

CHARLOTTE - DOUGLAS INTERNATIONAL AIRPORT

Standard Operating Procedures 7110.65F

Effective: November 19, 2019

For simulation purposes only. Not for real world use.

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Chapter 1. Introduction

Section 1. Introduction

1-1-1. Purpose

This Order establishes standard operating procedures for use by persons providing air traffic control services at the Charlotte-Douglas (CLT) Airport Traffic Control Tower (ATCT) on the VATSIM network. This Order is designed to supplement VATNA, VATUSA, and ZTL directives.

1-1-2. Audience

This order applies to all vZTL Air Traffic Control Specialists and vZTL Visiting Air Traffic Control Specialists manning the Charlotte (CLT) Airport Traffic Control Tower (ATCT) and Terminal Radar Approach Control (TRACON positions).

1-1-3. Distribution

This Order is available in the ZTL Files Library located at https://www.ztlartcc.org/controllers/files, under SOPs.

1-1-4. Cancellation

This Order cancels CLT ATCT 7110.65E dated February 15, 2019, CLT ATCT 7110.65D dated May 1, 2011, and any other undocumented CLT directives dated prior to November 19, 2019.

1-1-5. Effective Date

This Order is effective as of November 19, 2019.

Chapter 2. Tower Cab

Section 1. Equipment

2-1-1. Operational Positions and Associated Frequencies

Bold positions indicate the base position.

Position	Split Callsign	Relief Callsign	Frequency
ATIS	KCLT_ATIS		132.100
Clearance Delivery	CLT_DEL	CLT_1_DEL	127.150
Ground Control East	CLT_E_GND	CLT_E1_GND	121.900
Ground Control West	CLT_W_GND	CLT_W1_GND	121.800
Local Control East	CLT_E_TWR	CLT_E1_TWR	118.100
Local Control West	CLT_W_TWR	CLT_W1_TWR	126.400

Non-Split Callsign: When working a combined position, callsigns should be condensed into the format of FACILITY_POSITION. For example, if only one person is working Charlotte Ground, they may utilize the condensed callsign of CLT_GND, as opposed to CLT_E_GND. When relieving another controller, utilize the format of FACILITY_1_POSITION (i.e. CLT_1_GND), unless the condensed callsign is available for use.

Section 2. Position Combination

2-2-1. Ground Control

Ground West shall combine to/decombine from Ground East.

2-2-2. Local Control

Local Control West shall combine to/decombine from Local Control East. Local Control West may not be opened unless Ground is online.

Section 3. Clearance Delivery

2-3-1. ATIS

During events, Clearance Delivery shall have the responsibility of maintaining the ATIS, considered a first duty priority. Runways in use shall be selected by the Tower CIC. Type of approach in use shall be selected by the TRACON CIC.

2-3-2. Traffic Management Initiatives

Ensure aircraft are routed to be in compliance with Traffic Management Initiatives instituted. Amend flight plan remarks or flight strips to ensure that other controllers are aware of assigned Expect Departure Clearance Times, as required.

2-3-3. VFR Departures

Enter a flight plan for VFR aircraft, as required, noting any known relevant information. At a minimum, this must include:

- (a) Departure Airport
- (b) Direction/Route of Flight
- (c) Aircraft Type
- (d) Requested Altitude, ending in a 5 if not below 3,000'
- (e) Discrete Beacon Code

Issue a clearance into the Charlotte Class Bravo airspace with the appropriate departure frequency, altitude restrictions, and assigned beacon code.

2-3-4. VFR Altitude Restrictions

VFR Prop Aircraft requesting 3500' or higher shall be told to "Maintain VFR at 3500". All other VFR Prop aircraft shall be told "Maintain VFR at or below 3500".

VFR Jet Aircraft requesting 7500' or higher shall be told to "Maintain VFR at 7500". All other VFR Jet aircraft shall be told "Maintain VFR at or below 7500".

2-3-5. IFR Clearances

Clearance Delivery shall issue IFR Departure Clearances. Ensure aircraft are assigned an initial altitude, and an "Expect Final Altitude", except when the final cruise altitude is the same as the initial altitude.

IFR Turbojet Aircraft shall be assigned an initial altitude of 8000', unless their requested final altitude is lower. In such events, issue the lower requested final altitude as the initial altitude. Ensure that the requested altitude is valid for direction of flight.

IFR Turboprop Aircraft shall be routed via the appropriate propeller only departure, with an initial altitude of 4000', unless their requested final altitude is lower. In such events, issue the lower requested final altitude as the initial altitude.

Assign IFR departures advising "NO SID" the following specific information plus the appropriate clearance items:

- 1) Turboprop & Prop: tower assigned heading, and an initial altitude of 4,000'.
- 2) Turbojet: noise abatement heading, and initial altitude of 8,000', accelerate speed to 250 knots, and if unable advise ATC. Upon reaching 10,000 MSL accelerate to 280 knots, and if unable advise ATC.

Section 4. Ground Control

2-4-1. Area of Jurisdiction

Charlotte Ground shall have control of all taxiways east of Runway 36C/18C. When runway 5/23 is closed, or not in use, it shall be delegated to Charlotte Ground, unless otherwise requested by Local East, and may be utilized as a high speed taxiway. When split, each ground shall be allocated the taxiways, as depicted in Appendix A.

2-4-2. Clearances

Upon being advised by Clearance Delivery or Traffic Management Coordinator that an aircraft requires an amendment to their clearance, position the aircraft in a manner to maximize taxiway usage for non-affected aircraft, and advise the pilot to return to the Clearance Delivery frequency.

2-4-3. Sequencing

To assist Atlanta Center, ground should put forth effort to sequence departing aircraft by alternating departure, unless operationally disadvantageous. When departure demand dictates, assign runways in accordance with Appendix N to maximize departure flow, unless operationally disadvantageous.

2-4-4. Airport Surface Detection Equipment Model X

Charlotte-Douglas International Airport is equipped with ASDE-X. While no radar client currently supports ASDEX, nor it's safety logic systems, Controllers are expected to operate as though they are utilizing an ASDE-X. Therefore, Ground must ensure that all aircraft taxiing on the ramps, taxiways, and runways are operating with their transponder squawking altitude and assigned beacon code.

2-4-5. Other Responsibilities

- (a) Ground Control shall ensure that departures are in receipt of the current ATIS code (if applicable), or altimeter.
- (b) Ground Control shall obtain approval from the appropriate LC prior to taxiing a departure to a location other than the approach end of the runway for departure. This request shall include the call sign of the aircraft and the specific intersection requested.
- (c) Ground Control shall obtain approval from LC prior to taxiing a departure to a runway not associated with it's DTA/direction of flight. This request shall include callsign, DTA/SID, departure runway. Example "Request Bluestreak 123, BOBZY, Runway 18L".
- (d) Ground Control must ensure that intersection departures are being provided the available runway distance in accordance with FAA JO 7110.65X, 3-7-1, Ground Traffic Movement. Refer to Appendix C for the available takeoff distances. Please note that adding errors may be attributed to the way the distances were rounded.

2-4-6. Known Scenery Discrepancies

Due to the rapid expansion of the Charlotte-Douglas International Airport, there may be users that are utilizing outdated sceneries. Controllers should be advised of scenery discrepancies, as listed in Appendix B.

Section 5. Local Control

2-5-1. Area of Jurisdiction

Charlotte Local East shall be responsible for runways 36R/18L and 5/23. Local West shall be responsible for runways 36L/18R and 36C/18C, and the taxiways in between.

Charlotte Local is designated the airspace within 7 miles of the Charlotte VOR, from Surface to 4000'. Reference Appendix D for a diagram displaying the airspace of Local between East/West.

2-5-2. Standard Runway Configurations

Name	Departing Runways	Arrival Runways
North Duals	36C/36R	36C/36R
North Trips	36C/36R	36L/36C/36R
South Duals	18L/18C	18L/18C
South Duals with 23	18L/18C	18L/18C/23
South Trips	18L/18C	18L/18C/18R
South Trips with 23	18L/18C	18L/18C/18R/23

2-5-3. Runway Selection

Charlotte Local shall select the active runways for departure and arrival in accordance with FAA JO 7110.65, 3-5-1, Selection.

2-5-4. Go-Around and Missed Approach Procedures

- (a) Runway 36R/18L:
 - (i) Resolve all conflicts with runway 5/23.
 - (ii) Upon resolution of potential conflicts, assign a heading of 090.
 - (iii) Upon resolution of potential conflicts, assign an altitude of 4000'.
 - (iv) Coordinate with appropriate Arrival Radar.
 - (v) Transmit any requests from Arrival Radar, then, transfer communications.
- (b) Runway 36C/18C:

[&]quot;Calm Wind" Runways are defined to be runways 18L, 18C, and 18R.

- (i) Resolve all conflicts with runway 36L/18R.
- (ii) Upon resolution of potential conflicts, assign a heading of 270.
- (iii) Upon resolution of potential conflicts, assign an altitude of 4000'.
- (iv) Coordinate with appropriate Arrival Radar.
- (v) Transmit any requests from Arrival Radar, then, transfer communications.

