Munich International Airport

IATA/ICAO CODE: MUC/EDDM

CITY: Munich COUNTRY: Germany

AIRPORT CONTACT

Information updated by the airport 2/2011

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Airport Web Site: www.munich-airport.de

ELEVATION: 1487 ft.

| RUNWAY INFORMATION | | | | | | | |
|--|------|-----------|---|----|--|--|--|
| Orientation Length (m) Displaced Threshold (ft) Glide Slope(deg) Wie | | Width (m) | | | | | |
| 08L/26R | 4000 | - | - | 60 | | | |
| 08R/26L | 4000 | - | - | 60 | | | |

NOISE ABATEMENT PROCEDURES

See AIP Germany ENR 1.5 for details of noise abatement procedures.

Departures

Chapter 2

Aircraft licensed in accordance with ICAO Annex 16, Chapter 2:

Operation within the European Union is not permitted since April 1, 2002

Chapter 3: For aircraft licensed in accordance with ICAO Annex 16, Chapter 3 as well as B737-200 as far as the noise levels for takeoff pursuant to ICAO Annex 16, Chapter 3 have provably been reached by supplementary equipment:

| Takeoff to 1500 | Takeoff power |
|--------------------|--|
| feet | Takeoff flaps Climb at V2 + 10 KT (or as limited by body angle). |
| At | Reduce power to not less than climb power. |

1500 feet AGL Acceleration during climb and retraction of flaps Normal transition to en-route climb

Reverse Thrust

Reverse thrust other than idle thrust shall only be used to an extent necessary for safety reasons.

Arrivals

Pilots should arrange their flight so as to leave the initial approach fix at a speed which permits operation of the aircraft in clean configuration. This speed should be maintained until reaching a distance of approximately 12 NM from touchdown. For this portion of the approach, an indicated airspeed of 210 kt +/- 10 kt is recommended unless a higher airspeed is required for performance reasons.

The subsequent portion of the approach up to a point shortly prior to the Outer Marker should be flown at an airspeed of 160 kt +/- 10 kt using an intermediate flap setting as appropriate for the type of aircraft concerned with the landing gear retracted. This phase will normally include the transition from level flight to descent on the glide path which should be intercepted at a height of not lower than 3000 ft above touchdown zone elevation.

Landing configuration should be established shortly prior to or over the Outer Marker, i.e. at this time the landing gear should be extended, the flaps set for landing and the aircraft stabilized at a safe approach speed.

Reverse Thrust

Reverse thrust other than idle thrust shall only be used to an extent necessary for safety reasons.

CONTINUOUS DESCENT ARRIVAL (CDA)

A new CDA procedure is published and effective since Feb 2009. During off peak times and during night an aircraft can be cleared by ATC with that new procedure.

See German AIP AD 2 – EDDM 3-1-9 till 12 AIRAC – AMDT1

Fuel -Saving and Noise-Reducing ILS Approach Procedures (based on Nfl 1-78/96) 1. General

For the purpose of fuel-saving and noise abatement during approach, the following procedure is announced. It may be requested by the pilot or offered by the controller. It can be performed only in connection with an ILS approach.

2. Procedure

2.1 Aircraft will be guided by Approach Control by means of radar vectoring and will be cleared for a continuous descent to the intermediate approach level in such a way that after reaching this intermediate approach level on the localizer course, about one NM will be left for intercepting the glide path in level flight. This intermediate approach segment will serve to reduce speed. It is assumed that the continuous descent will be performed at a rate of 300 ft/NM (descent angle approx.3) down to the cleared level.

If for specific reasons (e.g. separation, airspace structure, obstacles), levels above the intermediate approach level have to be assigned first, these restrictions will be lifted early enough to allow a continuous descent at a rate of 300 ft/NM.

Details about the distance from touchdown will be transmitted to the pilot together with the clearance for descent and usually at 20, 15 and 10 NM from touchdown. This should enable

the pilot to correct the rate of descent as required.

2.2 In case of traffic situations allowing no CDA (e.g. approaches of aircraft with different performance data), pilots will be informed by the notice NO CDA POSSIBLE. In this case, approaches must be conducted according to previous procedures.

3. Noise Abatement

On approaches in accordance with the CDA, pilots are expected to continue using the approach techniques recommended for noise abatement in the vicinity of airports.

4. The CDA Procedure may be used at the following airports:

Stuttgart - RWY 25 (Zwischenanflughohe/intermediate approach altitude 3500)

Nurnberg - RWY 10 (Zwischenanflughohe/intermediate approach altitude 4000)

RWY 28 (Zwischenanflughohe/intermediate approach altitude 4000)

Hamburg - RWY 23 (Zwischenanflughohe/intermediate approach altitude 3000)

RWY 05 (Zwischenanflughohe/intermediate approach altitude 3000)

RWY 15 (Zwischenanflughohe/intermediate approach altitude 3000)

Hannover - RWY 27L (Zwischenanflughohe/intermediate approach altitude 2000)

RWY 27R (Zwischenanflughoehe/intermediate approach altitude 2000)

RWY 09L (Zwischenanflughoehe/intermediate approach altitude 2000)

Munich - RWY 26L/R (Zwischenanflughohe/intermediate approach altitude 5000)

RWY 08L/R (Zwischenanflughohe/intermediate approach altitude 5000)

AIRPORT CURFEWS

Note: Times shown below are Local Time. For UTC deduct 1 hour. During legal summer time deduct 2 hours from the times stated below.

