

ORDER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

7110.116

10/1/99

SUBJ: STANDARDIZED TAXI ROUTES (STR)

1. **PURPOSE.** This order prescribes standards and procedures for use by Air Traffic, Flight Standards, and Airports in the development and utilization of Standardized Taxi Routes (STR).
2. **DISTRIBUTION.** This order is distributed to the branch level and above in Washington and regional Air Traffic, Flight Standards, and Airport Safety and Standards offices, the Office of System Safety, and all air traffic field offices and facilities.
3. **EFFECTIVE DATE.** October 1, 1999.
4. **RELATED PUBLICATIONS.** Advisory Circular 120-57A, Surface Movement Guidance and Control System; FAA Orders 7110.65 and 7210.3.
5. **BACKGROUND.** STR's have been developed to enhance ground control operations on our major airports. The use of STR's should alleviate much of the frequency congestion at ground control positions and allow pilots to preplan their taxi route before leaving the gate. Facilities have the option of developing STR's for departures, arrivals, or both. Examples of these routes are depicted in Appendices A and B. This order does not supersede currently approved STR's, this order is meant to complement established air traffic control (ATC) procedures and rules.
6. **ACTIONS.**
 - a. All ATC Level-9 through Level-14 airport terminal facilities are required to study their airport layout and develop STR's, if deemed appropriate. All other airports should consider the benefit of developing STR's to enhance their ground operation, with consideration being given to the Airport Managers, users and controller workload.
 - b. Regional Air Traffic and Flight Standards Divisions are responsible for reviewing proposed STR's and taking appropriate action to ensure compliance with provisions of this order, other FAA orders, and advisory circulars. Any questions should be referred to the Runway Safety Program Manager, ATP-20, through the appropriate regional Operations Branch, AXX-530.
 - c. Controllers/pilots will not be mandated to use STR's.
 - d. Facilities should develop all STR's in accordance with this order.

7. PROCEDURES.

a. STR's shall be developed for operations on movement areas only.

b. When the RVR reaches a value less than 1,200 feet, utilize low visibility taxi routes, Surface Movement Guidance and Control System (SMGCS) in lieu of STR's. Procedures for SMGCS's are contained in the airports SMGCS Plan.

NOTE: When it is determined that the use of STR's/low visibility taxi routes could result in reduced operational safety (i.e., snow removal/de-icing operations in progress), use of standard taxi procedures in accordance with Order 7110.65 should be utilized.

c. STR's shall be used to describe routes, procedures and/or frequency information. All runway hold short/crossing instructions shall be transmitted in accordance with Order 7110.65.


d. Letters of Agreement (LOA) will be developed to reflect and implement STR's. Examples of the approved LOA's, which may be used to taxi arrival and departure aircraft, are contained in Appendices A and B. With such an LOA in effect, taxi phraseology may be reduced; e.g., "Standard Taxi to runway 28R." The STR shall include the starting point, detailed description of the routing and necessary instructions in the content. The following information must be made available for the use of STR's in connection with an LOA.

(1) A published airport diagram which contains:

- (a) Unique airport characteristics and/or procedures.
- (b) A legend depicting appropriate terminology and symbology.
- (c) Location of movement area boundaries.

(2) If a published airport diagram does not exist, one meeting these requirements may be developed locally and must be attached to the LOA.

NOTE: A separate LOA must be developed for each user that will utilize STR's.