(c) Runway 36L/18R:

- (i) Resolve all conflicts with any runway 36C/18C go arounds.
- (ii) Upon resolution of potential conflicts, assign a heading of 270.
- (iii) Upon resolution of potential conflicts, assign an altitude of 4000'.
- (iv) Coordinate with appropriate Arrival Radar.
- (v) Transmit any requests from Arrival Radar, then, transfer communications.

(d) Runway 23:

- (i) Resolve all conflicts with runways 36L/18R, 36C/18C, 36R/18L.
- (ii) Upon resolution of potential conflicts, assign a heading of 270.
- (iii) Upon resolution of potential conflicts, assign an altitude of 4000'.
- (iv) Coordinate with appropriate Arrival Radar.
- (v) Transmit any requests from Arrival Radar, then, transfer communications.

(e) Runway 5:

- (i) Resolve all conflicts with runway 36C/18C, 36R/18L.
- (ii) Upon resolution of potential conflicts, assign a heading of 090.
- (iii) Upon resolution of potential conflicts, assign an altitude of 4000'.
- (iv) Coordinate with appropriate Arrival Radar.
- (v) Transmit any requests from Arrival Radar, then, transfer communications.

2-5-5. Automatic Releases

Automatic Departure Releases are authorized for all runways designated as departure runways by Local Control and advertised as such in the ATIS, except when a runway change is in progress.

2-5-6. Operations Change

Upon determination by local that a runway change is required, Local shall inform ground, and identify the last departure for the old runway. Local shall then coordinate with the TRACON to identify the last departure and arrivals for the old configuration. Automatic Releases for the old configuration shall remain in effect until the last arrival for the old runway exits the runway. After the last arrival for the old configuration exits the runway, Automatic Releases shall become effective for the new departure runways.

2-5-7. Departure Headings

Assign all **turboprop** aircraft departing a heading of 100 or 270. Be alert to the possibility of high-performance props overtaking low-performance props.

Assign all **turbojet** aircraft the following pre-arranged headings:

Runway	Departure	2	Heading	Runway	Departure	Heading
18C	LILLS	KILNS ICONS BEAVY	200	18L	BARMY KILNS LILLS KRITR WEAZL	140
		ESTRR KRITR	240		ICONS KWEEN	RWY
	WEAZL				BEAVY	200
					BOBZY ESTRR JOJJO	240
36C	ESTRR I	BOBZY ICONS KRITR WEAZL	330	36R	BARMY KILNS LILLS ICONS KWEEN	025
	BARMY I	KILNS	070		KRITR WEAZL	360
					BEAVY	330
					JOJJO	310
					BOBZY ESTRR	290

Turbojet aircraft not on a departure should be provided the following headings for noise abatement:*

Runway	Heading	
18R	200	*These headings may be applied to all turbojet aircraft at controller's discretion. However,
36R	025	aircraft must be placed on the pre-arranged
36C	330	heading per their assigned departure within 4 miles of the departure end of the runway.
36L	315	Divergent headings must be applied within 4 miles in order for simultaneous departures to be
5/23	RWY	authorized.

2-5-8. Departure Procedure

Provide a rolling call to the appropriate departure radar controller as required. This may be done through verbal coordination or through the use of flight progress strips.

If track is not observed to have been acquired within 3 miles of the departure end of the runway, coordinate with the appropriate departure controller.

2-5-9. Simultaneous Departures

- (a) All turbojet departures shall be advised of simultaneous departures. This requirement may be met through use of the ATIS.
- (b) Local Control East/West shall ensure that separation is not less than runway centerline, with no overlapping or touching of primary radar targets.
- (c) Local Control positions shall be responsible for separation of a missed approach and a simultaneous departure
- (d) Do not instruct aircraft to contact departure until you visibly note them turning on course.

2-5-10. Line Up And Wait Procedures

LUAW operations are authorized on all runways, pursuant to FAA JO 7110.65, 3-9-4 Line Up And Wait (LUAW), except when the ceiling is less than 800 feet or visibility is less than 2 miles.

2-5-11. Airport Surface Detection Equipment Model X

Charlotte-Douglas International Airport is equipped with ASDE-X. While no radar client currently supports ASDEX, nor it's safety logic systems, Controllers are expected to operate as though they are utilizing an ASDE-X using Safety Logic System in the Full Core Alert Mode. Simply speaking, controllers are authorized to issue a landing clearance as well as a LUAW instruction in accordance with FAA JO 7110.65, 3-9-4, Line Up and Wait (LUAW).

Chapter 3. TRACON

Section 1. Positions

3-1-1. Positions

Name	Frequency	Position ID	Combines/Decombines
Arrival Radar East	126.150	Н	
Arrival Radar West	125.350	U	Arrival Radar East (H)
Final East	127.700	А	Arrival Radar East (H)
Final West	119.000	F	Final Radar East (A)
Departure	120.500	W	Arrival Radar East (H)
Satellite	134.750	N	Departure Radar (W)

Section 2. Departure/Satellite Radar

3-2-1. Callsigns and Frequencies

Bold positions indicate the base position.

Position	Callsign	Relief Callsign	Frequency
Departure	CLT_W_DEP	CLT_W1_DEP	120.500
Satellite	CLT_N_APP	CLT_N1_APP	134.750

NOTE: Utilize CLT_APP when working approach alone. If relieving someone, utilise CLT_1_APP.

3-2-2. Position Combination/Decombination

Satellite Radar shall combine to/decombine from Departure Radar. Departure Radar shall combine to/decombine from Arrival Radar East.

3-2-3. Departure Radar Responsibilities

Provide standard separation and radar service to all aircraft within Departure Radar's delegated airspace.

Departure Radar must ensure that, during south ops while Simultaneous Departures are being

conducted, aircraft are given a minimum of 15° of course divergence within 4 miles of the departure end of the runway. This duty primarily falls to the tower through use of the precoordinated departure headings.

3-2-4. Satellite Radar Responsibilities

- (a) Provide standard separation and radar service to all aircraft within Satellite Radar's delegated airspace.
- (b) When simultaneous instrument approaches are in use, vector IFR satellite arrivals landing at Charlotte at 5000' from the west and from the east.
- (c) Vector VFR satellite arrivals landing Charlotte at an appropriate VFR altitude.
- (d) Satellite Radar shall assign VFR aircraft over-flying Charlotte airspace via the satellite airspace corridor east to west at 4,500, unless otherwise coordinated.
- (e) Satellite Radar shall assign aircraft over-flying Charlotte airspace via the satellite corridor west to east at 5,000, unless otherwise coordinated.

3-2-5. Area of Jurisdiction

Review the diagrams located under:

- (a) Departure Radar: Appendix E.
- (b) Satellite Radar: Appendix G.

Section 3. Pre-Arranged Coordination (DR/AR)

3-3-1. Pre-Arranged Coordination Area

A prearranged coordination area is established for traffic departing airports from within the Charlotte terminal area. The following procedures apply in this area:

- (a) Departure Radar may penetrate Arrival Radar East/West airspace without individual coordination utilizing the pre-arranged coordination area.
- (b) Departure Radar shall provide radar separation, including appropriate wake turbulence separation, from all arrival radar traffic when utilizing this prearranged coordination area.
- (c) Arrival Radar Responsibilities:
 - (i) Arrival Radar shall point out all untagged targets, point-outs, and IFR pick-ups to departure radar.
 - (ii) Arrival Radar shall have the authority to suspend this pre-arranged coordination procedure when operational conditions require.
- (d) Automatic altitude readout of an aircraft under another controller's jurisdiction may be used for separation purposes when the aircraft are within pre-arranged coordination airspace.
- (e) Reference Appendix F for the location of the Pre-Arranged Coordination Area.

Section 4. Arrival Radar

3-4-1. Callsigns and Frequencies

Bold positions indicate the base position.

Position	Callsign	Relief Callsign	Frequency
Arrival East	CLT_H_APP	CLT_H1_APP	126.150
Arrival West	CLT_U_APP	CLT_U1_APP	125.350

NOTE: Utilize callsign CLT_APP when working approach alone. If relieving someone, utilize CLT 1 APP.

3-4-2. Area of Jurisdiction

Review the diagrams located under:

(a) Appendix H - Arrival Radar

3-4-3. Position Combination/Decombination

Arrival West (Feeder West) shall combine to/decombine from Arrival East (Feeder East).

