

# EDDV - Hannover Airport

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# Overview

## Before staffing this airport for the first time:

Obtain a successful grade at the self enrollment Moodle course: **EDDV - Hannover GND (S1) + Tower (S2)**.

Hannover Airport is the ninth-largest airport in Germany and the most important airport for Lower Saxony and the area around Hannover. The airport handles passenger and cargo traffic. One of the most important airlines is TuiFly, with its home base. Furthermore, Hannover is a hub for FedEx and night airmail service in Germany. For this Hannover is a 24h airport for all aircraft with noise certificate in accordance with ICAO Annex 16, Volume 1, Chapter 3, 4 or 14.

## Hannover ATC Stations

Station	Station ID	Login	Frequency	Remark
ATIS	ADV	EDDV_ATIS	136.575	--
Delivery	DVL	EDDV_DEL	120.405	--
Ground	DVG	EDDV_GND	121.955	--
Tower	DVT	EDDV_TWR	120.180	--
Arrival	HAN	EDDV_APP	119.490	--
Director	DVAT	EDDV_F_APP	119.605	--

## General Information

EDDV is an unrestricted airport of the **Bremen FIR** and one of our S2 training airports. Controllers on the vACC Germany Controller Roster are allowed to control at this Airport with their S2 or higher rating after checking these Standard Operational Procedures and obtaining a successful grade at the respective Moodle course: **EDDV - Hannover GND (S1) + Tower (S2)**.

All Ground stations at the ground (DEL, GND and TWR) do not have to track aircrafts!

Departures/hour	Arrivals/hour	Global/hour
40	40	60

# Quicksheet



## EDDV Quicksheet

AIRAC: 2402, 22.02.2024

### STANDARD INSTRUMENT DEPARTURE (SID)

SID RWY	CEL	MULDO	NIE	POVEL	VAXEV	WERRA	WRB
27L	8F	8F	7F	3F	1F	3F	8F
27R	6S	6S	9S	3S	1S	3S	3S
09R	9G	6G	7G	2H	1G	3G	1G
09L	6Y	5Y	1Y	2Y	1Y	3Y	3Y
CLIMB	4000ft						

### STAR

STAR	HLZ	WRB	ELNAT	GITEX	WERRA
27L/R	1P	1P	1P	1P	-
09L/R	6R	5R	2R	4R	2R
LVL AT	FL 110				

### APPROACH

RWY	27L	27R	09R	09L
TYPE	ILS Z / Y	ILS Z / Y	ILS	ILS
FREQ	109.5	108.9	108.70	108.3
CRS	271°	271°	090°	090°
IDENT	IHSW	IHNW	IHSE	IHNE
FAP	ODINI/LALOG	XAVER/INSAG	PIXEL	DESIM

### LEVEL RESTRICTIONS

	FROM	TO	via	FL
AIRPORT	EDDV	EDDW	-	EVEN MAX FL 100
		EDDH	-	ODD MAX FL 90
		EDDF	-	ODD MAX FL 230
		EDDL, EDDK, EDL*, EDK*, EHAM	all	EVEN MAX FL240
		all, except EDDL, EDDK, EDL*, EDK*	WERRA, WRB	odd
		all	all	semicircular rules

### COMMUNICATION

STATION	LOGIN	FREQ		CALLSIGN
ATIS	EDDV_ATIS	136.575	ADV	Hannover ATIS
	EDDV_DEL	120.405	DVL	Hannover Delivery
GND/DEL	EDDV_GND	121.955	DVG	Hannover Ground
	EDDV_TWR	120.180	DVT	Hannover Tower
TWR	EDDV_APP	119.490	HAN	Bremen Radar
	EDDV_F_APP	119.605	DVAT	Hannover Director
CTR	EDWW_D_CTR	128.760	DST	Bremen Radar
	EDWW_R_CTR	126.655	HRZ	Bremen Radar
	EDYY_C_CTR	133.955	CEL	Maastricht Radar
	EDYY_S_CTR	134.710	SOL	Maastricht Radar

### HOLDINGS

WAYPOINT	CEL	SAS	NIE	ROBEG
ALT	4000ft			
COURSE	257°	088°	181°	007°

# Delivery

The delivery controller in Hannover is responsible for all departing flights under IFR. In Hannover (and at all other airports of RG Bremen), filed flight plans are generally checked and corrected with regard to the following criteria. To be considered are:

- requested flight level (RFL) even/odd
- restrictions for certain destinations/SIDs
- rough validity of a flight plan

**Initial climb clearance:** The initial climb clearance at Hanover is 4000ft on all published departure procedures. The altitude shall be entered as cleared altitude (CFL) in an appropriate list or tag.

**PDC:** The use of PDC (Pre Departure Clearance) is permitted in Hannover, but not mandatory. The code "EDDV" shall be used. Pilots are advised to enter the requested departure runway in the Optional Free Text field of the DCL dialogue.

When using startup times, keep in mind not giving "startup approved" in the PDC clearance.