Jeff Griffith
Program Director for Air Traffic
Planning and Procedures

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Appendix A

APPENDIX A

SAMPLE

PROFESSIONAL TOWER AND EXECUTIVE AIRLINES

LETTER OF AGREEMENT

Effective:

SUBJECT: EXECUTIVE AIRLINES APRON/TAXI PROCEDURES

1. **PURPOSE.** To establish guidelines, procedures, and responsibilities for controlling the flow of traffic into and out of the Executive Airlines terminal apron.
2. **CANCELLATION.** This letter cancels and supersedes Professional Tower and Executive Airlines Letter of Agreement, Subject: Executive Airlines Apron/Taxi Procedures dated December 14, 1997.
3. **RESPONSIBILITIES.** Each party to this agreement shall ensure that all concerned facility personnel are thoroughly familiar with the procedures contained herein. Executive Airlines ramp control shall maintain a direct line for communications with XXX Control Tower. All parties are responsible for providing current telephone numbers in a timely manner.

a. Executive Airlines shall be responsible for Executive aircraft that park at terminal E to ensure compliance with these procedures.

XXX Tower: (972) 615-2650 Executive Airlines: (972) 574-2222

b. Executive ramp control shall not allow any taxiway on the movement area to be blocked by aircraft parking at the Executive Airlines terminal. Ramp control shall not issue any instructions that would cause an aircraft to stop within the movement area.

4. PROCEDURES.

a. Departure aircraft:

(1) 0600-2400 Local Time.

(a) Apron Entranced Exit Points (AEEP) 45, 46, 47, 48, or 49 - Aircraft shall hold short of taxiway K, monitor frequency 121.65 and await taxi instructions from ground control.

(b) AEEP's 42, 43, and 44 - When ready to taxi, aircraft shall contact ground control on frequency 121.8 for permission to exit the apron for AEEP's 42, 43, or 44. Aircraft shall not taxi from the apron to AEEP's 42, 43, or 44 until issued clearance by ground control.

Note: Aircraft can expect to be given frequency change when holding short of taxiway K at AEEP's 42, 43, or 44. When issued the frequency change, monitor the frequency and await further taxi instructions.

(c) AEEP's 50, 51, 52, and 53 - When XXX Airport is in a south flow, aircraft shall hold short of taxiway B and contact ground control on frequency 121.8 when ready to taxi.

When XXX Airport is in a north flow, aircraft shall hold short of taxiway B and initiate a call to ground control on frequency 121.65 when ready to taxi.

(2) 0000-0600 Local Time.

(a) All AEEP's, except spots 42, 43, 44, 50, 51, 52, and 53 - Aircraft shall hold short of taxiway K, initiate a call to ground control on frequency 121.65, and await taxi instructions.

(b) AEEP's 42, 43, and 44 - When ready to taxi, aircraft shall contact ground control on frequency 121.65 for permission to exit the apron for AEEP's 42, 43, or 44. Aircraft shall not taxi from the apron to AEEP's 42, 43, or 44, until issued clearance by ground control.

(c) AEEP's 50, 51, 52, and 53 - Aircraft shall hold short of taxiway B and initiate a call to ground control on frequency 121.65 when ready to taxi.

(3) Standard taxi routes: If given standard taxi instructions, aircraft shall comply with the standard taxi routes depicted in Annex 1.

b. Arrival Aircraft:

(1) Executive Airlines ramp control shall assign entrance taxiways to arrival aircraft utilizing any taxiway that is beneficial to the operation and is in compliance with paragraphs 3b and 4b(3).

(2) The cockpit crew will advise ground control, as soon as practical, when the aircraft must hold off the apron on the movement area due to the lack of gate or apron space, or advise of the entrance taxiway assigned by the ramp tower, as soon as practical.

(3) No aircraft may enter the apron at AEEP 42, 43, or 44 without prior permission from ground control.

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Appendix A

(4) Preferred Arrival Routes:

If given preferred arrival route taxi instructions by ground control, aircraft will comply with the arrival taxi routes depicted in Annex 2.

Air Traffic Manager
Professional TRACON/Tower

Director, XXX Stations
Executive Airlines

APPENDIX B**SAMPLE****Annex No. 1****Professional Airport Standard Taxi Instructions**

When given air traffic control (ATC) taxi instructions to depart the apron, comply with the following standardized taxi instructions unless otherwise directed by XXY ATCT.