3-4-4. Arrival Radar West/East Responsibilities

- (a) Provide standard separation and radar service to all aircraft within Arrival Radar's delegated airspace.
- (b) As soon as practical, place the assigned approach information into the scratch-pad.
 - (i) First character shall be approach type; "I" for ILS, "R" for RNAV/RNAV RNP, "V" for VISUAL, "L" for LOCALIZER.
 - (ii) The second character shall be:
 - (1) The last digit of the runway number for ILS, VISUAL, and LOCALIZER approaches, except for runway 23 approaches. For example, ILS Runway 18C, the last digit would be "8". ILS Runway 5 would be "5". ILS Runway 23 would be "2".
 - (2) The letter of the RNAV GPS/RNP approach. RNAV (GPS) Y Approach would be "Y".
 - (iii) The last character shall be the last character in the runway identifier, except for runway 5, in which case it is blank. Runway 18L would simply be "L". Runway 23 would be "3".
 - (iv) A sample list of combinations; this is not a complete list of possibilities.
 - (1) ILS RWY 23 = I23
 - (2) RNAV RNP (Z) RWY 18C = RZC
 - (3) VISUAL RWY 18L = V8L
 - (4) ILS RWY 18C = 18C

3-4-5. Approach Information

It shall be the responsibility of the first radar controller to establish communication with a satellite airport IFR arrival to advise that arrival of the approach information (ATIS code, weather information, type of approach to expect, etc) referenced in FAAO 7110.65 paragraph 4-7-10 (Approach Information).

3-4-6. Pre-Arranged Coordination Areas

Controllers are advised to review Section 3-3-1, Pre-Arranged Coordination Area, as well 3-5-1, Pre-Arranged Coordination Area.

3-4-7. Arrival Flows

Arrival Radar shall manage arrival routes, speeds, and altitudes so that traffic enters the final controller's airspace at the appropriate point and speed, not to exceed 210 knots, to establish an orderly and efficient traffic flow. Unless otherwise coordinated, assign altitudes as follows:

- 1. North Operations
 - a. Utilizing less than 3 runways for arrival (36L & 36C, 36C & 36R, 36L & 36R, only 36C, etc.)
 - i. Base leg from west -7,000 feet
 - ii. Base leg from east -6,000 feet
 - iii. Downwinds 6,000 feet
 - b. Trips Runways 36L/36C/36R
 - i. Base leg from east (36R) 6,000 feet
 - ii. Base leg from east (36C) 8,000 feet into "M" final box
 - iii. Base leg from west (36L) 7.000 feet
 - iv. Base leg from west (36C) 9,000 feet into "M" final box
 - v. Downwinds (36L/36R) 6,000 feet
 - vi. Right downwind (36C) 8,000 feet
 - vii. Left downwind (36C) 9,000 feet

2. South Operation

- a. 23 (18C/23 or 18R/23)
 - i. Straight-in (23) 6,000 feet
 - ii. Left downwind (23) 6,000 feet
 - iii. Right downwind (23) 7,000 feet
 - iv. Right downwind (18R/18C) 6,000 feet
 - v. Base leg from west (18R/18C) 7,000 feet
 - vi. Base leg from east (18C) 6,000 feet
 - vii. Left downwind (18C) 8,000 feet
- b. Duals 23 (18R/18C/23)
 - i. Feed to runway 23 same as above (23)
 - ii. Base leg from west (18R) 7,000 feet
 - iii. Base leg from east (18C) 6,000 feet
 - iv. Base leg from west (18C) 9,000 feet into "M" final box
 - v. Right downwind (18R) 6,000 feet
 - vi. Right downwind (18C) 9,000 feet
 - vii. Left downwind (18C) 8,000 feet

- c. Duals Runways 18C/18R
 - i. Base leg from west -7,000 feet
 - ii. Base leg from east -6,000 feet
 - iii. Downwinds -6,000 feet
- d. Duals Runways 18L/18R
 - i. Base leg from west -7,000 feet
 - ii. Base leg from east -6,000 feet
 - iii. Downwinds 6,000 feet
- e. Duals Runways 18L/18C
 - i. Base leg from west -7,000 feet
 - ii. Base leg from east -6,000 feet
 - iii. Downwinds 6,000 feet
- f. Trips (18R/18C/18L)
 - i. Base leg from east (18L) 6,000 feet
 - ii. Base leg from east (18C) 8,000 feet into "M" final box
 - iii. Base leg from west (18R) 7,000 feet
 - iv. Base leg from west (18C) 9,000 feet into "M" final box
 - v. Left downwind (18L) 6,000 feet
 - vi. Left downwind (18C) 8,000 feet
 - vii. Right downwind (18R) 6,000 feet
 - viii. Right downwind (18C) 9,000 feet

Section 5. Pre-Arranged Coordination (AR/FR)

3-5-1. Pre-Arranged Coordination Area

A prearranged coordination area is established for traffic landing at the Charlotte airport. The following procedures apply in this area:

- (a) Arrival Radar East/West only may penetrate Final Radar West airspace without individual coordination utilizing the east final pre-arranged coordination area.
- (b) Arrival Radar shall provide radar separation, including appropriate wake turbulence separation, from all final radar traffic when utilizing this prearranged coordination area.
- (c) Automatic altitude readout of an aircraft under another controller's jurisdiction may be used for separation purposes while aircraft are within pre-arranged coordination airspace.
- (d) Reference Appendix I for the location of the Pre-Arranged Coordination Area.

Section 6. Final Radar

3-6-1. Callsigns and Frequencies

Bold positions indicate the base position.

Position	Callsign	Relief Callsign	Frequency
Final East	CLT_A_APP	CLT_A1_APP	127.700
Final West	CLT_F_APP	CLT_F1_APP	119.000

NOTE: Callsign identifier utilizes F instead of M, as CLT_M_APP is reserved for mentors monitoring students on approach.

NOTE: Utilize callsign CLT_APP when working approach alone. If relieving someone, utilise CLT 1 APP.

3-6-2. Area of Jurisdiction

Review the diagrams located under:

(a) Appendix J - Final Radar

3-6-3. Position Combination/Decombination

Final Radar West shall combine to/decombine from Final Radar East.

3-6-4. Final Radar West/East Responsibilities

- (a) Provide standard separation and radar service to all aircraft within Final Radar's delegated airspace.
- (b) Ensure that all arrivals have the assigned runway displayed in the Scratchpad in accordance with 3-4-4 Arrival Radar Responsibilities, Subpart (b).
- (c) Final Radar West will determine the approach sequence when both Final Radar positions are vectoring for instrument approaches, other than simultaneous ILS approaches.
- (d) Final radar controllers shall ensure that traffic on opposing base legs to the same, or parallel runways are vertically separated until such time as the required lateral/longitudinal separation clearly exists.
 - (i) NOTE The intent of this requirement is to eliminate the practice whereby a final controller will attempt to turn in front of, behind, or between two arrivals without having vertical separation. Once required spacing is established then the use of vertical separation may be discontinued.
- (e) All traffic shall be vectored so as to intercept the final approach course of the runway at an angle of 30 degrees or less unless triple ILS approaches are in use. During triple ILS approaches, traffic shall be vectored so as to intercept the final approach course of the runway at an angle of 20 degrees or less.
- (f) Aircraft assigned runway 18C/36C shall exit the "M" box established on the localizer at or above 8,000 feet when conducting triple operations (or when conducting a Dual w/ 23 operation with aircraft being fed on a right base leg).

- (g) Final radar positions are authorized to utilize the automatic altitude readout (Mode C) of traffic being worked by the adjacent final radar position for vertical separation purposes when conducting Parallel/Simultaneous/Visual Approaches. Any erroneous altitude report received by any final radar position shall immediately be coordinated with the adjacent final position and vertical separation shall not be applied.
- (h) All final radar positions shall quicklook all final radar positions.

3-6-5. Final Radar Altitude Assignment

Altitude assignments by final radar shall normally be:

- (A) North Operation
 - (1) Duals (36L/36R, 36L/36C, or 36C/36R)
 - (a) A at or below 4,000 feet
 - (b) $F 5{,}000$ feet or above
 - (c) 36L/36C operation -36C At or below 4,000 feet or above, 36L at or above 5,000 feet
 - (2) Trips (36L/36C/36R) (Visual approaches or ILS approaches).
 - (a) $A 4{,}000$ feet $M 8{,}000$ feet
 - (b) F (36L)– 5,000 or 6,000 feet.
- (B) South Operation
 - (1) Duals (18L/18R, 18L/18C, or 18C/18R)
 - (a) A at or below 4,000 feet
 - (b) $F 5{,}000$ feet or above
 - (c) 18R/18C operation 18C at or below 4,000, 18R at or above 5,000 feet
 - (2) Duals 23 (18R/18C/23)
 - (a) A At controller's discretion.
 - (b) F traffic from east: 6,000 feet or above. Traffic from west: 8,000 feet into "M" final box.
 - (c) $F(R23) 5{,}000$ feet or below
 - (3) Trips 18R/18C/18L.
 - (a) A 4,000 feet
 - (b) F 8.000 feet
 - (c) $F(18R) 5{,}000 \text{ or } 6{,}000 \text{ feet.}$

3-6-6. Final Radar Position Procedures

- (a) Breakout procedures:
 - (1) Runway 36R:
 - (i) Outside FAF: Issue a turn 30° right of the final approach course heading.
 - (ii) FAF 1 DME: Issue a right turn heading 090°. Assign an altitude of 4000°.
 - (2) Runway 36C: track localizer and climb to appropriate altitude. If necessary, coordinate with local controller for heading assignment. If able, coordinate with appropriate final radar controller and assign a heading of 270° or 090°, and climb to 4000'.
 - (3) Runway 36L:
 - (i) Outside FAF: Issue a turn 30° left of the final approach course heading.

