

Denver Center Standard Operating Procedures



MARCH 24th, 2018

VATSIM

This document has been prepared for use in the Virtual Denver Air Route Control Center on the VATSIM network. This is not intended to be used for any real-world purposes. All controllers working Denver Center should know the procedures and requirements described within this document.

Table of Contents

Contents

Table of Contents	2
General Information.....	3
Airport List.....	3
Communications	3
Services	3
Non-Towered Airports.....	3
Class D Airports	3
Towered Airports	3
Minimum IFR Separation	3
Squawk Codes	4
Radar Clients	4
Airspace.....	4
One Center	4
Two Centers	5
Three Centers.....	5
Four Centers.....	5
Five Centers.....	5
Ten Centers	6
Area 1	6
Eagle County	6
Aspen	6
Grand Junction	6
Farmington/ Four Corners Airport.....	6
Area 2	7
Denver	7
Colorado Springs	7
Pueblo	7
Area 3	7
Kearny	7
Gillette.....	8

Area 4	8
Rapid City / Ellsworth AFB.....	8
Area 5	8
Casper	8
Cheyenne	9

General Information

Airport List

Center controllers should input the following list of airports into VRC:

KDEN, KAPA, KBJC, KBKF, KFTG, KMNH, KEIK, KBDU,18V, KLMO, KGXY, KFNL, 11V, 3V5, CD08, 1V5,2V2,48V, KPGA, KBDG, KCEZ, KFMN, KTEX, KCNY, KDRO, KALS, KMVI, KTAD, KLHX, KPUB, KFCS, KCOS,1V6,00V, KAFF,04V, KGUC, KMTJ, KGJT, KASE, 7V1, KLXV, C003, KGWS, KEGE,4V0, KEE0, KCAG, KHDN, KSBS,20V, KFMM, KBDU, KCYS, KFEW, KIBM, KLAR, KSAA, KRWL, KCPR, KDGW, KGCC, KECS, KHSR, KCDR, KIEN, KGRN,9V6, KRAP, KRCA,49B, KSPF,KEFC, KPHP, KVTN, KRBE, KANW, KTIF, KBBW, KBUB, KHDE, KGTE, KLXN, KLBF, KCZD, KPHG, KNRN, KCSB, KOIN, KMCK, KADT, KCBK, KOEL, KLMO, KGLD, KITR, KSYF,2V5, KIML, KGGF, KOGA, KOKS, KCNP, KHEQ, KAKO, KSTK, KTQK, KLAA, KRIL, KSNY, KBFF, KTOR,7V6, KAIA, KFMN,2V1, KEAR

Communications

When relieving a controller, the relieving controller shall enter an "A" After the first number in the callsign. DEN_16_CTR becomes DEN_1A_CTR and DEN_25_CTR becomes DEN_2A_CTR. Denver Center Controllers shall use ZDV_Sector # for their voice channel. For example, the position DEN_17_CTR shall use the voice channel ZDV_17. Relief controllers using a "A" in their call sign should omit the "A" when determining what voice channel to use.

Students Logging on Denver Center with an instructor or mentor shall logon with DEN_S_CTR, regardless of which area they are controlling. Students are not permitted to control all of ZDV, they may only control one area. Students are only permitted log on with another center certified controller logged on at the same time.

Services

- **Non-Towered Airports**
Denver Center shall provide services to aircraft flying into or out of all non-towered airports within ZDV unless the airport falls under an Approach Control airspace which is currently staffed by another controller.
- **Class D Airports**
Denver Center shall control all class D airports not staffed by another controller and provide full tower services always unless excessive traffic *requires* Denver Center to treat the airport as uncontrolled.
- **Class B and C Airports**
Denver Center shall provide full services to all class B and C airports within ZDV.

Towered Airports

KAFF KAPA KASE KBJC KBKF KCOS

KCPR KCYS KDEN KEGE KFCS KFMN

KFTG KGCC KGJT KPUB KRAP KRCA

Minimum IFR Separation

IFR aircraft not operating in a designated approach control area shall be separated by at least 5 miles laterally or 1,000 feet of vertical separation (2,000 feet of vertical separation to all aircraft above FL410). IFR aircraft operating within designated approach control airspace shall be separated by 3 miles of lateral separation or 1,000 feet of vertical separation. This applies even when Denver Center is staffing an approach control position because that approach position is not staffed by another controller.

Squawk Codes

ZDV squawk code range 1400-1477

Radar Clients

Controllers have a large choice of options to choose from in ZDV.