## SIDs and Restrictions

Destination	SID	Flightlevel	Remark
<b>EDDF</b>	all	odd, max. FL230	LoA
<b>EDDW</b>	all	even, max. FL100	Sectorization
<b>EDDH</b>	all	odd, max. FL090	Sectorization
<b>EDDL / EDDK / EDL* / EDK* / EHAM</b>	all	even, max. FL240	
<b>all, except Langen-North (see above)</b>	WRB, WERRA	odd	LoA and Airways
<b>all</b>	other SIDs	Semicircular rules	0° - 179° odd FL, 180° - 359° even FL

SID	27L	27R	09L	09R
<b>CEL</b> <i>Celle</i>	8F	6S	6Y	9G
<b>MULDO</b>	8F	6S	5Y	6G
<b>NIE</b> <i>NIENBURG</i>	7F	9S	1Y	7G

<b>POVEL</b>	3F	3S	2Y	2H
<b>VAXEV</b>	1F	1S	1Y	1G
<b>WRB</b> <i>WARBURG</i>	8F	3S	3Y	1G
<b>WERRA</b>	3F	3S	3Y	3G

*In Hannover all SIDs are designed without speed or level restrictions. Thus the phrase “via SID” shall not be used in Hannover.*

## Runway Assignment

The departure runway mainly depends on the aircraft type and the pilots preference.

- Heavy aircraft (e.g. A332, B748, B763) shall depart from runway 09L/27R
- *avoid* crossing departures: northbound departures should depart from 09L/27R
- RWY Config 09: VAXEV departures should depart from runway 09L
- RWY Config 27: MULDO departures should depart from runway 27R

Delivery is responsible for an appropriate runway assignment, so each runway has an equal workload.

## Low Visibility Operations (LVO)

When low visibility operations are in progress, departures should depart via 09R or 27L. On request or for heavy aircraft, runway 09L/27R can be used. During low visibility operations, the departure and arrival spacing is increased. Delays may be issued earlier than in normal conditions.

## Delays and Startup

**Delay of traffic:** In high traffic situations, it may be necessary for departing traffic to be held back. In addition, Delivery shall make arrangements to comply with restrictions imposed by other airports through notice on the ECFMP Discord, coordination, etc.

**Startup:** A startup shall be granted if no major traffic delays are expected. When allocating startups linked to times, the airport specific rate of 40 departures per hour can be used as a basis.

## Specials

**Vectored departures:** The use of vectored departures requires prior coordination with the responsible radar station. An initial altitude to climb shall be provided.

**IFR local flights:** IFR local flights are coordinated with the responsible radar controller, who may instruct a different departure procedure, possibly vectored departures.

# Coordinator Delivery

**Times of use:** A Coordinator Delivery can be staffed when all other Ground stations are manned. The position shows its potential, especially during events.

**Role and function:** The Delivery Coordinator supervises the traffic flow at and in the vicinity of the aerodrome. His duties include:

- observing airport and surrounding and detect lacks of efficiency
- managing departure list, including SID assignment, flightplan check and squawk assignment
- Slot management (if needed)
- service for text pilots
- PDC service
- when controllers are busy coordination with adjacent stations

The main Delivery is responsible for all requests via voice on frequency.

For these duties, it is recommended to use some tools which are not included in the vanilla version of EuroScope. TopSky (included in the DFS\_Pack) offers windows showing the current and predicted operations rate of specific airports or a specific sector.

## Measures:

- MDI (minimum departure interval) for specific SIDs to relieve sectors and airports
- delays, e.g. for pushback clearance to prevent overload at holding points
- observing for potential conflicts at the ground
- checking tools for inbounds and coordinating MDIs or MIT (miles in trail) in consultation with radar stations

Always make the right level of restrictions. A restriction shall *not* lead to over- or underload of the airport and its controllers. Keep in mind, a measure only shows its effect after a certain time.

# Ground

Hannover can be staffed with one ground controller. The area of responsibility is shown in the picture. Ground covers all parking positions, taxiways (including holdingpoints) to runway 09R/27L and taxiways south of runway 09C/27C. The area of responsibility for Apron control, which is shown on some charts, is not applicable on VATSIM. **Delegation:** The green coloured area is in Tower responsibility by default. This area can be delegated from Tower to Ground.



*Area of Responsibilities at Hannover Airport*

**Crossings:** When Tower delegates the north area to the Ground controller, there are two options for coordinating the crossings. This is decided by Tower.

1. General release for crossings until further notice, Tower shall inform Ground when traffic is approaching runway 09C/27C
2. Each crossing is coordinated with Tower

## Parking and Pushback

**Stands:** The DFS Pack includes the GroundRadar-Plugin which assigns parking positions by the airline and aircraft. In case of blocked gates, traffic flow/management concerns or pilot request, another position can be used. Stands marked with A are reserved for Heavy aircrafts, stands marked with R are taxi-out positions. Both types may block bordering gates.

Terminal	Positions	Airlines
A	1 - 6	Star Alliance (e.g. DLH, SWR) and EWG, AFR, KLM
B	7 - 12	touristic carriers: THY, CXI, SXS

<b>C</b>	<b>13 - 20</b>	TUI and CFG
<b>Cargo</b>	<b>45 - 61</b>	Cargo (e.g. ASL, ABR)

**General Aviation:** There are three Aprons reserved for general aviation. Due to the airport layout, each apron has different restrictions which have to be met when traffic is instructed to taxi to the specific apron.