- (ii) FAF 1 DME: Issue a left turn heading 270°. Assign an altitude of 4000'.
- (4) Runway 18L:
 - (i) Outside FAF: Issue a turn 30° left of the final approach course heading.
 - (ii) FAF 1 DME: Issue a turn left 090°. Assign an altitude of 4000'.
- (5) Runway 18C: Track localizer and climb to appropriate altitude. If necessary, coordinate with Local Control for heading assignment. If able, coordinate with appropriate final radar controller and assign a heading of 270° or 090°, and climb to 4000'.
- (6) Runway 18R:
 - (i) Outside FAF: Issue a turn 30° right of the final approach course heading.
 - (ii) FAF 1 DME: Issue a right turn of heading 270°. Assign an altitude of 4000°.
- (b) When running simultaneous ILS approaches, FR shall ensure aircraft are turned onto the Localizer prior.
 - (1) Duals:
 - (i) North Ops: 36L & 36R
 - a) LONIA @ 5000
 - b) HEKAM @ 4000
 - (ii) North Ops: 36C & 36R
 - a) FORET @ 5000
 - b) HEKAM @ 4000
 - (iii) North Ops: 36L & 36C
 - a) LONIA @ 5000
 - b) HUNEX @ 4000
 - (iv) South Ops: 18L & 18R
 - a) CAVVI @ 4000
 - b) WOVEN @ 5000
 - (v) South Ops: 18L & 18C
 - a) CAVVI @ 4000
 - b) TOMME @ 5000
 - (vi) South Ops: 18C & 18R
 - a) FERSA @ 4000
 - b) WOVEN @ 5000
 - (2) Trips:
 - (i) North Operation:
 - a) HEKAM @ 4000
 - b) SOLMN @ 8000
 - c) WELET @ 5000 (or > @ 6000)
 - (ii) South Operation:
 - a) CAVVI @ 4000
 - b) JEDKO @ 8000
 - c) RUDKY @ 5000 (or > @ 6000)

3-6-7. Reduced Longitudinal Separation

Reduced longitudinal separation (2.5 miles inside of a 10-mile final) is authorized between aircraft established on the final approach course in accordance with FAA Order 7110.65 for

runways 18C/36C, 18L/36R, 18R/36L and runways 5/23.

3-6-8. TAR/AR Pre-Arranged Coordination Area

See 3-5-1, Pre-Arranged Coordination Area, for more information.

3-6-9. Altitude Assignments During Simultaneous Approaches

It is recommended that the final radar west controller keep runway 36C/18C traffic at an altitude higher than the adjacent outboard final radar controllers. The purpose of this is to assist the outboard final radar controllers in obtaining visual approach clearances.

3-6-10. Aircraft Jurisdiction

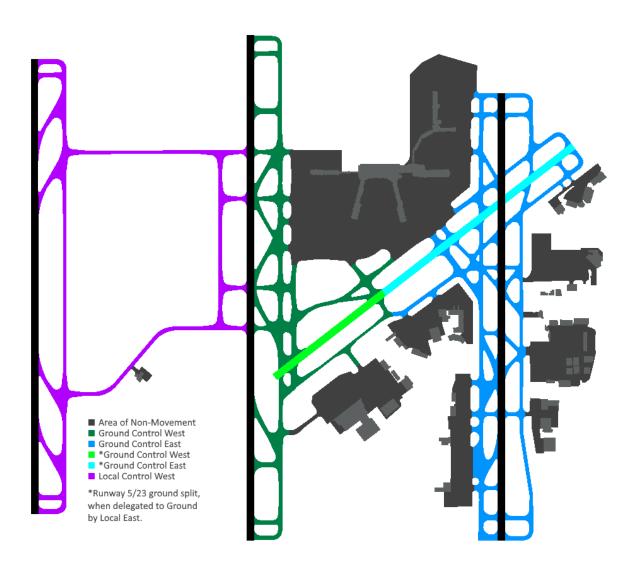
Final controllers should work the aircraft that have been assigned landing runways that are within their area of jurisdiction.

3-6-11. Potential Problem Areas

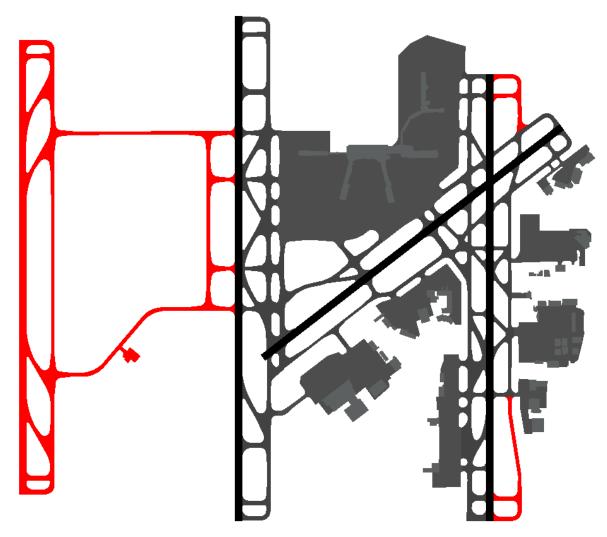
Controllers must be aware of potential conflictions whenever non-standard altitude assignments are employed. In all cases where non-standard altitudes are used, coordination must be complete and timely.

Attachments

Appendix A - Charlotte Ground Taxiway Allocation

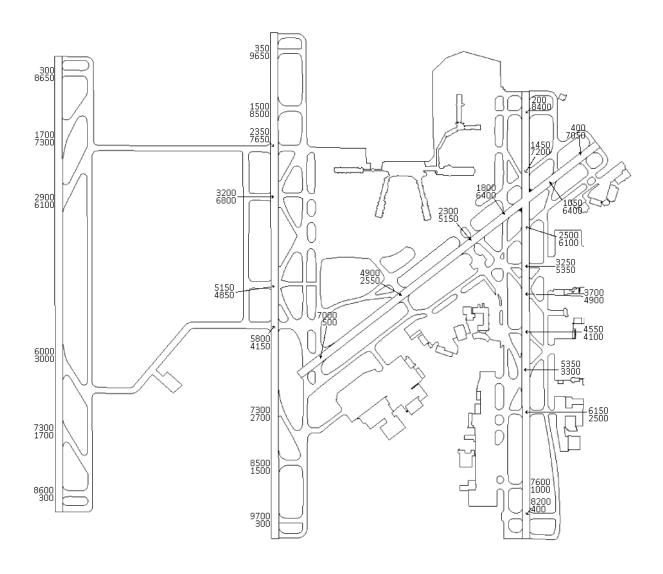


Appendix B - Discrepancies Between Sceneries

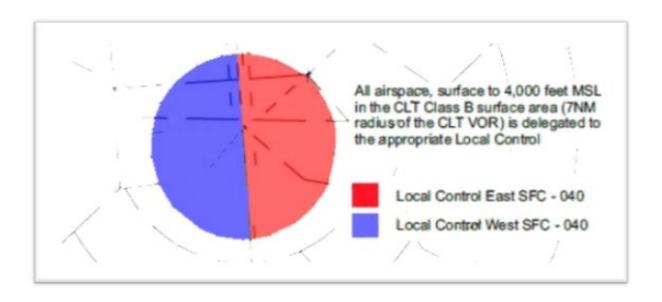


- (a) On Old Scenery, Runway 36L/18R is non-existent. It is suggested that controllers advise pilots of the discrepancy, and inform them that their 36L/18R is now runway 36C/18C.
- (b) On Old Scenery, Taxiway D does not exist south of taxiway D3.
- (c) On Old Scenery, Taxiway D does not exist north of taxiway M.
- (d) On Old Scenery, All taxiways west of Runway 36C/18C are non-existent. These taxiways are as follows:
 - (i) W, W2, W3, W4, W7, W8, 29, V
 - (ii) N west of runway 36C/18C
 - (iii) S west of runway 36C/18C
 - (iv) V4 west of runway 36C/18C
 - (v) V5 west of runway 36C/18C
- (e) On Old Scenery, Ramp entrance E17 is referred to as E14.
- (f) On Old Scenery, Ramp entrance E16 is referred to as E13.
- (g) On Old Scenery, Ramp entrance E15 is referred to as E12.
- (h) On Old Scenery, Ramp entrance E14 is referred to as E11.
- (i) On Old Scenery, No ramp exists north of E14.

