General Info
Frankfurt/Main, DEU
N 50° 02.0’ E 08° 34.2’ Mag Var: 0.0°W
Elevation: 364’
Public, Control Tower, IFR, Landing Fee, Jet Starting Unit available,
Rotating Beacon, Customs
Fuel: 100LL, Jet A-1
Repairs: Minor Airframe, Minor Engine
Time Zone Info: GMT+1:00 uses DST

Runway Info
Runway 07L-25R  13123’ x 197’ asphalt
Runway 07R-25L  13123’ x 148’ concrete
Runway 18-36  13123’ x 148’ concrete
Runway 07L (69.0°M)  TDZE 329’
  Lights: Edge, ALS, Centerline, REIL, TDZ
Runway 07R (69.0°M)  TDZE 328’
  Lights: Edge, ALS, Centerline, REIL, TDZ
Runway 18 (179.0°M)  TDZE 326’
  Lights: Edge, Centerline
Runway 25L (249.0°M)  TDZE 362’
  Lights: Edge, ALS, Centerline, REIL, TDZ
Runway 25R (249.0°M)  TDZE 364’
  Lights: Edge, ALS, Centerline, REIL, TDZ
Runway 26L (249.0°M)  TDZE 342’
  Lights: Edge, ALS, Centerline, TDZ

Communications Info
ATIS 118.725
ATIS 118.025
ATIS 114.2
Frankfurt Tower 127.325 At or below 4000’
Frankfurt Tower 124.85 At or below 4000’
Frankfurt Tower 119.9 At or below 4000’
Frankfurt Tower 378.35 At or below 4000’ Military
Frankfurt Ground Control 121.8
Frankfurt De-Icing Centre Ramp/Taxi Control 135.225
Frankfurt Apron Ramp/Taxi Control 121.95
Frankfurt Apron Ramp/Taxi Control 121.85
Frankfurt Apron Ramp/Taxi Control 121.7
Frankfurt Clearance Delivery 121.9
Langen Radar Approach Control 136.125
Langen Radar Approach Control 126.55 Departure Service
Langen Radar Approach Control 125.35
Langen Radar Approach Control 120.8
Langen Radar Approach Control 120.15
Langen Radar Approach Control 119.025 Arrival Service
Langen Radar Approach Control 372.85 Military
Langen Radar Approach Control 277.80 Military
Frankfurt Director Approach Control 127.275 At or below 15000’ Out to 40 mi.
Frankfurt Director Approach Control 375.45 At or below 10000’ Military
Frankfurt Arrival Approach Control 118.5

Notebook Info
1.1. ATIS

*ATIS ARRIVAL 118.02 114.2

*ATIS DEPARTURE 118.72

1.2. NOISE ABATEMENT PROCEDURES

1.2.1. RUNWAY USAGE

1.2.1.1. ARRIVALS
RWys 25R/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.

1.2.1.2. DEPARTURES

In case of landing direction 07:
RWY 07L will preferably be assigned to departures into northern and eastern directions.

In case of landing direction 25:
RWY 25R will preferably be assigned to departures into northern directions.

In case of landing direction 07 or 25:
RWY 18 will generally be assigned to departures into south-eastern, southern and western directions, provided the tailwind component does not exceed 15 KT.

If the tailwind component for RWY 18 is more than 10 KT this will be announced by ATIS. Pilots-in-command who cannot accept the higher tailwind component are requested to advise ATC at the same time as the request for the start-up clearance.

1.2.1.3. EXCEPTIONS

Exceptions are possible if the traffic situation permits or for reasons of traffic safety.

1.2.1.2. NIGHT FLYING RESTRICTIONS AS WELL AS OPERATIONAL RESTRICTIONS OF CHAPTER 2 AIRCRAFT OUTSIDE NIGHTTIME FOR CIVIL AVIATION

a) ACFT which have no noise certificate in accordance with ICAO Annex 16 are not permitted to take-off or land.

b) ACFT licensed in accordance with ICAO Annex 16, Chapter 2 are not permitted to take-off or land as follows:
- 2000-0800LT on weekdays
- Additionally, FRI 2000LT - MON 0800LT

C) For ACFT licensed in accordance with ICAO Annex 16, Chapter 3 the following restrictions apply:
- Between 2200-0600LT take-offs and landings are not permitted unless they have been coordinated at least one day in advance by the Scheduling Coordinator (ad hoc charter flights, in particular individual flights for specific reasons, but of no public interest).
- Between 2300-0600LT take-offs and landings for the performance of exercise flights, check flights and training flights are not permitted.
- Between 0000-0500LT landings are not permitted for all kinds of flights.

