General Information

Location: FRANKFURT/MAIN DEU
ICAO/IATA: EDDF / FRA
Lat/Long: N50° 02.0', E008° 34.2'
Elevation: 364 ft

Airport Use: Public
Daylight Savings: Observed
UTC Conversion: -1:00 = UTC
Magnetic Variation: 2.0° E

Fuel Types: Jet A-1
Repair Types: Minor Airframe, Minor Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: Yes
LLWS Alert: No
Beacon: Yes

Sunrise: 0322 Z
Sunset: 1938 Z

Runway Information

Runway: 18
Length x Width: 13123 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 326 ft
Lighting: Edge, Centerline

Runway: 07C
Length x Width: 13123 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 329 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 07L
Length x Width: 9186 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 305 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 07R
Length x Width: 13123 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 326 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 25C
Length x Width: 13123 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 364 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 25L
Length x Width: 13123 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 362 ft
Lighting: Edge, ALS, Centerline, TDZ
Runway: 25R
Length x Width: 9186 ft x 148 ft
Surface Type: concrete
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

ATIS: 118.725 Departure Service
ATIS: 118.025 Arrival Service
Frankfurt Tower: 118.775
Frankfurt Arrival: 118.025
Frankfurt Departure: 118.725
Frankfurt ILS: 118.725
Frankfurt Apron: 121.925
Frankfurt Apron: 118.775
Frankfurt Radar Approach: 118.725
Frankfurt Live Terminal: 124.850
Frankfurt Live Terminal: 127.325
Frankfurt Live Terminal: 121.925
Frankfurt Live Terminal: 119.825
Frankfurt Live Terminal: 121.725
Frankfurt Live Terminal: 119.975
Frankfurt Live Terminal: 121.675
Frankfurt Live Terminal: 119.850
Frankfurt Live Terminal: 121.575
Frankfurt Live Terminal: 119.800
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Frankfurt Live Terminal: 117.050
Frankfurt Live Terminal: 117.000

1.2. NOISE ABATEMENT PROCEDURES

1.2.1. RWY USAGE

1.2.1.1. ARRIVALS

RWYs 25C/L will preferably be assigned to landing ACFT, provided the tailwind component does not exceed 5 KT. The landing direction will be changed, however, even if the tailwind component is less than 5 KT when braking action on the RWYs is impaired by ice, snow, slush, etc., even if the tailwind component is less than 5 KT. The take-off and landing direction also depends on the availability of navigation aids or the weather in the approach and departure area.

1.2.1.2. DEPARTURES

Preferred take-off direction for landing direction 25/18:
For departures to the Northwest (OBOKA), North (MARUN) and Northeast (TOBAK), RWY 25C with the relevant standard departure route is preferred.
For departures to the Southwest (SOBRA, UKIG), South (ANEKI) and Southeast (via AKONI in the direction NOMBO, DKB, RATIM and ROten for DEST area EDDN), RWY 18 with the relevant standard departure route is preferred, provided the tailwind component for RWY 18 is not greater than 15 KT.

Preferred take-off direction for landing direction 07/18:
For departures to the Northwest (OBOKA), North (MARUN), Northeast (TOBAK) and East (SULUS) incl. area EDDN (KOMIB), RWY 07C with the relevant standard departure route is preferred.
For departures to the Southwest (SOBRA, South (ANEKI) and Southeast (via AKONI in the direction NOMBO, DKB, RATIM), RWY 18 with the relevant standard departure route is preferred, provided the tailwind component for RWY 18 is not greater than 15 KT.

Exceptions are possible if required due to traffic safety, the availability of navigation aids, significant weather in the approach area or noise abatement measures or if Aerodrome Control deems that the traffic situation permits.

Tailwind component RWY 18:
If the tailwind component for RWY 18 exceeds 10 KT, this will be broadcast by ATIS.
Pilots unable to accept the greater tailwind component are requested to advise ATC at the same time they request start-up clearance.

Warning: In cases of strong winds, wind shear and increased turbulence must be expected on RWY 18.

1.2.2. NIGHT FLYING RESTRICTIONS AND OPERATIONAL RESTRICTIONS

1.2.2.1. OUTSIDE NIGHTTIME HOURS FOR CIVIL AVIATION

a) Landing RWY Northwest (07L/25R) may only be used by airplanes up to and including code letter E in compliance with ICAO categorization. Airplanes with code letter F in compliance with categorization according to ICAO Attachment 14, jet airplanes, which cannot be classified into the airplane groups up to and including $ 6.3 in compliance with the instructions for calculating noise protection zones as well as airplanes of the type MD11 may not use landing RWY Northwest (07L/25R). Take-offs of ACFT are not permitted from landing RWY Northwest (07L/25R).
b) ACFT without a noise certificate in accordance with ICAO Annex 16 are not permitted to take-off from or land on the whole RWY system of Frankfurt/Main APT during the entire hours of operation of Frankfurt/Main APT.
The following regulations apply to ACFT arriving late or early:

- ACFT that merely meet the noise certification values in accordance with ICAO Annex 16, Volume I, Part II, Chapter 2 are not permitted to take-off from or land on the whole RWY system of Frankfurt/Main APT during the entire hours of operation of Frankfurt/Main APT unless - documented by a certificate according to Article 11c, paragraph 7 of the German Aviation Regulation (LuftVO) - the Federal Aviation Office (LBA) has granted an exemption for the ACFT concerned according to Article 11c, paragraphs 4 - 6 of the LuftVO or a Member State of the European Union has granted an exemption in accordance with Article 11c, paragraph 6 of the LuftVO.

- ACFT that are not only marginally compliant with ICAO Annex 16, Volume I, Part II, Chapter 3 within the meaning of Article 48a no. 4 of the Regulation on the Certification and Licensing in Aviation (LuftVZO) take-offs and landings are not permitted on all days of the week between 2200-0800LT, unless an exemption in accordance with Article 48f, paragraph 1 of the LuftVZO or an individual exemption in accordance with paragraph 2 of the regulation has been granted.

- ACFT arriving late or early whose landing is planned by the APT coordinator for a slot outside the operational restrictions up to 2000LT or from 0800LT may land until 2200LT and from 0600LT, unless they have been granted an exemption in accordance with Article 48f, paragraph 1 of the LuftVZO or an individual exemption in accordance with paragraph 2 of the regulation.

- ACFT that are not only marginally compliant with ICAO Annex 16, Volume I, Part III, Chapter 3 within the meaning of Article 48a of the LuftVZO, and ACFT fulfilling the provisions of ICAO Annex 16, Volume I, Part II, Chapter 4 whose landing is planned by the APT coordinator for a slot between 2200-2300LT and/or from 0500LT, are permitted to land until 2200LT or from 0600LT, are permitted to land until 2400LT and/or from 0500LT without being counted against the quota as well as the maximum limit, provided that the late or early arrival was not envisaged as such in the flight plan (Article 25 LuftVO). The following regulations apply to ACFT arriving late or early:

- ACFT that are not only marginally compliant with ICAO Annex 16, Volume I, Part III, Chapter 3 within the meaning of Article 48a of the LuftVZO, and ACFT fulfilling the provisions of ICAO Annex 16, Volume I, Part II, Chapter 4 whose landing is planned by the APT coordinator for a slot between 2200-2300LT and/or from 0500LT, are permitted to land until 2200LT or from 0600LT, are permitted to land until 2400LT and/or from 0500LT without being counted against the quota as well as the maximum limit, provided that the late or early arrival was not envisaged as such in the flight plan (Article 25 LuftVO).
1. GENERAL

The reasons for the application shall be specified; the applicant shall state, in particular, where the hardship lies.

Take-off or landing clearances granted by ATC as well as other clearances do not automatically include the necessary exemption by the approval authority.

ATC will not grant exemptions via radio telephony.

The pilot-in-command (PIC) shall report any landing conducted during a period of restricted operations by an ACFT subject to the restriction which does not meet any of the grounds for exemption according to the provisions to the local aviation supervision office immediately after landing and specify the reasons (declaration of PIC).    

1.2.3. REVERSE THRUST

Reverse thrust must not be used on the entire RWY system of Frankfurt/Main APT - except for safety reasons in unavoidable cases. This does not apply to idle reverse thrust.

1.2.4. RUN-UP TESTS

Engine run-ups with thrust settings above an idle power setting may only be conducted at the following positions:

- On the apron of hangar 5 and in the run-up enclosure in the time between 0600-2200LT;
- In the time between 2200-0600LT, engine run-ups with the thrust setting on part-load on the apron of hangar 5, whereby on the position hangar 5 west the maximum power setting may only be taken to part-load low (up to 50% N1), as well as in the run-up enclosure; engine run-ups with the thrust setting on full-load may only be conducted in the run-up enclosure.

Engine run-ups shall be conducted in such a way that their duration of exposure on the next built-up area shall not, on average, result in a continuous sound level higher than 57 dB(A) during the day and 50 dB(A) during the night.

Engine run-ups in the time between 2200-0600LT with a thrust setting on full-power setting shall be notified to the local aviation supervision office.

Engine test runs and run-ups as well as extensive maintenance work on ACFT at the positions are not permitted. Apron control may grant exceptions in justified cases.

1.3. LOW VISIBILITY PROCEDURES

1.3.1. CAT III OPERATIONS

1.3.1.1. GENERAL

RWYS 07R/25L and 07C/25C will be announced via ATIS. Unless otherwise instructed, ACFT are only permitted to taxi on TWYS with illuminated centerline lights as soon as CAT III all-weather operations have been declared.

The TWY centerline lights within the ILS-critical/sensitive area are color-coded (yellow/green) from RWY 07C/25C to TWYS L and M, from RWY 07R/25L to TWYS M and R, from RWY 07L/25R to TWY P, from RWY 18 from the North to TWY Y5 and from RWY 18 from the South to TWYS L and N. Landing ACFT are requested to report when they are clear of the color-coded TWY centerline lights to indicate that they have vacated the ILS-critical/sensitive area.

In order to facilitate ground movement, several clearance bars and stop bars are installed.

1.3.1.2. CLEARANCE BARS

Clearance bars are operated together with the centerline lighting and consist of three unidirectional surface lights showing YELLOW in the direction of approach to the intersection, arranged at 90° to the TWY centerline and partly displaced laterally to centerline.

If the traffic situation requires, ACFT may be instructed to hold at a specific clearance bar. If no such instruction is given, ACFT may taxi across the clearance bar without a specific clearance.

1.3.1.3. STOP BARS

Stop bars are operated independently of the centerline lighting and consist of unidirectional surface lights showing red in the direction of approach to a taxi-holding position/an intersection, spaced at intervals of 10'/3m across the overall width of a TWY at 90° to the TWY centerline.

Taxing across an operating stop bar is strictly prohibited.

1.4. SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM

1.4.1. OPERATION OF SSR-MODE S TRANSPONDERS

An Advanced Surface Movement Guidance and Control System, using Mode-S multilateration, is in operation.

1.4.1.2. OPERATION OF MODE S TRANSPONDERS WHEN ACFT IS ON GROUND

ACFT operators shall ensure that Mode S transponders are able to operate when ACFT is on the ground.

Pilots shall:

Select AUTO mode and assigned Mode A code. If AUTO mode is not available, select ON (e.g. XPDR) and assigned Mode A code (e.g. Mode A code = 1000 using callsign in flight).

- From request for push-back or taxi, whichever is earlier;
- After landing, continuously until ACFT is fully parked on stand;
- When fully parked on stand, select STBY.

Whenever ACFT is capable of reporting ACFT ident (i.e. callsign used in flight), ACFT ident shall also be entered from request for push-back or taxi, whichever is earlier (through FMS or transponder control panel). Aircrew must use ICAO defined format for entry of ACFT ident (e.g. DLH5MC, AFR6380, SAS589, BAW68PG).

To ensure that performance of systems based on SSR frequencies (including airborne TCAS units and SSR radars) is not compromised, TCAS shall not be activated before approaching holding point. After landing, it shall be deselected after vacating RWY.

ACFT taxiing without flight plan shall select STBY.

1.5. TAXI PROCEDURES

1.5.1. GENERAL

ACFT are permitted to taxi on the manoeuvring area between RWY 07C/25C and TWYL only with the minimum engine revolutions absolutely required.

TWYS N blue and N orange and N7 blue and N7 orange MAX wingspan 118'/36m.

TWY N South MAX wingspan 171'/52m.
1. GENERAL

1.5.2. TAXIING ON APRON
Wing-tip clearance for B747-400 on ACFT stand taxilanes to objects is MIM 25'/7.5m, to parallel height-limited service roads is MIM 16'/5m.
Wing-tip clearance for A380 on ACFT stand taxilanes to objects is MIM 25'/7.5m, to parallel height-limited service roads is MIM 8'/2.5m.
ACFT type A380-800 will be towed with reduced obstacle clearance of 5m on TWY N11.
Heavy ACFT taxiing on apron shall apply minimum thrust only. When taxiing into parking stands, ACFT shall not stop in turns. If an ACFT comes to a stop, notify Apron Control prior to increasing engine power.

In the General Aviation Area the wing-tip clearance is MIM 15'/4.5m. Adhere strictly to the yellow, blue and orange taxi guidance lines.

1.5.3. TAXIING IN CASES OF LOW VISIBILITY
When leaving stands S401, S402, S404, S406, S408, S410, S412, S414, S416, S418, S420, V155 and V173B at night and in other low visibility situations, nose gear lights shall generally be switched on. This shall not apply if ACFT is guided by Follow-me car and if the lights dazzle the pilot. In these situations, it is permitted to keep nose gear lights switched off even in cases of low visibility.

1.6. PARKING INFORMATION


1.7. OTHER INFORMATION
Glider areas in vicinity of APT. 
Warning: In cases of strong winds, wind shears and increased turbulence can be expected on RWY 18.

Bird strike warning system for RWY 07L APCH available.
For APT Collaborative Decision Making (ACDM) see ATC pages Germany.