(Note: All standard taxi instructions apply to aircraft exiting the apron at apron entranced exit points (AEEP) 42 through 49. Supplementary instructions for aircraft exiting AEEP's 50, 51, 52, and 53 are also included.)

“Standard Taxi to Runway 17R”

Taxi to runway 17R. Turn left on taxiway K, turn right at taxiway K9, turn left on taxiway L, turn right at taxiway EH when able. Monitor tower 126.55 north of taxiway Y.

When exiting AEEP 50, 51, 52, or 53: taxi to runway 17R. Cross taxiway B and turn left on taxiway A. Turn left on taxiway K, turn right at taxiway K9, turn left on taxiway L, turn right at taxiway EH when able. Monitor tower 126.55 north of taxiway Y.

“Standard Taxi to Runway 18L”

Taxi to runway 18L. Turn left on taxiway K, turn left on taxiway Z, hold short of taxiway HY unless further instructions are received. Contact ground control 121.85 on the taxiway Z bridge for further instructions.

When exiting AEEP 50, 51, 52, or 53: taxi to runway 18L. Turn **right** on taxiway B, hold short of taxiway HA unless further instructions are received. Contact ground control 121.85 on the taxiway B bridge for further instructions.

“Standard Taxi to Runway 35L”

Taxi to runway 35L. Turn right on taxiway K, turn left on taxiway EQ. Monitor tower 126.55 south of taxiway A.

When exiting AEEP 50, 51, 52, or 53: taxi to runway 35L. Cross taxiway B and turn left on taxiway A. Turn right on taxiway JS, then turn left on taxiway ER. Monitor tower 126.55 south of taxiway A.

“Standard Taxi to Runway 35L Intersection EP”

Taxi to runway 35L, intersection EP. Turn right on taxiway K, turn left on taxiway K11, turn right on taxiway L, turn left on taxiway EP. Monitor tower 126.55 south of taxiway A.

When exiting AEEP 49: taxi to runway 35L, intersection EP. At taxiway K11, cross taxiway K11 and turn right on taxiway L. Turn left on taxiway EP. Monitor tower 126.55 south of Taxiway A.

When exiting taxiway AEEP 50, 51, 52, or 53: taxi to runway 35L, intersection EP. Turn left on taxiway A, turn right on taxiway L, turn left on taxiway EP. Monitor tower 126.55 south of taxiway A.

“Standard Taxi to Runway 36R”

Taxi to runway 36R. Turn right on taxiway K, turn right on taxiway B, hold short of taxiway HA. Contact ground control 121.85 on the taxiway B bridge for further instructions.

When exiting AEEP 50, 51, 52, or 53: taxi to runway 36R. Turn right on taxiway B; hold short of taxiway HA. Contact ground control 121.85 on the taxiway B bridge for further instructions.

APPENDIX B**SAMPLE****Annex No. 2****XXX Preferred Arrival Taxi Routes**

When issued the preferred arrival taxi routes by ground control, aircraft will comply with the following taxi instructions unless otherwise directed by ATC:

Note: The cockpit crew will advise ground control, as soon as practical, when the aircraft must hold off the apron on the movement area due to the lack of gate or apron space, or advise of the entrance taxiway assigned by the ramp tower, as soon as practical.

Additionally, the frequency assignment for aircraft crossing the taxiway A or Z bridge will normally be one of two frequencies: 121.65 or 121.8. Cockpit crews shall adhere to the frequency assignment as it varies due to traffic demand on the East Side.

“Alpha Route”

Taxi south on taxiway F, turn left on taxiway A, hold short of taxiway JA unless further taxi instructions are received. Contact ground control on (assigned frequency) on the taxiway A bridge for further instructions.

“Yankee Route”

Taxi north on taxiway F, turn right on taxiway Y, hold short of taxiway JY unless further taxi instructions are received. Contact ground control on (assigned frequency) on the taxiway Y bridge for further instructions.