



# Chicago O'Hare Air Traffic Control Towers Standard Operating Procedures

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*Effective: 08 May 2010*

Subject: Outlines Standard Operating Procedures to be used at the ORD ATCT for use on the VATSIM network.



## **I. Effective Date**

**A. 08 May 2010, 0001Z**

## **II. Cancellation**

**A. This document supersedes:**

**1. ANY known or unknown SOP's regarding the same subject.**

## **III. Airspace delegation**

**A. ORD ATCT is delegated a portion of the Class Bravo Airspace from the surface to 5,000 feet MSL within a 5nm radius of the airport**

## **IV. Definitions**

**A. DEL - Delivery**

**B. GND - Ground**

**C. TWR - Tower**

**D. APP - Approach**

**E. C90 - Chicago Approach**

**F. RWY - Runway**

**G. APREQ - Approval Request**

## **V. Ground/Taxi procedures**

**A. Airport Movement Area**

**1. The Airport Movement Area of O'Hare Airport is all runways, taxiways, and other areas which are utilized for taxiing/hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas as depicted on the Airport Diagram.**

**B. Taxiway restrictions**



1. Taxiway R
  - a) *Ground/Tower shall not have aircraft hold on taxiway R between runway 9R and 4L. Any aircraft landing 27L will not be instructed to exit left onto R*
2. Taxiway A1
  - a) *The distance available to hold short of 27L/9R and be clear of 22R/4L while on A1 is 191 feet. The following aircraft cannot hold in this spot due to length: A330, A340, 747, MD-11, 777*
3. Taxiway S5
  - a) *Taxiway S5 is a one-way, northbound only taxiway. The taxiway falls within the rwy 28 safety area, and therefore no aircraft can stop/hold on taxiway S5 when runway 28 is active for departures or arrivals.*
4. Southwest Cargo Ramp
  - a) *Only 1 aircraft may be taxiing in Southwest Cargo at any given time. Ground must ensure aircraft call up before push/start, as taxiway is only 1 lane.*
  - b) *Taxiway K1*
    - (1) K1 is a one way taxiway, used for aircraft EXITING the southwest cargo ramp.
  - c) *Taxiway K2*
    - (1) K2 is a one way taxiway, used for aircraft ENTERING the southwest cargo ramp.

## **VI. Departure procedures**

- A. **Issue IFR clearances consistent with fixes and altitudes depicted on the current ORD Departure Procedures (DP)**
- B. **Assign an initial altitude of 5,000 feet to all IFR aircraft. With the exception of missed approaches, any assigned altitude below 5,000 feet must be coordinated with C90.**



C. VFR aircraft shall be assigned an altitude at or below 1,800 feet. ORD TWR shall coordinate VFR aircraft requesting to climb to an altitude above 1800 feet with C90, and shall be given an altitude no higher than 4,500 feet.

D. Ensure aircraft are squawking normal prior to entering the runway.

**E. Transfer of Control**

**1. Outbound Aircraft**

*a) Unless otherwise coordinated, departing aircraft shall be transferred from the clearance/delivery controller to the ground controller once the aircraft has received the proper clearance.*

*b) Unless otherwise coordinated, departing aircraft shall be transferred from ground to tower when the aircraft is holding short of the runway for departure.*

*c) Unless otherwise coordinated, departing aircraft shall be transferred from the tower controller to the TRACON controller after they are 400 ft. Above Ground Level, UNLESS*

(1) A runway plan is in use that dictates Tower turn an aircraft to a heading passing an altitude higher than listed above.

**VII. Arrival procedures**

**A. Transfer of control**

**1. Inbound Aircraft**

*a) Unless otherwise coordinated, arrival aircraft shall be transferred from the Approach controller to the appropriate Tower controller no later than the Outer Marker/fix of the ILS final approach course or the FAF on a non-precision approach.*

*b) Unless otherwise coordinated, landing aircraft should be transferred from the Tower controller to the Ground controller when the aircraft completely vacates the landing runway.*

**B. Missed Approach**



1. Aircraft executing a missed approach shall be given a climb to 4,000 feet MSL and issued a heading so as to not interfere with any departing aircraft, departure gates/headings, arriving aircraft, or arrival gates/flows, based on the current plan in use.
2. Aircraft executing a missed approach shall not be given headings so as to cross any other active runway paths.
3. After assigning the aircraft instructions on the execution of the missed approach, Tower shall advise the appropriate C90 controller of the heading and altitude assigned to the aircraft, and then transfer control to that C90 controller

### C. Simultaneous ILS approaches

1. If the C90 “Final Vectors” position is online, control will be transferred to the controller as soon as the aircraft is established on the localizer.
2. In order to run simultaneous ILS approaches aircraft must intercept the localizer no less than 3 miles from the outer marker/fix and be fully established on the ILS no less than 1 mile from the Outer Marker/fix. If the aircraft is not established following these procedures, the aircraft must be provided go-around procedures.