GA Apron	Restriction
<b>GA1</b>	max wingspan 20 m
<b>GA2</b>	max wingspan 15 m
<b>GA3</b>	max wingspan 36 m, above 29 m towing required

**Pushbacks:** In Hannover, it is very important to use the apron and its taxiways efficiently. It is useful to instruct pushing traffic creative routings to avoid congestion. It may be more efficient to instruct to pushbacks in the direction away from the runway to keep up a taxi direction. Additionally, it can be useful to instruct pushbacks on A2 (facing south) so other traffic can taxi via A1.

**De-icing:** Hannover offers two de-icing pads in the west parking area. DP1 is located between stand 60 and 59, DP2 is located between stand 53 and 54. When traffic requires, stands between DP1 and DP2 can be used for de-icing.

# Taxiways

**Standard routings:** Depending on the operating direction, there are standard routings for taxiing traffic.

When runway direction 27 is active, F is used for southbound and L for northbound traffic. When runway direction 09 is active, F is used for northbound and L for southbound traffic. In low traffic situations L, can be used bidirectional.





Standard routing during 09 operations



Standard routing during 27 operations

For traffic taxiing to runway 09L/27R always instruct to hold short of runway 09C/27C.

“DLH016, taxi via A1 L1 L and M, hold short of runway 27C

Depending on the status of the delegateable area a runway crossing will be instructed according to the described schemes or a handoff to Tower shall be instructed.

Runway	WTC	Intersection
27L	M (+ H)	A
	L	B
27R	H	M
	L + M	N
09R	M (+H)	E
	L	D
09L	H	<b>H + G</b>
	M	<b>J + K + Kto</b>
	L	<b>K + Kto</b>

Preferred intersections are **bold**

**Arriving traffic:** To keep up fluent traffic, arrivals on 09L/27R always get taxi instructions according to standard routings and a clearance for crossing of runway 09C/27C. The handoff will be given by Tower as early as possible.

**Helipads** Hannover has three helipads at the airport which can be used for arriving and departing helicopters. Tower shall coordinate with Ground to achieve spacing between arriving or departing

helicopters and taxing traffic, since the helipads are on the taxiways.

Helipad	Location	Conditions
Helipad 1	crossing taxiways A and C	no traffic on C no traffic on A between stands 45 and 41
Helipad 2	on taxiway L, south of runway 09C	no arrivals/departures from 09C/27C no traffic on F and L between G and M
Helipad 3	on taxiway M between T2 and O	no arrivals/departures from 09C/27C no traffic on M between T2 and O

### Taxiway Restrictions:

Taxiway	Restriction
K	between RWY and Kto, ICAO class C or less
Kto	no A346, A35K, B773, B77L
L and F	dual use: wingspan <70 m no A388, B779, A124, A225
J	no A346
N	only medium except A400M, B752, B753
O	max. wingspan 20 m
P	max. wingspan 17 m
Q	max. wingspan 36 m

## Efficient Traffic Management

In Hannover, the Ground controller is the most important station to guarantee an efficient traffic flow. For this, there are some points to keep an eye on while staffing Ground.

- Delay pushbacks if needed to prevent overloaded holdingpoints or taxiways in the terminal area
- plan pushbacks and their routing the most efficient way
- creative routings, e.g. via F1 C A A2 to relieve A1/L1 between stand 1 and 9