2.2 Night Flying Restrictions

From 2200-0600 LT flight operations are subject to the following regulations for noise abatement reasons:

2.2.1. Restrictions regarding operating times

Night flights are only permitted, with following provisions:

With aircraft not exceeding the noise limits as stipulated by Annex 16 Section 3 of the ICAO Convention

- 2.2.1.1 In commercial scheduled air service and charter services
 - 2.2.1.1.1 up to 28 scheduled flight movements in the period
 - from 2200 until 2330 for take-offs and landings,
 - from 0500 until 0600 for landings only

Intercontinental flights shall have priority; in exceptional cases and if there is a particular traffic-related interest, such flights may be planned up to 2400.

2.2.1.1.2 Delayed landings and take-offs in the period

- from 2200 until 2400, provided the scheduled time of arrival or departure at or from Munich is planned before 2200 or in the case of flight movements in accordance with numbers 2.2.1.1.1, 2.2.1.1.3 and 2.2.1.2 before 2330 and the arrival or departure is

before 2400.

Early landings in the period

- from 0500 until 0600 provided the scheduled arrival time is planned after 0600.
- 2.2.1.1.3 Flights by airlines whose aircraft are mainly maintained at Munich Airport in the period
 - from 2200 until 2330 for all landings and for scheduled take-offs of flights in intercontinental traffic,
 - from 0500 until 0600 for take-offs for ferry flights (empty flights) and for landings in intercontinental traffic; in exceptional cases and if there is a particular traffic-related interest, flights in intercontinental traffic may be planned up to 2400.
- 2.2.1.2 Scheduled take-offs or landings or aircraft that do not generate on average an individual noise level exceeding 75db(A) at any single noise measuring point in the vicinity of Munich Airport, in the period from 2200 until 2330, from 0500 until 0600.

This regulation shall also apply with lower priority to passenger flights by airlines with aircraft with a maximum take-off weight of more than 12 tons, provided such flights are carried out regularly and are reported to the Airport Coordinator of the Federal Republic of Germany the day before.

Address:

Flughafenkoordinator der Bundesrepublik Deutschland Airport Coordinator of the Federal Republic of Germany 60549 Frankfurt/Main

Tel.: +49 69 690-2 95 01, -5 23 41, -4 56 01, -7 38 92, -5 23 51, -7 33 61, -7 33 62, -5 23 31

Telefax: +49 69 69 0 - 5 08 11, -5 96 03 e-mail: FRAZTXH@FHKD.ORG SITA: FRAZTXH AFTN: EDDFYHYX

www.fhkd.org

- 2.2.1.3 Flights that are performed for services pursuant to §4 No.1 a PostG (Postal Act) dated 22nd December 1997 (Official Federal Gazette I, page 3294) or are carried out as surveying flights for the calibration of navigational aids from 2200 until 0600;
 - 2.2.1.4 Training and exercise flights which, in accordance with regulations under aviation law, are required for the acquisition, extension or renewal of a permit or authorization as a night-time pilot and cannot be completed within the time-limit before 2200, in the period from 2200 until 2300.

2.2.2. Exceptions

The restrictions under 1 do not apply to:

- 2.2.2.1. Flights for providing assistance in emergencies and disasters and for executing police duties.
- 2.2.2.2. Landings for meteorological, technical and other flight safety reasons.

2.2.2.3. Flights that have been approved in justified exceptional cases by the "Bayerisches Staatsministerium für Wirtschaft, Verkehr und Technologie" or upon its instruction - by the Luftaufsicht at Munich Airport, in substantiated individual cases to avoid serious disruptions to air traffic or in cases of special public interest.

2.2.3. Modified Bonus List

Beginning with the summer flight plan 2002, take-offs and landings in the period from 2200 until 0600 are only allowed with aircraft that are listed in the actual bonus list of the "Bundesministerium für Verkehr, Bau- und Wohnungswesen". This list has been extended by the authorizing agency to include the aircraft types B737-600/700/800. Flights according to paragraphs 2.2.1.1.2. and 2.2.1.2 are exempt from this regulation. The authorizing agency reserves the right to modify the list beginning in the year 2004.

2.3 Reverse Thrust

When landing, reverse thrust other than idle thrust, can only be used to an extent for safety reasons in order to minimize noise impact.