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES
Between 2300-0500LT all inbound ACFT should expect clearances whereby final approach will be reached not closer to the APT than:
- approximately 18NM (RWYs 25C/L); and
- approximately 19NM (RWY 07C/R) from THR.

These "final-interception points" correspond to the GPS/FMS waypoints DF622 (RWYs 25C/L) and DF632 (RWYs 07C/R). The fly-by function of these waypoints is not affected.
Pilots should subsequently expect a clearance for an ILS approach with GP interception at 5000'.
In addition pilots should expect a clearance to descend below FL 70 only 6NM prior to reaching the above mentioned points. Pilots should adjust their speed accordingly (approximately 200-220 KT when leaving FL 70) and are urgently requested to perform their descent from FL 70 as a continuous descent whenever possible.

In the event of technical failure of the ILS equipment, i.e. the need to fly non-precision approaches, descent clearances to 4000' will be issued.

Requests for non-precision approaches for training purposes will be denied.
The above procedures will not be applied to:
- Flights with STS/HOSP;
- Flights in adverse weather conditions; and
- Flights in emergency situations.

Between 2300-0500LT approaching ACFT shall wait for clearances with the information that the final approach tracks can only be reached at a distance of 5.0NM (RWY 25C/25L) and 5.1NM (RWY 07C/07R) in front of the THR. These "final approach points" correspond to the GPS/FMS waypoints RATRU (25C), TITUT (25L) as well as TIXAK (07C) and BOGVO (07R).

In addition pilots should be prepared not to expect a descent clearance below FL 70 only 6NM prior to reaching ULNOK and/or IBLUS (07C/07R). Pilots should adjust their speed accordingly (approx. 200 - 220 KT when leaving FL 70) and are urgently requested to conduct the descent from FL 70 as a continuous descent, whenever possible.

These procedures may not be applied to:
- Flights with STS/HOSP;
- Flights in meteorological conditions such as CB, TS;
- Flights in emergency situations.

In the case that R-NAV (GPS) approach procedures cannot be applied due to the absence of RNAV (GPS) equipment, pilots will be issued with a clearance for an ILS approach (in compliance with the night approach procedure above).

In the case of the ILS not being available, i.e. for clearances for non-precision approaches, approach control will issue descent clearances after 4000'.

2.2. CAT II/III OPERATIONS
2.3. RWY OPERATIONS

2.3.1. HIGH INTENSITY RWY OPERATIONS
ACFT of CAT SUPER will not be included in high intensity RWY operations, but should also vacate the RWY as quickly as possible.

2.3.1.1. APPROACH
Approaching ACFT that have been assigned an ACFT stand on the Southern area of the APT (Cargo City South, GAT) shall report this to Approach Control FRANKFURT Arrival when establishing radio contact.

Irrespective of the arrival route, the preferred RWY to be assigned by Approach Control is RWY 07R/25L. As a rule, this RWY will also be assigned to ACFT to be parked on the Eastern section of the Northern apron.

2.3.1.2. APPROACHES AT A GLIDE ANGLE OF 3.2°
RWY 07L/25R is equipped with two ILS systems for each landing direction. One ILS per landing direction radiates signals for a glide angle of 3.2°, the other one for a glide angle of 3.0°.

The PAPI systems indicate the correct path down to a height of 200ft for 3.0° and 3.2°.

Regular operations will be conducted under CAT I conditions only. The approach procedure will only be assigned if no long-lasting tail wind (more than 30 minutes) is expected. If tail wind prevails or is to be expected, the provisions of Item 1.2.1.1. will be applied and an ILS approach procedure at 3.0° will be assigned for RWY 07L/25R.

If it is not possible to conduct an approach at 3.2° for safety reasons, the pilot shall mention this in the initial call to LANGEN RADAR. Such ACFT will be assigned another RWY.

When changing frequency from LANGEN Radar to FRANKFURT Director initial call shall be restricted to FRANKFURT DIRECTOR & CALLSIGN & TYPE OF APPROACH & WAKE TURBULENCE CATEGORY (the latter only when HEAVY or SUPER) to avoid frequency congestion.

When being transferred from approach control to aerodrome control the initial call shall consist of FRANKFURT TOWER & CALLSIGN & TYPE OF APPROACH & RWY.

2.3.1.3. RWY 07L/25R

RWY 07L/25R is equipped with two ILS systems for each landing direction.

The PAPI systems indicate the correct path down to a height of 200ft for 3.0° and 3.2°. One for a glide angle of 3.0° and one for a glide angle of 3.2°.

Regular operations will be conducted under CAT I conditions only. The approach procedure will only be assigned if no long-lasting tail wind (more than 30 minutes) is expected. If tail wind prevails or is to be expected, the provisions of Item 1.2.1.1. will be applied and an ILS approach procedure at 3.0° will be assigned for RWY 07L/25R.

If it is not possible to conduct an approach at 3.2° for safety reasons, the pilot shall mention this in the initial call to LANGEN RADAR. Such ACFT will be assigned another RWY.

When changing frequency from LANGEN Radar to FRANKFURT Director initial call shall be restricted to FRANKFURT DIRECTOR & CALLSIGN & TYPE OF APPROACH & WAKE TURBULENCE CATEGORY (the latter only when HEAVY or SUPER) to avoid frequency congestion.

When being transferred from approach control to aerodrome control the initial call shall consist of FRANKFURT TOWER & CALLSIGN & TYPE OF APPROACH & RWY.

2.4. TAXI PROCEDURES

To maintain smooth taxiing traffic, ACFT having landed on RWY 07R/25L will be guided, if possible, to defined change-over points, depending on the assigned parking position, to cross RWY 07C/25C.

This procedure will be withdrawn during adverse weather conditions, at the latest when CAT III operation is in force.

2.5. OTHER INFORMATION

Parallel independent operation may be in force.

2.5.1. FLIGHT AND DESCENT PLANNING

For flight and descent planning purposes expect the following levels at the transfer points from Langen ACC to Frankfurt APP:

- KERAX between FL 130 and FL 110
- PSA between FL 120 and FL 100
- ROLIS at FL 150
- UNOKO between FL 130 and FL 110 (at RAMOB)

These levels shall only be used for planning purposes. The actual transfer level will be cleared by ATC individually.
3. DEPARTURE

3.1. DE-ICING

3.1.1. GENERAL

Notification of ACFT de-icing may be sent on frequency 122.3 or via phone 069/690-73891 by the ACFT operator or his representative. In the period of 1 May up to and including 14 October, requests for ACFT de-icing can only be made by phone: 069/690-73891.

ACFT shall be ready at the estimated de-icing time. If this is impossible, the APT De-icing Center (ADC) shall be informed and the new “ready for de-icing time” be transmitted to the ADC.

Caution: If the ACFT is not ready at the estimated de-icing time (i.e. doors not closed) the de-icing vehicles will be directed to the next A. CFT waiting and subject flight will have to wait until other vehicles become available for disposition.

3.1.2. ACFT STANDS

The de-icing/anti-icing of ACFT at the respective ACFT stands will take place with engines switched off, passenger bridges cast off, and the ACFT clear of handling equipment.

3.1.3. REMOTE DE-ICING PADS (DPS)

The remote de-icing pad West (DPW) falls within the responsibility of Aerodrome Control and includes de-icing pads DP1 and DP2. When carrying out de-icing procedure, responsibility will temporarily be transferred to FRANKFURT Apron.

If necessary for operations, the APT De-icing Center (ADC) will assign ACFT to be de-iced at additional locations (TWY N7, positions V159, V161 and G16). Instructions for taxiing to and onto these positions will be issued by FRANKFURT Apron. ACFT will be guided by a marshaller to the de-icing position. The marshaller’s instructions must be followed. When requested by FRANKFURT Apron, radiotelephony communication shall be established with the de-icing crew on the frequency assigned. ACFT parked on positions east of TWY N3 which intend to depart from RWY 18 can be de-iced at position G16 with running engines. As a rule, departures will be conducted from intersections S or M. Pilots unable to comply with these conditions shall communicate this during their first radiotelephony communication to request de-icing.

De-icing on DP1 and DP2 Center MAX wingspan less than 262’/80m.

De-icing on DP2 East and DP2 West MAX wingspan less than 118’/36m.

Pilot stop ACFT when LEFT Pilot position is ABEAM yellow stop line markings/ light LEFT of centerline.

ACFT which were de-iced on DP1 will be guided to TWY W1 by Apron Control before handed over to ATC.

After de-icing on DP2 intersection take-off out of TWY W3 from RWY 18 required.

On the remote de-icing pads, only jet ACFT with running engines will be de-iced.

Propeller ACFT will not be de-iced for safety reasons.

Underwing de-icing, de-icing of undercarriage or with hot air, the control of the central engines (e.g. DC10), as well as special examinations of individual ACFT parts (e.g. hands on checks) cannot be carried out on the remote de-icing pads.

ACFT will be positioned on de-icing pad DP1 by an eyeline to the LEFT of centerline, which depicts the exact holding position to the pilot optically. This taxiing-aid is made up of 5 amber surface lights with single-sided beams. If the surface lighting or the eyeline is out of order, ACFT will be guided by a marshaller.

ACFT will be positioned on de-icing pad DP2 by an eyeline to the LEFT of the respective centerline, which enables the pilot to visualize the exact holding position.

During the de-icing proceedings, the pilot-in-command shall ensure continuous listening watch on the respective frequency of FRANKFURT Apron. After de-icing proceedings have been concluded, the pilot-in-command shall report to FRANKFURT Apron that he is ready to taxi.

3.2. START-UP AND TAXI PROCEDURES

3.2.1. GENERAL

Departures from the Southern APT area shall state their position when request start-up clearance.

ACFT parking on stand B10 have to contact FRANKFURT apron, prior actual engine start-up.

COPTER on stand H322 and H323 have to contact FRANKFURT apron prior start-up.

3.2.2. FROM 0600 - 2200LT

All ACFT parked at positions East of TWY N3 and planned for departure from RWY 18 have to expect to taxi via TWYS U, T, R and S. Departure will take place basically from position S. Pilots unable to comply with these conditions shall advise FRANKFURT Apron upon initial contact.

3.2.3. STANDARD TAXI ROUTE (STR)

<table>
<thead>
<tr>
<th>Name</th>
<th>Handover from APRON to DPS</th>
<th>Taxi Instructions</th>
<th>Holding Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSITION 1</td>
<td>STOP IU</td>
<td>U-S-511-R-595-S</td>
<td>S-RWY18</td>
</tr>
</tbody>
</table>

If the flight crew is unable to follow the standard taxi route TRANSITION 1, they shall inform during the initial call.

If the flight crew becomes unsure about TRANSITION 1, they shall request an individual clearance.

3.2.3.1. VOICE COMMUNICATION

Standard taxi route TRANSITION 1.

ACFT CALL SIGN.

Taxi to holding point S RWY 18 via standard taxi route TRANSITION 1.
### 3. DEPARTURE

#### 3.3. NOISE ABATEMENT PROCEDURES

##### 3.3.1. OPERATIONAL RWY USE CONCEPT

<table>
<thead>
<tr>
<th>RWY- in-use</th>
<th>RWY (C)enter (L)eft (R)ight</th>
<th>SID Route</th>
<th>Designator</th>
<th>NAV Spec</th>
</tr>
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<tbody>
<tr>
<td>25/18</td>
<td>RWY 25C for DEP to the NW (OBOKA), N (MARUN), NE (TOBAK), RWY 25L with special authorization by TWR only. RWY 18 for DEP to the SW (SOBRA, ULKIG), S (ANEKI), SE (SIDs via AKONI, incl. DEST EDDN AREA), E (SULUS).</td>
<td>Route details see SID description. If unable to comply with restrictions, advise EDDF DELIVERY prior to start-up. Non-standards on request or if considered necessary by ATC.</td>
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<td>07/18</td>
<td>RWY 07C for DEP to the NW (OBOKA), N (MARUN), NE (TOBAK), E (SULUS) and EDDN Area (KOM1), RWY 07R with special authorization by TWR only. RWY 18 for DEP to the SW (SOBRA, ULKIG), S (ANEKI), SE (SIDs via AKONI excl. DEST EDDN Area).</td>
<td>Route details see SID description. If unable to comply with restrictions, advise EDDF DELIVERY prior to start-up. Non-standards on request or if considered necessary by ATC.</td>
<td>BRNAV</td>
<td></td>
</tr>
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</table>

#### C + L FOXTROT

2-engined HEAVY ACFT to the N, NE. BRNAV

#### C + L GOLF

2-engined HEAVY ACFT to the NW, N, NE. BRNAV

#### C MIKE

All ACFT to the NW, N, NE unable to comply with restrictions on SIDs northbound. BRNAV

#### C WHISKEY

 Shall be used by all ACFT, except 2-engined HEAVY ACFT to the NW, N, NE complying with RNP-1 and RF-leg requirements instead of MIKE. RNP-1, RF-leg

#### L HOTEL

All ACFT RWY 25L (with special authorization by TWR only), except 2-engined HEAVY ACFT, to the NW, N, NE. BRNAV

#### L KILO

All ACFT RWY 25L (with special authorization by TWR only), except 2-engined HEAVY ACFT, to the NW, N, NE. BRNAV

#### L NOVEMBER

Between 2200-0700LT: All 3- and 4-engined HEAVY and SUPER ACFT, B727 and YK42 due to noise abatement. BRNAV

#### C + L PAPA

Single- and Twin-Props and DASH 7 may use PAPA instead of RWY 18 to the SW. BRNAV

#### C + L QUEBEC

NON-RNAV equipped ACFT. BRNAV

---

* check SID description for required NAV-Specification.
3.3.2. ADDITIONAL NOISE ABATEMENT MEASURES

3.3.2.1. OPERATIONAL CONCEPT "NOISE RESPITE PERIODS"

At APT, noise respite periods for operating direction 25 will be implemented in accordance with the following plan.

As a rule, the following RWY shall always be used during the times shown:

- **Between 0500-0600LT**
  - RWYs 25C/R shall be used for landing;
  - RWY 25L shall be used for departing.
- **Between 2200-2300LT**
  - RWY 25L shall be used for landing;
  - RWYs 18 and 25C shall be used for departing.