Appendix C - Available Takeoff Distances

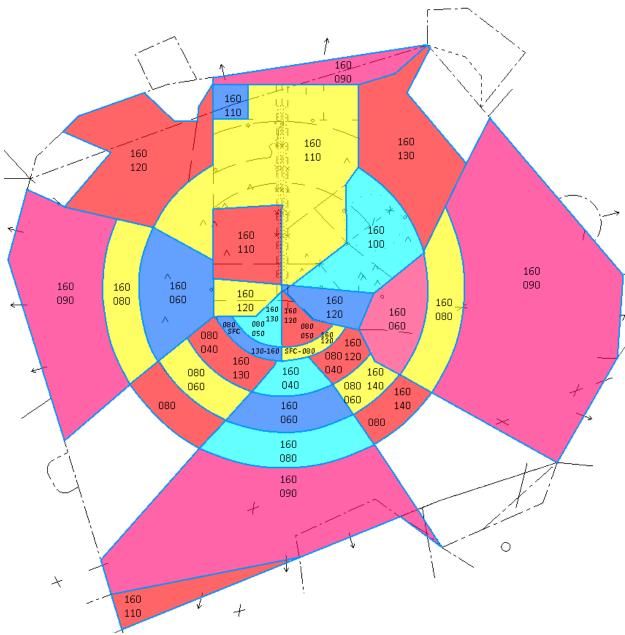


Appendix D - Local Airspace Delegation



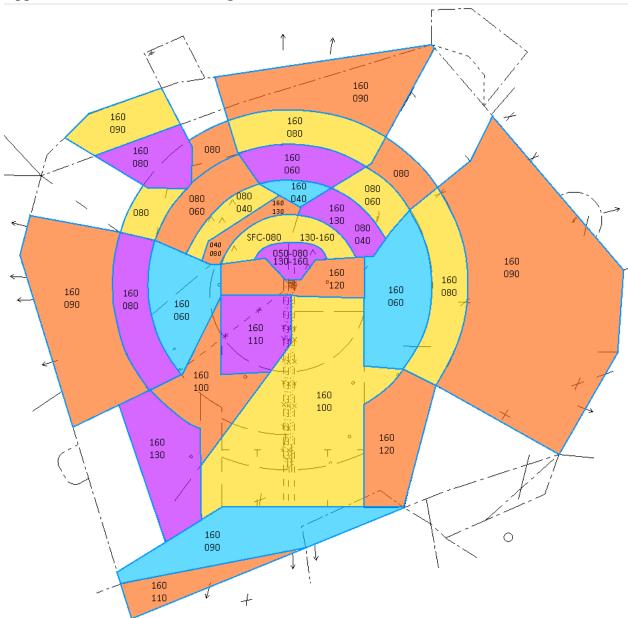
Appendix E - Departure Radar Airspace

Appendix E-1. Charlotte Landing South



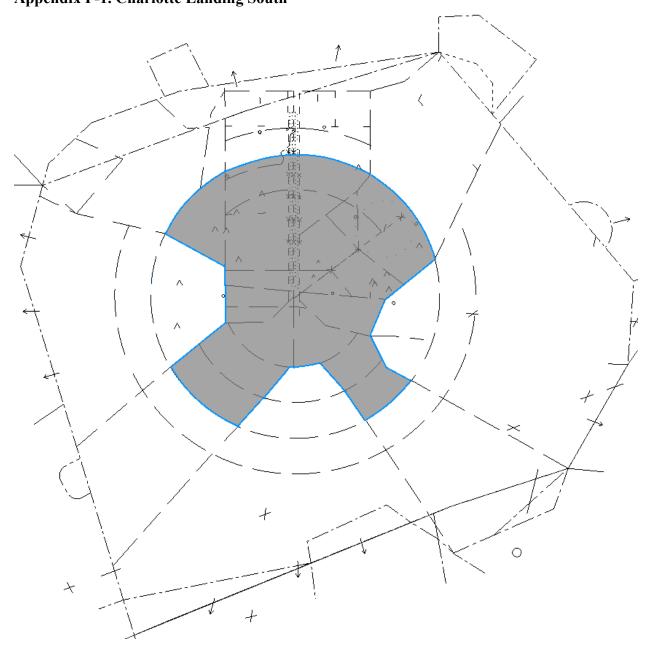
NOTE: Color bears no relevance and is only utilised to highlight airspace controlled by Charlotte Departure.

Appendix E-2. Charlotte Landing North

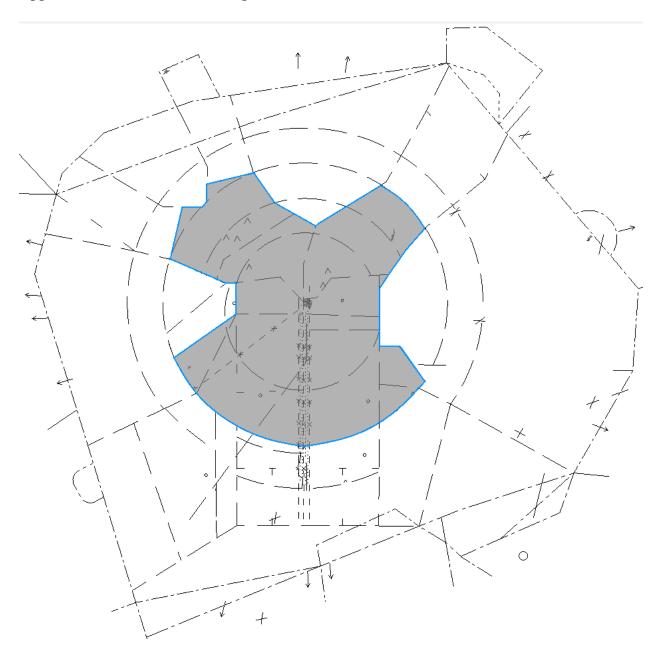


NOTE: Color bears no relevance and is only utilised to highlight airspace controlled by Charlotte Departure.

Appendix F - Departure/Arrival Pre-Arranged Coordination Area Appendix F-1. Charlotte Landing South