PREFERENTIAL RUNWAYS

Use of the Runways Approaches

Arriving aircraft via ROKIL/LANDU, runway 26R/08L will basically be assigned. Arriving aircraft via NAPSA/BETOS, runway 26L/08R will basically be assigned.

Pilots, whose flight is supposed to be positioned at the stand-groups 700/800/900 and hangar 1,3 or 4 should duly advise Approach Control.

If traffic permits, these flights will be guided to runway 26L/08R to avoid taxi delay on the ground.

Departures

Departing aircraft into N and NE directions have to expect runway 26R/08L.

Departing aircraft into NW directions have to expect runway 26L/08R.

Departing aircraft into SW, S and SE directions have to expect runway 26L/08R.

OPERATING QUOTA

See airport curfews

ENGINE RUN-UP RESTRICTIONS

Validity of the engine test hangar regulations remains unaffected.

- 2.4.1 Engine test runs for maintenance reasons are only permitted in the engine test hangar.
- 2.4.2 The operating period of the engine test hangar is 24 hrs.
- 2.4.3 In order to ensure compliance with the existing noise abatement conditions, facility restrictions

may be imposed, if necessary.

- 2.4.4 Use of the engine test hangar shall always be announced via telephone (No. 21131) to the FMG traffic centre, comprising the following data:
 - aircraft identification
 - period of use
 - expected time for towing
 - planned change of position

2.4.5 Aircraft Taxiing Procedure

Aircraft shall not taxi under their own power into or out of the engine test hanger.

APU OPERATING RESTRICTIONS - NONE

NOISE BUDGET RESTRICTIONS - NONE

EMISSIONS SURCHARGE

Noise and emissions charges effective January 1, 2011

NOISE SURCHARGE

Noise and emissions charges effective January 1, 2011

NOISE MITIGATION/LAND USE PLANNING PROGRAM INFORMATION

| Type of Program | Date Implemented | Status |
|---|---------------------|--------|
| Sound Insulation (Residences and Public Buildings) | - | none |
| Purchase Assurance for Homeowners Located Within the Airport Noise Contours | - | none |
| Avigation Easements | - | none |
| Zoning Laws | - | none |
| Real Estate/Property Disclosure Laws | - | none |
| Acquire Land for Noise Compatibility to date | - | none |
| Population within each noise contour level relative to aircraft operations | _ | none |
| Airport Noise Contour Overlay Maps | - | none |
| Total Cost of Noise Mitigation Programs to Date | - | none |
| Source of Noise Mitigation Program Funding for Aircraft Noise | - | none |

NOISE MONITORING SYSTEM

A special noise level control applies at the 62 dB(A) noise contour level for purposes of land use planning. Therefore the data of four noise level monitors are used.

Under the Act Against Aircraft Noise, monitoring is required at all major German airports. This airport has 16 monitoring sites and 1 mobile stations.

The system will monitor not only each takeoff and landing, but is also able to perform actual flight path tracking and computerized plotting. Data will determine noise levels for different aircraft and airlines.

| | degree of longitude | degree of latitude |
|---------------|---------------------|--------------------|
| Airport | E 11°47'09,91" | N 48°21'13,62" |
| Achering | E 11°42'16" | N 48°20'30" |
| Asenkofen | E 11°51'17" | N 48°25'22" |
| Attaching | E 11°46'44" | N 48°22'19" |
| Brandstadel | E 11°42'39" | N 48°18'50" |
| Eitting | E 11°53'07" | N 48°21'36" |
| Fahrenzhausen | E 11°33'49" | N 48°21'18" |
| Glaslern | E 11°56'10" | N 48°22'33" |
| Hallbergmoos | E 11°45'16" | N 48°19'57" |
| Massenhausen | E 11°38'07" | N 48°21'09" |
| Mintraching | E 11°40'55" | N 48°19'10" |
| Neufahrn | E 11°39'17" | N 48°19'18" |
| Palhausen | E 11°39'27" | N 48°22'31" |
| Pulling | E 11°42'39" | N 48°21'36" |
| Reisen | E 11°52'46" | N 48°20'33" |
| | | |

| Schwaig | E 11°49'44" | N 48°20'37" |
|-------------|-------------|-------------|
| Viehlasmoos | E 11°52'33" | N 48°23'27" |

FLIGHT TRACK MONITORING SYSTEM

See information under Noise Monitoring System

NOISE LEVEL LIMITS - NONE

CHAPTER 2 RESTRICTIONS

Chapter 2 airplanes >75,000 lbs are banned from operating at airports in EU Member States as of April 1, 2002.

CHAPTER 2 PHASEOUT

From April 1, 2002 all civil subsonic jet aeroplanes >75,000 lbs operating at airports in EU Member States must comply with the standards specified in Part II, Chapter 3, Volume 1 of Annex 16 in accordance with EU Council Directive 92/14/EEC.

CHAPTER 3 RESTRICTIONS

See details under airport curfews above.