GENERAL

As a rule, noise respite periods will always be implemented in the time periods between 0500-0600LT and between 2200-2300LT, provided the conditions required by air traffic control are met.

In the provision of air traffic control, the following flights, among others, will be exempt from the regulations of the noise respite periods:

- Flights for which the pilot has declared an emergency or which are apparently in an emergency situation, including flights affected or threatened by unlawful interference;
- Security flights of air defense;
- Flights on search and rescue missions;
- Flights transporting sick or injured persons requiring immediate medical assistance (including flights designated as LHO (Live Human Organ);
- Government flights, including flights with Head of State status in accordance with the regulations laid down by the Federal Ministry of Transport and Digital Infrastructure (BMVI);
- Flights where a pilot requests the use of a certain RWY for safety reasons;
- Particularly endangered flights;
- Calibration flights.

In addition, noise respite periods will not be implemented when restricted by infrastructure or poor weather conditions (e.g. construction work, snow clearing).

Further information can be found in the “alliance paper” which is the basis for the respite periods (www.wirtschaft.hessen.de).

PROCEDURES

The provisions concerning delayed take-offs and landings of ACFT described in Para 1.2.2. remain unchanged.

If the APT operator Fraport or an airline using the APT thinks that the implementation of the noise respite period in the morning or evening is very likely to lead to operational disruptions, they shall inform the aviation supervision office (Luftaufsicht) about this. The aviation supervision office will then suspend the noise respite period without further formalities or verification processes.

The aviation supervision office (Luftaufsicht) will inform Fraport about the suspension of the noise respite period. Fraport will in turn inform the air navigation services and airlines using its communication channels.

3.3.3. DEDICATED RWY OPERATIONS (DROPS)

When RWY 07 is in use, between 0500-0600LT RWY utilization will be arranged on odd calendar days:

- All take-offs will be handled via RWY 18, thus avoiding the utilisation of the RWYs 07C/07R for take-offs.
- When using the DROps procedures and operating direction 07 for departures to the North, only SIDs with the designation “R” will be allocated by the AD control tower. ACFT unable to adhere to “Cross FFM R-200 at or above 2500’” on the SIDs with the designation “R” will only be granted start-up approval and enroute clearance after coordination has taken place with the approach control unit.

Special Features

If meteorological conditions and/or other operational conditions do not allow the use of RWY 18, another RWY will be allocated after coordination has taken place with the approach control unit. This also applies to ambulance flights and/or flights with corresponding priority of service. On even weekdays, the current procedures employed and published shall apply.

3.4. RWY OPERATIONS

3.4.1. HIGH INTENSITY RWY OPERATIONS

ACFT that are not ready to depart will not receive clearance to line up.

Pilots are requested to report to Aerodrome Control if they are not ready to depart without being asked.

Pilots shall advise Aerodrome Control on initial call of the earliest possible interception take-off.

When RWYs 07 and 18 are the RWYs-in-use, pilots taxiing to RWY 18 via TWY N should calculate at an early stage whether or not they can start their takeoff run from the intersection of TWY M.

If Aerodrome Control asks pilots about their intentions in this regard for planning purposes, pilots should be able to inform Aerodrome Control about their intention without delay.

A rapid take-off run from the intersection to TWY M reduces interdependencies with traffic approaching RWY 07R.

When using the DROps procedures and operating direction 07 for departures to the North, only SIDs with the designation “R” will be allocated by the AD control tower. ACFT unable to adhere to “Cross FFM R-200 at or above 2500’” on the SIDs with the designation “R” will only be granted start-up approval and enroute clearance after coordination has taken place with the approach control unit.

A rapid take-off run from the intersection to TWY M reduces interdependencies with traffic approaching RWY 07R.

The entire RWY complex is characterized by interdependencies. Pilots are thus expected to begin their take-off runs immediately after receiving their take-off clearance.

After take-off, ACFT should rapidly accelerate to the published maximum speed for the initial segment of the cleared SIDs.

3.5. OTHER INFORMATION

3.5.1. GENERAL

When glider areas in vicinity of APT activated, expect higher crossing altitude by ATC for SIDs which require higher climb gradient than standard.

Winds between 200° and 160° in a clockwise direction and speeds of 15 KT and more shall be expected on RWY 18. Gusts and strong windshifts up to tail wind components may occur.
Alt Set: hPa (IN on request)

Trans level: By ATC

1. RNAV (GPS, DME/DME, DME/DME/IRU).
2. RNAV STAR.
3. RADAR required.
4. If unable to comply with level restrictions advise ATC.
5. On downwind EXPECT vectors to final.
6. If it is not possible to land on RWY 07R or the RWY is closed, the standard missed approach procedure published for the relevant ILS approach procedure shall be initiated, then the ILS approach procedure for RWY 07C shall be used.

Before reaching PSA:
- Continue via filed/cleared STAR to IAF DF644 as published or via previously cleared waypoints by adhering to published profile and follow approach.

After passing PSA:
- Continue via filed/cleared STAR to IAF DF644 as published or via previously cleared waypoints by adhering to published profile and follow approach.
- If it is not possible to land on RWY 07R or the RWY is closed, the standard missed approach procedure published for the relevant ILS approach procedure shall be initiated, then the ILS approach procedure for RWY 07C shall be used.

Altitudes revised.

Airspace structure (lower limit of the controlled airspace plus a buffer of 500'). Below the MVA, IFR flights will normally be cleared on published IFR procedures only. Altitudes in brackets generally apply for the period from AIRAC date in November until AIRAC date in March in order to meet required obstacle clearance at cold temperatures.

The MVA is the lowest altitude which may be used for vectors for IFR flights taking into account the minimum safe height (1000' above the highest obstacle within a radius of 8 km) and airspace structure (lower limit of the controlled airspace plus a buffer of 500').

If no approach clearance has been received prior reaching IAF, continue on ILS Z RWY 07R.
1. RNAV (GPS, DME/DME, DME/DME/IRU).

2. RNAV 1 equivalent.

3. RADAR required.

4. For Non-GPS equipped aircraft FFM, DKB, GED, NUB & RID must be operational.

5. If unable to comply with level restrictions advise ATC.

For RNAV ARRIVAL

BY ATC

MAX 250 KT BELOW FL100

SPEED:

NOT APPLICABLE WITHIN AIRSPACE C

INTERVALS

4.0 FFM

4.0 DF612

4.0 DF614

4.0 DF615

4.0 DF616

If it is not possible to land on RWY 25L or the RWY is closed, the standard missed approach procedure published for the relevant ILS approach procedure shall be initiated, then the ILS approach procedure for RWY 25C shall be used.

Before reaching PSA:

Follow filed/cleared STAR maintaining last cleared STAR without delay.

After passing PSA:

If no approach clearance has been received on ILS Z RWY 07R.

RNAV STAR renumbered & revised.
1. For Non GPS equipped aircraft 2. RNAV 1 equivalent. 3. RADAR required. 4. For Non GPS equipped aircraft 5. If unable to comply with level 364. 6. On descent specify FL500. 7. If already cleared to FL100 continue via STAR as published or published profile and follow approach ILS Z RWY 07R RNAV ARRIVAL additionally as filed in FPL, descended to FL100 and continue via STAR as published. 8. If already cleared to FL100 continue via STAR as published or published profile and follow approach ILS Z RWY 07R RNAV ARRIVAL additionally as filed in FPL, descended to FL100 and continue via STAR as published. 9. If already cleared to FL100 continue via STAR as published or published profile and follow approach ILS Z RWY 07R RNAV ARRIVAL additionally as filed in FPL, descended to FL100 and continue via STAR as published. 10. If already cleared to FL100 continue via STAR as published or published profile and follow approach ILS Z RWY 07R RNAV ARRIVAL additionally as filed in FPL, descended to FL100 and continue via STAR as published. 11. If approach/holding pattern has been released prior reaching IAF, continue on A.I. 2 RWY 07R.
EMPAX 2W [EMPA2W]
RWY 25L RNAV ARRIVAL
MAX 290 KT BELOW FL100 OR AS ATC
NOT APPLICABLE WITHIN AIRSPACE C

Before reaching PSA and if SASS is filed in PPS:
1. RNAV STAR MAKING (IFC) assigned FL
2. ATC instructions for STAR making (IFC) assigned FL
3. If already cleared to FL100 continue the STAR,
4. Otherwise enter holding at PSA, descend to FL100
5. If cleared to FL100, descend to FL100, otherwise enter holding at PSA, descend to FL100
6. Follow STAR maintaining the last assigned FL.
7. RNAV.STAR.

MAX 250 KT below FL100 is not applicable.

SPRESSART 26 (PSA26) & PSA3R
RWY 25L/C RNAV ARRIVALS
PSA 2G: 5000
PSA 3R: 6500
MIN 250 KT

ENERGY SAFETY COMPLIANCE

RNAV (GPS) EQUIPPED ACFT
PROCEDURES BETWEEN 2300-0500LT BY ALL RNAV (GPS) EQUIPPED ACT

PSA 2G: 3000
PSA 3R: 4000
MIN 250 KT

RNAV.STAR.

MAX 250 KT below FL100 is not applicable

RNAV.STAR.

MAX 250 KT below FL100 is not applicable

RNAV.STAR.
**CHANGES:** Crossings.
**FRANKFURT/MAIN**

**EDDF/FRA**

**RNAV TRANSITION**

**3 NOV 17**

**10-2G**

**JEPPSEN**

**FRANKFURT/MAIN, GERMANY**

**RWY 25L/C RNAV TRANSITIONS**

**Max 250 kt below FL100 or as by ATC**

**SPEED:**

**Translation:**

**KERAX 25S** [KER25S], **PSA 25S** [PSA25S]

**Clearance limit**

**NOT APPLICABLE WITHIN AIRSPACE C**

**10-2H**

**JEPPSEN, 2017. ALL RIGHTS RESERVED.**
CHANGES: Crossings.
RNAV SID DESIGNATION | REFER TO CHART
--- | ---
ANEKI 2A | 10-3A3
DINKELSBUEHL 1A | 10-3A4
MARUN 1K | 10-3A5
MARUN 1W | 10-3A6
NOMBO 1A | 10-3B
OBOKA 1K | 10-3C
OBOKA 1W | 10-3C1
ROTIEN 1A | 10-3C2
SOBRA 1L | 10-3C3
SULUS 1A | 10-3C4
TOBAK 1K | 10-3C5
TOBAK 1W | 10-3C6

SID DESIGNATION | REFER TO CHART
--- | ---
ANEKI 2D, 4E | 10-3C7
ANEKI 9F, 9L | 10-3C8
DINKELSBUEHL 1D | 10-3D
DINKELSBUEHL 8F | 10-3E
DINKELSBUEHL 6L, 8S | 10-3E1
KOMIB 3D | 10-3E2
MARUN 9D, 5E | 10-3E3
MARUN 4F, 6G | 10-3E4
MARUN 4H | 10-3E5
MARUN 6M | 10-3E6
MARUN 6N | 10-3E7
MARUN 3R | 10-3E8
MARUN 5S | 10-3E9
MARUN 4T | 10-3F
METRO 4C | 10-3G
NOMBO 1D | 10-3G1
NOMBO 9F | 10-3G2
NOMBO 8L, 8S | 10-3G3
OBOKA 1D, 1E | 10-3G4
OBOKA 1G | 10-3G5

FOR FURTHER SID DESIGNATION REFER TO PAGE 10-3A

CHANGES: SIDs renumbered, withdrawn & replaced; charts reindexed.
### SID Designation

<table>
<thead>
<tr>
<th>SID</th>
<th>Refer To Chart</th>
</tr>
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<tbody>
<tr>
<td>OBOKA 1H</td>
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For RNAV SID (Overlay) designation refer to Page 10-3A1

### RNAV SID Designation

<table>
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For further RNAV SID (Overlay) designation refer to Page 10-3A2
RNAV SID DESIGNATION | REFER TO CHART
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SULUS 9F | 10-3V6
SULUS 8L, 8S | 10-3V7
TOBAK 9D | 10-3W
TOBAK 5F, 7G | 10-3X
TOBAK 4H | 10-3X1
TOBAK 6M | 10-3X2
TOBAK 8N | 10-3X3
TOBAK 3R | 10-3X4
TOBAK 7S | 10-3X5
TOBAK 6T | 10-3X6
ULKIG 1L, 2S | 10-3X7

**ANEKI 2A [ANEK2A]**

**RWY 18 RNAV DEPARTURE**

**BY ATC**

**SPEED**

MAX 250 KT BELOW FL100 OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance 4000

ROUTING

Climb on runway heading to 800, direct to RID, to ANEKI.

**CHANGES:** General notes.

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**DINKELSUEHL 1A (DBK 1A)**

**RWY 18 RNAV DEPARTURE**

**ONLY FOR FLIGHTS TERMINATING WITHIN EDMM FIR**

**SPEEDS:**
- MAX 250 KT BELOW FL100 OR AS BY ATC
- NOT APPLICABLE WITHIN AIRSPACE C

**ROUTING**

Climb on runway heading to 800, direct to RID, to AMTIX, to AKONI, to DKB.

**CHANGES:**
- General notes.
- Contact LANGEN Radar when advised by Tower.
- Expect close-in obstacles.
- Wind shears and increased turbulence must be expected when winds strong.
- SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is mandatory.
- For operational RWY use concept refer to 10-1P pages.
- Do not turn before DER.

**Initial climb clearance 4000**

**NOT TO SCALE**

**This SID requires minimum climb gradients of**
- 520 per NM (8.5%) up to 800, due to operational requirements, and
- 445 per NM (7.3%) up to 2670, due to operational requirements, and
- 415 per NM (6.8%) up to 6000, due to operational requirements.
1. RNP 1/A-RNP required.
2. RF required.
3. GPS required.

If unable to comply, NOT APPLICABLE WITHIN AIRSPACE C.

This SID requires minimum climb gradients of 240 per NM (4.4%) up to 1930, due to airspace structure.

