LETTER OF AGREEMENT

EFFECTIVE: April 5, 2026

SUBJECT: Coordination Procedures

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1. PURPOSE: This Letter of Agreement establishes procedures for handling air traffic between Denver Terminal Radar Approach Control (D01 TRACON) and Denver Airport Traffic Control Tower (DEN ATCT).

2. CANCELLATION: The Letter of Agreement between D01 TRACON and DEN ATCT, dated December 1, 2023, is canceled.

3. SCOPE: To establish standard operating procedures for the coordination and control of aircraft between D01 TRACON and DEN ATCT on the VATSIM network. This letter of agreement is supplemental to vZDV Facility Policy and FAA Order JO 7110.65. The information contained herein is to be used for flight simulation purposes only on the VATSIM network. It is not intended, nor should it be used for real-world navigation. The Virtual Denver ARTCC is not affiliated with the FAA, the actual Denver ARTCC, or any governing aviation body.

4. DEFINITIONS:

a. Configuration: The primary direction of landing.

b. Departure Corridors: Radials defining boundaries in which aircraft exit D01 TRACON airspace.

c. North Corridor: Mile High VOR (DVV) 314° radial clockwise to the DVV 038° radial.

d. East Corridor: Falcon VOR (FQF) 038° radial clockwise to the DVV 125° radial.

e. South Corridor: FQF 127° radial clockwise to the FQF 220° radial.

f. West Corridor: DVV 225° radial clockwise to the FQF 306° radial.

g. Final Radar (FR) Airspace: See graphic depictions in Attachment 2.

h. Non-Compliance (NC) Departure: An RNAV departure that is unable to meet the altitude restrictions on their SID.

i. Speed Restricted (SP) Departure: Any departure aircraft anticipating speed limitations during climb.

j. Established on RNP (EoR) Concept: A system of authorized approaches that allow aircraft operations to be safely conducted with reduced separation criteria once aircraft are established on a Performance Based Navigation (PBN) segment of a published IAP.

k. Radius to Fix (RF) Leg: The curved path or arc of an RNAV (RNP) Z approach.

5. RESPONSIBILITIES:

a. All controllers staffing (or controlling overlying airspace containing) D01 TRACON and/or DEN ATCT positions are required to be familiar with the provisions of this document.

b. D01 TRACON delegates to DEN ATCT that airspace at and below 10,000 feet MSL within 8 NM of the approach end of Runway 17R, excluding:

(1) BKF Class D airspace, below 8,000 feet MSL.

(2) CFO Class D airspace, below 7,000 feet MSL.

(3) That airspace in the FR airspace above 7,000 feet MSL as depicted in Attachment 2. DEN ATCT airspace is depicted in Attachment 2 as a shaded area within the FR airspace.

c. D01 TRACON delegates control and responsibility to DEN ATCT for separation of aircraft within airspace delegated to DEN ATCT and on final approach beginning at the Final Approach Fix (FAF).

d. When triple simultaneous ILS approaches are being conducted, D01 TRACON is responsible for separation until aircraft are on a 1 NM final.

e. Each DEN ATCT Local Control (LC) position must Quick-Look all active D01 TRACON Arrival Radar (AR), Departure Radar (DR), and Final Radar (FR) positions that are working traffic to or from KDEN runways.

f. Visual Separation Delegation:

(1) DEN ATCT may apply visual separation (target resolution on VATSIM) between aircraft under their control and aircraft under the control of D01 TRACON.

(2) DEN ATCT may use visual separation (target resolution) for arrivals inside the FAF and/or in DEN ATCT airspace.

6. SIMULTANEOUS INDEPENDENT APPROACHES - DUAL AND TRIPLE:

a. The following approach pairings are authorized for EoR operations conducted in accordance with FAA JO 7110.65 paragraph 5-9-7:

(1) RNAV (RNP) Z RY16R with all RY17L & RY17R instrument approaches.

(2) RNAV (RNP) Z RY17R with all RY16L or RY16R instrument approaches.

(3) RNAV (RNP) Z RY34R with all RY35L & RY35R instrument approaches.

(4) RNAV (RNP) Z RY35R with all RY34R & RY35L instrument approaches.

b. If an aircraft needs to be taken off an instrument approach procedure for any reason during simultaneous independent approaches, the appropriate Final Radar controller will issue instructions to re-establish separation with aircraft on the adjacent final(s).

(1) If an aircraft on a straight-in approach will enter DEN ATCT airspace, the appropriate Final Radar controller will advise the appropriate LC to issue instructions to maintain 9,000 and track the final approach course.

(2) Once instructions have been issued for RNAV (RNP) Z missed approaches, LC must coordinate with all other affected D01 TRACON sectors as necessary.

7. INSTRUMENT LANDING SYSTEM (ILS) and AREA NAVIGATION (RNAV) APPROACHES TO CONVERGING RUNWAYS

a. Converging ILS/RNAV approach configurations are authorized, provided the following criteria are met:

(1) The KDEN official weather observation (METAR) lists the ceiling as 1700 feet or above and visibility of at least 5 statute miles.

(2) The phrase “Simultaneous ILS and RNAV approaches in use to converging runways” is on the ATIS broadcast(s).

b. When the arrival aircraft on approach to the converging runway (RY07 or RY26) is at the breakaway point (2NM final), the aircraft may continue the approach to a landing provided one of the following is met:

(1) LC can provide visual separation; or

(2) Standard IFR separation between aircraft is maintained.

c. In the event LC needs to cancel the approach and issue climb-out instructions:

(1) Comply with paragraph 8.b.(2) pertaining to generic missed approach instructions; or

(2) Once aircraft are at the breakaway points for RY07 and/or RY26, LC may issue a turn and climb to the aircraft as follows:

1) Landing North and RY07 - Instruct aircraft to turn left heading 320° and climb and maintain 8,000 feet.

2) Landing North and RY26 - Instruct aircraft to turn right heading 040° and climb and maintain 8,000 feet.

3) Landing South and RY07 - Instruct aircraft to turn right heading 205° and climb and maintain 8,000 feet.

4) Landing South and RY26 - Instruct aircraft to turn left heading 120° and climb and maintain 8,000 feet.

5) Transfer communications and control to the FR previously working the aircraft within 5NM of the breakaway point.

d. The following converging ILS/RNAV configurations are authorized:

(1) When Landing North and East:

1) ILS/RNAV RY35L and RY35R; and

2) ILS/RNAV RY07

(2) When Landing North and West:

1) Configuration 1:

a) ILS/RNAV RY34L or RY34R; and

b) ILS/RNAV RY35L or RY35R; and

c) ILS/RNAV RY26

2) Configuration 2:

a) ILS/RNAV RY35L and RY35R; and

b) ILS/RNAV RY26

(3) When Landing South and East:

1) ILS/RNAV RY16L or RY16R; and

2) ILS/RNAV RY17L or RY17R; and

3) ILS/RNAV RY07

(4) When Landing South and West:

1) ILS/RNAV RY16L or RY16R; and

2) ILS/RNAV RY26

8. ARRIVALS:

a. Reduced separation on final is authorized for RY16L, RY17R, RY35L, and RY35R in accordance with FAA JO 7110.65 paragraph 5-5-4, provided the following criteria are met:

(1) The KDEN official weather observation must list visibility of at least 2 statute miles.

(2) RVR values for all of the aforementioned runways must be greater than 6000 feet.

b. DEN ATCT must:

(1) Accept transfer of radar identification on all aircraft inbound to KDEN by use of STARS automation.

(2) Coordinate all breakouts, missed approaches, and go-arounds with D01 TRACON, or comply with the following:

(a) LC has control for climb to 8,000 or 9,000 feet and turns up to 15° away from the final approach course when inside the FAF for all runways (except as stated in paragraph 7.c.(2)). LC assumes all separation responsibility for arrival traffic to adjacent or converging runways and all KDEN departure traffic.

NOTE-
When triple simultaneous ILS approaches are in progress, LC has control of arrivals within a 1NM final.

(b) Ensure aircraft are tracked via a STARS data block and handed off to the appropriate DR controller at or climbing to maintain 9,000 feet.

(c) Aircraft must exit DEN ATCT delegated airspace on an authorized heading immediately adjacent to FR airspace.

c. D01 TRACON must:

(1) Transfer communications to DEN ATCT in accordance with the following:

(a) For aircraft conducting RNAV (RNP) Z approaches, transfer communications once the aircraft is established on a published segment of the approach but prior to the aircraft beginning the RF segment of the approach.

(b) For all other approaches, transfer communications between the FAF and 10 flying miles from the approach end of the landing runway.

