

Schiphol Airport

IATA/ICAO CODE: AMS/EHAM
 CITY: Amsterdam
 COUNTRY: The Netherlands

AIRPORT CONTACT

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

Name:	M. Van der Meer	J.N. Blom MsC
Title:	Advisor Physical Capacity	Advisor Environmental Capacity
Airport:	Amsterdam Schiphol Airport	Amsterdam Schiphol Airport
	Department of Capacity Management	Department of Capacity Management
Address:	Amsterdam Schiphol Airport	Amsterdam Schiphol Airport
	P.O. Box 7501	P.O. Box 7501
	1118 ZG Schiphol	1118 ZG Schiphol
	The Netherlands	The Netherlands
Phone:	+31 20 601 2907	+31 20 601 3117
Fax:	+31 20 601 3567	+31 20 601 3567
Email:	Meer_M@schiphol.nl	Blom_J@schiphol.nl
Airport Web Site:	www.schiphol.nl	

ELEVATION: - 11 ft.

RUNWAY INFORMATION				
Orientation	Length (m)	Displaced Threshold (m)	Glide Slope(deg)	Width (m)
18L/36R	3400	-	3	45
18C/36C	3300	36C/450	3	45
18R/36L	3800	18R/270	3	60
04/22	2014	-	3	45
06/24	3500	06/250	3	45
09/27	3453	09/90	3	45

NOISE ABATEMENT PROCEDURES

See AIP Netherlands for details.

1. General

The following departure and arrival procedures have proved to be highly efficient in respect of noise abatement in the vicinity of Schiphol Airport. Except for safety reasons or otherwise instructed by ATC, aircraft shall adhere to these procedures.

2. Departure (Jet Aircraft Only)

The procedure for jet airplanes is the ICAO Take-off and climb procedure A

To 1500 ft AMSL	a. Take-off power b. Speed: $V_2 + 10$ to 20 KT (or as limited by body angle) c. Appropriate flap setting
1500 ft to 3000 ft AMSL	a. Climb power b. Speed: $V_2 + 10$ to 20 KT c. Maintain previous flap setting
After passing 3000 ft AMSL	a. Retract flaps on schedule b. En route climb
3000ft AMSL to FL 100	MAX 250 KT IAS

Note: operators / aircraft types, not able to comply with the mentioned take-off procedure, are requested to inform the airport authority by sending copies of the take-off procedure in use to:

Post: Amsterdam Airport Schiphol
Dep. of Capacity Management
P.O. Box 7501
1118 ZG Schiphol Airport
Fax: +31 (0)20 601 3567

2.2 Minimum noise routing

The standard instrument departure routes as contained in AIP Netherlands EHAM AD 2.22 paragraph 1.5 avoid residential areas as much as possible and must be considered minimum noise routes.

3. Arrivals (All Aircraft)

For RWY 06 and RWY 18R RNAV low-noise procedures, continuous descent approach (CDA), for jet aircraft will be used between 2200-0530 (2100-0430), otherwise aircraft will be radar vectored towards interception of final leg at 3000 ft AMSL. Executing a CDA implies that after NIRSI, NARIX or SOKSI a continuously descending flight path without level segments is to be flown in a low power and low drag configuration. A flight path is considered continuously descending when there is no level segment. A segment is considered level if the altitude loss is less than 50 ft over a distance of 2.5 NM. For procedures and exemptions see EHAM AD 2.22 paragraph 2.6.1.

3.1 Reduced Flaps

For noise abatement using a reduced flaps landing procedure is recommended. However, use of this procedure is subject to captain's decision and safety prevails at all times.

3.1 Reduced flaps

1. Intercept the ILS using a minimum flap setting with landing gear retracted.
2. Select gear down after passing 2000 ft AMSL.
3. Postpone the selection of the minimum certified landing flap setting until passing 1200 ft AMSL.