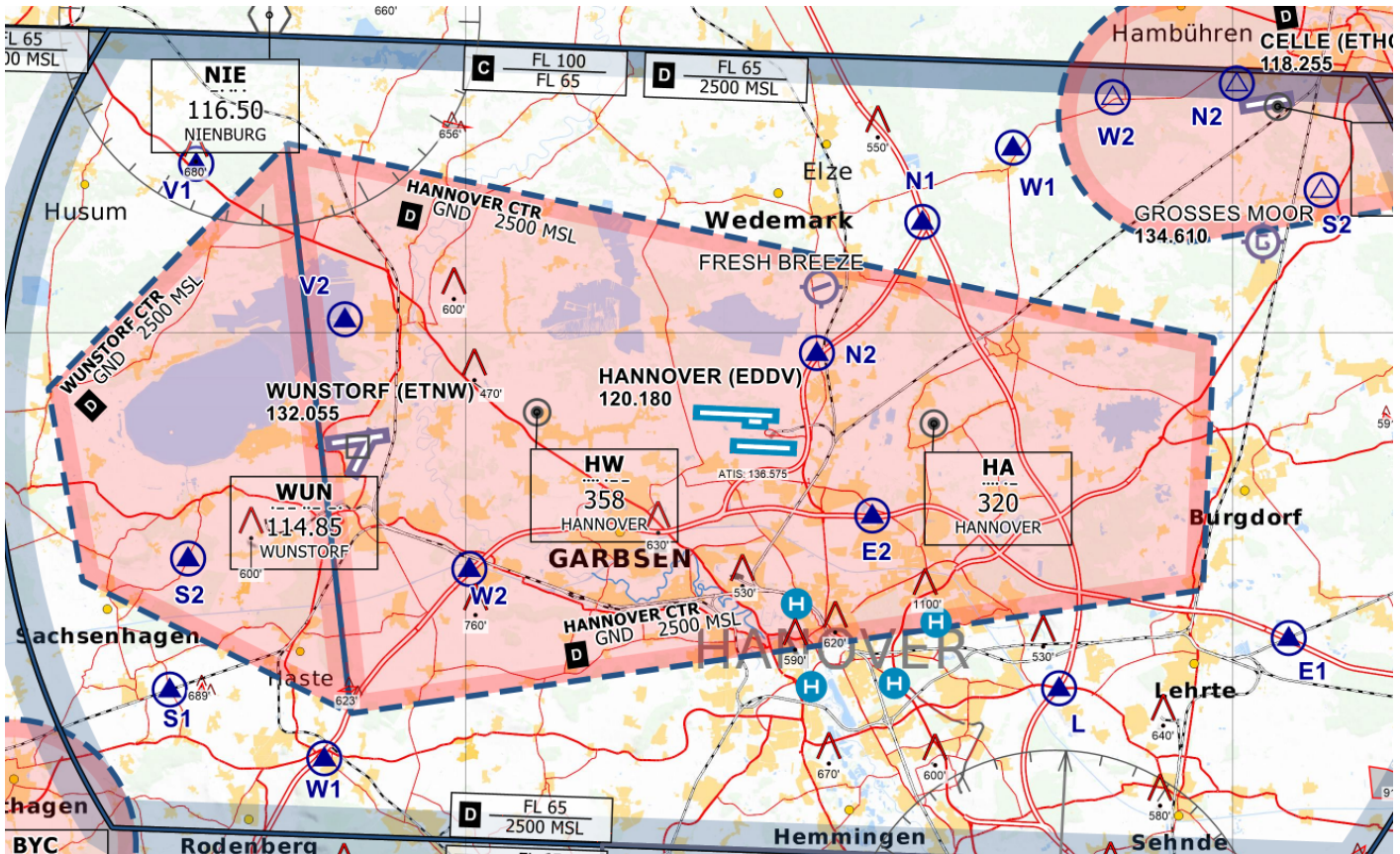
## Low Visibility Operations (LVO)

When Hannover has to operate in low visibility conditions, the procedures change up a bit. Runway 09R/27L is preferred for departures, runway 09L/27R on request or for departing heavy aircraft. Runway 09L/27R shall be used for arrivals.

During low visibility operations, the departure and arrival spacing is increased. Delays may be issued earlier than in normal conditions.

# Tower

Hannover Tower is responsible for all arriving and departing traffic. The top level of the airspace D control zone is 2500ft MSL. Above this altitude, airspace D (not CTR) and C covers this area around Hannover within responsibility of Bremen Radar (Hannover).



Controlzone of Hannover Airport and Wunstorf - © [openflightmaps.org](https://openflightmaps.org)

**Wunstorf:** In the west side of the control zone is the German military airbase of ETNW Wunstorf. Traffic to and from Wunstorf can cause critical situations in Hannover. The responsible radar controller will give information about traffic. It may be necessary to:

- clear VFR aircraft from the north to the south area
- hold back departures, in coordination with radar

Additionally, there is the option when ETNW\_TWR is unstaffed the whole aerodrome or some procedures (e.g. VFR from Hannover for one touch and go in ETNW) can be delegated from radar to Hannover Tower.

## Runways

Hannover has a dependent parallel runway system with three runways.

**Preferred Runway:** In Hannover, runway direction 27 is preferred and used up to a tailwind component of 5 KT.

When runway 27 is in use, **ILS-Z** shall be announced in the ATIS.

**Conditions for Runway 09C/27C:** The small runway 09C/27C can not be used all the time and for all aircraft. There are following restrictions:

- MTOM below 5700 kg, including motor gliders and ultralight aircraft
- only for VFR traffic
- daylight operation only, SR-30 till SS+30

## Specialties

The airport layout with its parallel dependent runway offers some opportunities to increase the efficiency.

**Standard Separation:** The standard separation is 4,5nm diagonally on both runways and 6nm on a single runway. Approach will coordinate or Tower will release a reduction.

**Special Separation:** With the distance between runway 09R/27L and 09L/27R, radar is allowed to separate arriving traffic with minimum 1,5 nm diagonally. The radar controller is responsible for creating positive separation.

Clearances can be issued even with active clearances for takeoff or landing on the other parallel runway, as long as there will be positive separation all the time including possible go-arounds. Traffic can be considered landed when ground speed reduces noticeably. Special conditions for VFR traffic see below.

Additionally, under few conditions it is allowed to reduce the lateral separation on one runway to 2,5 nm.