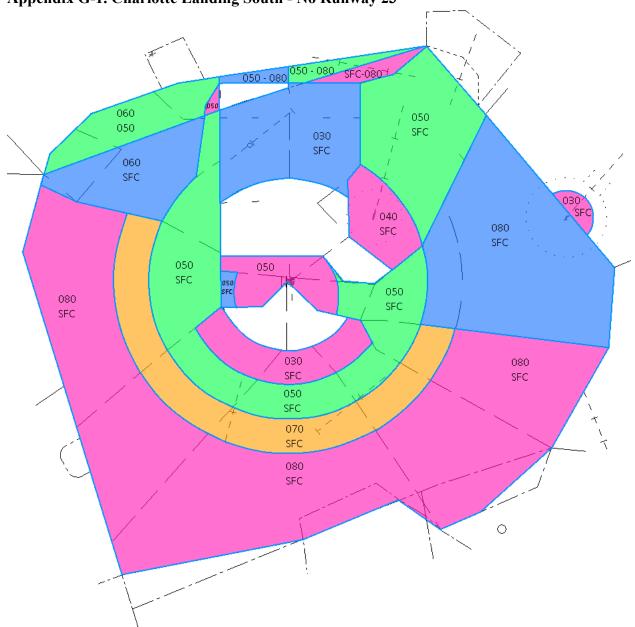


Appendix F-2. Charlotte Landing North

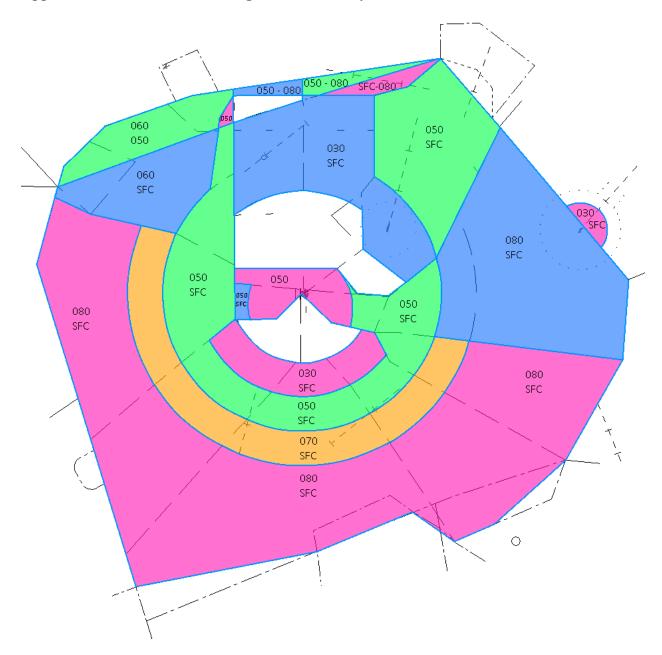


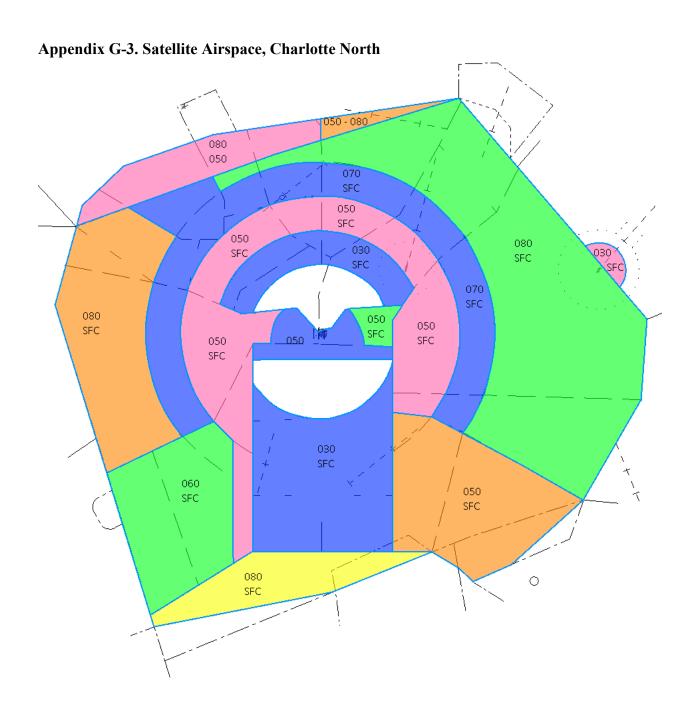
Appendix G - Satellite Airspace

Appendix G-1. Charlotte Landing South - No Runway 23



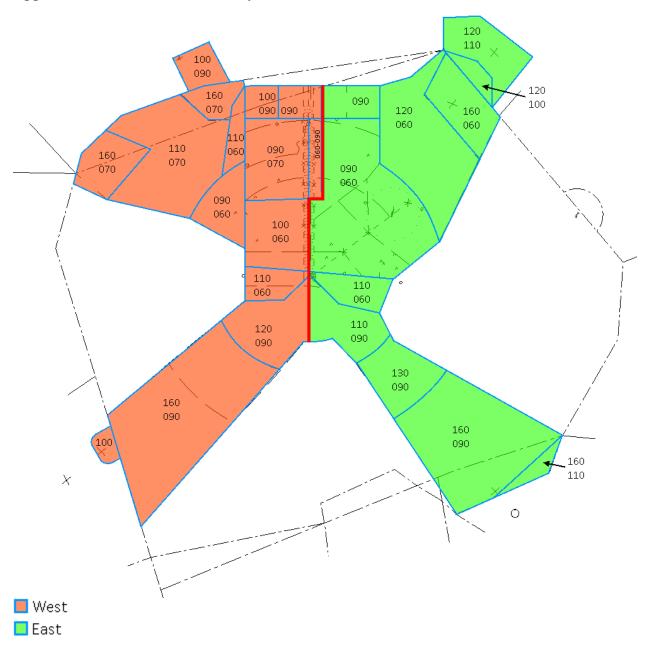
Appendix G-2. Charlotte Landing South - Runway 23