VRC, vSTARS, and vERAM

Airspace

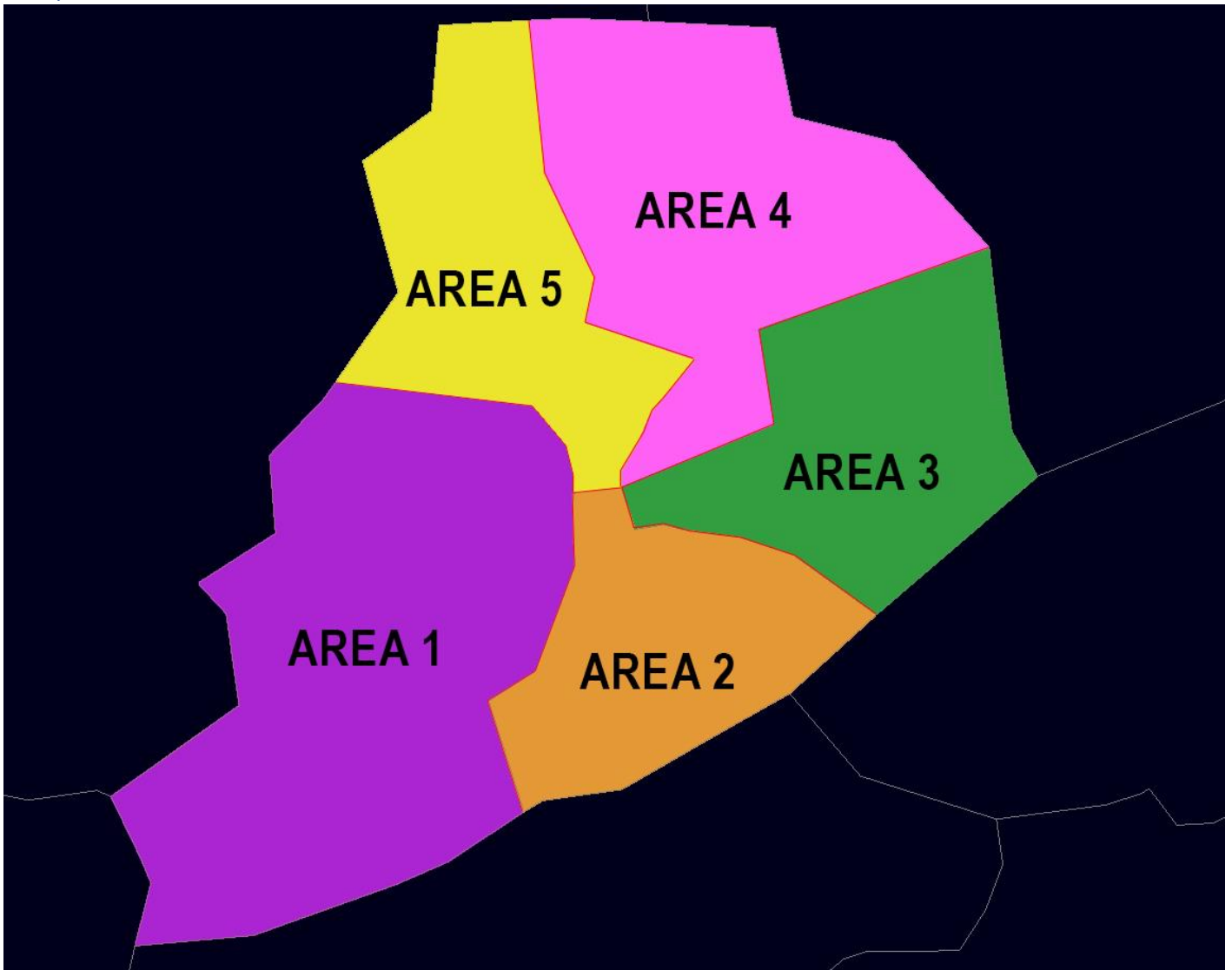


Diagram 1-1: Denver Center five area split

Lateral Split Denver Center shall be divided into the four areas depicted in Diagram 1 1. All splits shall be based off the boundaries of these four areas. **Vertical Split** When ZDV is split into high/low sectors, the low sector shall own airspace up to and including FL260 with the high sector owning FL270 and above.

Sector Splits

One Center

Callsign	Area's	Frequency
DEN_16_CTR	1 – 5	132.100

Two Centers

High/Low

DEN_16_CTR [High]	1 – 5	132.100
DEN_22_CTR [Low]	1 – 5	135.600

North/South

DEN_16_CTR [North]	3 - 5	132.100
DEN_29_CTR [South]	1 – 3	132.220

East/West

DEN_25_CTR [West]	1 & 5	135.520
DEN_17_CTR [East]	2 – 4	127.650

Three Centers

Aspen Focus (North with Southeast and Southwest)

DEN_16_CTR [North]	4 & 5	132.100
DEN_25_CTR [SW]	1	133.520
DEN_17_CTR [SE]	2 & 3	127.650

Rapid City, Cheyenne, Or Casper Focus (South, with Northeast and Northwest)

DEN_34_CTR [NW]	5	133.170
DEN_16_CTR [NE]	4	132.100
DEN_29_CTR [South]	1 - 3	132.220

Four Centers

East/West [With High/Low]

DEN_14_CTR [High West]	1 & 5	128.320
DEN_26_CTR [High East]	2 – 4	119.850
DEN_13_CTR [Low West]	1 & 5	126.500
DEN_19_CTR [Low East]	2 – 4	132.700

North/South [With High/Low]

DEN_16_CTR[High North]	4 & 5	132.100
DEN_27_CTR[High South]	1 - 3	124.800
DEN_22_CTR[Low North]	4 & 5	135.600
DEN_26_CTR[Low South]	1 - 3	119.850

Five Centers

Areas 1-5

DEN_34_CTR	5	133.170
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DEN_31_CTR	4	127.950
DEN_25_CTR	1	133.520
DEN_17_CTR	3	127.650
DEN_29_CTR	2	132.220

Ten Centers

These splits can be combined by the ATM or CIC as required by traffic or staffing.