#### 3. Simultaneous Parallel ILS approaches

*a) In order to run simultaneous parallel ILS approaches, aircraft must intercept the localizer no less than 11 miles from the outer marker/fix and be fully established on the ILS no less than 8 miles from the Outer Marker/fix. If the aircraft is not established following these procedures, the aircraft must be provided go-around procedures.*

#### 4. Reduced Separation

*a) For runways 14R, 22R, 9R, 10, 4R, 28, and 27L separation may be reduced to 2.5 NM between aircraft fully established on final approach when within 10 NM of the runway threshold provided that:*

- (1) The leading aircraft’s weight class is the same or less than that of the trailing aircraft
- (2) Heavy aircraft including B757’s may only be the trailing aircraft

*(a) 2 heavy aircraft cannot be reduced to 2.5 mile separation*



5. When runway 9R approach is in use and runway 32L is being utilized for departures, spacing between arriving aircraft to 9R shall be no less than 6 nm at touchdown.

## VIII. Position guidelines

### A. Clearance Delivery

1. Use the radio frequency 121.6
2. Sign-on using operational position of ORD\_DEL
3. Issue IFR clearances to aircraft via the current ORD DP. If an aircraft has filed for a fix/VOR not on the current DP chart, or is unable to fly the departure, coordinate with controllers “above” you to get the aircraft an acceptable route, whether that be allowing aircraft to use their current route, or changing the route. Acceptable nav aids for re-routing are any fixes on the ORD4, or any nav aids that the approach/center controller approves of via APREQ.
4. Issue VFR clearances to aircraft requesting VRF departure, these aircraft shall be cleared at or below 1,800 feet.
5. Assign departure runway based on current runway configuration.
6. After receiving an appropriate readback, instruct aircraft to contact controller on the active position directly above you.

### B. Ground

#### 1. General Ground

- a) *Use the radio frequency 121.9 and sign on using the callsign ORD\_GND*

(1) If the position is split, it will be used as inbound and outbound ground. Inbound ground will use the radio frequency 121.9 and use the callsign ORD\_I\_GND, while outbound ground will use the radio frequency 121.75 and use the callsign ORD\_O\_GND.

- b) *Ground controller’s jurisdictional boundaries are all movement areas excluding runways and the taxiways in between.*

- c) *Ground controllers should not issue taxi instructions that use unnecessary runway crossings. Unavoidable runway crossings shall be coordinated with the Tower controller.*



*d) When an aircraft is holding short of an active runway waiting to cross, the ground controller shall "APREQ" the crossing to the tower controller.*

*e) Phraseology*

(1) "Tower, apre, [callsign] to cross runway XX at [intersection]. Tower will then respond with either: "cleared to cross runway XX at [intersection] [operating initials], OR "continue to hold short runway XX at [intersection]. The ground controller should then acknowledge the response by re-stating the instruction, then their operating initials.

*f) When ground is authorized by the tower controller to cross an aircraft across an active runway, this shall be for a single event, not for a series of crossings or a period of time.*

## **2. Outbound Ground Operations**

*a) Taxi aircraft from the terminal area/cargo ramp to the departure runway*

*b) Assist Tower controllers by coordinating and initiating intersection departures when operationally advantageous*

*c) Establish an efficient departure sequence of aircraft which are able to depart*

(1) Aircraft not ready to depart(ESP's, EDCTs, Ground Stops, maintenance, de-icing, etc.) should be held out of the departure queue

*d) Coordinate any unusual or special requests with the appropriate cab or TRACON controller.*

## **3. Inbound Ground Operations**

*a) Taxi aircraft from arrival runways to the gates/ramp area.*

## **C. Tower**



1. Use the radio frequency 126.9 and the position callsign ORD\_TWR, unless tower is split into North and South tower. North tower will use the radio frequency 126.9 and will use the position callsign ORD\_N\_TWR. North towers runways of responsibility are: 9L/27R, 9R/27L, 4L/22R, 32R/14L. South tower will use the radio frequency 120.75 and will use the position callsign ORD\_S\_TWR. South towers runways of responsibility are: 32L/14R, 10/28, 4R/22L