RWY 25C RNAV DEPARTURE

1. RNP 1/A-RNP required. 2. RF required. 3. GPS required.

For operational RWY use concept refer to 10-1P pages.

MAX 230 KT

FRANKFURT-HAHN

EDFH

INTERVALS

RAVKI - DITAM - OBOKA.

NOT APPLICABLE WITHIN AIRSPACE C
**ROTEN 1A (ROTE1A)**

**RWY 18 RNAV DEPARTURE**

**BY ATC**

*ONLY FOR FLIGHTS TERMINATING WITHIN EDDN AREA*

**SPEED:**
- **MAX 250 KT BELOW FL100 OR AS BY ATC**
- **NOT APPLICABLE WITHIN AIRSPACE C**

---

**CONTOUR INTERVALS**
- 4000
- 2000
- 4000
- 2000

---

**Initial climb clearance 4000**

**ROUTING**
- Climb on runway heading to 800, direct to RID, to AMTIX, to AKONI, to ROTEN.

---

**General notes.**
- 1. RNAV (GPS).
- 2. RNAV 1 or RNP 1 or RNP equivalent.
- 3. GPS required.
- 4. DME/DME, DME/DME/IRU not authorized.
- 5. Contact LANGEN Radar when advised by Tower.
- 6. EXPECT close-in obstacles.
- 7. Wind shear and increased turbulence must be EXPECTED when winds strong.
- 8. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
- 9. For operational RWY use concept refer to 10-1P pages.
- 10. Do not turn before DER.
CHANGES: General notes.

TOBAK 1K [TOBA1K]

RWY 25L RNAV DEPARTURE

Speed: Max 250 KT Below FL100

OR AS BY ATC

Not Applicable Within Airspace C

This SID requires minimum climb gradients of
520 per NM (8.5%) up to 800, due to operational requirements, then
445 per NM (7.3%) up to 2670, due to operational requirements, then
415 per NM (6.8%) up to 6000, due to operational requirements.

Initial climb clearance FL70

Routing:

DF980 (K200; 800+) - DF979 (K200; 1740+) - DF996 (K230; 2670+) - DF995 (K230; 3470+) -
DF994 (K230; 5600+) - LISKU - TABUM - TESGA - TOBAK.

Grid Speed-KT

0.75 100 150 200 250 300

415 per NM 559 692 1038 1383 1729 2075

445 per NM 556 742 1113 1483 1854 2225

520 per NM 650 867 1300 1733 2167 2600

Initial climb clearance FL70

Routing:

DF990 (K200; 800+) - DF979 (K200; 1740+) - DF996 (K230; 2670+) - DF995 (K230; 3470+) -
DF994 (K230; 5600+) - LISKU - TABUM - TESGA - TOBAK.

General note.

5. Contact LANGEN Radar when advised by Tower.
6. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
7. For operational RWY use concept refer to 10-1P pages.
8. Wind shears and increased turbulences must be EXPECTED when winds strong.
9. For operational RWY use concept refer to 10-1P pages.
10. Do not turn before DER.

General notes.

1. RNP 1/A-RNP required. 2. RF required. 3. GPS required.
4. Use of autopilot MANDATORY.
5. Contact LANGEN Radar when advised by Tower. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
6. RNP 1/A-RNP required. 7. For operational RWY use concept refer to 10-1P pages.
**TOBAK 1W (TOBA1W)**

**RWY 25C RNAV DEPARTURE**

**SPEED:** MAX 250 KT BELOW FL100 OR AS BY ATC

**NOT APPLICABLE WITHIN AIRSPACE C**

---

### Initial climb clearance FL60

This SID requires minimum climb gradients of:

- 520 per NM (8.5%) up to 800, due to operational requirements, then
- 415 per NM (6.8%) up to 6000, due to operational requirements.

**Gnd speed-KT:**

- 75
- 100
- 150
- 200
- 250
- 300
- 415 per NM
- 519
- 692
- 1038
- 1383
- 1729
- 2075
- 520 per NM
- 650
- 867
- 1300
- 1733
- 2167
- 2600

---

**ROUTING**

- DF999 (K200; 5000+)
- DF998 (K200; 1690+)
- DF996 (K230; 2670+)
- DF995 (K230; 3470+)
- DF994 (K230; 5600+)
- LISKU - TABUM - TESGA - TOBAK

---

**CHANGES:**

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.
4. Use of autopilot MANDATORY.
5. Contact LANGEN Radar when advised by Tower.
6. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
7. For operational RWY use concept refer to 10-1P pages.

---

**INTERVALS**

<table>
<thead>
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<th>Contour</th>
<th>General note</th>
</tr>
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<tbody>
<tr>
<td>2000</td>
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<tr>
<td>4000</td>
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<tr>
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<tr>
<td>12000</td>
<td></td>
</tr>
<tr>
<td>16000</td>
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</tbody>
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1. Contact LANGEN Radar when advised by Tower.  
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.  
3. For operational RWY use concept refer to 10-1P pages.  
4. RWY 18: Expect close-in obstacles.  
5. RWY 18: Wind shears and increased turbulences must be expected when winds strong.  
6. For operational RWY use concept refer to 10-1P pages.
WARNINGS:

1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. For operational RWY use concept refer to 10-1P pages.

FRANKFURT/MAIN
EDDF/FRA

CHANGES:

1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. EXPECT close-in obstacles.

4. Wind shears and increased turbulences must be expected when winds strong.

5. Do not turn before DER.

6. Do not turn before DER.

7. Delivery prior to start-up and EXPECT routing via DKB 6L.

8. For operational RWY use concept refer to 10-1P pages.

9. Do not turn before DER.

NOT APPLICABLE WITHIN AIRSPACE C

FRANKFURT/MAIN, GERMANY

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1. Contact LANGEN Radar when advised by Tower.

MAX 250 KT BELOW FL100 OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

Climb on runway track to 800, via FR to D6.0 FRD.

(turn LEFT, MTR R350, 358^ track via APROX to MARUN.

Turn at D2.8 FFM - AAF, D1.5 FRD (RWY 07R)/

CONTOUR INTERVALS

ODAGA.

Delivery prior to start-up.

NOTES:

MARUN 5E APROX, 75 Gnd speed-KT 383 per NM 479 638

TOBAK

CHANGES:

Chart reindexed.
CHANGES:

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

MARUN 6G

RWYS 25L/C DEPARTURES

SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance...

ON RUNWAY TRACK to D5.2 FFM/D2.2 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD turn RIGHT, 279° track to ROXAP, turn RIGHT, 335° track via ADEVO to LIKSI, turn RIGHT, 017° track via TABUM to LIKSI, turn LEFT, 015° track via LORPA to MARUN.

This SID requires minimum climb gradient of 520 per NM (8.5%) until passing 800, then 415 per NM (6.8%) until passing 6000 due to operational requirements.

ROUTE:

On runway track to D5.2 FFM/D2.2 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD turn RIGHT, 279° track to ROXAP, turn RIGHT, 335° track via ADEVO to LIKSI, turn RIGHT, 017° track via TABUM to LIKSI, turn LEFT, 015° track via LORPA to MARUN.

After D10.1 FFM/D7.3 FRD BRNAV equipment necessary.

From JeppView for Windows 5.3.0.0 on 03 Jul 2018; Terminal chart data cycle 12-2018 (Expired); Notice: After 28 Jun 2018, 0000Z, this chart may no longer be valid
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

MARUN 6M
RWY 25C DEPARTURE
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

D10.1 FFM
D7.3 FRD
2500

D16.0 RID
116.7 TAU

D14.0 FFM
3500

This SID requires minimum climb gradients of 520 per NM (8.5%) until passing 800, then 415 per NM (6.6%) until passing 6000 due to operational requirements.

<table>
<thead>
<tr>
<th>Ind speed-KT</th>
<th>75</th>
<th>100</th>
<th>150</th>
<th>200</th>
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<td>115 per NM</td>
<td>519</td>
<td>592</td>
<td>683</td>
<td>779</td>
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<td>220 per NM</td>
<td>650</td>
<td>867</td>
<td>1300</td>
<td>1733</td>
<td>2167</td>
<td>2600</td>
</tr>
</tbody>
</table>

If unable to comply advise FRANKFURT Delivery prior to start-up.

After D16.0 RID BRNAV equipment necessary.

CHANGES: Chart reindexed.

FRANKFURT/MAIN, GERMANY
Apt Elev 364 Radar
*LANGEN
110^ 6000
15.9 5000
11.6

10-3E7
SID.

CHANGES: Chart reindexed.

FRANKFURT/MAIN, GERMANY
Apt Elev 364 Radar
*LANGEN
110^ 6000
15.9 5000
11.6

10-3E7
SID.

CHANGES: Chart reindexed.

FRANKFURT/MAIN, GERMANY
Apt Elev 364 Radar
*LANGEN
110^ 6000
15.9 5000
11.6

10-3E7
SID.

CHANGES: Chart reindexed.

FRANKFURT/MAIN, GERMANY
Apt Elev 364 Radar
*LANGEN
110^ 6000
15.9 5000
11.6

10-3E7
SID.

CHANGES: Chart reindexed.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.
7. Contact LANGEN Radar when advised by Tower.
8. Trans alt: 5000
9. After D16.0 RID BRNAV equipment necessary.

### RWY 18 DEPARTURE

- **MAX 250 KT BELOW FL100**
- **NOT APPLICABLE WITHIN AIRSPACE C**

**SPEED**

- **Initial climb clearance**
  - 150 per NM
  - 250 per NM
  - 350 per NM
  - 450 per NM
  - 550 per NM

**GROUND SPEED - KT**

- **MAX 220 KT**
- **MAX 250 KT**
- **MAX 300 KT**
- **MAX 350 KT**
- **MAX 400 KT**

**INTervals**

- **CONTOUR**
  - 2000
  - 4000
1. Contact LANGEN Radar when advised by Tower.  
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.  
3. EXPECT close-in obstacles.  
4. Wind shears and increased turbulences must be expected when winds strong.  
5. For operational RWY use concept refer to 10-1P pages.  
6. Do not turn before DER.

This SID requires a minimum climb gradient of 345 per NM (5.7%) until passing FL90 due to airspace structure.

MAX 220 KT

MAX 250 KT

MAX 250 KT

SPEED:

NOT APPLICABLE WITHIN AIRSPACE C

NOT APPLICABLE WITHIN AIRSPACE C

NORTH.RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT ONLY

DELAY HAS TO BE EXPECTED

HAS TO BE COORDINATED WITH ATC PRIOR TO START-UP

NO RNAV OVERLAY EXISTING

RWYS 07C/R DEPARTURE

SPECIAL PERMISSION NEEDED PRIOR TO FLIGHT

SWEEP: MAX 250 KT BELOW FL100

OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

Neither.

FURTHER ROUTING TO DESTINATION SHALL BE BASED ON VOR AND HAS TO BE COORDINATED WITH ATC PRIOR TO START-UP NO RNAV OVERLAY EXISTING MAX FL90 SPECIAL PERMISSION NEEDED PRIOR TO FLIGHT SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC NOT APPLICABLE WITHIN AIRSPACE C

44
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational use concept refer to 10-1P pages.

RWY 07C/R DEPARTURE
NOT FOR PROP ACFT, THESE FLIGHTS SHALL FILE RATIM SIDS
NOT FOR FLIGHTS TERMINATING WITHIN MAX 220 KT
until established on MAX 250 KT BELOW FL100
SPEED:
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance 4000

Climb on runway track to 800, via FR to D6.0 FRD (D3.0 FFM outbound), turn RIGHT, intercept 3500

AMTIX, turn LEFT, 102° track to AKONI, turn RIGHT, 129° track to HAREM, turn RIGHT, 147° track to LAMPU, turn LEFT, 133° track via GEBNO to NOMBO.

After D10.8 FFM BRNAV equipment necessary.
1. Contact LANGEN Radar when advised by Tower.

4. Wind shears and increased turbulences must be expected when winds strong.

NOMBO 8S

Turn 176° or at D12.0 RID 2500

NOMBO 8L

Gnd speed-KT

D3.0 RID 117°

MAX 220 KT

10. Pass FFM R200 until established on RID R091

NOMBO

Turn LEFT, 102° track to AKONI, turn RIGHT, 129° track to HAREM, turn RIGHT, 147° track to LAMPU, turn LEFT, 133° track via GEBNO to NOMBO.

CHANGES:

None.
1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. For operational RWY use concept refer to 10-1P pages.

4. Initial climb clearance 5000 ft. turn RIGHT, 293° track to 274° track (RWY 25L: 278° track), intercept FFM R258 to D13.7 FFM 1° track, turn RIGHT, 307° track to MASIR, turn RIGHT, 335° track via RAVKI to DITAM, turn LEFT, 325° track to OBOKA.

5. After D13.7 FFM BRNAV equipment necessary.

6. If unable to comply advise FRANKFURT Delivery prior to start-up MAX 250 KT BELOW FL100 SPEED:

7. Not applicable within airspace C

8. This SID requires a minimum climb gradient of 12.9 per NM (2.3%) until passing 2500, due to airspace structure.

9. If unable to comply advise FRANKFURT Delivery prior to start-up MAX 250 KT BELOW FL100 SPEED:

10. Initial climb clearance 5000 ft. turn RIGHT, 293° track to 274° track (RWY 25L: 278° track), intercept FFM R258 to D13.7 FFM 1° track, turn RIGHT, 307° track to MASIR, turn RIGHT, 335° track via RAVKI to DITAM, turn LEFT, 325° track to OBOKA.

11. After D13.7 FFM BRNAV equipment necessary.

12. On runway track to D5.2 FFM/D2.2 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD

13. turn RIGHT, 318° track to MASIR, turn RIGHT, 335° track via RAVKI to DITAM, turn LEFT, 325° track to OBOKA.


15. On runway track to D5.2 FFM/D2.2 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD

16. turn RIGHT, 318° track to MASIR, turn RIGHT, 335° track via RAVKI to DITAM, turn LEFT, 325° track to OBOKA.