3.3 Non percision approach

1. Intercept final leg.
2. Follow a descent path using a minimum flap setting with landing gear retracted which will NOT be lower than 5.2% (3 degrees).
3. Select gear down after passing 2000 ft AMSL.
4. Postpone the selection of the minimum certified landing flap setting until passing 1200 ft AMSL.

3.4 Visual approach

1. Intercept the final leg, avoiding populated areas as much as possible.

2. Follow a descent path using a minimum flap setting with landing gear retracted which will NOT be lower than 5.2% (3 degrees).
3. Select gear down after passing 2000 ft AMSL.
4. Postpone the selection of the minimum certified landing flap setting until passing 1200 ft AMSL.

4. Use of Runways

4.1 General

The most frequently used runways are:

- a. As landing runway: 06, 18R, 36R, 18C, 36C, 27.
- b. As departure runway: 36L, 24, 36C, 18L, 18C, 09.

In unusual circumstances, such as extreme wind conditions, runways not available and during peak hours other choices may be used. Outside peak hours and during the night period a combination of 1 departure runway and 1 landing runway will be assigned. During outbound peak hours a combination of 2 departure runways and 1 landing runway may be in use. During inbound peak hours a combination of 1 departure runway and 2 landing runways may be in use. Assignment of runways in use is based on the preferential runway system, as prescribed in paragraph 4.3. For VFR traffic normally the RWY 04/22 will be assigned.

Note: propeller driven aircraft may be assigned a different departure and landing runway.

Note: the attention of pilots on final of RWY 04 or 22 is drawn to the size and texture of the parallel taxiway which, under certain weather conditions, is more conspicuous than the runway.

4.3 Preferential runway system

The runways in use at Schiphol Airport will be selected by ATC according to a preferential runway system. This system is based on the following principles:

- traffic safety prevails at all times.
- departure and landing will normally take place on separate runways.
- preferably a runway equipped with ILS will be selected for landing.
- the preferential sequence for selecting runways in use depends on the combination of noise influences and traffic handling.
- the wind and visibility criteria mentioned in paragraph 4.3.3 are directives for the selection of the runway combination(s) from the preferential sequence. These directives are in accordance with the guidance material laid down in Annex 16-ICAO (Aircraft noise).
- deviations from an assigned runway in order to obtain a shorter taxi route, departure or approach pattern are not permitted.

Due to noise abatement considerations, the use of a non-preferential runway for take-off and for landing is not permitted unless specifically requested for safety reasons by the pilot.

However, if a pilot decides that a different landing runway should be used for safety reasons, ATC will assign that runway (air traffic and other conditions permitting). Deviations from the preferential sequence for selecting runways in use can be made by ATC:

- when approach facilities on the selected runway are not suitable for operations in the prevailing weather.
- when crosswind components do not meet the given limits for any runway combination.
- when braking action on runways is below certain standards.
- when heavy showers are observed or wind shear is reported in the vicinity of the airport.

4.3.2 The preferential sequence for selecting runways in use

The preferential sequence for selecting runways in use is being determined by the Airport Authority

in close co-operation with ATC. This preferential sequence is subject to noise load developments. Therefore the preferential sequence for selecting runways may change in any given period.

4.3.3 Wind criteria

In selecting the runway combination to be used from the preferential runway system, ATC the Netherlands shall apply the wind speed criteria as have been stated in the table below. In applying these wind criteria, gusts below 10 KT shall not be taken into account. If the actual wind speed values exceed the wind speed criteria, ATC the Netherlands may apply higher crosswind and/or tailwind values in order to assign a runway combination. Accepting a runway is a pilot's decision. If a pilot, prompted by safety concerns, requests another runway for landing, this request will be granted when possible. In that case, the pilot must submit a written report (the operator is responsible for proper reporting procedures).