(2) Ensure all arrival aircraft have the assigned landing runway displayed in the STARS datablock scratchpad.

(3) Instruct VFR aircraft requesting entry into DEN ATCT airspace to contact LC for Class B airspace clearance.

(4) Not allow an aircraft to intercept the final approach course inside the FAF for the following landing runways:

(a) RY17R

(b) RY34R

(c) RY35L

(5) Indicate that visual separation is being applied between two aircraft on final approach, where less than applicable radar separation will exist, by placing a “VS” in scratchpad 2 of the STARS data block of the aircraft when the pilot has been instructed to either follow or maintain visual separation from the preceding aircraft.

(6) Forward the type of approach an aircraft is conducting if other than that advertised on the ATIS for the runway in use. Use the following scratchpad entries in scratchpad 2 to indicate the type of approach:

(a) “VIS” for a visual approach.

(b) “ILS” for an ILS approach.

(c) “RNY” for an RNAV (GPS) Y approach.

(d) “RNZ” for an RNAV (RNP) Z approach.

NOTE -
Additional examples of scratchpads and use cases can be found in D01 SOP Section

(7) Verbally forward known flight (status) information to DEN ATCT for aircraft displaying a two-letter special condition code in the STARS datablock.

9. DEPARTURES:

a. DEN ATCT must:

(1) Assign the following altitudes to departing aircraft:

(a) 8,500 feet or below to VFR departures.

(b) 9,000 feet to all departures landing in D01 TRACON airspace.

(c) 9,000 feet to non-turbojet aircraft regardless of filed altitude.

(d) 10,000 feet to turbojet aircraft not on an RNAV SID.

(e) 10,000 feet to all Non-Compliance RNAV departures.

(f) 10,000 feet to all aircraft on North Corridor RNAV SIDs departing RY16L, RY16R, RY17L, or RY17R and all aircraft on South Corridor RNAV SIDs departing RY34L, RY34R, RY35L, or RY35R.

(2) Release aircraft as follows:

(a) Turbojets: Ensure all turbojets enter D01 TRACON airspace on the correct RNAV SID or pre-coordinated departure heading in accordance with Attachment 2.

(b) Props: Ensure all prop departures are established on the pre-coordinated departure headings in accordance with Attachment 1.

(c) RNAV-equipped turbojets may be cleared direct to the following waypoints without coordination: BRKEM, HIDEF, KIDNG, BGONE, and MLHOS.

(d) North Corridor RNAV SID departures departing RY16L, RY16R, RY17L, or RY17R must be issued a heading of 065° or 290°.

(e) South Corridor RNAV SID departures departing RY34L, RY34R, RY35L, or RY35R must be issued a heading of 105° or 220°.

NOTE-
A 220° heading is not authorized for go-around aircraft unless otherwise coordinated.

(3) Call for release of all KDEN departures landing KAPA or KBJC.

(4) Ensure like-type aircraft are assigned initial departure RNAV routes and/or headings that do not require actual or projected flight paths to cross in order for the aircraft to intercept flight plan routes.

(5) Route aircraft around the Land North and/or Land South FR airspace in accordance with the following:

(a) Ensure like-type aircraft that will depart the South Corridor via the same or crossing routes around the Land North FR airspace are separated by departures times of at least three minutes when one aircraft is departing around the east side of the Land North FR airspace and one aircraft is departing around the west side of the Land North FR airspace.

(b) Ensure like-type aircraft that will depart the North Corridor via the same or crossing routes around the Land South FR airspace are separated by

departures times of at least three minutes when one aircraft is departing around the east side of the Land South FR airspace and one aircraft is departing around the west side of the Land South FR airspace.

(c) Deliver aircraft landing KCOS, KPUB, or routed via V389 to D01 TRACON on a 105° heading when the Land North FR airspace is in use, unless otherwise coordinated.

(6) Provide 5 Miles-in-Trail (MIT) to aircraft departing around the Land East and Land West FR airspace regardless of landing configuration when such airspaces are in use.

(7) Provide 5 MIT between legacy and RNAV departures leaving DEN ATCT airspace on the same course.

NOTE-
This is not separation criteria, but is a Traffic Management Initiative.

(8) Ensure accurate STARS data block acquisition for all departing aircraft. When DR has autotrack capabilities disabled, or when an aircraft does not automatically acquire to the appropriate DR position, manually track the aircraft and handoff to the appropriate DR controller prior to the lateral limits of DEN ATCT airspace and prior to communications transfer.

(9) When a pilot is applying visual separation with a preceding departure, coordinate with the appropriate departure controller verbally. Separation in accordance with FAA JO 7110.65 paragraph 7-2-1 may be approved provided routes will diverge by 15° or more within 15NM of the Approach End of Runway (AER) 17R and weather conditions and performance characteristics do not preclude the ability of the pilot to maintain visual separation. See Attachment 4.

(10) Verbally coordinate any NC or SP departures prior to communications transfer.

b. D01 TRACON has:

(1) Control for turns toward FR airspace upon communications transfer for all departures and missed approach aircraft on authorized headings or RNAV routes immediately adjacent to FR airspace.

(2) Control for descent for all missed approach aircraft and all KDEN departure aircraft landing in D01 TRACON airspace.

10. TRAFFIC MANAGEMENT PROCEDURES AND RESPONSIBILITIES:

a. DEN ATCT must advise D01 TRACON of the aircraft identification, departure time, and heading of the last aircraft for the current departure runway during a change in runway configuration.

b. D01 TRACON must:

(1) Advise DEN ATCT of the type of approaches in progress.

(2) Advise DEN ATCT of the last aircraft for the current arrival runway during a change in runway configuration.

11. COLORADO AIR AND SPACE PORT (KCFO) ARRIVALS/DEPARTURES:

a. D01 TRACON must Point-Out all KCFO arrival aircraft that will impact DEN ATCT airspace or operations.

b. Approval by DEN ATCT of “APREQ Colorado Air and Space Port Departure, runway (number), (callsign)” allows D01 TRACON to depart an IFR aircraft from KCFO RY08, RY17, or RY35 on an assigned heading of 120° and climbing to 8,000 feet. See Attachment 3.

12. OPPOSITE DIRECTION OPERATIONS (ODO):

a. Definitions:

(1) Same Runway ODO - IFR or VFR operations conducted to the same runway where an aircraft is operating in a reciprocal direction of another aircraft arriving, departing, or conducting an approach. An operation is considered ODO only when more than one aircraft is involved. ODO is not based on the advertised runway.

(2) Parallel Runway ODO - IFR or VFR operations conducted to parallel runways, regardless of distance between centerlines, where aircraft are operating in a reciprocal direction of another aircraft arriving, departing, or conducting an approach to a parallel runway. An operation is considered ODO only when more than one aircraft is involved. ODO is not based on the advertised runway.

NOTE-
ODO procedures do not apply to Land North and South configuration (landing runways 16L, 16R, 35L, and 35R).

(3) Operational Necessity - Condition in which the need of conducting an aircraft operation justifies using ODO procedures to mitigate the potential for unacceptable risk to other aircraft and the overall air traffic operation.

(4) Operational Priority - As defined in FAA JO 7110.65 paragraph 2-1-4.

b. Prerequisites:

(1) Initiation of ODO must be verbally coordinated. The request must include whether it is an operational necessity or priority.

(a) DEN ATCT must verbally request opposite direction departures with D01 TRACON.

(b) D01 TRACON must verbally request opposite direction arrivals with DEN ATCT.

(2) RNAV (RNP) Z approaches to the same runway are not authorized when ODO are being conducted.

c. Responsibilities:

(1) The LC position(s) and FR position(s) share the responsibility of issuing traffic advisories to aircraft.

(2) LC is responsible for applying the cutoff point(s) between arriving and departing aircraft in accordance with paragraph 12.e.(2).

(3) FR is responsible for applying the cutoff point(s) between successive ODO arrivals in accordance with paragraph 12.e.(3).

d. General Procedures:

(1) All initial coordination must include callsign, aircraft type, and arrival or departure runway.

(2) Traffic advisories must be issued to participating ODO aircraft.

(3) Cutoff points for each runway are 10NM from the runway threshold.

(4) When conducting an opposite direction arrival with a circling maneuver, the aircraft is no longer considered an ODO once it commences circling and is abeam the threshold of the runway.

e. When conducting Same Runway ODO, the following must apply:

(1) Do not allow Same Runway ODO with opposing traffic inside the cutoff point.

(2) Arrival and Departure - DEN ATCT must ensure the departing aircraft is airborne and turned to avoid all conflicts prior to the arrival aircraft reaching the cutoff point.