17. After D10.1 FFM/D7.3 FRD BRNAV equipment necessary.

18. On runway track to D5.2 FFM/D2.2 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD

19. turn RIGHT, 318° track to MASIR, turn RIGHT, 335° track via RAVKI to DITAM, turn LEFT, 325° track to OBOKA.

20. After D10.1 FFM/D7.3 FRD BRNAV equipment necessary.
1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. For operational RWY use concept refer to 10-1P pages.

4. This SID requires minimum climb gradients of 520 per NM until passing 2500 feet,
then 273 per NM (4.5%) until passing 5000 feet.

5. Speed: OR AS BY ATC

6. Gnd speed-KT

7. FL70

8. After D16.0 RID BRNAV equipment necessary.

9. This flight has to be able to cross OBOKA at or above FL170.

10. If unable to comply advise EDDF delivery prior to start-up.

11. Max 250 KT below FL100.

12. Speed: OR AS BY ATC

13. This flight has to be able to cross OBOKA at or above FL170.

14. If unable to comply advise EDDF delivery prior to start-up.

15. Max 220 KT.

16. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

17. For operational RWY use concept refer to 10-1P pages.

18. This flight has to be able to cross OBOKA at or above FL170.

19. If unable to comply advise EDDF delivery prior to start-up.

20. Max 220 KT.

21. Speed: OR AS BY ATC

22. This flight has to be able to cross OBOKA at or above FL170.

23. If unable to comply advise EDDF delivery prior to start-up.

24. Max 220 KT.
1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. EXPECT close-in obstacles.

4. Wind shears and increased turbulences must be expected when winds strong.

5. For operational RWY use concept refer to 10-1P pages.

6. Do not turn before DER.

This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.

Initial climb clearance is OR by ATC or at 800 Gnd speed-KT below FL100 or at whichever is later.

Initially climb to 800, intercept RID R356 inbound to D7.0 RID turn RIGHT, 238° track to XAMUB, turn RIGHT, 319° track to MASIR, turn RIGHT, 335° track via RAVKI to DITAM, turn LEFT, 325° track to OBOKA. 

1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. EXPECT close-in obstacles.

4. Wind shears and increased turbulences must be expected when winds strong.

5. For operational RWY use concept refer to 10-1P pages.

6. Do not turn before DER.

This SID requires a minimum climb gradient of 280 per NM until passing 2000 due to airspace structure.

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initially climb to 800, intercept RID R301 to D16.0 RID turn RIGHT, 318° track to MASIR, turn RIGHT, 335° track via RAVKI to DITAM, turn LEFT, 325° track to OBOKA.
1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. For operational RWY use concept refer to 10-1P pages.

4. Wind shears and increased turbulences must be expected when winds strong.

5. For operational RWY use concept refer to 10-1P pages.

6. Do not turn before DER.

7. Flights have to be able to cross OBOKA at or above FL170 if unable to comply advise FRANKFURT Delivery prior to start-up.

8. Trans alt: 5000

9. MAX 250 KT BELOW FL100 or as by ATC.

10. Speed:

11. This SID requires a minimum climb gradient of 345' per NM (5.7%) until passing FL90 due to airspace structure.

12. Initial climb clearance on runway track to 800, intercept RID R356 inbound to D6.3 RID (D10.8 FFM), turn RIGHT, intercept FFM R198 to D19.4 FFM, turn RIGHT, 263° track to PIPIX, turn RIGHT, 296° track to VETUX, turn RIGHT, 009° track to RUDUS, turn LEFT, 312° track to MASIR, turn RIGHT, 335° track via RAVKI to DITAM, turn LEFT, 325° track to OBOKA. After D19.4 FFM BRNAV equipment necessary.

13. Not applicable within airspace C.

14. This SID requires a minimum climb gradient of 345' per NM (5.7%) until passing FL90 due to airspace structure.

15. Max 220 KT until established on MTR R191.

16. RATIM 6D RWYS 07C/R DEPARTURE

17. Only prop ACFT with max FL230 requested instead of Nombo SIDs not for flights terminating within EDDN area or EDMM FIR.

18. Max 250 KT below FL100 or as by ATC.

19. Not applicable within airspace C.

20. GEN RESTRICTIONS.
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For departure designation refer to 10-1P pages.
6. Do not turn before DER.

**Change:**
- RATIM 7F
- RWY 25L/C DEPARTURE
- ONLY PROP ACFT WITH MAX FL230 REQUESTED INSTEAD OF NOMBO SIDS
- NOT FOR FLIGHTS TERMINATING WITHIN EDDN AREA OR EDMM FIR
- SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
- NOT APPLICABLE WITHIN AIRSPACE C

**ROUTEING**
- Trans alt: 5000
- After passing FFM R200 BRNAV equipment necessary.
- If unable to comply, advise FRANKFURT Delivery prior to start-up and EXPECT alternate routing by ATC.

**CONTOUR INTERVALS**
- 4000
- 2000

**Gnd speed-KT**
- 75
- 100
- 150
- 200
- 250
- 300
- 350
- 400
- 450

**IF UNABLE TO COMPLY ADVISE** FRANKFURT
- Delivery prior to start-up and EXPECT alternate routing by ATC.

**This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.**

**Initial climb clearance:**
- 4000
EDDF/FRA
FRANKFURT/MAIN, GERMANY

**CHANGES:**

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

**DEPARTURES**

- NON RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT ONLY
- DELAY HAS TO BE EXPECTED
- FURTHER ROUTING TO DESTINATION SHALL BE BASED ON VOR AND HAS TO BE COORDINATED WITH ATC PRIOR TO START-UP

**NO RNAV OVERLAY EXISTING**

**MAX FL90**

**SPECIAL PERMISSION NEEDED PRIOR TO FLIGHT**

**SPEED:**

- **MAX 250 KT BELOW FL100**
- OR AS BY ATC

**NOT APPLICABLE WITHIN AIRSPACE C**

**ROTEN 8F ONLY FOR FLIGHTS TERMINATING WITHIN EDDN AREA**

**MAX 210 KT**

**NOT TO SCALE**

**AMTIX**

**FRANKFURT**

**FRID**

**RID 3Q (RID 3Q)**

**RID 8C (RID 8C)**

**RID 8C:** Initial climb clearance 4000

**RID 3Q:** Initial climb clearance 5000

**SID**

**RWY**

**ROUTEING**

**R07C/R**

Climb on runway track to 800, via FR to D6.0 FRD (D3.0 FFM outbound), turn RIGHT, intercept MTR R191, at D15.0 FFM turn LEFT, intercept RID R082 inbound to RID.

**R25L/C**

Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT, intercept RID R082 inbound to RID.

**A1**

- D4.5 FFM/D1.5 FRD or 800, whichever is later

**FRED**

**MAX 220 KT**

**RID 8C:** until established on RID R256 inbound

**RID 3Q:** until established on MTR R191

**LANGEN**

**3Q**

**8C**

**RID**

**3Q**

**8C**

**FRANKFURT**

**297 FR**

**4300**

**D15.0 FFM**

**112.2 RID**

**5000**

**MAX FL90**

**TO SCALE**

**FRANKFURT/MAIN, GERMANY**

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**CHANGES:** General notes.

**SID renumbered & revised.**

**GENERAL NOTES:**

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are set up to provide minimum climb gradients and minimum fuel consumption and should be followed unless otherwise specified by ATC.
3. ESCALADE equipement necessary.
4. Off course alerts from LANGEN are indicated by 'OFF COURSE'.
5. All headings and speeds from FRANKFURT Delivery (FRD) or from AMTIX are to be maintained.
6. Do not fly below DER.

**SPEED LIMITS:**

- **D10.0 RID:** MAX 220 KT until established on DEPARTURE RWY 18.
- **D12.0 RID:** MAX 220 KT until established on DEPARTURE RWY 18.

**SCHEDULES:**

- **ROUTE R091:** After AMTIX, turn LEFT, intercept RID R091 to AMTIX, turn LEFT, 102° track to AKONI, turn RIGHT, 129° track to ROTEN.
- **ROUTE R082:** After D5.6 RID, turn RIGHT, 282° track via ROSIG and DONAB to SOBRA.

**FLIGHTS WITHin AIRSPACE C:**

- For flights intending to proceed at or above FL250 via AIRWAYS Y-180/Y-181.
- FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240.

**NOT APPLICABLE WITHIN AIRSPACE C:**

- FOR FLIGHTS TERMINATING WITHIN EDDN AREA.

**SPECIAL INSTRUCTIONS:**

- If unable to comply advise FRANKFURT Delivery prior to start-up and EXPECT routing via ROTEN 5L.

**INITIAL CLimb CLEARANCE:**

- Climb on runway track to 800, intercept RID 555.2 until 800 or D3.0 RID, whichever is later, turn RIGHT, 117° track to AMTIX, turn LEFT, 102° track to AKONI, turn RIGHT, 129° track to ROTEN.

**CLIMB ALTITUDES:**

- Before D12.0 RID, turn LEFT, intercept RID R091 to AMTIX, turn LEFT, 102° track to AKONI, turn RIGHT, 129° track to ROTEN.

**GND SPEED LIMITS:**

- **MAX 220 KT**
- **MAX 250 KT**
- **1200 KT**
- **2200 KT**
- **3200 KT**
- **4200 KT**

**SPECIAL INSTRUCTIONS:**

- This SID requires a minimum climb gradient of 240 per NM (9.3%) until passing FL90 due to airspace structure.

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**SPECIAL INSTRUCTIONS:**

- This SID requires a minimum climb gradient of 240 per NM (9.3%) until passing FL90 due to airspace structure.
1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. For operational RWY use concept refer to 10-1P pages.

4. RWYS 07C/R DEPARTURE
   At D1.6 FRD (RWY 07C)
   VIA AIRWAYS Y-180/Y-181
   FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
   D1.5 FFM inbound
   2 NOV 17

   RWY 07C: D1.6 FRD
   IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
   2
   or
   800
   RWY 07R: D1.5 FRD
   RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL
   D1.5 FFM
   .SPEED:
   WIESBADEN
   (115.9) FRD
   MAX 220 KT
   delivery prior to start-up.
   FRED
   3 FFM
   NOT APPLICABLE WITHIN AIRSPACE C

   This SID requires a minimum climb gradient of 335 per NM (5.5%) until passing FL90
   due to airspace structure.
   Flight have to comply, flight plan shall read:
   ROUTING
   Climb on runway track to D1.6 FRD (RWY 07C)/D1.5 FRD (RWY 07R)/D1.5 FFM inbound or 800, whichever is later, turn RIGHT, 282° track via DONAB to SOBRA.
   After D17.3 FFM BRNAV equipment necessary.
   SOBRA 6N
   CONTOUR
   SOBRA 5F, 4P
   MAX 250 KT BELOW FL100
   turn LEFT, 183° track, intercept FFM R222, at D20.6 FFM
   turn LEFT, 198° track, turn RIGHT, intercept FFM R238, at D19.0 FFM
   turn RIGHT, 224° track (RWY 25L: 228° track), intercept FFM R238, at D12.0 FFM
   turn RIGHT, 282° track via DONAB to SOBRA.

   Initial climb clearance
   3500
   4000
   4300
   4800
   5300
   5800
   6300
   6800
   7300
   7800
   8300
   8800
   9300
   9800
   10300
   10800
   11300
   11800
   12300
   12800
   13300
   13800
   14300

   Not applicable within airspace C
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

**Changes:** SIDs withdrawn & transferred.
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.
4. Do not turn before DER.
5. EXPECT close-in obstacles.
6. Wind shears and increased turbulences must be expected when winds strong.
7. For operational RWY use concept refer to 10-1P pages.

**SULUS 8L, SULUS 8S**

**RWY 18 DEPARTURES**

- MAX 250 KT BELOW FL100
- SPEED: 4300
- NOT APPLICABLE WITHIN AIRSPACE C

**TAUNUS 4Q (TAU 4Q)**

**RWYS 25L/C DEPARTURE**

- NON RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT ONLY
- DELAY HAS TO BE EXPECTED
- FUTURE ROUTING TO DESTINATION SHALL BE BASED ON VOR AND HAS TO BE COORDINATED WITH ATC PRIOR TO START-UP
- MAX FL90
- SPECIAL PERMISSION NEEDED PRIOR TO FLIGHT
- SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
- NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance 5000

Climb on runway track to DS.0 FFM or 800, whichever is later, turn RIGHT, 275° track (RWY 25L: 278° track), intercept FFM R258, at 3500 turn RIGHT to TAU, but not before reaching FFM R258.

**GENERAL NOTES**

- Trans alt: 5000
- 1. Contact LANGEN Radar when advised by Tower.
- 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
- 3. For operational RWY use concept refer to 10-1P pages.
- 4. Wind shears and increased turbulences must be expected when winds strong.
- 5. Do not turn before DER.
- 6. EXPECT close-in obstacles.
- 7. For operational RWY use concept refer to 10-1P pages.

**CHANGES:** None.
CHANGES: Chart reindexed (SID TOBAK 6G renumbered 7G, SID TOBAK 5J withdrawn).

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

TOBAK 9D
RWYS 07C/R DEPARTURE
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

TOBAK 5F, TOBAK 7G
RWYS 25L/C DEPARTURES
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

These SIDs require a minimum climb gradient of 729 per NM (12%) until D8.4 FFM (4.5 NM after DER) due to airspace structure.

If unable to comply advise FRANKFURT Delivery prior to start-up

Initial climb clearance 5000

ROUTING
Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274° track (RWY 25L: 278° track), intercept TAU R141 inbound to D11.4 TAU ⑦, turn RIGHT, 015° track to TABUM, turn RIGHT, 040° track to TESGA, turn LEFT, 038° track to TOBAK.

BRAV equipment necessary after: ⑦ D11.4 TAU ⑦ D9.7 FFM

TOBAK 5F
Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274° track (RWY 25L: 278° track), intercept FFM R282 to D9.7 FFM or 3500, whichever is later

TOBAK 7G
Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274° track (RWY 25L: 278° track), intercept FFM R282 to D9.7 FFM or 3500, whichever is later, turn RIGHT, intercept TAU R150 inbound to D9.6 TAU ⑦, turn RIGHT, 027° track to TABUM, turn RIGHT, 040° track to TOBAK, turn LEFT, 038° track to TOBAK.