	Weather	RVR $\geq$ 550 m and cloud base $\geq$ 200 ft		RVR < 550 m and/or cloud base < 200 ft	
	Wind component	Cross	Tail	Cross	Tail
BREAKING ACTION	Good	20	7	15	7
	Medium to good	10	0	10	0
	Medium	10	0	10	0
	Medium to poor	5	0	5	0
	Poor	5	0	5	0
Remarks: 1. Wind speed values are presented in knots. 2. Braking action information is based on the measured friction coefficient (see AIP Netherlands EHAM AD 2.7). Usually, the braking action at Schiphol Airport is good, even when the runway is wet. The braking action will be less than good only in case of e.g. extreme rainfall or snow.					

5. RESTRICTED USE OF THE AIRPORT

5.1 Runway availability

1. RWY 18R is not available for departures and RWY 36L is not available for arrivals.
2. RWY 36R is not available for departures and RWY 18L is not available for arrivals.
3. From 2200-0530 (2100-0430) RWY 04/22 is not available for departures and arrivals.
4. From 2200-0530 (2100-0430) RWY 09/27 is not available for departures and arrivals.
5. From 2200-0530 (2100-0430) RWY 18C is not available for arrivals and RWY 36C is not available for departures.
6. From 2200-0530 (2100-0430) RWY 18L is not available for departures.
7. From 2200-0530 (2100-0430) RWY 24 is not available for arrivals.
8. From 2200-0530 (2100-0430) RWY 36R is not available for arrivals.

Deviations from the restrictions for arrivals on RWY 09/27, 18C, 24 and 36R shall be made if no other runway is available or usable.

Deviations from the restrictions shall be made if necessary for rescue or relief (e.g. emergency) operations.

5.2 Reverse thrust

- During daytime 0600-2200 (0500-2100): After landing, the use of idle reverse thrust is advised on all runways except RWY 04/22, safety permitting. To achieve the highest possible runway capacity, runway occupancy times are to be reduced to a minimum.

- During nighttime 2200-0600 (2100-0500): After landing, reverse thrust above idle shall not be used on any runway, safety permitting.

CONTINUOUS DESCENT ARRIVAL (CDA)

3. Arrivals (All Aircraft)

For RWY 06 and RWY 18R RNAV low-noise procedures, continuous descent approach (CDA), for jet aircraft will be used between 2200-0530 (2100-0430), otherwise aircraft will be radar vectored towards interception of final leg at 3000 ft AMSL. Executing a CDA implies that after NIRSI, NARIX or SOKSI a continuously descending flight path without level segments is to be flown in a low power and low drag configuration. A flight path is considered continuously descending when there is no level segment. A segment is considered level if the altitude loss is less than 50 ft over a distance of 2.5 NM. For procedures and exemptions see AIP Netherlands EHAM AD 2.22 paragraph 2.6.1.

AIRPORT CURFEWS

6. RESTRICTIONS FOR CHAPTER 2 AND MARGINAL CHAPTER 3 AIRCRAFT

Take-off and landing is not allowed for aircraft which are certified in accordance with the noise standards of ICAO Annex 16 Chapter 2. Aircraft certified in accordance with the noise standards of ICAO Annex 16 Chapter 3, for which the margin of the sum of the three certification noise levels, relative to the sum of the three applicable ICAO Annex 16 Chapter 3 certification noise limits, is less than 5 EPNdB:

1. For aircraft equipped with engines with bypass ratio ≤ 3 , new operations are not allowed.
2. For aircraft equipped with engines with bypass ratio ≤ 3 , take-off and landing is not allowed between 1700-0700 (1600-0600).
3. For aircraft equipped with engines with bypass ratio > 3 , it is not allowed to plan take-off between 2200-0500 (2100-0400).

REDUCTION ENVIRONMENTAL BURDEN

6. REDUCTION ENVIRONMENTAL BURDEN

In order to reduce the environmental burden, arriving aircraft equipped with 3 or 4 engines should taxi from the landing runway to the gate with one engine switched off. Pilots may deviate from this restriction, if the procedure is considered an unsafe operation or would hinder the normal operation of the aircraft.

