) for John F. Kennedy International Airport. These M.O.S. were requested by the PANYNJ to accommodate the Airbus A380 New Large Aircraft (NLA) at JFK. The A380 is within the Airplane Design Group (DG) VI category. Three (3) of the requested M.O.S. for the Airbus A380 New Large Aircraft (NLA) have been conditionally approved as described herein:

1. **M.O.S. REQUEST:** To allow the A380 to operate on non-standard 75-foot-wide straight taxiway sections.  
**CONDITIONALLY APPROVED ON A 5-YEAR INTERIM BASIS.** See attached "TAXIWAY WIDTH" section for detailed conditions of approval.
2. **M.O.S. REQUEST:** To allow the A380 to operate on taxiways with non-standard taxiway centerline to taxiway centerline separation distances.  
**CONDITIONALLY APPROVED.** See attached "TAXIWAY CENTERLINE TO TAXIWAY CENTERLINE" section for detailed conditions of approval.
3. **M.O.S. REQUEST:** To allow the A380 to operate on taxiways with non-standard taxiway centerline to fixed or moveable object separation distances.  
**CONDITIONALLY APPROVED.** See attached "TAXIWAY CENTERLINE TO FIXED OR MOVEABLE OBJECT" section for detailed conditions of approval.

Please note that these approvals do not, by themselves, allow the operation of the A380 at JFK since several other FAA approval actions are required including ALP, environmental, airspace and aircraft certification actions.

The requested M.O.S. for both the “Runway to Parallel Taxiway Separation” and the “Interim Runway 4L-22R Width” are still in review by the FAA. We are working closely with FAA AAS-100 to provide the PANYNJ with a response shortly on these M.O.S., since we realize the decision-making timeframe is of extreme importance in the planning/ engineering efforts associated with the A380.

If you have any questions, please contact myself or John Dermody of this office. Thank you.

Sincerely,

SIGNED

Philip Brito  
Manager – FAA NYADO

Cc: W. Flanagan – AEA-600  
H. DeGraw – AEA-620  
G. Felix – AEA-620  
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bcc: NYADO – day file,  
JFK Modifications of Standards File  
JFK NLA MOS File  
JFK ALP File

P.C. File: H:\JFK\MOS\A380-MOS\JFK-A380-3MOS-FINAL.doc

**JFK INTERNATIONAL AIRPORT  
A380 MODIFICATIONS OF STANDARDS**

<b>I) Taxiway Width for Straight Sections:</b>
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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**

1. 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*.

**END**

**JFK INTERNATIONAL AIRPORT  
A380 MODIFICATIONS OF STANDARDS**

<b>II) Taxiway Centerline To Taxiway Centerline Separation:</b>
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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 (150<sup>th</sup> 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 150<sup>th</sup> Street Bridge, the PANY&NJ must place signs on Twy A before and after the 150<sup>th</sup> 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:**
    1. **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 for newly identified areas that become troublesome after introductory A380 serve.

i. **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*.

**END**

**JFK INTERNATIONAL AIRPORT  
A380 MODIFICATIONS OF STANDARDS**

<b>III) Taxiway A centerline to fixed/moveable object:</b>
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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**

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. **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:**
    - 1) **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.

i. **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*.

**END**