TOBAK 5F
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

TOBAK 7G
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance 5000

ROUTING
Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274° track (RWY 25L: 278° track), intercept TAU R141 inbound to D11.4 TAU ⑦, turn RIGHT, 015° track to TABUM, turn RIGHT, 040° track to TESGA, turn LEFT, 038° track to TOBAK.

BRAV equipment necessary after: ⑦ D11.4 TAU ⑦ D9.7 FFM

TOBAK 5F
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

TOBAK 7G
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance 5000

ROUTING
Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274° track (RWY 25L: 278° track), intercept FFM R282 to D9.7 FFM or 3500, whichever is later, turn RIGHT, intercept TAU R150 inbound to D9.6 TAU ⑦, turn RIGHT, 027° track to TABUM, turn RIGHT, 040° track to TOBAK, turn LEFT, 038° track to TOBAK.

BRAV equipment necessary after: ⑦ D11.4 TAU ⑦ D9.7 FFM

TOBAK 5F
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

TOBAK 7G
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance 5000

ROUTING
Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274° track (RWY 25L: 278° track), intercept FFM R282 to D9.7 FFM or 3500, whichever is later, turn RIGHT, intercept TAU R150 inbound to D9.6 TAU ⑦, turn RIGHT, 027° track to TABUM, turn RIGHT, 040° track to TOBAK, turn LEFT, 038° track to TOBAK.
CHANGES: Chart reindexed.

EFD/FRA
FRANKFURT/MAIN

3 NOV 17

*LANGEN Radar

Apt Elev 364

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within
the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

TOBAC 4H
RWY 25L DEPARTURE
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Gnd speed-KT

| On runway track to D5.2 FFM/D2.2 FRD, turn LEFT direct to VFM | 75 | 100 | 150 | 200 | 250 | 300 |
| 415 per NM | 519 | 692 | 1038 | 1383 | 1729 | 2075 |
| 520 per NM | 850 | 867 | 1390 | 1733 | 2167 | 2600 |

On runway track to D5.2 FFM/D2.2 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD, turn RIGHT, 279° track to ROXAP, turn RIGHT, 335° track via ADEVO to LISKU, turn RIGHT, 017° track to TABUM, turn RIGHT, 040° track to TESGA, turn LEFT, 038° track to TOBAC.

Initial climb clearance FL70

On runway track to D5.0 FFM/D2.0 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD, turn RIGHT, 279° track to ROXAP, turn RIGHT, 335° track via ADEVO to LISKU, turn RIGHT, 017° track to TABUM, turn RIGHT, 040° track to TESGA, turn LEFT, 038° track to TOBAC.

Initial climb clearance FL70

On runway track to D5.0 FFM/D2.0 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD, turn RIGHT, 279° track to ROXAP, turn RIGHT, 335° track via ADEVO to LISKU, turn RIGHT, 017° track to TABUM, turn RIGHT, 040° track to TESGA, turn LEFT, 038° track to TOBAC.

Initial climb clearance FL70

On runway track to D5.0 FFM/D2.0 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD, turn RIGHT, 279° track to ROXAP, turn RIGHT, 335° track via ADEVO to LISKU, turn RIGHT, 017° track to TABUM, turn RIGHT, 040° track to TESGA, turn LEFT, 038° track to TOBAC.

Initial climb clearance FL70

On runway track to D5.0 FFM/D2.0 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD, turn RIGHT, 279° track to ROXAP, turn RIGHT, 335° track via ADEVO to LISKU, turn RIGHT, 017° track to TABUM, turn RIGHT, 040° track to TESGA, turn LEFT, 038° track to TOBAC.

Initial climb clearance FL70

On runway track to D5.0 FFM/D2.0 FRD, turn LEFT direct to VFM, VFM R195 to D10.1 FFM/D7.3 FRD, turn RIGHT, 279° track to ROXAP, turn RIGHT, 335° track via ADEVO to LISKU, turn RIGHT, 017° track to TABUM, turn RIGHT, 040° track to TESGA, turn LEFT, 038° track to TOBAC.
TOBAK 8N
RWYS 25L/C DEPARTURE
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10
SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

ROUTEING

Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT, 183° track,
Intercept FFM R222 to D14.0 FFM, turn RIGHT, intercept RID R301 to TOBAK 8N,
Climb on runway track to 800 or D12.0 RID, whichever is later, turn LEFT, 117° track,
When passing FFM R200, BRNAV equipment necessary.

TOBAK 3R
RWY 18 DEPARTURE
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10
SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

ROUTEING

Climb on runway track to 800 or D12.0 RID, whichever is later, turn LEFT, 117° track,
When passing FFM R200, turn LEFT, 088° track to TUKRU, turn LEFT, intercept MTR R192 inbound to MTR,
Delivery prior to start-up.

CHANGES: General notes.

08-00 | 08-30 | 09-00 | 10-00 | 10-30 | 11-00 | 11-30 | 12-00 | 12-30

FRANKFURT/MAIN, GERMANY
Apt Elev 364
Radar 120.150

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TOBAK 7S
RWY 18 DEPARTURE
BY ATC

1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. EXPECT close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

**SPEEDS**
MAX 250 KT BELOW FL100 OR AS BY ATC

TOBAK 6T
RWY 18 DEPARTURE
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10

**SPEEDS**
MAX 250 KT BELOW FL100 OR AS BY ATC

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**CHANGES:**
Initial climb clearance
- Climb on runway track to 800, turn RIGHT, intercept FFM R222 to D14.0 FFM, turn RIGHT, intercept RID R356 to D19.4 FFM
- Intercept RID R301 to D16.0 RID
- Turn RIGHT, 022° track to TABUM, turn RIGHT, 040° track to TESGA, turn LEFT, 038° track to TOBAK.

Additional notes:
- After D16.0 RID BRNAV equipment necessary.
- After D19.4 FFM BRNAV equipment necessary.
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.
4. RWY 18: EXPECT close-in obstacles.
5. RWY 18: Wind shears and increased turbulences must be expected when winds are strong.
6. RWY 18: Do not turn before DER.

SPEED: MAX 210 KT OR AS BY ATC
MAX 250 KT BELOW FL100
SPEED: NOT APPLICABLE WITHIN AIRSPACE C

RNAV DEPARTURES (OVERLAY 10-3C8)
(800+) - DF134 (25C)/DF135 (25L) - DF141 (25C)/DF142 (25L) - DF143 - DF137 (K210-) - RID - ANEKI.
ANEKI 9L: Initial climb clearance
ANEKI 9L: Initial climb clearance
ANEKI 9F: Initial climb clearance
ANEKI 9F: Initial climb clearance

RNAV DEPARTURES
(OVERLAY 10-3D)
ONLY FOR FLIGHTS TERMINATING WITHIN EDMM FIR
SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
SPEED: NOT APPLICABLE WITHIN AIRSPACE C

CHANGES:
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.
4. RWY 18: EXPECT close-in obstacles.
5. RWY 18: Wind shears and increased turbulences must be expected when winds are strong.
6. RWY 18: Do not turn before DER.
1. Contact LANGEN Radar when advised by Tower. Trans alt: 5000.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. EXPECT close-in obstacles.

4. Wind shears and increased turbulences must be expected when winds strong.

5. For operational RWY use concept refer to 10-1P pages.

6. Do not turn before DER.

7. Do not turn before DER.

8. Speed: MAX 210 KT OR AS BY ATC

9. Speed: MAX 220 KT

10. Speed: MAX 250 KT BELOW FL100 OR AS BY ATC

11. For flights terminating within EDMM FIR DINKELSBUEHL 8S (DKB 8S)

12. For flights terminating within EDMM FIR DINKELSBUEHL 6L (DKB 6L)

13. Initial climb clearance 5000.

14. FTG 1000.

15. DF158 (K220-) - DF159 (2500+) - AMTIX - AKONI - DKB.

16. DF134 (25C)/DF135 (25L) - DF141 (25C)/DF142 (25L) - DF143 - DF137 (K210-)

17. Initial climb clearance 5000.

18. FTG 1000.

19. DF160 - AMTIX - AKONI - DKB.

20. Initial climb clearance 5000.

21. FTG 1000.

22. This SID requires a minimum climb gradient of 316 per NM (5.2%) until passing 2500 due to airspace structure.

23. This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.

24. If unable to comply advise FRANKFURT Delivery prior to start-up and EXPECT routing via DKB 6L.

25. This SID requires a minimum climb gradient of 316 per NM (5.2%) until passing 2500 due to airspace structure.

26. This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.

27. Initial climb clearance 5000.

28. FTG 1000.

29. DF160 - AMTIX - AKONI - DKB.

30. Initial climb clearance 5000.

31. FTG 1000.

32. This SID requires a minimum climb gradient of 316 per NM (5.2%) until passing 2500 due to airspace structure.

33. This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.

34. Initial climb clearance 5000.

35. FTG 1000.

36. DF160 - AMTIX - AKONI - DKB.

37. Initial climb clearance 5000.

38. FTG 1000.

39. This SID requires a minimum climb gradient of 316 per NM (5.2%) until passing 2500 due to airspace structure.

40. This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.

41. Initial climb clearance 5000.

42. FTG 1000.

43. DF160 - AMTIX - AKONI - DKB.

44. Initial climb clearance 5000.

45. FTG 1000.

46. This SID requires a minimum climb gradient of 316 per NM (5.2%) until passing 2500 due to airspace structure.

47. This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.

48. Initial climb clearance 5000.

49. FTG 1000.
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

**CHANGES:**
- Chart reindexed (RNAV SID KOMIB 2E withdrawn).

**SPEED:**
- MAX 220 KT OR AS BY ATC
- MAX 250 KT BELOW FL100

**CONTOUR INTERVALS**
- 4000
- 2000

**Routing**
- (800+) - DF149 - MTR - TOBAK - (2000+) - ODAGA - TESGA - ALIDI - MARUN.
- (800+) - DF139 (07C)/DF140 (07R) - DF146

**Initial climb clearance**
- APROX 5000

**SIDs and Departure Routes**
- MARUN 9D [MARU9D]
- MARUN 5E [MARU5E]
- RWYS 07C/R RNAV DEPARTURES (OVERLAY 10-3E3)

**STAR**
- MAP 29X AYA & AYA RNAV STAR.
**CHANGES:**

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

**RWY 25L RNAV DEPARTURE (OVERLAY 10-3E5)**

- **SPEED:** MAX 250 KT BELOW FL100 OR AS BY ATC
- **NOT APPLICABLE WITHIN AIRSPACE C**

**SPEED:** MAX 250 KT BELOW FL100 OR AS BY ATC

**ROUTE:**
- EDFR/FRA
- FRANKFURT/MAIN, GERMANY

**INITIAL CLIMB CLEARANCE:** FL70

This SID requires minimum climb gradients of:
- 520 per NM (8.5%) until passing 800, then
- 415 per NM (6.8%) until passing 6000 due to operational requirements.

**Gnd speed KT:**
- FL70: 75 100 150 200 250 300
- 800: 519 692 1038 1383 1729 2075
- 2500: 650 867 1300 1733 2167 2600

**IF unable to comply advise FRANKFURT Delivery prior to start-up.**

**FOR OPERATIONAL RWY USE CONCEPT REFER TO 10-1P PAGES.**
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

MARUN 6M (MARU6M)

RWY 25C RNAV DEPARTURE (OVERLAY 10-3E6)

SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires minimum climb gradients of
520 per NM (8.5%) until passing 800, then
415 per NM (6.8%) until passing 6000 due
operational requirements.

Initial climb clearance FL70

Routing

If unable to comply advise FRANKFURT Delivery
prior to start-up.

CHANGES: Chart reindexed.
1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. EXPECT close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

This SID requires a minimum climb gradient of 345 per NM (5.7%) until passing FL90 due to airspace structure.

<table>
<thead>
<tr>
<th>End speed KT</th>
<th>75</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>345 per NM</td>
<td>425</td>
<td>575</td>
<td>725</td>
<td>875</td>
<td>1025</td>
<td>1175</td>
</tr>
</tbody>
</table>

If unable to comply advise FRANKFURT Delivery prior to start-up.
1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. For operational RWY use concept refer to 10-1P pages.

NOT FOR PROP ACFT, THESE FLIGHTS SHALL FILE RATIM RNAV SIDS

NOT FOR FLIGHTS TERMINATING WITHIN EDDN AREA OR EDMM FIR

NOT TO SCALE

This SID requires a minimum climb gradient of 316 per NM (5.2%) until passing 2500 due to airspace structure.

If unable to comply advise FRANKFURT Delivery prior to start-up and EXPECT routing via NOMBO 8L.

AIRSPEED

Gnd speed-KT

-4000
-3500
-3000
-2500
-2000
-1500
-1000
-500

-316 per NM

-49-30
-45
-50-00
-565 per NM

-1884
-1413
-102
-75
-942
-5000
-2355
-1884
-1317
-117

-10-00
-4.7
-5000
-8.7
-5000

-08-30
-09-00
-09-30
-117^0
-136.125
-1580
-21.4
-25-00
-275

-210 KT
-2500
-110^0
-4300
-114.2 FFM
-133^0
-102^0
-117^0
-1580
-23.0
-2873
-3500
-3500
-316 per NM

-101^0
-178^0
-2500
-176^0
-2000
-2000
-2500
-308
-3000
-4000
-5000
-5000
-5000
1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. For operational RWY use concept refer to 10-1P pages.

4. For operational RWY use concept refer to 10-1P pages.

This SID requires a minimum climb gradient of 352 per NM (5.8%) until passing 3600, due to operational constraints outlined in JeppView for Windows 5.3.0.0,(animation: 335^).
1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. For operational RWY use concept refer to 10-1P pages.