PREFERENTIAL RUNWAYS

See Noise Abatement Procedures for details

OPERATING QUOTA

In the year 2001 there was a maximum of 440,000 commercial air traffic movements and in the year 2002 a maximum of 460,000 commercial air traffic movements was allowed. In 2003 these operating quota for Amsterdam Airport Schiphol have been replaced by another system with no specific limit on the annual number of movements but a total noise volume (TVG) for Lden and Lnight, and maximum noise levels in 35 enforcement points Lden and 25 points Lnight. Actual maximum (night) capacity is dependent of actual scenario. Contact the airport for details.

Due to environmental constraints Amsterdam Airport Schiphol has a limited number of slots during the night period. Airlines are not allowed to operate between 2200-0600 (2100-0500) without a slot applicable to this period.

ENGINE RUN-UP RESTRICTIONS

1. Engine test running is only allowed on dedicated locations.
2. From 2200 – 0600 (2100 – 0500) reverse thrust above idle shall not be used safety permitting

APU OPERATING RESTRICTIONS

The use of APU and ground power units (GPU) is strictly controlled at all F and G aircraft stands and aircraft stands B16, B20, B24, B28, B32, B36 to reduce the environmental and noise burden. Where available, (fixed) 400 Hz power units must be used. For cooling and heating purposes, pre-conditioned air units (PCA) shall be used. The APU should be shut down as soon as practicable following arrival (but not later than 5 minutes after parking brakes set) and not restarted until 10 minutes prior to departure in order to start the engines. At all other aircraft stands, aircraft are urgently requested not to use APU. External power supplies, such as 400 Hz power units, GPU and PCA, should be used instead, where available.

Exceptions:

- When it is necessary to use an APU to diagnose and/or rectify aircraft faults (for technical/maintenance reasons). Prior permission must be obtained from the Airside Operations office (020 601 2115).
- When 400 Hz power units and/or PCA units are not operative or not available. Prior permission must be obtained from the Airside Operations office (020 601 2115).
- When the outside temperature is below -5°C or above +25°C (according to METAR).

NOISE BUDGET RESTRICTIONS

In order to guarantee that the total annual noise load around Amsterdam Airport Schiphol will not exceed the legal limits the airport is fully coordinated. This means that in order to operate a slot is needed from the Slot coordinator. Slot coordination is meant to provide a neutral, transparent and nondiscriminatory system for allocating the available noise capacity within the legal noise limits. The initially declared capacity for Winter season 2005/2006 is 180.000 and for the Summer season 2006 270,000 movements. The slot coordinator should stimulate airlines to operate into Amsterdam Airport Schiphol with quieter aircraft when allocating the slots to the airlines. However, no specific noise budget per airline is into place at Amsterdam Airport Schiphol this moment with regard to the slot allocation process.

NOISE SURCHARGES

Note: There are two noise charges in effect at the airport - one charged by the airport and the other by the government. Shown directly below is that airport's noise charge and listed after this is a link to the government noise charges.

[Airport Charges and Conditions Effective November 1, 2011](#)

[Airport Charges and Conditions Effective April 1, 2011](#)

[Summary of Airport Charges and Conditions Effective April 1, 2011](#)

The airport charges and conditions will be adjusted as of 1 November 2011. The final charges and conditions as of 1 November 2011 will be set before 1 June.

Note: The F factor, which is part of the calculation of the noise levy calculation, is set at €75.25 as of 1 January 2011 for the Government Noise Surcharges.