- preceding aircraft is same or lower wake turbulence category and not heavy
- runway is dry
- tower can see all exits visually or with ground radar

*Note: all reductions of the separation as stated above are coordinated with Tower and are not the standard procedure.*

# Delegation to Ground



Area of Responsibility at Hannover Airport

The area north of runway 09C/27C (including taxiways M and G) can be delegated to Hannover Ground. Tower shall decide which of these crossing options shall be applied.

- 1. General release for crossings until further notice, Tower shall inform Ground when traffic is approaching runway 09C/27C
- 2. Each crossing is coordinated

When the area is in responsibility of Tower (default), the Tower controller is responsible to assign the intersections of the north runway. Ground Controllers will only clear to hold short of 09/27C.

## Departures

There are standard intersections which should be used for traffic departing from Hannover. In case of pilot request, insert the non standard intersection into the remarks field.

Runway	WTC	Intersection
27L	M (+ H)	A
	L	B
27R	H	M
	L + M	N
09R	M (+H)	E
	L	D
09L	H	H + G

M	<b>J</b> + K + Kto
L	<b>K</b> + Kto

*Preferred intersections are **bold***

**General Departure-Release:** Departures do not have to be released by EDWW (Bremen Radar) unless:

- EDWW explicitly restricts departures by time, SID or until further notice
- Departures out of the non operational runway config
- The first departure after a runway change
- The first departure after an unplanned missed approach

**Auto-Handoff:** Hannover has an auto-handoff to the departure frequency immediately after take-off, as stated in the charts. A short "bye bye" at the end of the take-off clearance can help vPilots to get the hint.

**Spacing:** Departures shall be separated with a minimum of 3 nm or wake turbulence separated, whichever is greater. When two aircrafts regardless of the runway have the same SID waypoint (e.g. POVEL) the separation shall be increased to 5 nm or wake turbulence separation whichever is greater.

## Arrivals

**Runway 09R/27L:** Arrivals on runway 09R/27L shall be instructed to contact Ground when they are vacating.

**Runway 09L/27R:** Arrivals on runway 09L/27R shall get an initial taxi instruction and a clearance to cross runway 09C/27C. The handoff to Ground should be made as early as possible.

One of your primary objectives with arrivals is to keep the runways useable. Unfortunately some vPilots will hold before the holding line blocking the runway, unless you keep them rolling. Issue taxi instructions as soon as possible (09L/27R) or advice to hold behind the holding line while giving a handoff to Ground (09R/27L).

## Missed Approaches

In case of an unplanned missed approach, the Tower controller shall inform Bremen Radar (Hannover) immediately. Traffic will be handed over to Hannover Approach after coordination.

The next departure is always subject to release, if not coordinated otherwise ([Departure Release](#)).

## Efficiency

**Reduced Runway Separation (RRS):** Reduced Runway Separation can be applied for runway 09L/27R for all categories and on 09R/27L for aircraft of category 1 and 2.

**Independent lineups:** With the standard intersection described above, independent lineups are only authorized for runway 09L between G and J/K/Kto, H and K/Kto.

## VFR

Hannover offers several options for traffic under VFR. The visual reporting points of V and S belong to Wunstorf and shall not be used. There are two standard holding patterns north and south of the field.

VRP	N1	N2	E1	E2	L	W1	W2
NAV	Highway junction A7 and A352	Highway exit A352 near Kaltenweide	Crossing railway with A2	Small lakes near A2	Highway exit A7 to B65	Highway exit A2 to B65	Highway A2 crossing with Mittellandkanal

**Runway usage:** VFR traffic on the left or right runway is independent to IFR traffic on the other runway but shall get traffic information. Departures from the center runway (VFR only) need to be wake turbulence separated from runway 09L/27R.

## Helicopters

**Helipads:** Hannover has three helipads at the airport which can be used for arriving and departing helicopters. Tower shall coordinate with Ground to achieve spacing between arriving or departing helicopters and taxing traffic, since the helipads are on the taxiways.