OBOKA 1H [OBOK1H] RWY 25L RNAV DEPARTURE (OVERLAY 10-3G6)

FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 IF UNABLE TO COMPLY ADVISE EDDF DELIVERY PRIOR TO START-UP.

MAX 250 KT BELOW FL100

SPEED:

OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

This SID requires minimum climb gradients of 273 per NM (4.5%) until passing 2500 due to airspace structure.

Initial climb clearance DF999 (800+) - VFM (K200-) - DF172 (2500+) - PABVI - SIVDO - KUPIP - MASIR - RAVKI - DITAM - OBOKA.

FRANKFURT-HAHN 4000 EDFH

MAX 200 KT

CONTOUR INTERVALS

DF980 (800+) - VFM (K200-) - DF172 (2500+) - PABVI - SIVDO - KUPIP - MASIR - RAVKI - DITAM - OBOKA.
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For departure designation refer to 10-1P pages.
6. Do not turn before DER.
7. This SID requires a minimum climb gradient of 280 per NM until passing 2000 due to airspace structure.
If unable to comply advise FRANKFURT Delivery prior to start-up.

Sidewinder: By ATC

DF162 (25C; K220-) - DF165 (25L; K220-) - DF166 - KUPIP - MASIR - RAVKI - DITAM - OBOKA.

OBOKA 1N [OBOK1N]

FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170

MAX 250 KT BELOW FL100

SPEED:

OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C
1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. EXPECT close-in obstacles.

4. Wind shears and increased turbulences must be expected when winds strong.

5. For operational RWY use concept refer to 10-1P pages.

6. Do not turn before DER.

7. If unable to comply advise FRANKFURT Delivery prior to start-up.

8. MAX 250 KT below FL100 or as by ATC.

9. This SID requires a minimum climb gradient of 345 per NM (5.7%) until passing FL90 due to airspace structure.

10. Gnd speed-KT

<table>
<thead>
<tr>
<th>Gnd speed-KT</th>
<th>75</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>345' per NM</td>
<td>431</td>
<td>375</td>
<td>350</td>
<td>345</td>
<td>350</td>
<td>350</td>
</tr>
</tbody>
</table>

11. If unable to comply advise FRANKFURT Delivery prior to start-up.
**RATIM 6D (RAT16D)**

**RWYS 07C/R RNAV DEPARTURE**

*(OVERLAY 10-3J1)*

ONLY PROP ACFT WITH MAX FL230 REQUESTED

INSTEAD OF NOMBO RNAV SIDS

NOT FOR FLIGHTS TERMINATING WITHIN EDDN AREA OR EDMM FIR

**SPEED:** MAX 250 KT BELOW FL100

OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

---

**RATIM 7F (RAT17F)**

**RWYS 25L/C RNAV DEPARTURE**

*(OVERLAY 10-3J2)*

ONLY PROP ACFT WITH MAX FL230 REQUESTED

INSTEAD OF NOMBO RNAV SIDS

NOT FOR FLIGHTS TERMINATING WITHIN EDDN AREA OR EDMM FIR

**SPEED:** MAX 250 KT BELOW FL100

OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

---

**NOTES:**

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

---

**CHANGES:**

RNAV SID RATIM 7G withdrawn.

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**ROUTE:**

(max altitude) - DF152 (25C)/DF150 (K220-) - DF153 (25C)/DF142 (25L) - DF143 - DF137 (K210-) - DF159 (2500+) - AMTIX - AKONI - RATIM.

This SID requires a minimum climb gradient of 316 per NM (5.2%) until passing 2500 due to airspace structure.

---

**MINIMUM CLIMB REQUIREMENTS:**

- Gnd speed: 110
- Initial climb clearance: 4000
- Max speed: 220
- Trans alt: 5000

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**SPEED LIMITS:**

Max 250 KT below FL100 or as by ATC.
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. Expect close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

**RATIM 5S [RATI5S]**
**RWY 18 RNAV DEPARTURE (OVERLAY 10-3J3)**
ONLY PROP ACFT WITH MAX FL230 REQUESTED
INSTEAD OF NONMO RNAV SIDS
NOT FOR FLIGHTS TERMINATING WITHIN EDDN AREA OR EDMM FIR
SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

**ROUTING**
**initial climb clearance** 4000

**Gnd speed-KT**
75 100 150 200 250 300
565 per NM
706 942 1413 1884 2355 2825

If unable to comply advise FRANKFURT Delivery prior to start-up and EXPECT alternate routing by ATC.

RATIM

**General notes.**
MAX 220 KT
MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

**NO FLIGHTS TERMINATING WITHIN EDDN AREA OR EDMM FIR**

**Changes:**
- General notes.
- MAX 220 KT
- MAX 250 KT BELOW FL100 OR AS BY ATC
- NOT APPLICABLE WITHIN AIRSPACE C

**Changes:** None.
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

This SID requires a minimum climb gradient of 240 per NM (3.9%) until passing FL90 due to airspace structure.

Initial climb clearance 4000

Gnd speed-KT

<table>
<thead>
<tr>
<th>75</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
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<tbody>
<tr>
<td>75</td>
<td>706</td>
<td>942</td>
<td>1143</td>
<td>1884</td>
<td>2355</td>
</tr>
</tbody>
</table>

If unable to comply advise FRANKFURT Delivery prior to start-up.

NOT APPLICABLE WITHIN AIRSPACE C
This SID requires a minimum climb gradient of 335 per NM (5.5%) until passing FL90 due to airspace structure.

Initial climb clearance: 4000

Grid speed KT: 75 100 150 200 250 300
Ground speed KT: 119 129 139 149 159 169

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL300 VIA AIRWAYS Y-180/Y-181 FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240 IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIX RFL

SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

This SID requires a minimum climb gradient of 316 per NM (5.2%) until passing 2500 due to airspace structure. If unable to comply advise FRANKFURT Delivery prior to start-up.

NOT FOR FLIGHTS DESTINATION EDDN RWYS 25L/C RNAV DEPARTURE CONTOUR INTERVALS 4000 2000

SULUS 9F [SULU9F] (OVERLAY 10-3L2) Chart reindexed (RNAV SID SULUS 1G withdrawn).

SULUS 1D [SULU1D] RWYS 07C/R RNAV DEPARTURE (OVERLAY 10-3L1) Initial climb clearance 4000 ft

4000 - DF134 (25C)/DF135 (25L) - DF141 (25C)/DF142 (25L) - DF143 - DF137 (K210-) - DF159 (2500+) - AMTIX - AKONI - GIBSA - WUR - SULUS.

Change: RNAV SIDs withdrawn & transferred.

MAX 220 KT OR AS BY ATC
MAX 250 KT BELOW FL100

SPEED: NOT APPLICABLE WITHIN AIRSPACE C

Gnd speed-KT 395 527 790 1053 1317 1580
Airspeed-KT 0 400 800 1200 1600 2000

Printed from JeppView for Windows 5.3.0.0 on 03 Jul 2018; Terminal chart data cycle 12-2018 (Expired); Notice: After 28 Jun 2018, 0000Z, this chart may no longer be valid.
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.
TOBAK 5F [TOBA5F]
TOBAK 7G [TOBA7G]
RWYS 25L/C RNAV DEPARTURES
(OVERLAY 10-3L)

SPEED:
MAX 250 KT BELOW FL100
OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

This SID requires minimum climb gradients of
729 per NM (12%) until DF233 due to
airspace structure.

Initial climb clearance 5000

SID
TOBAK 5F
(800+) - DF234 (25C)/DF235 (25L) - DF233 (3500+) - DF133 (4400+) - TABUM - TESGA - TOBAK.

TOBAK 7G
(800+) - DF234 (25C)/DF235 (25L) - DF133 - DF236 - (3500+) - DF238 (4400+) - TABUM - TOBAK.

Gnd speed-KT
75 100 150 200 250 300

729 per NM
729 per NM
911 1215 1823 2430 3038 3646

If unable to comply advise FRANKFURT Delivery prior to start-up.

TRANSPORTATION

Initial climb clearance FL70

SID
TOBA4H (TOBA5F)

ROXAP

ADEVO

WIESBADEN - AAF ETOU

LISKU

MAX 200 VFM

Gnd speed-KT
75 100 150 200 250 300

415 per NM (8.5%) until passing 800,
then 415 per NM (6.8%) until passing 6000 due
operational requirements.

If unable to comply advise FRANKFURT Delivery prior to start-up.

TRANSPORTATION

Initial climb clearance FL70

SID
TOBA4H (TOBA5F)

ROXAP

ADEVO

WIESBADEN - AAF ETOU

LISKU

MAX 200 VFM

Gnd speed-KT
75 100 150 200 250 300

415 per NM (8.5%) until passing 800,
then 415 per NM (6.8%) until passing 6000 due
operational requirements.

If unable to comply advise FRANKFURT Delivery prior to start-up.

TRANSPORTATION
1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. For operational RWY use concept refer to 10-1P pages.

Trans alt: 5000

1. Contact LANGEN Radar when advised by Tower.

2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.

3. For operational RWY use concept refer to 10-1P pages.

**TOBAK 8M [TOBA8M]**

**RWY 25C RNAV DEPARTURE**

(OVERLAY 10-3L8)

**SPEED:** MAX 250 KT BELOW FL100

OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

**TOBAK 6M [TOBA6M]**

**RWY 25C RNAV DEPARTURE**

(OVERLAY 10-3L8)

**SPEED:** MAX 250 KT BELOW FL100

OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

This SID requires minimum climb gradients

- 520 per NM (8.5%) until passing 800, then
- 415 per NM (6.8%) until passing 6000 due to operational requirements.

Initial climb clearance FL70

**ROUTING**

- DF999
- TESGA
- ADEVO
- NaHEIM
- FFM VOR
- TOBAK

**NOTES:**

- MAX 220 KT
- OR AS BY ATC
- MAX 250 KT BELOW FL100
- SPEED:
- NOT APPLICABLE WITHIN AIRSPACE C
- NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10

**CHANGES:**

- Reference note:
- OR AS BY ATC
- MAX 250 KT BELOW FL100
- SPEED:
- NOT APPLICABLE WITHIN AIRSPACE C
- NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10
**General notes.**

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

**Initial climb clearance** 4000

**ROUTING**

(800+) - DF197 - DF156 (K220-) - DF164 - KUPIP - TABUM - TESGA - TOBAK.

**General notes.**

1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

**Initial climb clearance** 4000

**ROUTING**

(800+) - DF197 - DF156 (K220-) - DF164 - KUPIP - TABUM - TESGA - TOBAK.
TOBAK 6T [TOBA6T]  
RWY 18 RNAV DEPARTURE (OVERLAY 10-3N2)  

SPEED  
MAX 250 KT BELOW FL100 OR AS BY ATC  
NOT APPLICABLE WITHIN AIRSPACE C  

This SID requires a minimum climb gradient of  
345 per NM (5.7%) until passing FL90 due to  
airspace structure.  

Initial climb clearance 4000

Routing

(800+) - DF160 (K220-) - DF200 (K250-) - PIPIX (K250-) - VETUX (FL100) - RUDUS - MABOR -  
TESGA - TOBAK.

General notes.

1. Contact LANGEN Radar when advised by Tower.  
2. SIDs are also noise abatement procedures. Strict adherence within the limits of  
aircraft performance is MANDATORY.  
3. Expect close-in obstacles.  
4. Wind shears and increased turbulences must be expected when  
winds strong.  
5. For operational RWY use concept refer to 10-1P pages.  
6. Do not turn before DER.

CHANGES: General notes.  
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Apron will use 121.7 as feeder frequency during peak times.

Before released for push-back, pilots will be asked by 121.7 to monitor apron on 121.850 instead of contacting 121.850 for push-back approval.

For taxiway designations and stopbars refer to 10-9A.

ACFT maintenance area - only towing permitted.

No LEFT turn from TWY N to TWY N11

No RIGHT turn from TWY L16 on RWY 25C

No RIGHT turn from TWY L14 on RWY 25C

Stop at CAT II/III holding point, STB is illuminated under all weather conditions.
PAPI systems: For all acft on ILS CAT I approaches PAPI is only usable up to a height of 200' referring to the respective threshold.

**RWY 07L/C/R, 25L/C/R**
- RVR 75m with approved guidance system or HUD/HUDLS.
- TDZ, MID, RO relevant RVR
- Glide Slope: 3630m
- Threshold
  - Position M19/R15
  - Position L6/M10
  - Position L5/M8
  - Position L4
  - Position L3
  - Position L2
  - Position L1
  - Position L0
  - Position L-1

**RWY 07R:**
- HST-M17, M21, M23, M27 & R13 spacing 60m.
- HST-L8, L10, L13 & L15 spacing 15m.
- RVR 200m
- From rwy head
  - Position R7
  - Position M7/R5

**RWY 25L:**
- HIRL
- CL
- ALSF-II
- TDZ
- REIL
- PAPI-L (3.0°)
- RVR 200m
- From rwy head
  - Position M19/R15
  - Position L6/M10
  - Position L5/M8
  - Position L4
  - Position L3
  - Position L2
  - Position L1
  - Position L0
  - Position L-1

**RWY 25C:**
- HIRL
- CL
- ALSF-II
- TDZ
- REIL
- PAPI-L (3.0°)
- RVR 200m
- From rwy head
  - Position M19/R15
  - Position L6/M10
  - Position L5/M8
  - Position L4
  - Position L3
  - Position L2
  - Position L1
  - Position L0
  - Position L-1

**ADDITIONAL RUNWAY INFORMATION**

<table>
<thead>
<tr>
<th>RWY</th>
<th>HIRL</th>
<th>CL</th>
<th>ALSF-II</th>
<th>TDZ</th>
<th>REIL</th>
<th>PAPI-L</th>
<th>RVR</th>
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<th>PAPI-L</th>
<th>RVR</th>
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<td>RVR</td>
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</table>

PAPI systems: For all acft on ILS CAT I approaches PAPI is only usable up to a height of 200' referring to the respective threshold.

1. spacing 60m.
2. spacing 15m.
3. HST-M17, M21, M23, M27 & R13 spacing 60m.
4. HST-L8, L10, L13 & L15 spacing 15m.