[Government Noise Surcharge provided by the Airport](#)

NOISE MITIGATION/LAND USE PLANNING PROGRAM INFORMATION

Type of Program	Date Implemented	Status
Sound Insulation (Residences and Public Buildings)	Phase 1: 1984-1997	4,320 houses
	Phase 2: 1997-2005	6,700 houses ready
	Phase 3: 2005 and later	1,140 houses in 2005 Insulation because of the new runway system: a new estimation of the scope of the program will be made in 2005.
Source of Noise Mitigation Program	-	Amsterdam Airport Schiphol collects on behalf of the Dutch government a noise charge. The charge is dependent on the certification noise levels. This charge will be collected until the airlines have paid back all cost. (see charges)
Acquire Land for noise Compatibility to date	2003 - 2005	Since 2003 the new runway and noise limits are in force. 43 houses and 11 other buildings have to be demolished because of noise limits. 82 houses and 21 buildings have to be demolished for external safety reasons.
Demolition costs	2003 - 2005	Amsterdam Airport Schiphol collects on behalf of the Dutch government a charge for demolition, claims and dialing with complaints of € 0,50 per ton MTOW. This charge will be collected until the airlines have paid back all cost (see charges).
Total costs of noise mitigation program	-	Insulation: Phase 1: € 127 million Phase 2: € 395.8 million Phase 3: max. €99 million (a new estimation will be made in 2005) buy up / demolition noise: € 22.8 million buy up demolition external safety: € 39.8 million
Noise contours	-	Demolition: buildings within the 65 Ke and 71 dB(A) Lden contours Insulation: buildings within the 40, 50 and 60 Ke noise contour for the 24 our period and Laeq = 26 dB(a) for the night .
House within the contours	1984-2005	In phase 1 and 2 17,000 houses were issue for consideration. This was before opening of the new runway. Ca 8,000 houses will be actually isolated, on March 1st 6,867 have been completed.
		The amount of house that will be eligible for insulation because of the opening of

	2005 and later	the new runway will be determined in 2005.
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NOISE MONITORING SYSTEM



Amsterdam Airport Schiphol has a noise monitoring system installed called NOMOS. The manufacturer is Lochard Environment Systems. Currently 24 fixed unit's and 1 mobile unit are operational. The noise monitoring system is being used for information purposes only and is from mid 2005 publicly available online. It provides real-time and historical noise data from the noise monitoring stations. (www.schiphol.nl)



Locations NOMOS noise monitoring stations, coordinates are given in "Rijksdriehoek stelsel" grid.

Meetpost	Location	X-coördinaat	Y-coördinaat
1	Zwanenburg	110.980	488.000
2	Zwanenburg	111.850	487.500
3	Amsterdam Osdorp	114.140	485.875
4	Leiden	95.380	466.020
7	Amstelveen	117.970	479.350
9	Aalsmeer	114.800	476.720
10	Aalsmeer	113.100	475.250
11	Aalsmeer	111.270	475.800
12	Rijssenhout	108.880	475.000
13	Leimuiden	105.880	471.040
14	Abbenes	100.821	472.176
15	Nieuw Vennep	102.960	474.925
16	Hoofddorp	107.650	478.700
17	Hoofddorp	107.050	481.000
18	Haarlem - Schalkwijk	105.300	485.670
19	Spaarndam	107.570	492.220
20	Amsterdam ZO	125.200	481.700
21	Zaanstad-Assendelft	111.924	498.244

22	Castricum	106.484	507.119
23	Oostzaan	120.389	494.299
24	Heemskerk	106.328	501.750
25	Uithoorn	116.077	473.223
26	Velserbroek	106.075	494.758
50	Runway 36R	113.389	478.231
92	Lijnden	112.072	485.047

FLIGHT TRACK MONITORING SYSTEM

See information under Noise Monitoring System

NOISE LEVEL LIMITS

See airport curfews

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 airplanes >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

6. RESTRICTIONS FOR CHAPTER 2 AND MARGINAL CHAPTER 3 AIRCRAFT

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1. For aircraft equipped with engines with bypass ratio ≤ 3 , new operations are not allowed.
2. For aircraft equipped with engines with bypass ratio ≤ 3 , take-off and landing is not allowed between 1700-0700 (1600-0600).
3. For aircraft equipped with engines with bypass ratio > 3 , it is not allowed to plan take-off between 2200-0500 (2100-0400).

Times between brackets are the times during the summertime period.