Denver International Airport

IATA/ICAO CODE: DEN/KDEN

CITY: Denver CO STATE: COUNTRY: USA

AIRPORT CONTACT

No changes reported by the airport in 2011 Verify information below with the airport

Name: Mike McKee Rick Bush

Title: Airport Noise Manager Director of Planning and Noise Airport: Denver International Airport **Denver International Airport** Address:

Airport Office Building Airport Office Building

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ELEVATION: 5431 ft.

RUNWAY INFORMATION				
Orientation	Length (ft)	Displaced Threshold (ft)	Glide Slope(deg)	Width (ft)
07/25	12000	-	-	150
08/26	12000	-	-	150
16L/34R	12000	-	-	150
17L/35R	12000	-	-	150
17R/35L	12000	-	-	150
16R/34L	16000	-	-	200
Check FAA Airp	oort Diagrams for cu	rrent information.		

NOISE ABATEMENT PROCEDURES

See information under Preferential Runways.

CONTINUOUS DESCENT ARRIVAL (CDA) - NONE

AIRPORT CURFEWS

See information under Preferential Runways.

PREFERENTIAL RUNWAYS

DENVER INTERNATIONAL AIRPORT AIRPORT MANAGER'S RULE PART 210 INFORMAL RUNWAY USE PROGRAM

PREFERENTIAL RUNWAY USE

This Rule establishes preferential runway use procedures for all turbojet aircraft operations at Denver International Airport. This procedure follows guidelines specified under FAA Order 8400.9, Section 5. a. <u>Runway Use Programs</u>, and Section 5.c. <u>Informal Runway Use Program</u>, to minimize impacts on noise sensitive areas in the vicinity of the Airport.

This Rule defines a set of operating procedures that will enable the City and County of Denver to minimize to the greatest practical extent aviation noise in surrounding communities. This Rule replaces and supersedes the issued Airport Manager's Bulletin No. 10-33.

Pilots of departing aircraft requesting to use a runway or deviate from flight tracks other than in conformance with this Informal Runway Use Program for reasons of operational necessity are expected to advise DIA Ramp Control prior to pushback or upon initial contact. When able, DIA Ramp Control shall advise that the requested runway or flight track is a deviation from this Informal Runway Use Program.

1. AIRCRAFT DAYTIME (0700L – 2200L) PREFERENTIAL RUNWAY USE

a. <u>Departures:</u>

Runway 08 - Maximize use of Runway 08 for all south and east gate departures when operating in both a north and south flow. Aircraft shall be assigned a heading of 065, 080, or 095 degrees depending on enroute segment and/or traffic conflicts.

Runways 17L and 17R – Aircraft shall be assigned a heading of 155 or 170 degrees depending on enroute segment and/or traffic conflicts.

Runway 25 - Only aircraft certificated as Stage 3 aircraft under FAR Part 36 and not "Noise-Critical Aircraft" (see Section 3 below) may depart on Runway 25.

Runways 35L & 35R – Aircraft will be assigned headings of 345 to 010 degrees.

Runways 34L and 34R – Aircraft will be assigned headings of 355 to 010 degrees. Intersection departures on Runway 34L permitted if user has signed an agreement with the City and County of Denver regarding terms of use. The City may request that FAA stop allowing intersection departures if the City determines that use of the procedure is resulting in detrimental noise impacts

b. Arrivals:

Daytime arrivals may use any runway without restriction.

2. AIRCRAFT NIGHTTIME (2200L – 0700L) PREFERENTIAL RUNWAY USE

a. Departures:

Any of the following runways may be used:

Runway 08 – Aircraft shall be assigned Runway heading until reaching 7,500' MSL for Stage 3 aircraft and 9,500' MSL for Stage 2 and Noise-Critical Aircraft.

Runways 35L & 35R – Aircraft shall be assigned a 080 degree heading and remain on that heading until reaching 7,500' MSL for Stage 3 aircraft and 9,500' MSL for Stage 2 aircraft and Noise-Critical Aircraft

Runway 34L & 34R – Aircraft shall be assigned a heading of 355 degrees until reaching 13 DME off the DEN VOR (or equivalent radar distance). <u>Intersection departures on Runway 34L permitted if user has signed an agreement with the City and County of Denver regarding terms of use.</u> The City may request that FAA stop allowing intersection departures if the City determines that use of the procedure is resulting in detrimental noise impacts.