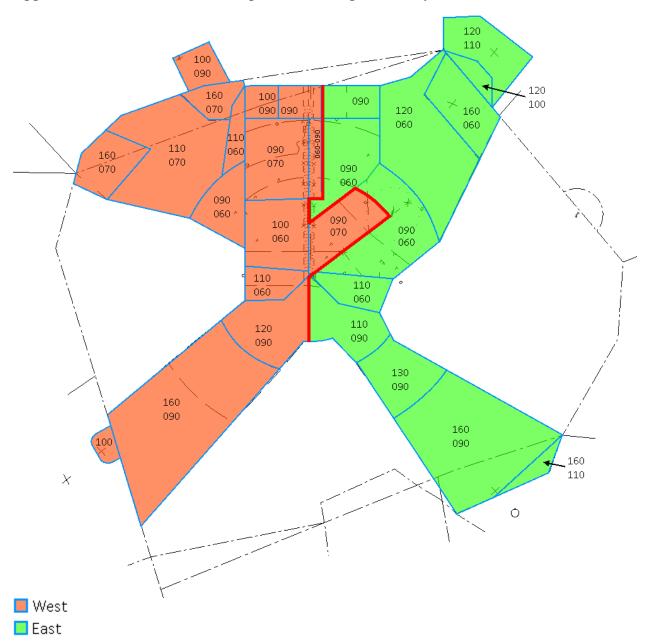


Appendix H - Arrival Radar Airspace

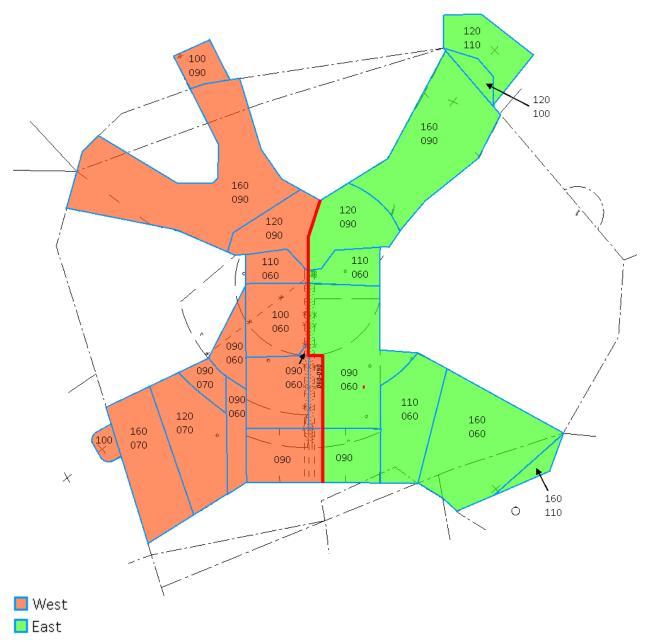
Appendix H-1. South - No Runway 23



Appendix H-2. Arrival Radar Airspace - South Ops- Runway 23

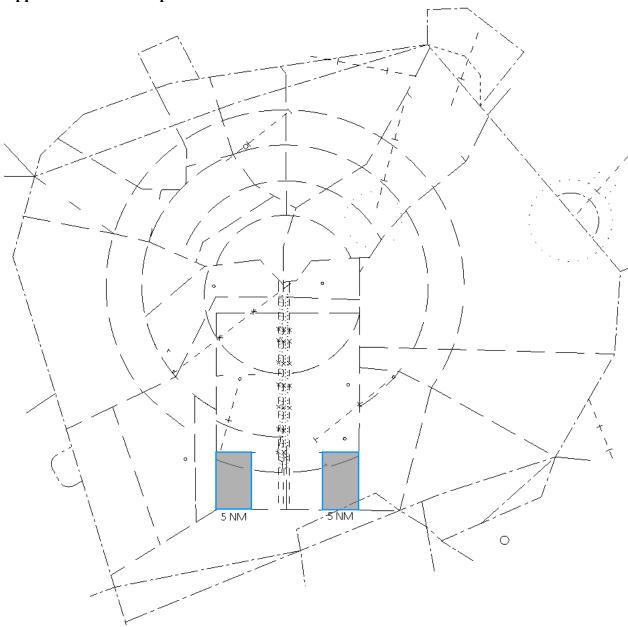


Appendix H-3. Arrival Radar - North Ops

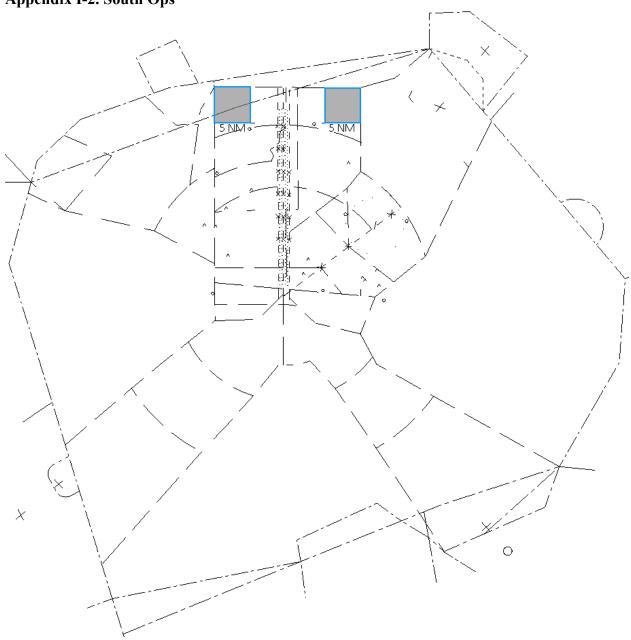


Appendix I - Final Radar/Arrival Radar Pre-Arranged Coordination
Area

Appendix I-1. North Ops

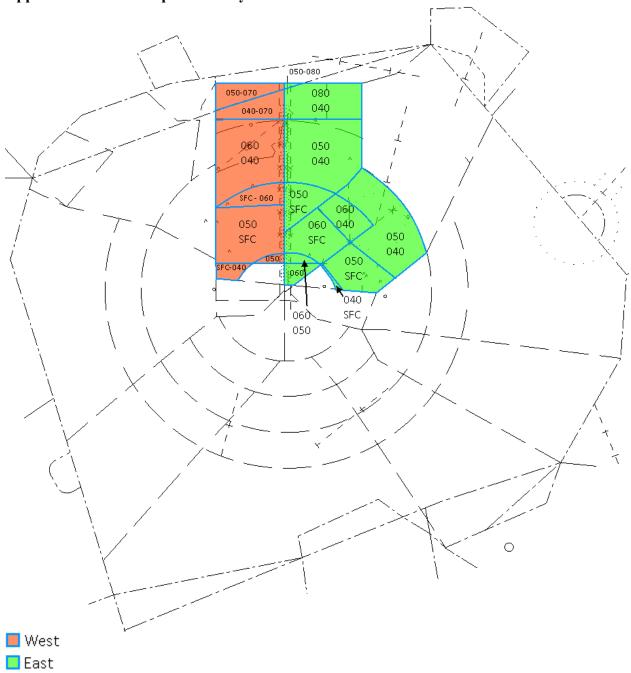


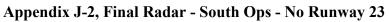
Appendix I-2. South Ops



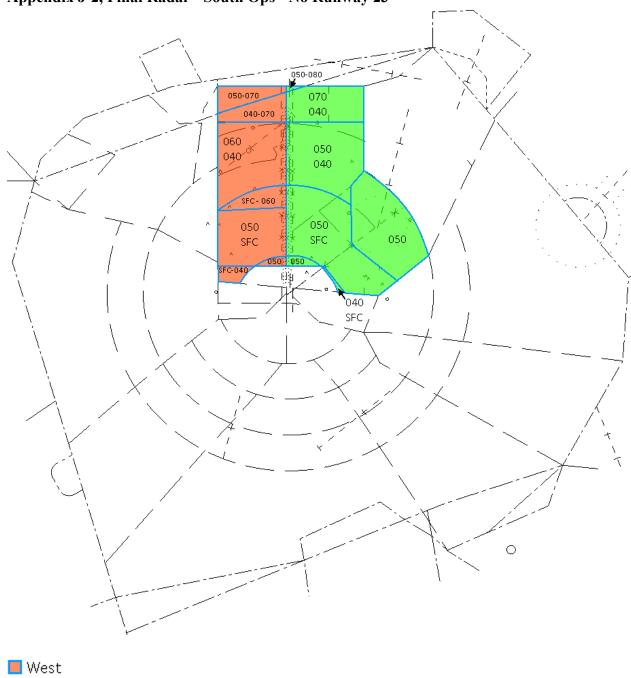
Appendix J - Final Radar

Appendix J-1. South Ops - Runway 23 Active

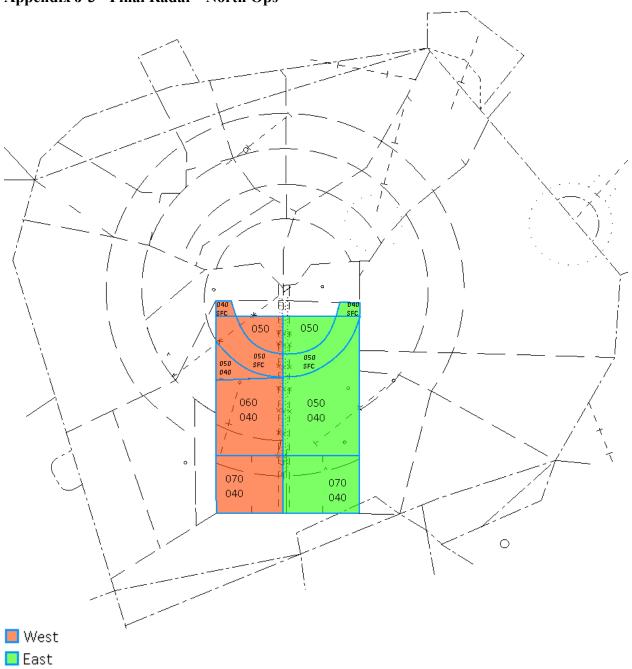




East



Appendix J-3 - Final Radar - North Ops



Appendix K - Controller Relief Briefing Checklist

Appendix K-1: Flight Data/Clearance Delivery Checklist:

- 1) Status Information Areas: Applicable IDS and PIREP page, etc.
- 2) Equipment Status: Radios (proper frequencies (de)selected), Visibility Range and Center, ATIS, RADAR(s), etc.
- 3) Staffing: Adjacent and inter-facility staffing.
- 4) Airport Conditions: Airspace configuration, Runway(s) in use, runway/taxiway closures, etc.
- 5) Airport Activities: Gate hold procedures, braking action reports, etc.
- 6) Weather: Trends, Windshear, ATIS, PIREPs, SIGMETs, AIRMETs, etc.
- 7) Flow Control: Special programs, etc.
- 8) Special Activities: Events, Evaluations, Emergency, etc.
- 9) Special Instructions: Coordination, CIC instructions, etc.
- 10) Training in Progress.
- 11) Traffic Information:
 - a) Aircraft standing by for clearance or TMU release, etc.
 - b) PDC eligible flight plans which have not yet been sent a PDC.
 - c) Coordination agreements with other positions

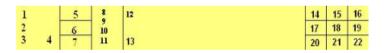
NOTE: There must be at least a 4 minute overlap during each position relief briefing: A minimum of 2 minutes prior to receiving the briefing and a minimum of 2 minutes at the end of the briefing. At the beginning of the 2 minutes prior to the briefing, the relieving controller must be monitoring the frequency. Upon completion of the briefing, the controller relieved must monitor the frequency for 2 minutes.

Appendix K-2: Ground & Local Control Checklist:

- 1) Status Information Areas: Applicable IDS and PIREP page, etc.
- 2) Equipment Status: Radios (proper frequencies (de)selected), Visibility Range and Center, ATIS, RADAR(s), etc.
- 3) Staffing: Adjacent and inter-facility staffing.
- 4) Airport Conditions: Airspace configuration, Runway(s) in use, runway/taxiway closures, etc.
- 5) Airport Activities: Gate hold procedures, braking action reports, etc.
- 6) Weather: Trends, Windshear, ATIS, PIREPs, SIGMETs, AIRMETs, etc.
- 7) Flow Control: Special programs, reportable CLT delays, etc.
- 8) Special Activities: Events, Evaluations, Emergency, etc.
- 9) Special Instructions: Coordination, CIC instructions, LUAW, LAHSO, etc.
- 10) Training in Progress.
- 11) Verbally State Runway Status: Unavailable, closed, or occupied.
- 12) Traffic Information:
 - a) Status of each aircraft and/or vehicle.
 - b) Point-outs.
 - c) Aircraft affected by Traffic Management Initiatives.
 - d) Coordination agreements with other positions.
 - e) Aircraft holding or standing by for service.

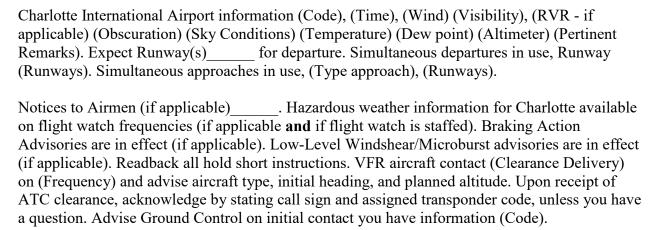
NOTE: There must be at least a 4 minute overlap during each position relief briefing: A minimum of 2 minutes prior to receiving the briefing and a minimum of 2 minutes at the end of the briefing. At the beginning of the 2 minutes prior to the briefing, the relieving controller must be monitoring the frequency. Upon completion of the briefing, the controller relieved must monitor the frequency for 2 minutes.

Appendix L - Departure Flight Strip Marking



1	Aircraft identification.
2	Number of aircraft if more than one, heavy aircraft indicator "H/" if appropriate, type of aircraft, and aircraft equipment suffix.
3	Computer identification number if required. (Auto Generated)
4	Flight Rules. I = IFR, V = VFR, S = SVFR, D = DVFR
5	Secondary radar (beacon) code assigned.
6	Temporary Altitude.
7	Cruise Altitude.
8	Departure airport.
9	Destination airport.
10	Alternate airport.
11	Alternate Clearance Limit (Scratch Pad).
12	Route. Manually enter altitude/altitude restrictions in the order flown, if appropriate.
13	Remarks.
14	Letter of Reported ATIS
15-16	Optional
17	Checkmark or "X" to indicate a correct clearance readback
18	Departure Taxiway if not departing full length
19	Runway Clearance. Runway of which Local Control issues Landing to Takeoff Clearance.
20	Controller Position ID of Assigned Departure Frequency
21	Assinged Heading or Navigation Fix
22	Departure time (Minutes only)

Appendix M - ATIS Template



Appendix N - Departure Runway Assignment

When departure demand dictates, ground should make all efforts to assign the following runways for the corresponding departures, unless operationally disadvantageous. Coordinate with Local Control, or TMC/CIC if available, for aircraft not assigned departures, or if the runway assignment table does not correspond with active departure runways.