2. General Tower Operations

a) *Provide separation between successive departures, between arrivals and departures, and between successive arrivals in the ORD Tower delegated airspace.*

b) *Establish a departure sequence to ensure compliance with current flow control/runway configuration restrictions.*

c) *Unless prior coordination of a “blanket rolling call” has been established, Tower must ensure coordination is achieved with the appropriate TRACON controller.*

d) *Unless prior coordination of a “blanket rolling call” has been established, Tower must ensure coordination is achieved with the appropriate ground controller IF the departure crosses any active taxiways per the preferred taxi routing procedures. This coordination is attained by making a rolling call.*

(1) A rolling call is when the tower controller advises the approach/departure controller that an aircraft is rolling/departing.

(2) Phraseology

(a) *Aircraft ID, Rolling, (runway), (operating initials).*

e) *Issue instructions to aircraft exiting runways that allow unimpeded movement across runway hold lines. The aircraft must be able to completely clear the landing runway and associated runway hold lines, even if this requires Tower controllers to use adjacent taxiways.*

f) *Prior to authorizing an aircraft to cross a runway, inform it of the closest traffic cleared to land, on an unrestricted low approach, or holding in position. Also, inform the closest aircraft on approach of the aircraft crossing the runway.*

g) *Inform the appropriate TRACON controller at C90 of any aircraft executing a go-around/missed approach and of the instructions issued to the aircraft.*



*h) Scan Runway 27R arrivals, 27L arrivals, and/or 9R arrivals prior to 32L departures.*

(1) Scan means the tower controller will check that no aircraft are in a position to cause a conflict if a plane were to “overshoot” the runway or execute a missed approach.

*i) Ensure that aircraft departing runway 32L are not switched to departure until north of the 27R/9L path when 27R/9L is being used as an active runway.*

*j) Ensure that aircraft departing Runway 4L start their takeoff roll prior to an arriving aircraft to Runway 9R reaches a 2 mile final.*

*k) When running 32L departures at the same time as 9R arrivals, coordinate with approach to ensure that no Large or Heavy aircraft are arriving 9R.*

(1) Ensure that appropriate spacing on Runway 9R final exists to accomplish separation, at the point that the departure passes through the intersection of the Runway 9R arrival course on Runway 32L. This spacing shall be no LESS than 6 miles.

### **3. Coordination**

*a) Simultaneous departures off of parallel runways must be assigned headings to ensure a fifteen-degree divergence*

*b) Immediately prior to clearing a Runway 14R departure for takeoff, the tower controller must ensure that there is no aircraft landing or departing off of Runway 22L/4R.*

### **4. LAHSO operations**

*a) Landing rwy 14R hold short of rwy 10/28, 9,800 ft. landing distance available, all aircraft except B747 and A380 may be able to comply*

*b) Landing rwy 22R hold short of rwy 9R/27L, 6,050 ft. landing distance available, only aircraft size B757 or smaller may be able to comply*

*c) Landing rwy 10 hold short of taxiway S, 12, 156 ft. landing distance available, all aircraft may be able to comply.*

*d) Landing rwy 9R hold short of rwy 14L/32R, 6,100 ft. landing distance available, only aircraft size B757 or smaller may be able to comply*



***e) Landing rwy 27L hold short of rwy 4L/22R, 5,700 ft. landing distance available, only B737, A320, and regional jets or smaller may be able to comply***

(1) Only to be used if landing aircraft on 22R is unable to LAHSO, and landing aircraft on 27L is a regional jet. If both aircraft unable to LAHSO, aircraft landing 22R shall be re-vectored ONLY if both aircraft will be landing at same time.

***f) Landing rwy 28 hold short of rwy 14R/32L, 6,500 ft. landing distance available, only aircraft B757 or smaller may be able to comply***

(1) Only offer to landing aircraft if there is an aircraft departing 32L full-length. Normal operations, aircraft depart rwy 32L@T10, therefore landing aircraft should be informed of wake turbulence if necessary, but no LAHSO issued.

***g) Landing rwy 10 hold short of rwy 14R/32L, 6,500 ft. landing distance available, only aircraft B757 or smaller may be able to comply***

(1) Only offer to landing aircraft if there is an aircraft departing 32L full-length. Normal operations, aircraft depart rwy 32L@T10, therefore landing aircraft should be informed of wake turbulence if necessary, but no LAHSO issued.

## **IX. Unlisted items/operations**

**A. Any topics unlisted in this SOP should be handled on a situation by situation basis by utilizing the controller's best judgment.**