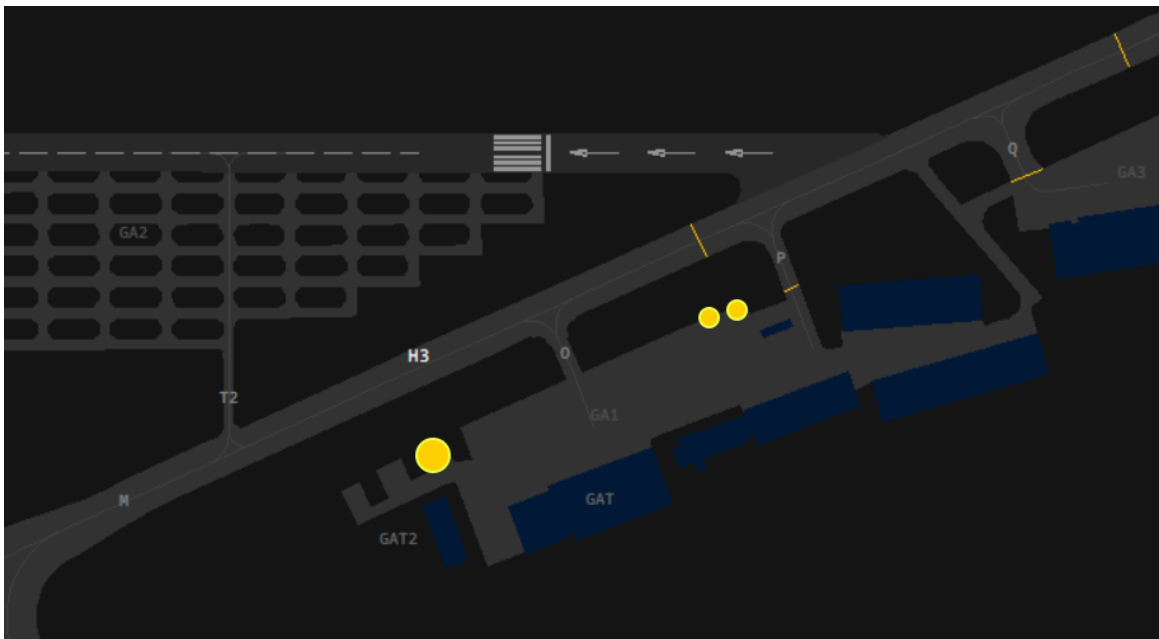


Helipad	Location	Conditions
Helipad 1	crossing taxiways A and C	no traffic on C no traffic on A between stands 45 and 41
Helipad 2	on taxiway L, south of runway 09C	no arrivals/departures from 09C/27C no traffic on F and L between G and M
Helipad 3	on taxiway M between T2 and O	no arrivals/departures from 09C/27C no traffic on M between T2 and O

**Civil Helicopters:** Parking positions 69A/69B between GA1 and taxiway P. Helicopters hover taxi directly via M to these positions.

**Police and rescue helicopters:** At Hannover airport is the rescue helicopter CHX86 (Christoph Niedersachsen) located which is parked on stand 69C in the area west of the general aviation apron 1. Arrival and departure are usually performed from helipad 3 with a direct hover from and to the parking pad. Furthermore, Lower Saxony's state police has its helicopter units at Hannover airport west of taxiway F stationed and will hover taxi directly from and to helipad 2.

Note: Stands 69A-E are not mentioned in any charts or ground layout but can be seen for example on satellite maps. Reference:



**Nearby Helipads:** In the vicinity of the aerodrome are some helipads used for rescue helicopters. They are shown in the default Tower view with an abbreviation:

- KKH - Kinderkrankenhaus auf der Bult
- MHH - Medizinische Hochschule Hannover (Homebase of CHX4)
- NKH - Nordstadt Klinikum Hannover

# Low Visibility Operations (LVO)

When the weather condition requires low visibility operations the use shall be announced in the ATIS.

use **&lv** in the ATIS maker URL or "LOW VIS OPS" flag in the NOTAM menu of vATIS

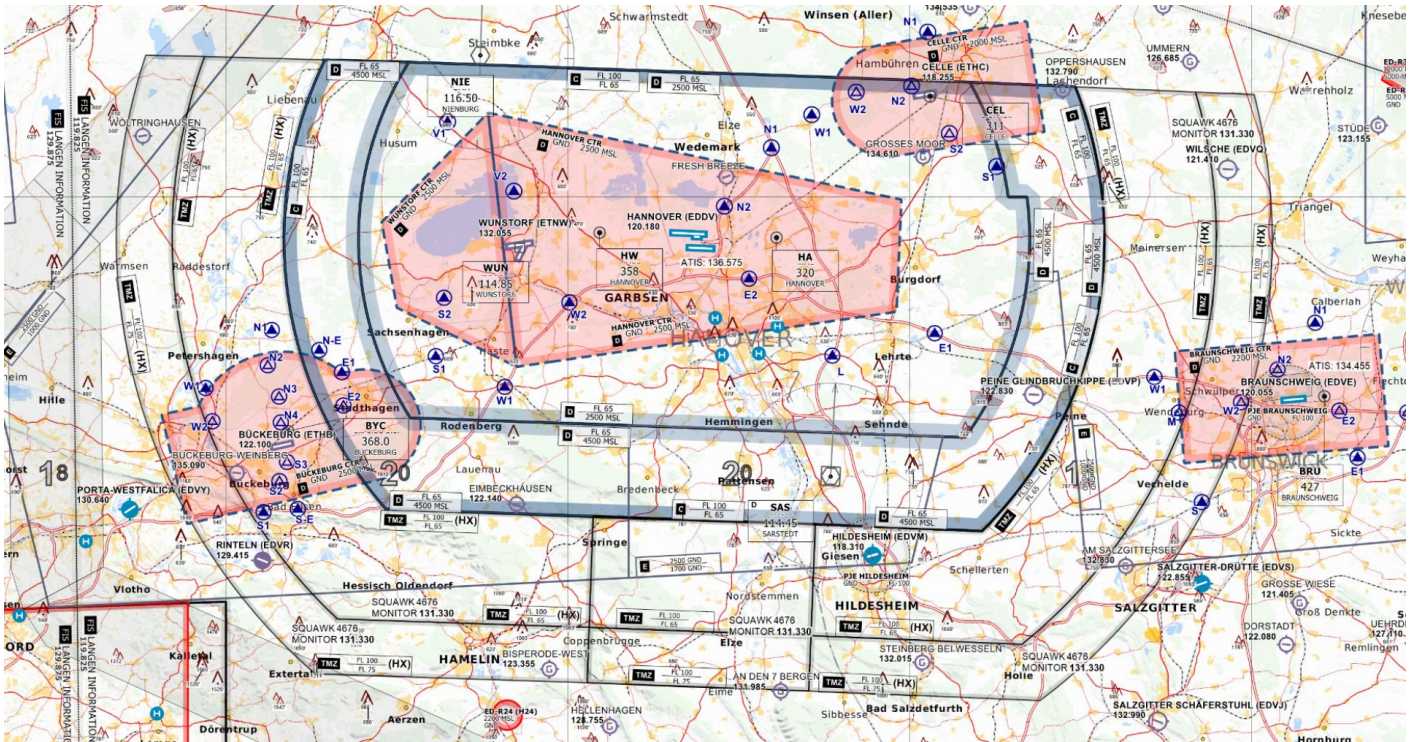
During low visibility operations, the departure and arrival spacing is increased. Delays may be issued earlier than in normal conditions. Additionally, under low visibility operations runway 09R/27L shall be used for departures except Heavy aircrafts and 09L/27R for arrivals.