(3) Arrival and Arrival - D01 TRACON must ensure the first arrival has landed or canceled IFR prior to the second aircraft reaching the cutoff point.

(4) If the above conditions are not met, action must be taken to ensure separation remains between the participating aircraft.

NOTE-
Visual separation is not authorized for Same Runway ODO.

f. When conducting Parallel Runway ODO, ensure that the operation provides for a turn away from the opposing traffic when inside the cutoff point to the parallel runway. Visual separation may be applied after the turn away from the conflicting traffic is issued.

7. ATTACHMENTS:

a. Attachment 1 - Initial Departure Headings for Prop Aircraft

b. Attachment 2 - Initial Departure Headings for Turbojet Aircraft

c. Attachment 3 - Colorado Air and Space Port IFR Departures

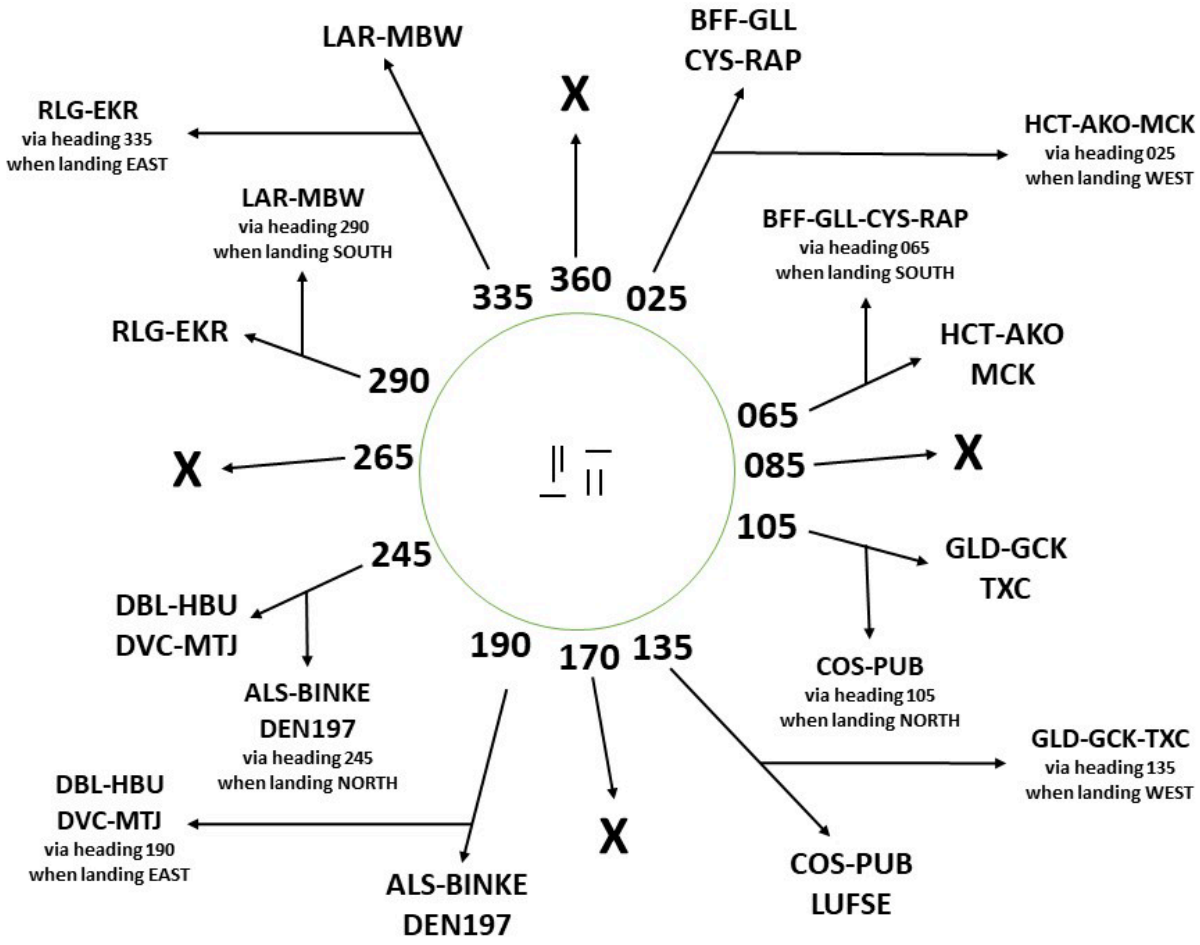
d. Attachment 4 - 15NM Waypoints for Visual Separation

8. APPROVED:

Evan McSweeny
Air Traffic Manager
Denver ARTCC

Jack Jones
Deputy Air Traffic Manager
Denver ARTCC

Attachment 1. Initial Departure Headings for Prop Aircraft



NOTE-

The depicted "three digit numbers" indicate headings to be assigned to aircraft on specified routes or transitions, NOT tracks to be flown.