**TAKE-OFF RUN AVAILABLE**

<table>
<thead>
<tr>
<th>RWY 07L</th>
<th>RWY 07C</th>
<th>RWY 25L</th>
<th>RWY 25C</th>
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<tr>
<td>position L0</td>
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<td>position M19/R15</td>
</tr>
<tr>
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<td>position L1</td>
<td>position L6/M10</td>
<td>position L6/M10</td>
</tr>
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<td>position L2</td>
<td>position L2</td>
<td>position L5/M8</td>
<td>position L5/M8</td>
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**LOW VISIBILITY TAKE-OFF**

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<thead>
<tr>
<th>HIRL, CL, &amp; relevant RVR</th>
<th>RL, CL, &amp; relevant RVR</th>
<th>RL &amp; CL</th>
<th>Day: RL &amp; RCLM (Night: RS or CL)</th>
<th>Day: RL or RCLM (Night: RS or CL)</th>
<th>Adequate vis ref (Day only)</th>
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<tbody>
<tr>
<td>07L</td>
<td>25L</td>
<td>07L</td>
<td>25L</td>
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<tr>
<td>125'</td>
<td>200'</td>
<td>150'</td>
<td>200'</td>
<td>300'</td>
<td>400'</td>
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</tbody>
</table>
ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (A-VDGS)

DISPLAY OF IMAGES AND FUNCTIONS ON THE PANEL

Examples:

- Aircraft type
- Running arrows
- Distance to stop point
- Stop point
- Deviation indicator/steering indicator
- Taxi guideline
- Present aircraft position

Safety Information:
- If a pilot is unsure of the information shown on the display, the aircraft has to be stopped immediately and further information for clearance needs to be obtained.
- A pilot shall not enter the stand area unless the vertical running arrows are displayed on the docking system and unless the aircraft type displayed matches the approaching aircraft.
- The pilot shall not proceed beyond the first passenger loading bridge in sight unless the running arrows are superseded by the final lead-in information (distance to stop-point, stop-point, deviation indicator or steering direction, taxi guidance line, present aircraft position). The same applies in case the display shows "WAIT", "WAIT VIEW BLOCK" or "WAIT GATE BLOCK" or "WAIT ID FAIL".

Depending on the system type, displays can be slightly different or additional.

CENTERLINE GUIDANCE ELEMENT

Approach the parking position along the yellow centerline so that both vertical slots in the Centerline Guidance Element show GREEN. Adjustments to the left or right shall always be made towards the GREEN.

STOP ELEMENT - MARKER BOARD

The aircraft is stopped at the correct position by means of the Stop Element. When the tubular light, visible through the horizontal slot in the marker board, registers in line with the appropriate vertical reference mark, the aircraft has reached the correct stopping position.

NOTE: Nose-in parking aircraft (on pushback position) have to use towing truck when leaving parking position.

CAUTION
Be sure to select the correct vertical reference mark corresponding to your type of aircraft. Marker board layouts are different for the various nose-in parking positions.

AGNIS CENTRE LINE GUIDANCE STOP ELEMENT - MARKER BOARD

- All types continue taxiing.
- SIGHTING SLOT
- LIGHT TUBE
- B-747 stop.
- Other types stop. B-747 continue taxiing.

CHANGES: A-VDGS description.
BRIEFING STRIP

EDDF/FRA
FRANKFURT/MAIN, GERMANY

CHANGES:

GS
Alt Set: hPa (IN on req)

In case of Missed apch inform ATC immediately.

W/o HUD/AP/FD: RVR 750m

olatile

MISSED APCH:

Alt Set: hPa (IN on req)

Missed apch climb gradient mim 4.6% up to 3500'.

Inform ATC immediately.

Procedure on request and by ATC only.

Communications.

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CHANGES: Communications.

BRIEFING STRIP
FRANKFURT/MAIN
EDDF/FRA


MAP at D0.6 IFCE

MISSED APCH: Climb STRAIGHT AHEAD via FR Lctr to D10.0 FRD/D7.0 FFM or 5000', whichever is later, then turn LEFT to TAU VOR maintain 5000'.

DME required.

All Set: I/FL on req. Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000' Special Airway & Aircraft Certification Required.

COMMUNICATIONS.

ALTITUDE
IFCE DME

GRID SPEED-KT

ILS GS or LOC Descend Angle 3.0°

IFAP or D0 IFCE

STRAIGHT-IN LANDING RWY 07C

D10.0 FRD

D0.6 FRD

D8.0 IFCE GS 2870'

D4.1 IFCE GS 1630'

LOC (GS out)

D11.5 IFCE

LOMPO

TAU

DSM out

Rwy 07C
**EDDF/FRA**
**FRANKFURT/MAIN, GERMANY**
**ILS Z or LOC Z Rwy 07R**

**JeppView Briefing Strip**

- **Map at D0.7 IFSE**
- **LOC Descent Angle**
- **ILS GS or Gnd speed-Kts**
- **C**
- **A**
- **B**
- **D**
- **W/o HUD/AP/FPD: RVR 750m**

**MISSED APCH:** Climb STRAIGHT AHEAD to D1.0 inbound FFM/D2.0 FRD, turn RIGHT to intercept R-087 FFM outbound to D8.0 FFM/D10.8 FRD or 5000', whichever is later, then turn RIGHT to RID VOR and maintain 5000'.

- **50-10**

**Initial apch from DF644 RNAV-1 equivalent:** Radar required.

- **1. Special Aircrew & Acft Certification Required.**
- **2. Special Aircrew & Acft Certification Required.**

**Communications.**

- **Alf Set: (FPA)/(In on req) Rwy Elev: 12 HPA Trans Level: By ATC Trans alt: 5000'.**
- **Rwy Elev: 12 HPA Trans Level: By ATC Trans alt: 5000'.**

**CAT IIIA ILS**

- **Refer to**

**CDFA**

- **Trans alt: 5000'.**

**LOC (GS out)**

- **A**
- **B**
- **C**
- **D**
- **W/o HUD/AP/FPD: RVR 750m**

**Changes:** Communications.

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CHANGES: Communications.
CAUTION: Independent taxiing aircraft on Taxiway U underneath short final.

In case of missed approach inform ATC immediately.

Communications.

MISA out

PANS-OPS

BRIEFING STRIP

FRANKFURT/MAIN

EDDF/FRA

CAT II/III ILS Rwy 25C

PANS-OPS

BRIEFING STRIP

FRANKFURT/MAIN

EDDF/FRA

CAT II/III ILS Rwy 25C
In case of Missed approach inform ATC immediately.

Communications.
MISSED APCH:

- Climbing STRAIGHT AHEAD to D6.3 FFM/D3.5 FRD at 800' or above, then turn RIGHT to intercept R-140 inbound TAU VOR. Turn RIGHT to intercept R-084/RU-264 inbound MTR VOR climbing to 5000', whichever is later, then turn LEFT to TAU maintain 5000'.
- In case of Missed apch inform ATC immediately.

Alt Set: HPa (IN on req) Trans level: By ATC Trans alt: 5000'

Alt Set: HPa (IN on req) Rwy Elev: 12 HPA Trans level: By ATC Trans alt: 5000'

Changes: Communications.
**CHANGES:** Communications.

**PANS OPS**

**BRIEFING STRIP**

- **EDDF/FRA**
  - **FRANKFURT/MAIN**
  - **GLS Y Rwy 07C**

**Standard.**

**Alt Set:** Hpa (IN on req) Rwy Elev: 12 Hpa Trans level: By ATC Trans alt: 5000'.

**MAP at DA**

**DIST to THR**

- 100' 90' 80' 70' 60' 50' 40' 30' 20' 10' 0'

**ALTITUDE**

- 3780' 3440' 3100' 2760' 2420' 2080' 1740' 1400' 1060' 720'

**MISSED APCH:** Climb to FR, then to DF273 or 5000' whichever is later. Turn LEFT direct to TAU, maintain 5000'.

**DF372**

**MANDATORY**

- 4000' 4000' 067°

**Gnd speed-Kts**

- 154' 156' 158' 160' 162' 164' 165' 166' 168' 170' 172'

**Glide Path Angle**

- 3.20' 3.60' 4.00' 4.40' 4.80' 5.20' 5.60' 6.00' 6.40' 6.80' 7.20'

**MAP at DA**

- **Standard**
  - STRAIGHT IN LANDING Rwy 07C

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- **W/o HUD/AP/FD:** RVR 750m

**CHANGES:** Communications.

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EDDF/FRA
FRANKFURT/MAIN
GLS Y Rwy 07R
12 JAN 18

Ch 24447
G07F

G07F
GBAS

MISSED APCH: Climb to FFM, then to DF278 or 5000' whichever is later. Turn RIGHT direct to RID, maintain 5000'.

Alt Set: hPa (IN on req)

Communications.

GLS X Rwy 07R
12 JAN 18

Ch 26913
G07I

G07I
GBAS

MISSED APCH: Climb to FFM, then to DF278 or 5000' whichever is later. Turn RIGHT to RID, maintain 5000'.

Alt Set: hPa (IN on req)

Communications.

GPS required.
MISSED APCH: On course 248° to DF393 at or above 800'. Turn RIGHT direct to DF394, then to TAU. Turn RIGHT to MTR climbing to 5000'. In case of Missed apch inform ATC immediately.

MISSED APCH CLIMB: On course 248° to DF393 at or above 800'. Turn RIGHT direct to DF394, then to TAU. Turn RIGHT to MTR climbing to 5000'. In case of Missed apch inform ATC immediately.

Rwy Elev: 13 hPa

G19

Ch 23214 G25E

Final Apch Crs

EDPU

Mandatory Alt

DF392

GLS Z Rwy 25R

DA(H)

TRANSLATOR

DA(H)

MSA ARP

PANS OPS

COMMUNICATIONS

FULL

Full

OFF

OFF

Mandatory Alt

IN

IN

Mandatory Alt

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CHANGES:

50-10 Gnd speed-Kts, whichever is later, then turn LEFT to CHA VOR climb and maintain 5000'.

TO-ATIS Arrival
FFM
Aph Crs
D1.6 FFM
Final
Minimum Alt
DA/MDA(H)
Apt Elev
364'

MISSED APCH: Climb STRAIGHT AHEAD to D5.5 FFM/D2.5 FRD, then turn LEFT to intercept R-243 FFM. Then on R-243 FFM to D8.0 FFM/D5.0 FRD or 5000', whichever is later, then turn LEFT to CHA VOR climb and maintain 5000'.

TO-ATIS Arrival
FFM
Aph Crs
D1.4 FFM
D1.2 FFM
Final
Maximum Alt
DA/MDA(H)
Apt Elev
364'

Standard
STRAIGHT-IN LANDING RWY 25L

CDFA
DA/MDA/H
830° (468')

DA/MDA(H)
Apt Elev
830° (468')

CDFA
DA/MDA/H
840° (476')

Gnd speed-Kts
70 90 100 120 140 160
Descent Angle
3.00°
ALT/FL
D1.5 FFM D2.0 FMM
MAP at D1.5 after FFM VOR/D1.4 FRD

STANDARD
STRAIGHT-IN LANDING RWY 25C

CDFA
DA/MDA/H
840° (476')

DA/MDA(H)
Apt Elev
840° (476')

CDFA
DA/MDA/H
840° (476')

Gnd speed-Kts
70 90 100 120 140 160
Descent Angle
3.00°
ALT/FL
D1.5 FFM D2.0 FMM
MAP at D1.5 after FFM VOR/D1.4 FRD

*Ground
AMS FFM VOR
FRANKFURT Tower
FRANKFURT/MAIN, GERMANY
TERMINAL CHART CHANGE NOTICES

Chart Change Notices for Airport EDDF

Type: Terminal
Effectivity: Temporary
Begin Date: Immediately
End Date: Until Further Notice

To increase safety when crossing RWY 07C-25C a RWY incursion alerting system (RIAS) will be installed to supplement existing CAT II-III holding with a stop bar on TWY M8. RIAS is activated when an aircraft even slightly crosses the active stop bar. This sends an alert to the pilot. Four very bright flashing red surface lights at CAT I holding as well as two elevated lights each on both shoulders of TWY M8 between CAT I and CAT II-III holding are activated and tower controllers are alerted.

Type: Terminal
Effectivity: Permanent
Begin Date: Immediately
End Date: No end date

Construction area established Northwest of threshold 18, North of twy P1, Left side of parking stand F238.

Chart Change Notices for Country DEU

Type: Gen Tmnl
Effectivity: Temporary
Begin Date: Immediately
End Date: Until Further Notice

Jeppesen charted take-off minimums are determined according to the available RWY lights only. A Low Visibility Procedure (LVP) may or may not be established at the departure airport. Pilots are reminded to check the availability of LVP with ATC before using the charted minimums. Otherwise, according to SPA, LVO.115, the take-off is restricted to a minimum visibility of 800m.

Type: Gen Tmnl
Effectivity: Permanent
Begin Date: 20170330
End Date: No end date

Location/airport name changed from Donauworth to Donauwoerth, Dusseldorf to Duesseldorf, Lubeck to Luebeck, Monchengladbach to Moenchengladbach, Nurnberg to Nuernberg, Schonefeld to Schoenefeld, Schwabisch Hall to Schwaebisch Hall, Zweibrucken to Zweibruecken.

Type: Gen Tmnl
Effectivity: Permanent
Begin Date: Immediately
End Date: No end date

The following Take-off minima according to Commission Regulation No. 965/2012 (EASA Air Operations Regulation) are applicable for Low Visibility Take-off Operations within Germany for CAT ABCD aircraft. RVR below 150m can only be used for selected runways which are already specified on current Jeppesen charts. 1. With RL and RCLM during day or with RL or CL during night: RVR 300m 2. With RL and CL: RVR 200m 3. With RL and CL and TDZ, MID and RO RVR: RVR 150m 4. With HIRL and CL and TDZ, MID and RO RVR: RVR 125m 5. On CAT III RWYs with approved guidance system or HUD/HUDLS: RVR 75m