Denver ARTCC

VFR Guide

| Effective Date | 8/16/2020 |

Document Information

Purpose

This order describes procedures for the safe and efficient operation of VFR aircraft inside Denver ARTCC airspace. The provisions and procedures described below are supplemental to and in accordance with Denver ARTCC General Policy and FAA Order JO 7110.65, as well as any published FAA guidelines and procedures. The information contained in this document 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. This site is not affiliated with the FAA, the actual Denver ARTCC, or any governing aviation body. All content contained herein is approved only for use on the VATSIM network.

Distribution

This order is distributed to the public.

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Revisions Log

Date	Revision	Editor/Version
8/16/2020	Initial Release	Brandon Wening

Table of Contents

Welcome

Dear Pilot,

Welcome to ZDV! We are so glad you have chosen to learn about flying in the Denver ARTCC airspace. With more than 285,000 square miles of airspace spanning across 9 states, ZDV has many different experiences just waiting to be discovered by you. Flying in ZDV will challenge you with many different types of terrain, high traffic amounts, weather, and challenging approaches, while rewarding you with some of the most popular airports and beautiful scenery in the world. If you are reading this document, hopefully you are looking to better understand how to fly VFR in ZDV airspace, or learn more about our unique airports. The document is divided into sections, and made to improve your overall flying experience by providing as much useful information as possible in an easy to read format. If you have any questions, feel free to email me via atm@denartcc.org or join our discord via https://vats.im/zdvdiscord . We look forward to seeing you flying on the network soon, and welcome to ZDV!

Blue Skies,
Brandon Wening
Air Traffic Manager
Denver ARTCC

ZDV Promo Video
https://youtu.be/ysjJEDyWtV4

VFR Basics

VFR = Visual Flight Rules

In the United States, there are two main types of flight rules. The two types are Visual and Instrument. When operating under IFR, the pilot is solely using instruments to fly the plane, on a flight plan under the direction of ATC, and not using visual references to fly the plane. VFR does not follow this format. When operating under VFR, the pilot is responsible for maintaining separation from other aircraft, remaining clear of clouds, using the ground to navigate, and looking out the window as the main method of flying the plane. VFR pilots have more freedom of where they fly, but must pay more attention to what type of airspace they are flying in/around.

Class G(Golf) airspace is simply where Class E(Echo) does not exist. Class Golf typically extends from the surface to 1,200ft AGL (Above Ground Level), however there are many exceptions. In Class G airspace, ATC services are not available, and no requirement to contact ATC exists.

Class E(Echo) airspace is the most abundant in the US, covering most of the US from 1,200ft AGL to 17,999ft MSL (Mean Sea Level). In Class E airspace, ATC services are available, but not required for VFR aircraft. IFR aircraft must be in contact with ATC at all times inside Class E airspace. VFR aircraft can ask ATC for Flight Following, where ATC can give traffic advisories to the aircraft if time allows the controller to do so. Typically, it is unwise to ask for Flight Following if the controller is noticeably overwhelmed.

Class D(Delta) airspace denotes a controlled airport with a control tower managing traffic in and around the airport. All aircraft must be in contact with the ATCT (Air Traffic Control Tower) prior to entering Class D airspace. In fact, the only requirement to enter Class D airspace is that two way communication is established. Two way communication means that the controller has read your callsign back to you. If the controller says "Aircraft calling to the South, standby", two way communication has not been established. If the controller says "N123AB, standby", you are allowed to enter the

Class D airspace. The only exception to this rule is if the controller specifically tells you to remain outside the Class D airspace, such as "N123AB, remain outside the Delta".

Class C(Charlie) airspace denotes a controlled airport with both a control tower and approach services available. These services are provided by the airport's TRACON, or Terminal Radar Control Facility. Prior to entering the Class C airspace, aircraft must establish two way communication with the appropriate TRACON controller, shown on the sectional map. In addition to this requirement, aircraft must have a Mode C capable transponder (transmitting altitude), as well as ADS-B Out. On VATSIM, all aircraft are assumed to meet these requirements, and must follow the instructions of ATC if told to squawk Mode C (squawk normal). ATC will most likely advise you which leg of the pattern you can expect, or help point you towards the airport.