# Arrival

**Area of Responsibility:** The Hannover Arrival airspace reaches up to FL105 and covers several airports. Civil aerodromes in the area of responsibility are Hannover (EDDV) and Braunschweig-Wolfsburg (EDVE). There are also the military airports Wunstorf (ETNW), Celle (ETHC), Bückeburg (ETHB) and Fassberg (ETHS).



**Airspace:** The airspace is divided in class D and C airspace. Airspace D reaches from 2500ft up to FL65 in the inner ring, the outer ring reaches up from 4500ft to FL65. Above these two segments covers airspace C up to FL100.



Charlie + Delta + TMZ Airspace of Hannover Airport and Wunstorf - © [openflightmaps.org](https://openflightmaps.org)

There is also a **TMZ** with HX zones. The main part south of SAS/DLE is always active. The west area is active when runway 09 is in use. The east TMZ area is active when runway 27 is active. The size of the airspace (including) TMZ allow descends in protected airspace.

**Minimum Vector Altitude:** The minimum vector altitude can be displayed in the DFS Pack with `Alt + M`.

The south of Hannover has MVA areas which do not allow early descents on low altitudes (e.g. 3500ft). Always comply with restrictions given by the MVA.

## Arrivals

**Normal Procedures:** In normal traffic headings are used for arriving traffic before reaching the initial approach fix. Early directs to DVxxx in coordination with adjacent Centers are possible as well.

**Runway assignment:** Arrival always assigns the arrival runway for each aircraft. All heavy aircraft shall land on runway 09L/27R. Light aircraft parking on one of the general aviation aprons are preferred on runway 09L/27R to keep their taxi time short and to relieve the terminal area, for operational reasons runway 09R/27L can be used. All other aircraft can state their preference. In high traffic situations the workload on each runway shall be equal.

**Approach types:** Hannover offers different approach types for arriving traffic. All runways are equipped with ILS and authorized for RNP approaches. On runway 09L/27R CAT II/CAT III and NDB approaches can be performed.

In direction 27 ILS-Z and ILS-Y are available. They only differ in their intercept altitude, the

standard is ILS-Z with an intercept altitude of 3000 ft.

# Director

Hannover Director is responsible for all arriving aircraft in Hannover. There is no area of responsibility for Hannover Director. The transfer from Hannover Arrival to Hannover Director shall be done when the aircraft is cleared:

- north downwind: 4000ft, speed 220 KT
- south downwind: 5000ft, speed 220 KT

These parameters can be adjusted with coordination to achieve a more efficient traffic flow in certain situations.

## Standard and Reduced Separation

**Target Separation:** This separation is the minimum separation on all runways, which allows Tower to clear departures in the gaps.

- 4,5 NM diagonal separation
- on one runway: 6 NM or wake turbulence separation, whichever is greater

**Reduced diagonal separation:** The airport layout allows a reduced diagonal separation minimum on the parallel runway system. Under following conditions the diagonal separation minimum can be reduced to 1,5 NM.

- both parallel ILS are operational
- pilots are informed about the use of reduced minima
- radar separation of 3 NM or 1000ft mandatory until both aircraft are established on localizer course within 15 NM

**Reduced radar separation:** With the following conditions, it is allowed to reduce the lateral separation on one runway to 2,5 NM.

- preceding aircraft is same or lower wake turbulence category and not heavy or B757
- runway is dry
- tower can see all exits visually or with ground radar

*Note: all reducing of the separation as stated above shall be coordinated with Tower and are not the standard procedure.*

**Low visibility operations:** During low visibility operations, the amount of movements may decrease. Runway 09R/27L shall be used for departures and 09L/27R for arrivals. To comply with the increased distance of the holding points, the target separation is increased to 5 NM.