Attachment 2. Initial Departure Headings for Turbojet Aircraft

Figure 1. Land North

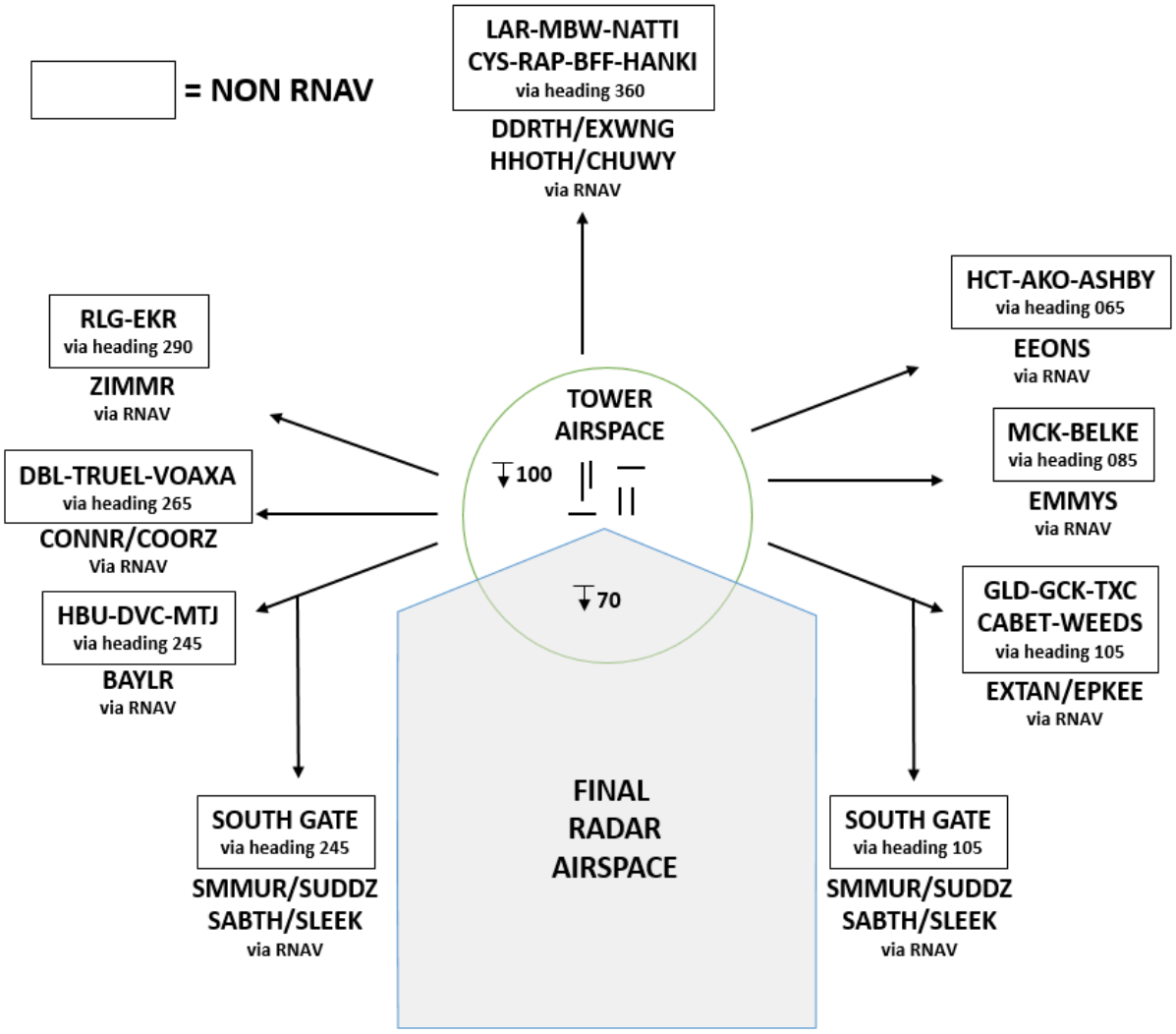


Figure 2. Land South

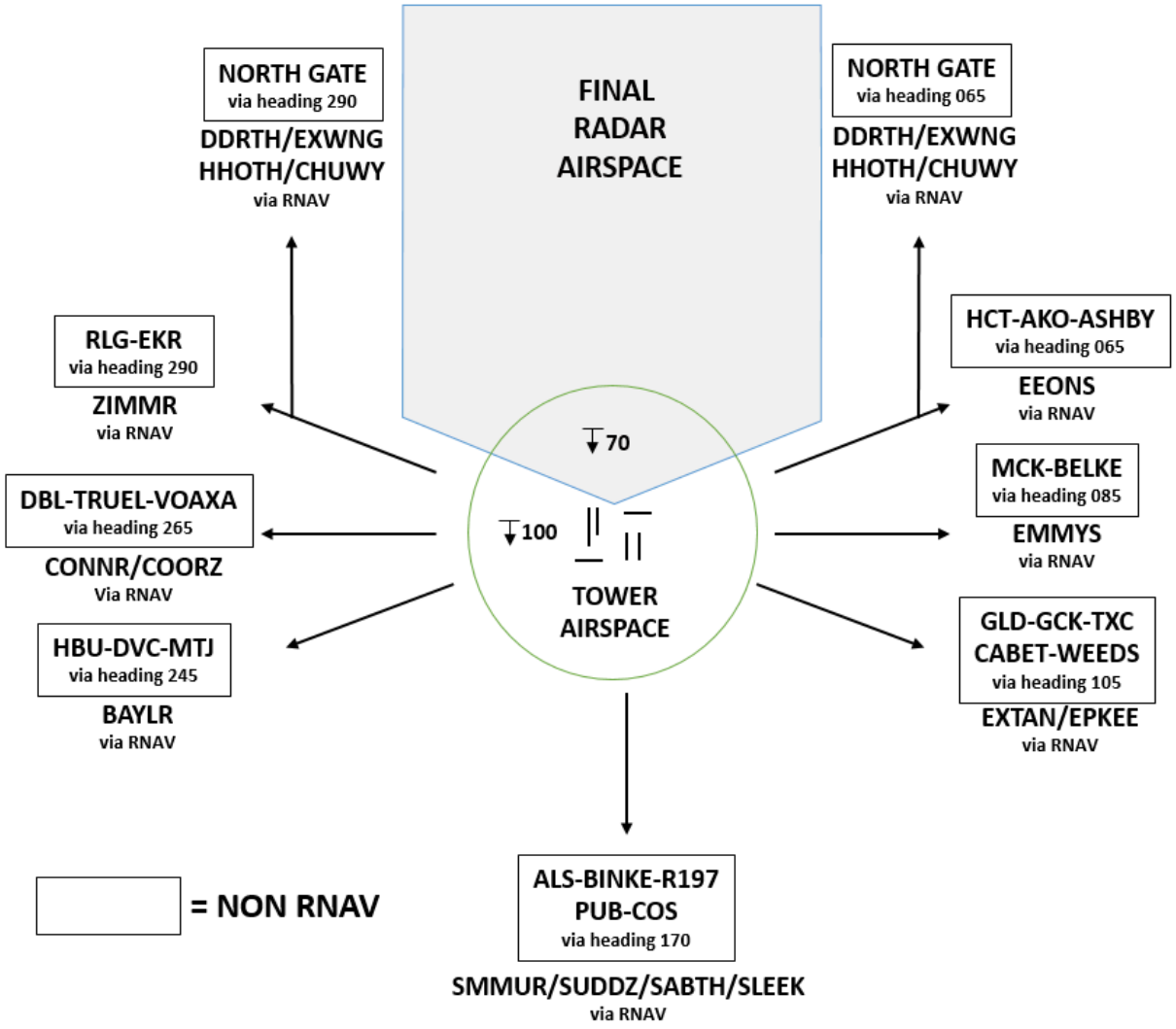


Figure 3. Land North and East