Areas 1-5 [With High/Low]

DEN_34_CTR [High]	5	133.170
DEN_22_CTR [Low]	5	135.600
DEN_16_CTR [High]	4	132.100
DEN_31_CTR [Low]	4	127.950
DEN_25_CTR [High]	1	135.520
DEN_26_CTR [Low]	1	119.850
DEN_17_CTR [High]	3	127.650
DEN_19_CTR [Low]	3	132.700
DEN_29_CTR [High]	2	132.220
DEN_27_CTR [Low]	2	124.800

Area 1

Eagle County

Denver Center shall assign the LDA/DME RWY 25 Approach to all EGE arrivals unless otherwise requested by the pilot. Up to two aircraft may be cleared for the LDA/DME RWY 25 Approach at the same time as long as the first aircraft is at or beyond WASHI prior to the second aircraft crossing VOAXA. EGE departures are not authorized when RIL GPS/LILXO transition is in progress until the aircraft passes UYRIG. Denver Center shall abide by the Letter of Agreement between ZDV and EGE ATCT.

Aspen

Denver Center should consider slowing aircraft into Aspen as early as possible, especially during fly ins. The Aspen TRACON airspace is not designed to accommodate the levels of traffic seen during events which can be several times the rate of the real-world arrivals. Denver Center should do everything possible to assist the Aspen TRACON, such as early handoffs, early speed reductions and holding arrivals. Denver Center shall comply with all provisions in the Letter of Agreement between Aspen Approach and ZDV.

Grand Junction

Denver Center shall comply with all provisions in the Letter of Agreement between Denver Approach and ZDV.

Farmington/ Four Corners Airport

Arrivals to KFMN shall be routed via the RSK VOR.

Denver Center shall comply with all Requirements specified in the Letter of Agreement between Farmington Tower and ZDV.

Assign the following approaches unless the pilot requests otherwise.

- Land west: ILS RW 25 (primary)
- Land east: VOR RW5 (primary)

Area 2

Denver

Denver Center shall comply with all provisions in the Letter of Agreement between Denver Approach and ZDV. The POWDR arrival is Denver's most used arrival as it feeds traffic from ZLA. During fly ins, Denver Center should be aware of traffic flying HBU.POWDR and should consider switching arrivals on the JNC or DBL transitions of the POWDR arrival to the TOMSN arrival to prevent congestion in area four. When doing this be aware that this will likely cross the traffic through the ROCKIES departure corridor and special attention should be paid to separation.

Denver Center shall comply with all requirements specified in the Letter of Agreement between D01 and ZDV.

During fly-in events, Denver Center should be aware of traffic utilizing the SAYGE arrival. If traffic load increases, consider changing aircraft to the LANDR arrival or aircraft filed GLD.SAYGE to the GLD.DANDD arrival.

Colorado Springs

Denver Center shall comply with all provisions in the Letter of Agreement between Colorado Springs Approach and ZDV.

- **Crossing Restrictions:**

Arrivals on the DEBERRY3 arrival shall be instructed to descend to cross PYNON at the following altitudes depending on the aircraft type:

- **Turbojet** - 12,000 or lower cruise altitude at 220 kts
- **Turboprop** - 11,000 or lower cruise altitude
- **Prop** - 10,000 or lower cruise altitude

Pueblo

Denver Center shall comply with all requirements in the Letter of Agreement between D01 and ZDV.

Denver Center must point out all DEBERRY arrivals to D01 (Pueblo Sector)

Area 3

Kearny

Kearny Airport is located in ZMP's airspace. There is a shelf of airspace depicted in diagram 1-5 that extends approximately 10 miles into ZDV's boundary below 7,000 ft.



Diagram 1-5: ZMP's Kearny Shelf

Cheyenne



Diagram 1-4: Cheyenne Approach Airspace

Cheyenne Approach covers the airspace depicted in *diagram 1 4* at and below 12,000 feet. Denver Center shall comply with all provisions in the Letter of Agreement between Cheyenne Approach and ZDV.

Marcus Miller

Marcus Miller

Air Traffic Manager

Denver ARTCC

Tyler Beals

Tyler Beals

Deputy Air Traffic Manager

Denver ARTCC

Brayden Manzella

Brayden Manzella

Western Air Traffic Director

VATUSA