# Procedures

**STARs:** By default the Center clears STARs as per LoA. The STARs have different routings depending on the runway direction. Center shall be informed and included in the decision when a runway change is reasonable.

Waypoint	27L and 27R	09R and 09L
ELNAT	P	R
GITEX	P	R
HLZ	P	R
WERRA	P	R
WRB	P	R

**Transitions:** From the initial approach fixes, there are open transitions available. These transitions do *not* lead onto final track.

Runway	Designator		
27L and 27R	DLE 27L/R	CEL 27 L/R	NIE 27L/R
09L and 09R	ROBEG 09L/R	CEL 09L/R	NIE 09L/R

## Continuous Descent Operations:

Waypoint	27L	27R	09R	09L
ESTAD	D	L	E	A
OBATU	D	L	E	A
HLZ	D	L	E	A
KUGAV	D	L	E	A
WRB	D	L	E	A
TOLTA	D	L	E	A

# Holdings

Waypoint	Course and turns	Runway
----------	------------------	--------



<b>ROBEG</b>	007° right turns	09L/09R
<b>SAS</b>	088° left turns	27L/27R
<b>CEL</b>	257° right turns	27L/27R
<b>NIE</b>	181° right turns	09L/09R

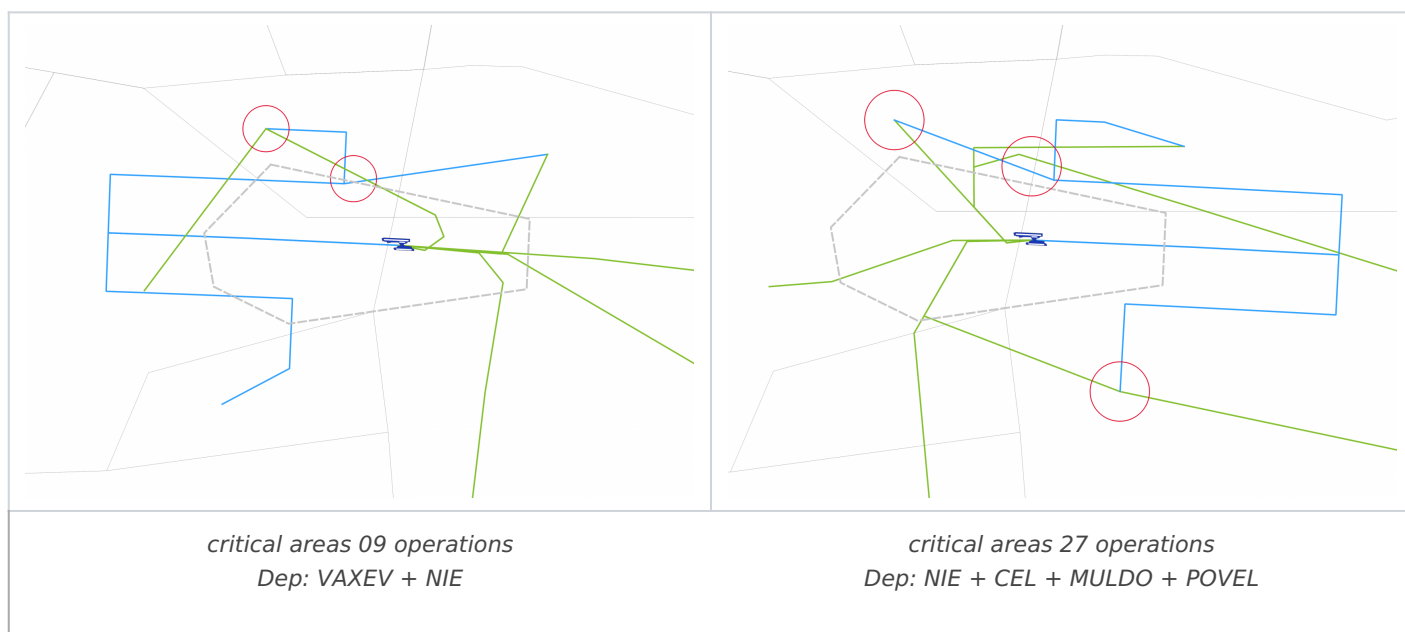
## Departures

All departures on published procedures have an initial climb of 4000ft. In Hannover all departures on a SID have to contact Bremen Radar immediately when airborne without any further handoff.

With the upper limit of FL105, all departures shall be transferred to Center climbing to FL100.

## Critical Areas

The procedure design can cause critical situations between arrivals and departures. Areas with a higher risk of approximations between arrivals (blue) and departures (green) are marked red.



## Specialities

**Wunstorf:** In the west side of the Hannover control zone is the German military airbase of ETNW Wunstorf. Traffic to and from Wunstorf can cause critical situations in Hannover. Radar shall inform Hannover Tower about traffic in Wunstorf.

Additionally, there is the option when ETNW\_TWR is unstaffed the whole aerodrome or some procedures (e.g. VFR from Hannover for one touch and go in ETNW) can be delegated from Radar to Hannover Tower.