Appendix N-1: RNAV TURBOJET DEPARTURES

RUNWAY	DEPARTURES (RNAV)	RUNWAY	DEPARTURES (RNAV)
18L/36R	BARMY# ICONS# KILNS# KWEEN# LILLS#	18C/36C	BEAVY# BOBZY# ESTRR# JOJJO# KRITR# WEAZL#

Appendix N-2: NON-RNAV TURBOJET DEPARTURES

RUNWAY	RADAR VECTOR	TRANSITION
18L/36R	CTF FLO GSO LIB PSK RDU SDZ WALUT	GANTS HAMLN JOTTA LILLS MERIL NALEY RUNIE
18C/36C	BZM CAE SPA SUG BOBZY	ANDYS BUCKL DEBIE HARAY NEANO PITTY TREAL

Appendix N-3: TURBOPROP DEPARTURES

RUNWAY	RADAR VECTOR	TRANSITION
18L/36R	JOTTA MERIL WALUT FLO PSK RDU	FLYYN HAMLN LILLS PEKNN
18C/36C	BZM BOBZY	ANDYS CEGAL DEBIE NEANO

Appendix O – CLT/ZTL LOA

ATLANTA ARTC CENTER AND CHARLOTTE ATC TOWER LETTER OF AGREEMENT

EFFECTIVE: September 1, 2019

SUBJECT: APPROACH CONTROL SERVICE

- 1. **PURPOSE:** To delegate authority and responsibility for approach control services in the airspace described in Annex 1 and to outline interfacility procedures supplemental to the Air Traffic Control Order.
- 2. CANCELLATION: Atlanta ARTC Center (ZTL) and Charlotte ATC Tower (CLT) Letter of Agreement, Approach Control Service, dated prior to the effective date of this document
- **3. RESPONSIBILITIES:** ZTL delegates to CLT authority and responsibility for control of IFR aircraft operations within the delegated airspace described in Annex 1.
- 4. **PROCEDURES:** ZTL and CLT will transition arrivals and departures via the Arrival Transition Areas (ATA's) and Departure Transition Areas (DTA's) depicted in Annex 1. Departures from Charlotte/Douglas International Airport (KCLT) and satellite airports must be established on the appropriate departure procedure prior to the ZTL/CLT airspace boundary to ensure aircraft transition within the confines of the DTA. This procedure must be utilized for departures with requested altitudes of 11,000 feet and above.

a. Arrivals:

- (1) The Transfer of Control Point (TCP) will be the common ZTL/CLT lateral boundary and vertical confines of CLT airspace.
- (2) ZTL must provide CLT arrivals a minimum of 5 miles in trail and published speeds at the ZTL/CLT lateral boundary unless otherwise coordinated. CLT has control for speed increases on arrivals.
- (3) The airspace inside the ATA, 11,000 16,000 feet as depicted on Annex 1, is released to ZTL in the event of holding or if CLT does not accept a handoff by 3 NM from the TCP.
- (4) ZTL will clear turbojet and turboprop arrivals to KCLT via the appropriate Standard Terminal Arrival Route (STAR) and ensure all aircraft are established on the appropriate routing prior to the TCP. Prop arrivals may remain on filed routings. All CLT terminal area arrivals must be cleared to cross the arrival transition fix (or TCP for prop arrivals not on STAR) in accordance with the following routes and altitudes.
- (5) Turbojet arrivals to KCLT must be cleared as follows:

(b) Non-Optimized Profile Descent STAR operations		
1. South Operation		CROSSING RESTRICTIONS
a. STARs: FILPZ, PARQR, L	IINN, BTSEY	TCP @ 11,000 and 250 knots
b. STARs: JONZE, BANKR,	CHPTR	TCP AOB 14,000 and 250 knots
c. STAR: MAJIC, CHSLY		TCP @ 13,000 and 250 knots
2. North Operation		CROSSING RESTRICTIONS
1. STARs: FILPZ, PARQR, L	IINN, BTSEY	TCP @ 14,000 and 250 knots
2. STARs: JONZE, BANKR, CHPTR		TCP @ 11,000 and 250 knots
3. STAR: MAJIC, CHSLY		TCP @ 13,000 and 250 knots

- (6) ZTL must issue the Descend Via clearance to turbojet aircraft in a timely manner that ensures aircraft are capable of meeting all restrictions based on landing direction. Aircraft are expected to be at these prescribed altitudes to meet appropriate CLT OPD windows. Special consideration will be made for high-performance aircraft.
 - (a) CLT North Operation
 - (i) CHSLY, PARQR, and FILPZ via OPD
 - (ii) JONZE cross JONZE at or below 13,000 feet
 - (iii) BANKR cross DEBBT at or below 14,000 feet
 - (b) CLT South Operation
 - (i) JONZE and BANKR via OPD
 - (ii) FILPZ cross GLAXI at or below 15,000 feet
 - (iii) PARQR cross PARQR at or below 13,000 feet

NOTE: Direct NCOMA and ensuring the 12,000 – 11,000 feet restriction does not require coordination.

(iv) CHSLY cross CHSLY at or below 16,000 feet

NOTE: Direct KRISS and ensuring aircraft are at or below 13,000 feet does not require coordination.

(7) Turboprop and prop arrivals to KCLT must be cleared as follows:

(a) Turboprop Aircraft north of V54		
1. South Operation	CROSSING RESTRICTIONS	
a. STAR: LIINN	TCP AOB 9,000 descending to 7,000	
2. North Operation	CROSSING RESTRICTIONS	
b. STAR: LIINN	TCP @ 9,000	
(b) Prop Aircraft north of V54	Cross the TCP at or below 7,000	

(8) ZTL must clear arrivals to CLT satellite airports as follows:

(a) Landing: KDCM, N52, KUZA, KAFP, KLKR, KA	AKH, KEQY
1. Turbojets, cleared via a Non-RNAV STAR	CROSSING RESTRICTIONS
1. STARs: LIINN	TCP @ 11,000 and 250 knots
2. STAR: CHPTR, south operation	TCP AOB 14,000 and 250 knots
3. STAR: CHPTR, north operation	TCP @ 11,000 and 250 knots
4. STAR: MAJIC	TCP @ 13,000 and 250 knots
2. Turboprops, cleared via a Non-RNAV STAR	CROSSING RESTRICTIONS
STAR: LIINN	TCP @ 9,000
3. Props, must be cleared as filed	CROSSING RESTRICTIONS
North of V54, As filed	AOB 7,000

(b) Landing: KEHO, KIPJ		
1. Direct destination		Cross TCP AOB 7,000
2. From UNARM, direct destination and handed off to GSP when online		
(a) Landing: KJQF, KVUJ, KRUQ		
North or South Operation		CROSSING RESTRICTIONS
Turbojets through the UNARM sector		On CHPTR STAR & Cross TCP @ or below 14,000 and 250 knots

- (9) Arrivals to Hickory Regional Airport (KHKY) must be assigned 5,000 feet and released to the Wilkes Sector for turns and descent toward the airport or final approach course.
- (10) Arrivals to Statesville Regional Airport (KSVH) must be assigned 4,000 feet and released to the Wilkes Sector for turns and descent toward the airport or final approach course. When utilizing RNAV GPS RWY 28 and ILS or LOC/DME Z RWY 28 approaches, arrivals will be handled in accordance with the following:
 - (a) Aircraft arriving from points south of the KSVH will be coordinated with the Wilkes Sector and cleared for the approach by CLT. CLT will instruct the aircraft to report cancellation or down time to ZTL.
 - (b) Aircraft arriving from points north of the KSVH will be coordinated with CLT and cleared for the approach by ZTL. The Wilkes Sector (ZTL) will advise CLT when the aircraft has cancelled or landed.

b. Departures:

- (1) CLT will clear all IFR departures via the appropriate Standard Instrument Departure (SID).
- (2) CLT will transition turboprop/prop departures from KCLT and satellite airports that will next enter Jacksonville ARTC Center (ZJX) directly to ZJX.
- (3) CLT will clear turbojet departures requesting 17,000 or above to maintain 16,000 feet and expect filed altitude 10 minutes after departure. CLT must make point outs to adjacent ZTL sectors when CLT verbally requests a higher altitude.
- (4) CLT will clear turboprop/prop departures requesting 13,000 or above to maintain 12,000 feet and expect filed altitude 10 minutes after departure. ZTL has control for climb and 15 degree turns. ZTL is responsible for separation from CLT arrivals.
- (5) CLT will clear departure aircraft requesting 16,000 feet or below, except as noted in paragraph 3 and 4 of this section, at requested altitude appropriate for direction of flight.
- (6) Only ZTL may delete the speed restriction to aircraft assigned a SID. ZTL is authorized to delete the speed restriction within CLT delegated airspace.