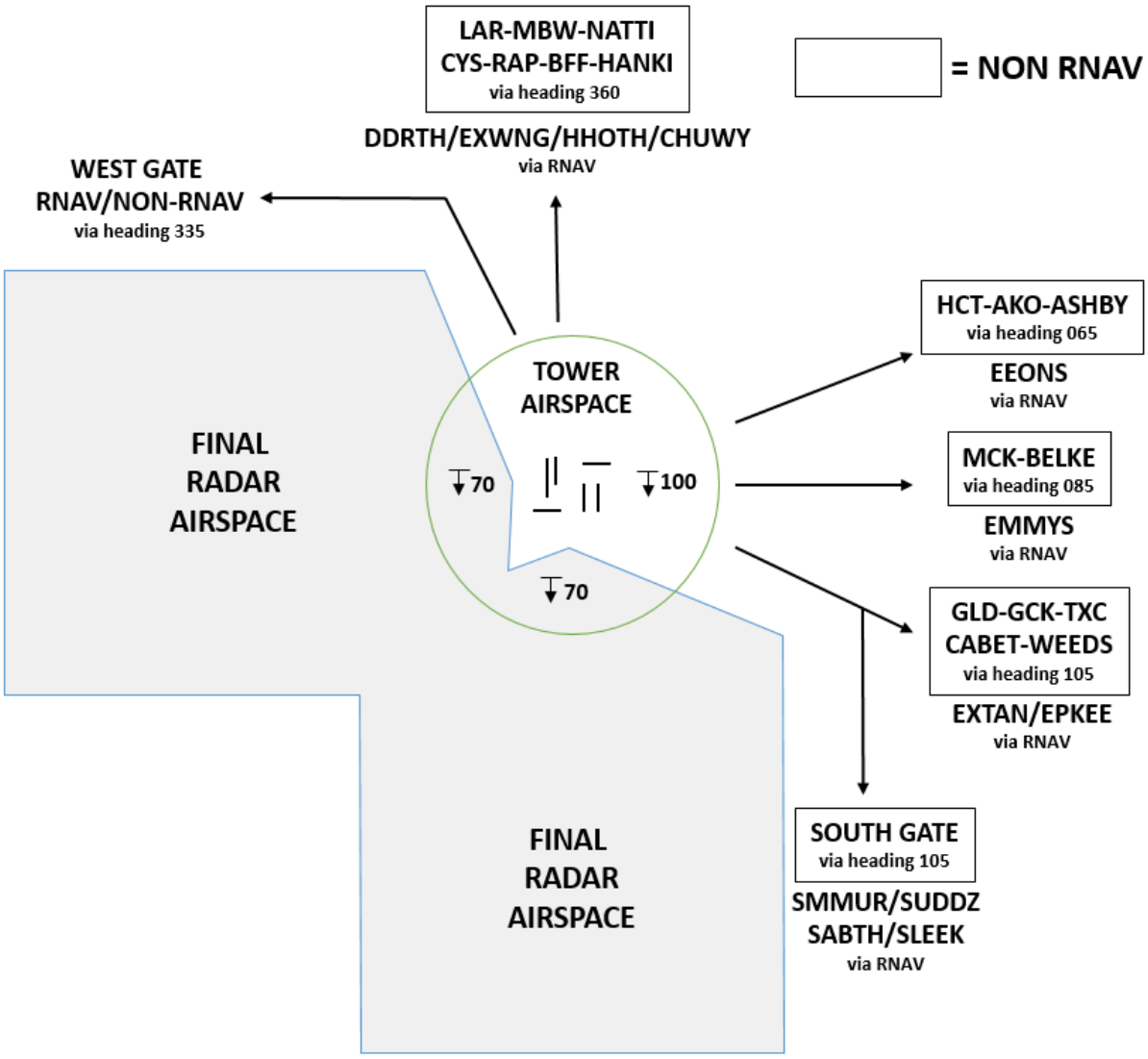


Figure 4. Land North and West

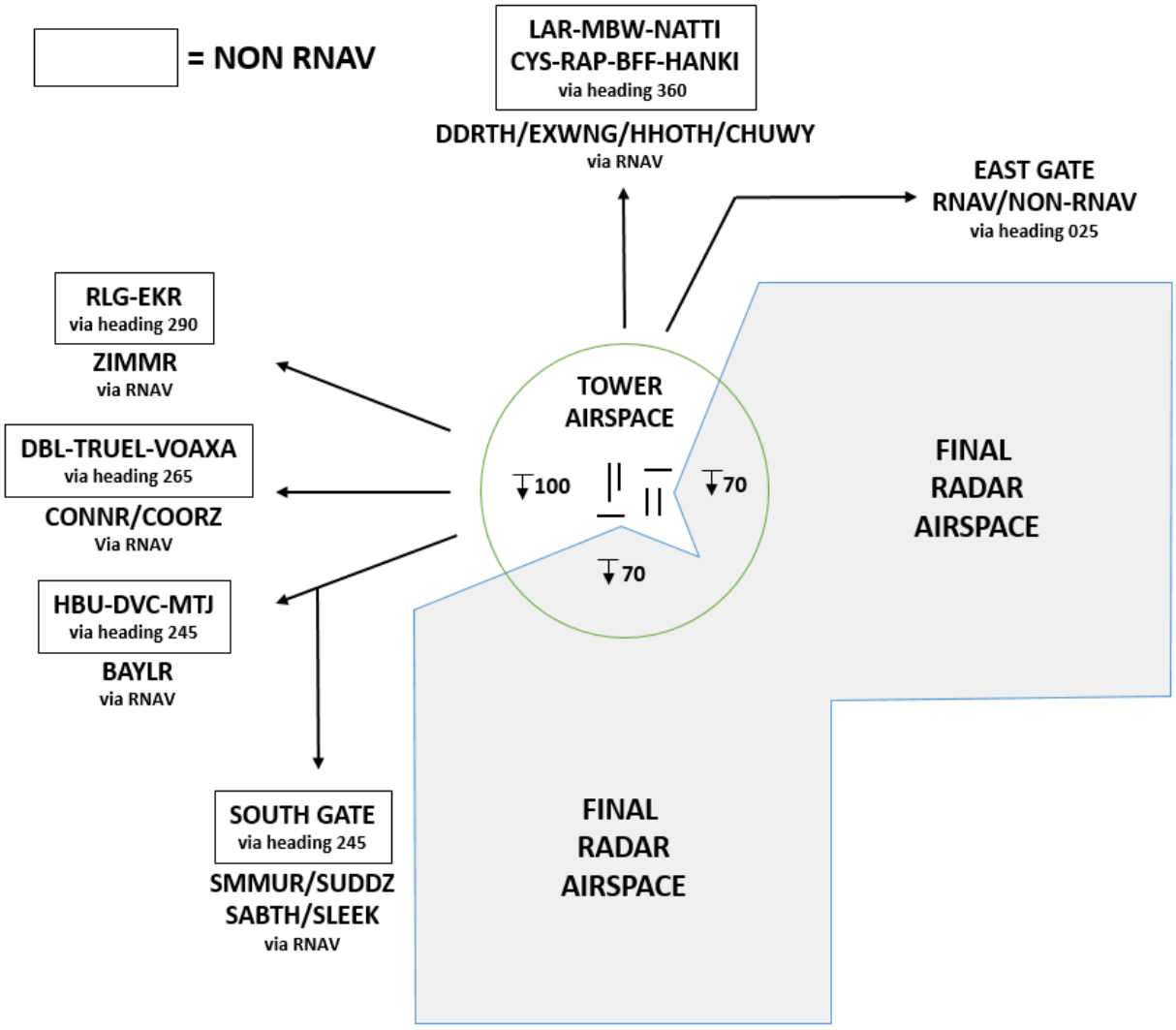


Figure 5. Land South and East

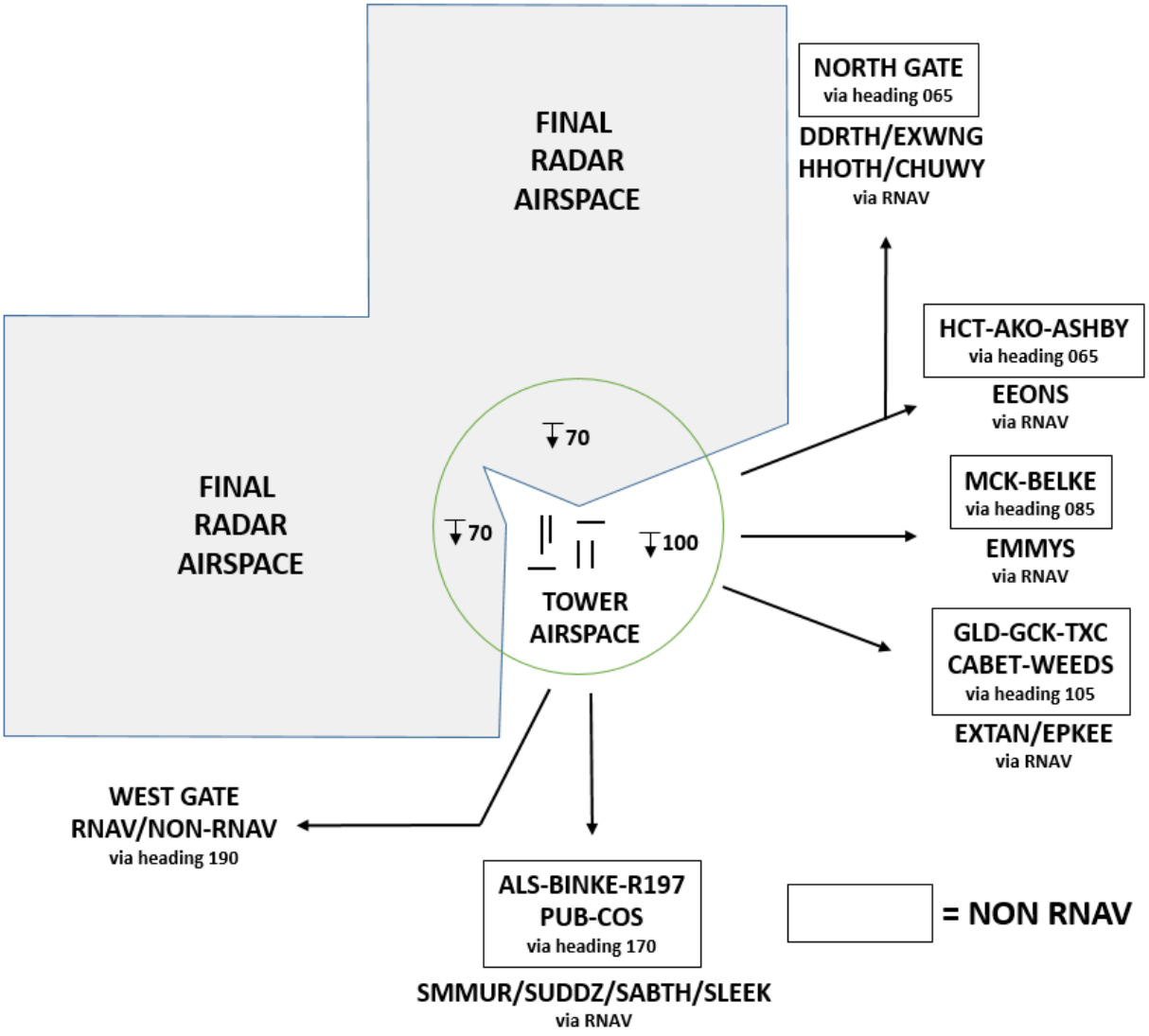


Figure 6. Land South and West