Note: Operational safety criteria, which consider wind shear, thunderstorms, visibility, runway braking effectiveness, crosswind and tailwind components, and other safety factors, shall apply when assigning runways under this program, pursuant to FAA Order 8400.9. If these factors apply, use the following runway:

Runway 17R - Aircraft shall be assigned a heading of 155 degrees until reaching 7 DME off the DEN VOR (or equivalent radar distance).

b. Arrivals:

Any of the following runways may be used:

Runway 26

Runways 35L & 35R – Aircraft shall turn on the final approach course outside the outer marker at or above 7,000' MSL.

Runways 16L & 16R – Aircraft shall turn on the final approach course at least 13 DME from the Denver VOR (or equivalent radar distance)

Runway 17L & 17R - Aircraft shall turn on the final approach course outside the outer marker at or above 7,100' MSL.

3. PROCEDURES FOR NOISE-CRITICAL AIRCRAFT

a. Definitions:

Noise-Critical Aircraft are Stage 3 aircraft for which the estimated maximum A-weighted sound level for takeoffs as published in Appendix A of FAA AC 36-3G exceeds 77.1 dBA and which cannot consistently achieve an altitude of 9,500 ft. Mean Sea Level (MSL) within 10 nautical miles from the start of takeoff roll at Denver's elevation (5431 ft. MSL) and annual mean maximum temperature (64 degrees F).

The Denver International Airport Noise Abatement Office will maintain and provide a list of aircraft identified as Noise-Critical Aircraft, which will be periodically updated and attached to this Rule. Aircraft operators may submit documentation demonstrating that their aircraft, as operated by them consistent with efficient ATC operations, should be exempted from the list of Noise-Critical Aircraft.

<u>Westbound Departures</u> – Departures to initial destinations west of an imaginary line running south from Denver through Colorado Springs, Colorado and north from Denver through Laramie, Wyoming.

b. Departures on Runway 25 and 26:

Except during weather/operational conditions defined below or emergency conditions, Noise-Critical Aircraft will not use Runways 25 or 26 for takeoff.

c. Westbound Departures from Runways 16L, 16R, 17L, 17R, 35L, 35R, 34L and 34R:

During daytime hours (0700L – 2200L) operators of westbound Noise-Critical Aircraft shall file departure routings via Deci-belle Two Departure, Pikes Two Departure (Alamosa), or the Yellowstone One Departure (Laramie).

4. WEATHER/OPERATIONAL CRITERIA

The FAA ATCT will assign runways deemed to have the least noise impact. If, in the interest of safety, a runway different from that specified is preferred, the pilot is expected to advise ATC accordingly. ATC will honor requests and advise pilots when the requested runway is noise sensitive.

Operational safety criteria, which consider wind shear, thunderstorms, visibility, runway braking effectiveness, crosswind and tailwind components for clear and dry and not clear and dry runways, and other safety factors, shall apply when assigning runways under this program, pursuant to FAA Order 8400.9.

It is recognized that under certain conditions other runways/procedures may be necessary due to aircraft emergencies, air traffic volume demands, field construction, maintenance work, snow removal or due to adverse/unusual weather conditions.

Noise-Critical Aircraft

747 (all models)
DC-10 (all models)
L-1011 (all models)
DC-8 (all models)
707s (all models)
BAe/BAC 1-11 (all models)
727-200 (all models)
727-100 (all models)
DC-9 (all models)
MD-80/88 (all models)
737-100/200 (all models)
Grumman Gulfstream II and Gulfstream III
Fokker F28

OPERATING QUOTA - NONE

ENGINE RUN-UP RESTRICTIONS Aircraft Engine Runups:

140.14.15-1 Aircraft engine runups will be performed only in the following

areas designated by the Director of Aviation:

- 1) on the holding apron at the approach end of Runway 8 in the vicinity of Taxiway R9 and EE. All aircraft must be tailed to the southeast while conducting the runup
- 2) at De-ice Pad D adjacent to the approach area of Runway 35L in the vicinity of Taxiways A and L. All aircraft must be tailed to the west while conducting runup.
- 15-2 Runups conducted at any other location are strictly prohibited.
- 15-3 All persons must contact the FAA tower Ground Controller prior to a runup location, monitoring the frequency during the runup, and contact the Ground Controller prior to returning from the runup location.
- 15-4 The runup shall not be conducted so as to cause blast injury to persons or property or blow debris onto any operating surfaces.