Class B(Bravo) airspace is the home of the busiest airports in the United States. Entering Class B airspace requires specific clearance, in addition to the Class C airspace requirements (two way communication and Mode C transponder with ADS-B Out). You must hear "Cleared in to the Denver Class Bravo" before entering the airspace. Outside the Class B airspace, a 30NM (nautical mile) Mode C veil exists. In this area, a Mode C transponder with ADS-B Out is required at all altitudes. This is in order to take extra safety precautions in the highly congested airspace, and provide all aircraft and ATC with the most information possible.

| Class A			None	None
Class B			3 statute miles	clear of clouds
Class C			3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
Class D			3 statute miles	
Class E	less than 10,000 MSL		3 statute miles	
	at or above 10,000 MSL		5 statute miles	1,000 feet below, 1,000 feet above 1 statute mile horizontal
Class G	1,200 feet or less AGL	Day	1 statute mile	clear of clouds
		Night	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
	more than 1,200 AGL, but less than 10,000 MSL	Day	1 statute mile	
		Night	3 statute miles	
	more than 1,200 AGL, and at or above 10,000 MSL		5 statute miles	1,000 feet below, 1,000 feet above 1 statute mile horizontal

VFR Visibility Requirements

Mountainous Airports

KEGE (Eagle County Airport) lands and departs Runway 25 unless the pilot requests otherwise.

KASE (Aspen Airport) lands Runway 15 and departs Runway 33 unless the pilot requests otherwise.

KTEX (Telluride Airport) lands Runway 9 and departs Runway 27 unless the pilot requests otherwise.

Extreme caution should be used at these airports, and all other mountainous airports due to terrain, possible traffic, and rapidly changing weather conditions. VFR Flight Following is not always possible due to radar coverage, but always contact ATC if you would like to request FF services.

Below are images of the airspace and airports listed above. An image of the legs of a pattern is also below.
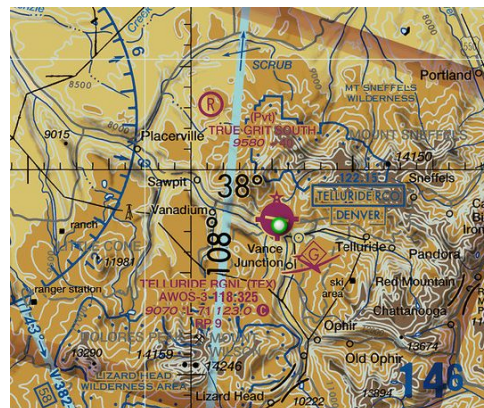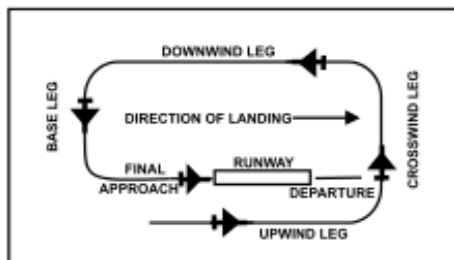
Denver Area

KAPA (Centennial Airport) is one of the busiest General Aviation airports in the US. With close proximity to KDEN, a popular VFR route on VATSIM is between the two airports. Please be aware of all airspace restrictions, and monitor for ATC being online at all times. Centennial has 3 runways, which all operate flows based on the wind. Runway 10/28 is available only by pilot request.

KCFO (Colorado Air and Space Port a.k.a. Front Range Airport) is very close to Denver International, and only certain runways are allowed to be used at certain times. Make sure to choose a runway that will not conflict with current KDEN operations, as those take priority. For further information, feel free to read the KCFO SOP on our website at https://denartcc.org.

KDEN (Denver International Airport) is the biggest airport in ZDV. With 6 runways, the airport has the highest Arrival Rate in the US! Flying VFR into this airport is entirely possible, just follow ATC instructions and expect a longer taxi than normal. For initial departure or final landing, you can expect Runway 17R/35L, as this is closest to the Signature GA Ramp. For all traffic pattern operations, expect Runway 17L/35R.