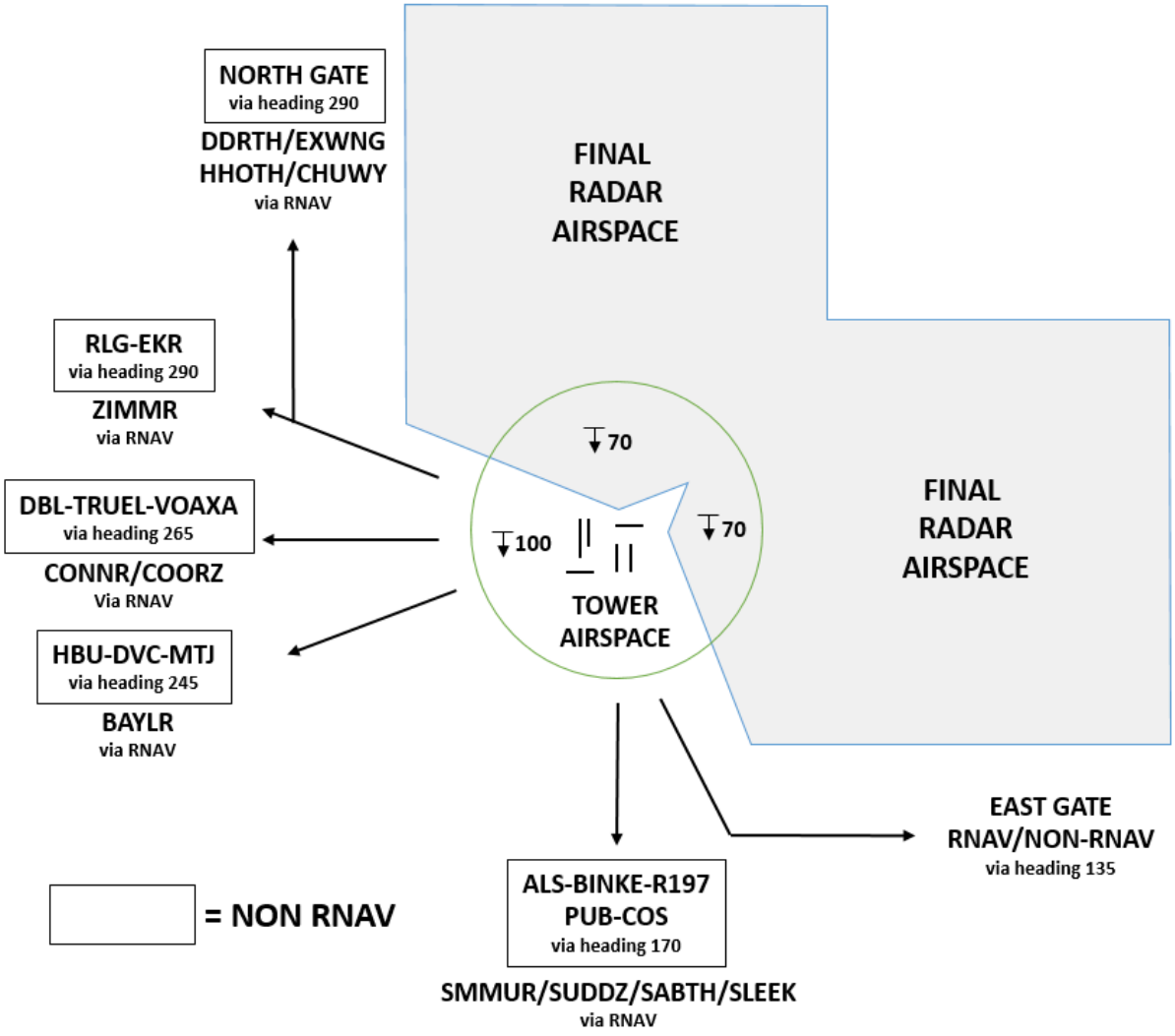


Figure 7. Land East

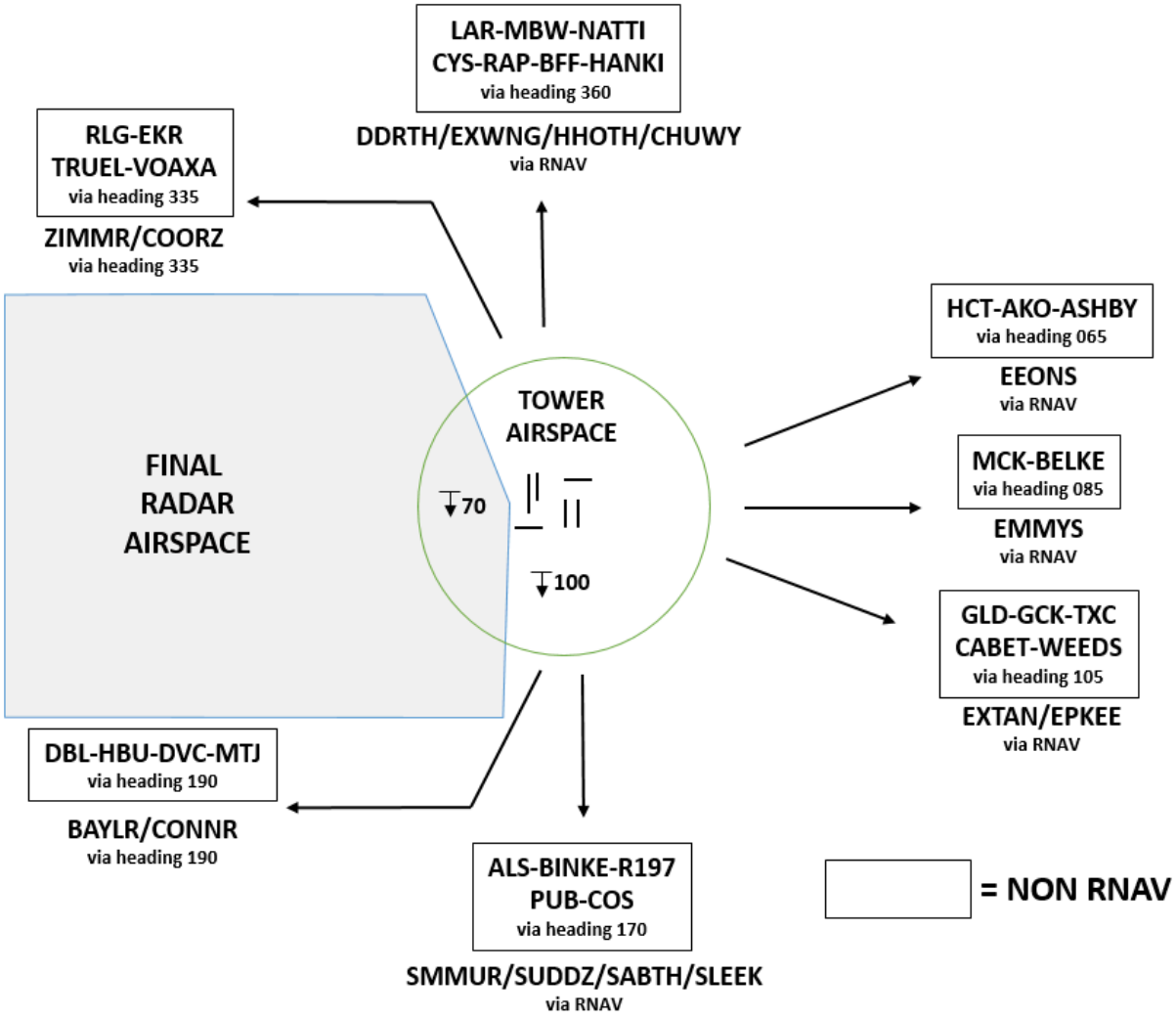


Figure 8. Land West

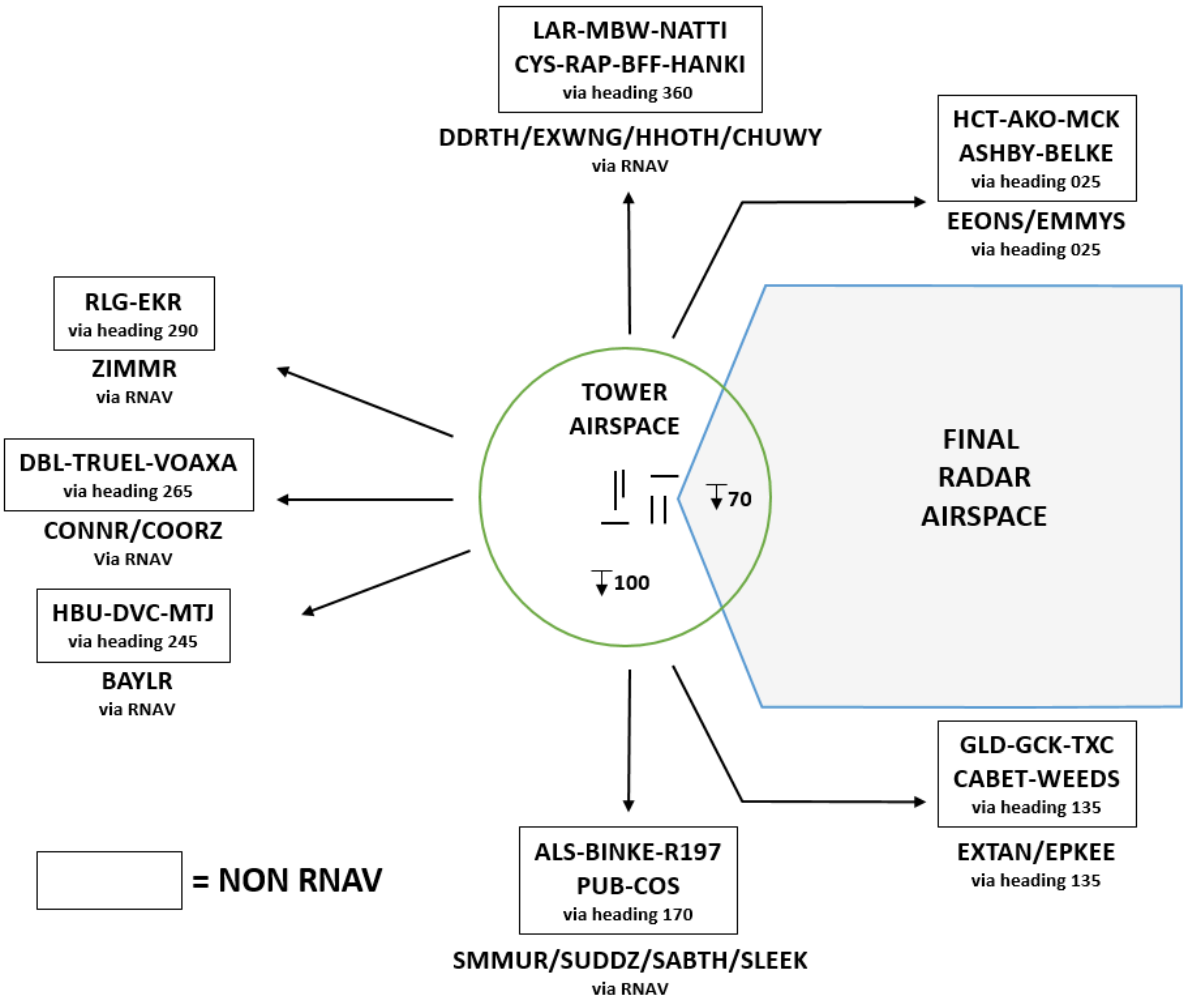


Figure 9. Land North and South (Honey Badger (Arrival Priority))