APU OPERATING RESTRICTIONS - NONE

NOISE BUDGET RESTRICTIONS - NONE

NOISE SURCHARGE - NONE

NOISE MITIGATION/LAND USE PLANNING PROGRAM INFORMATION

Type of Program	Date Implemented	Status
Sound Insulation (Residences and Public Buildings)	-	-
Purchase Assurance for Homeowners Located Within the Airport Noise Contours	-	-
Avigation Easements	-	-
Zoning Laws	-	-
Real Estate/Property Disclosure Laws	-	-
Acquire Land for Noise Compatibility to date	-	_
Population		

within each noise contour level relative to aircraft operations	
Airport Noise Contour Overlay Maps	Urban growth and development in the areas surrounding DEN, particularly non-compatible residential and other noise-sensitive land uses, is of utmost concern to the City and County of Denver. The Noise Office has developed noise contours surrounding the airport, inside which certain types of land uses are not recommended. The 65 Ldn noise contour (average decibel level with a 10 decibel penalty applied to nighttime operations) is a line inside which, under Federal guidelines, no residential development should occur. The operational 65 Ldn noise contour for the airport, as created by ARTSMAP, is included in this report. However, for DEN, the 60 Ldn noise contour is used for compatible land use planning by the surrounding jurisdictions, in accordance with guidelines promulgated by the Denver Regional Council of Governments and the Denver/Adams County Intergovernmental Agreement. Additional mapping for DEN that includes the applicable noise contours is available upon request.
Total Cost of Noise Mitigation Programs to Date	
Source of Noise Mitigation Program Funding for Aircraft Noise	-

NOISE MONITORING SYSTEM



map above for NEPS locations).

The DEN ANOMS system monitors noise levels at 27 permanent and 4 portable noise monitoring terminals. These terminals are located throughout the Denver metro area (see map above for RMT locations).

The system also records the movement of all aircraft in the vicinity of DEN by utilizing FAA air traffic control radar data. This makes it possible to match actual flights with noise events.

In addition, the ANOMS system records weather information from three remote stations, which include a RACAL recording device to record pilot/controller radio transmissions.

ARTSMAP is a specially designed noise modeling program that automatically creates noise contours. ARTSMAP is designed to create contours from actual radar flight tracks that our office receives from the FAA ARTS system which is sent via modem, eliminating the need for manual data manipulation. The ARTSMAP software is installed on a computer in the

Noise Abatement Office. The program analyzes, views, reports, and stores the data. Currently, ARTSMAP is used at several major airports nationally. It allows the DEN Noise Abatement Office to perform noise data analysis, generate daily automated noise contours, receive detailed runway utilization, and airline fleet mix identification.

Per info from airport 4/13/95:

Effective March 9, 1994

Rules & Regulations of the Maintenance of the Department of Public Works Adopted Pursuant to Section 5-16, Chapter 5 of the Revised Municipal Code, as amended, of the City and County of Denver, January 11, 1994

80.03.2(5) Aircraft landing and takeoff operations involving multiple airfield runway use configurations shall be conducted as to observe noise exposure levels which conform to the 65 Ldn noise contours and Noise Exposure Performance Standards (NEPS) determined in the Intergovernmental Agreement on A New Airport, executed between Denver and Adams County on April 21, 1988. Denver has established and installed a noise monitoring system which shall record and calculate the 65 Ldn contours and leq(24) values for the purpose of monitoring and enforcing the NEPS. The data shall be used to calculate on an annual basis, beginning one(1) year after commencement of operations at DIA, the actual 65 Ldn noise contours and leq(24) values at grid points established in the Intergovernmental Agreement.

180.03.2(6) The FAA has the responsibility to manage and control navigable airspace. Although FAA cannot insure that noise sensitive areas can be completely avoided in the manner prescribed here at all times, every reasonable effort will be extended to accommodate the NEPS and other noise abatement goals of the City and County of Denver, as required by the FAA Final Environmental Impact Statement.

FLIGHT TRACK MONITORING SYSTEM

Yes - see information under Noise Monitoring System

NOISE LEVEL LIMITS

Noise Exposure Performance Standards (NEPS). See map above for NEPS Areas

Noise is monitored at 101 locations in the community and violations of noise level at these monitors is subject to a \$500,000 fine per violation.

STAGE 2 RESTRICTIONS

Stage 2 airplanes >75,000 lbs are prohibited from operating at airports within the 48 contiguous states.

STAGE 2 PHASEOUT

U.S. Stage 2 Phase out complete as of 12/31/1999 (CFR Part 91.801). Stage 2 airplanes >75,000 lbs are prohibited from operating at airports within the 48 contiguous states.

STAGE 3 RESTRICTIONS - NONE