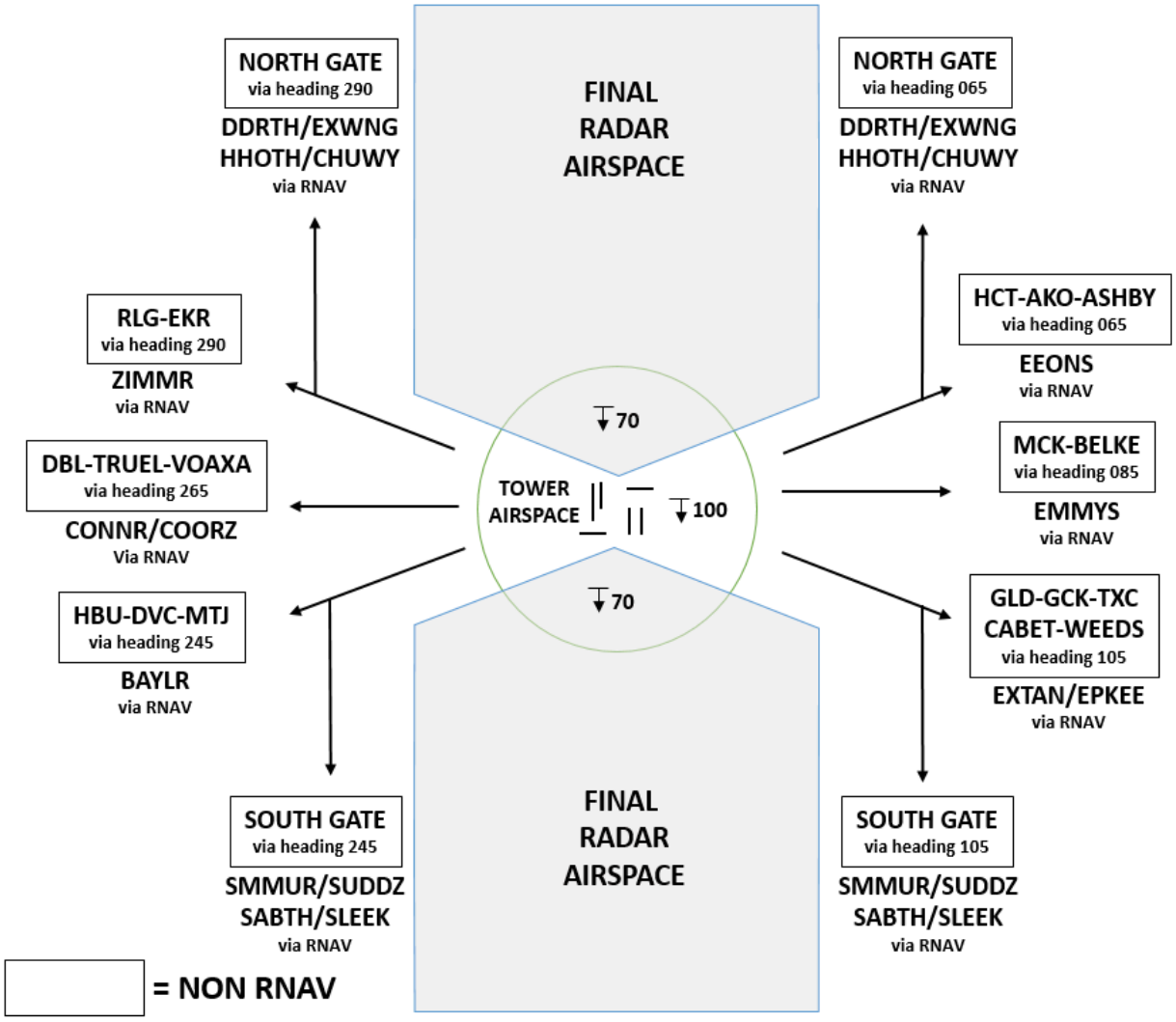
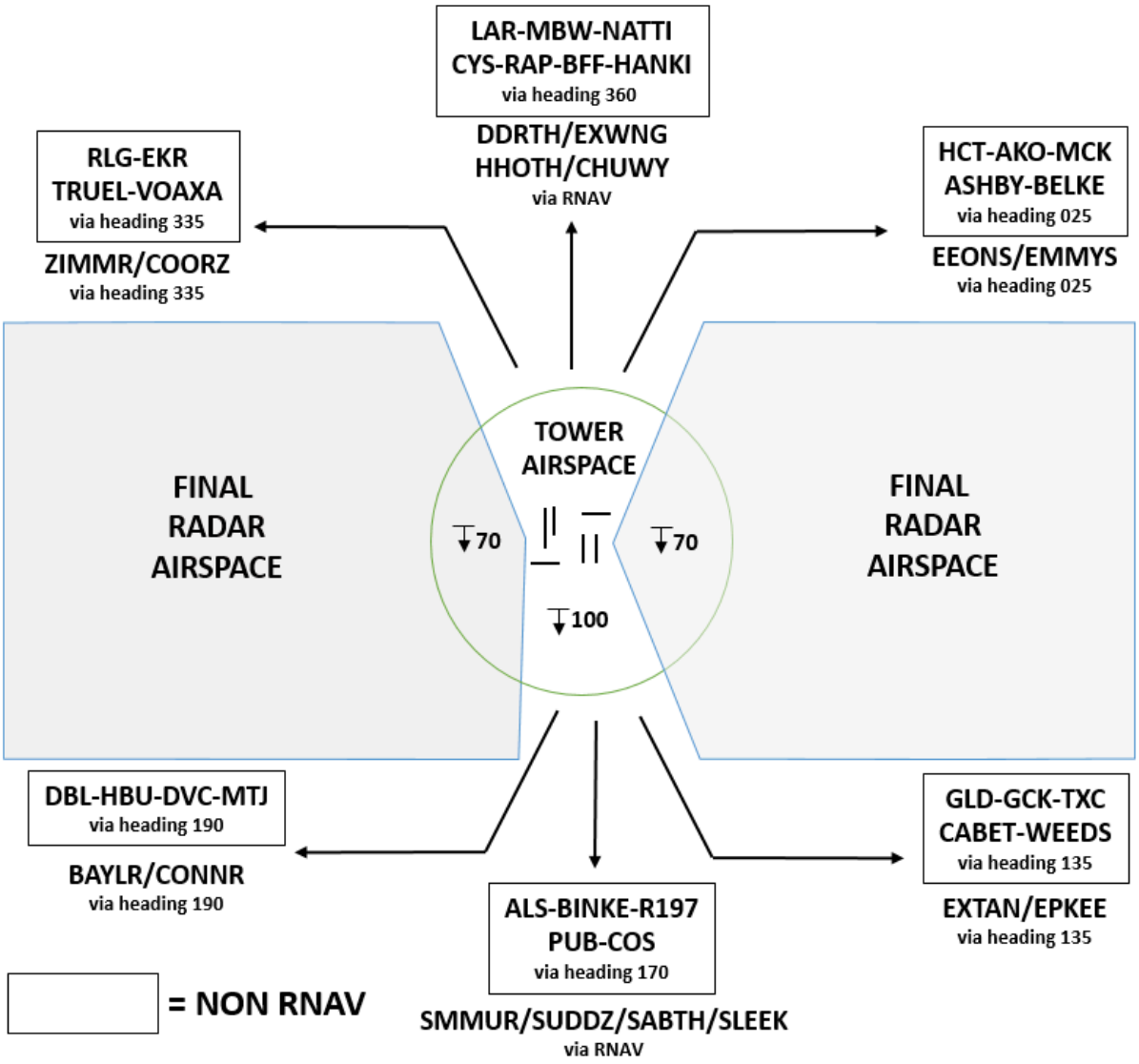
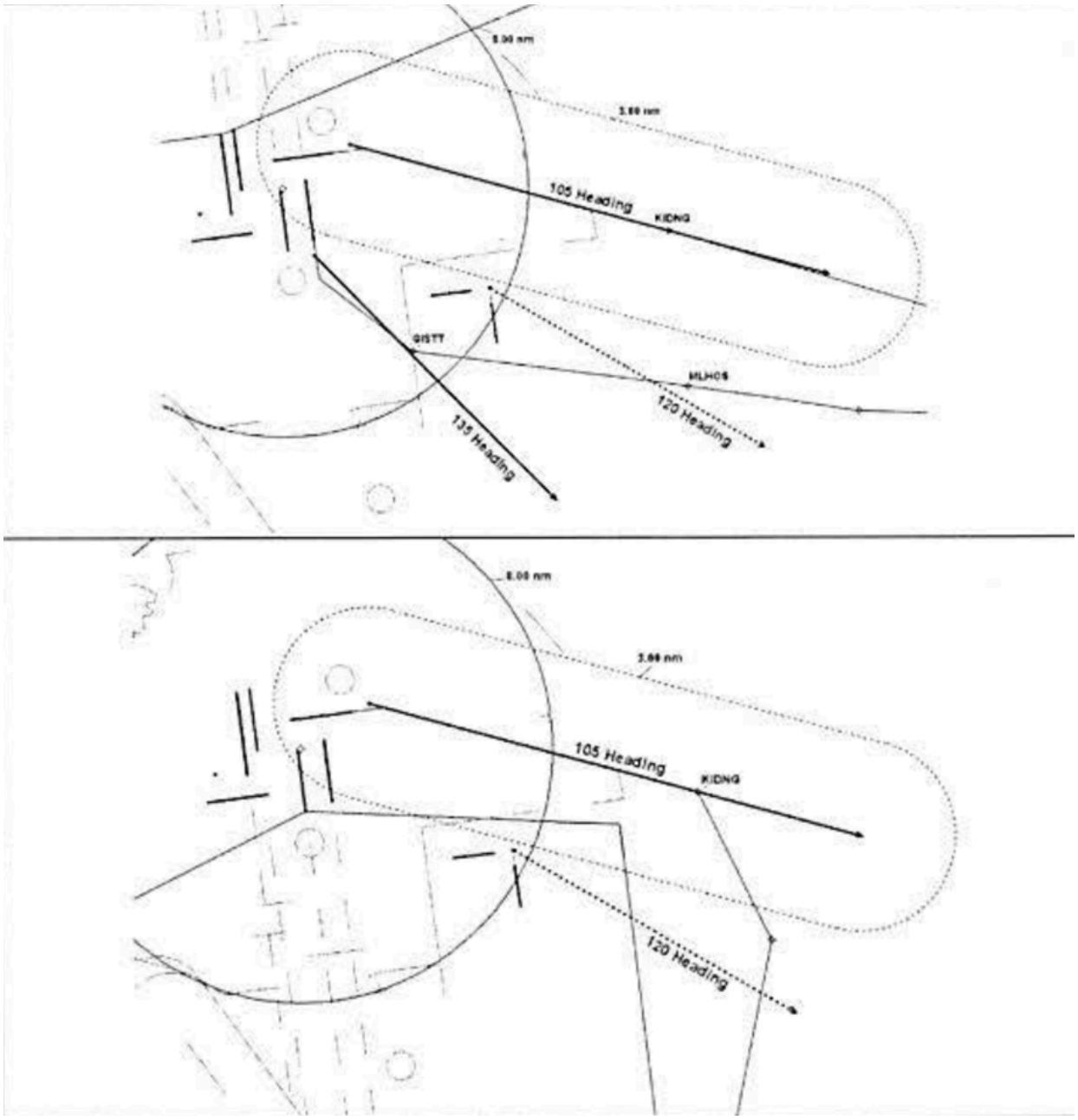
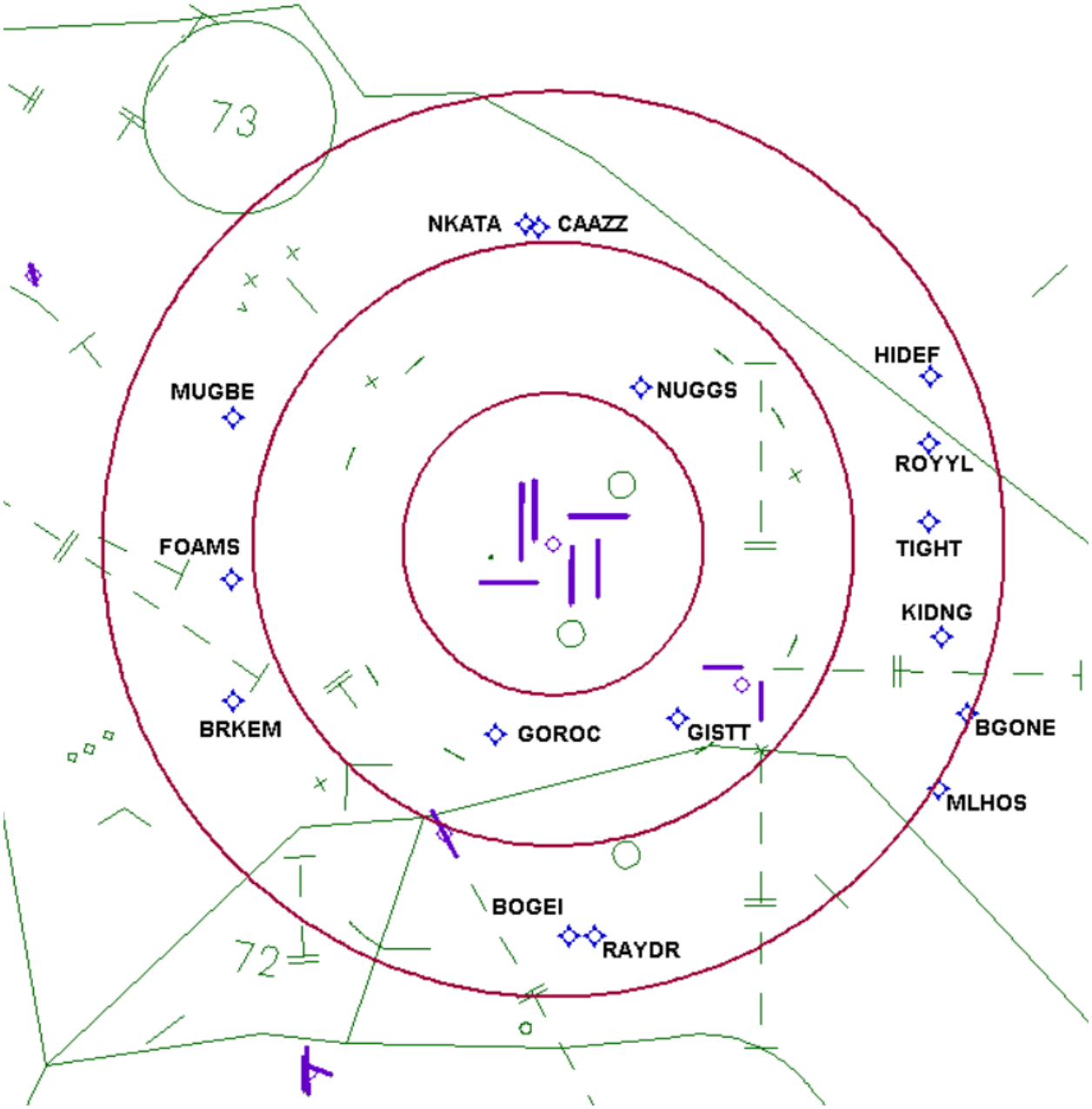


Figure 10. Land East and West (Honey Badger (Departure Priority))



Attachment 3. Colorado Air and Space Port IFR Departures



Attachment 4. 15NM Waypoints for Visual Separation