EXCEPTIONS

Excluded from the restrictions mentioned above are:
- Landings of ACFT provably approaching Frankfurt/Main APT as alternate aerodrome for meteorological, technical or other safety reasons as well as take-offs and landings of ACFT rendering medical assistance, on missions in disasters or evacuation flights.
- Flights in the special interest of public.

Excluded from the restrictions according to paras b), c) only:
- Take-offs and landings of ACFT used for checking radio and radar as well as APT facilities.

1.2.1.3. REVERSE THRUST

Reverse thrust other than idle thrust shall not be used between 2200-0600LT except for safety reasons.

1.2.1.4. RUN-UP TESTS

Run-up tests and engine test runs as well as extensive maintenance work on ACFT at the positions are not permitted. Apron Control may grant exceptions in justified cases.
3. DEPARTURE

COB reporting ways
For entering and updating the COB the following ways are available:
- Linked internal systems of airlines or handling agents
- OBCCOS (Off-Block Calculation and Coordination System)
- SITA Address FRAAP7X
- Fax +49 (0)69 690 56701
- Tel. +49 (0)69-690 71740, Traffic Data Center

Target times for start-up and off-block
Calculation of Target Start-Up Approval Time (TSAT) and Target Off-Block Approval Time (TOAT)
Based on the reported COB, the flight will be planned into the departure sequence 45 minutes prior to the estimated end of ground handling, a TOAT will be generated. As soon as a COB is updated, a new calculation of the departure sequence and the target times will be conducted. For this calculation the parking position, RWY, taxi time, departure routes and their separation minima and an existing CFMU slot are taken into consideration and - based on this - an optimal departure sequence is determined. Consequently, for each flight the optimal time for Start-Up (TSAT) and Off-Block (TOAT) will be determined. The TSAT is the result of the TOAT, and is defined as TSAT = TOAT - 5 minutes.

Announcement of the Target Time TOAT
The first announcement of the TOAT is 30 minutes before COB and will be updated 20 minutes, respectively 10 minutes before TOAT.

Transferring the target times to pilots
The transfer of the target times TOAT and TSAT to the pilot is in the responsibility of the airline or the assigned handling agent. For flights without handling agents the responsibility for inquiring the target times is in the hands of the pilot-in-command.

Remote-Holding
If a flight is planned for the remote-holding procedure, the target time TOAT is the time when the flight leaves the remote-holding position. In that case, push-back approval and taxi instructions to the assigned remote-holding position is given before reaching the TOAT by apron control.
At the remote-holding position, start-up has to be requested at TSAT, taxi instructions at TOAT (same as standard procedure).

De-icing
If de-icing is required, the pilot or the airline has to request de-icing before reaching TOAT. DMAN will then calculate target times for de-icing, the TOAT will be adjusted to these times.
For both, de-icing on parking position and de-icing on a de-icing pad the TOAT is the time at which the parking position is left. In case of a position de-icing this is done before reaching the TOAT, and in case of a remote de-icing after having left the position and therefore after the TOAT.

NON-STANDARD PROCEDURES
Re-Planning procedure / Standby status
If the TOAT is reached - without push-back or start-up request having been made the re-planning procedure goes into effect.
In the re-planning procedure the flight is set back in the departure sequence by at least five minutes. A new TOAT is generated. If the new TOAT is exceeded again, this process will be repeated. With the third exceedance of the TOAT the flight is removed from the departure sequence and placed in standby (STBY) status. The target times of that flight will be deleted. A flight in standby is not included in the departure sequence anymore.
1.3. LOW VISIBILITY PROCEDURES (LVP)

1.3.1. CAT III OPERATIONS

**1.3.1.1. GENERAL**
RWY’s 07R/25L & 07L/25R will be announced via ATIS. Taxiing for all ACFT is restricted to TWYS with operating centerline lights. The TWY centerline lights within the ILS sensitive area from RWY 07L/25R towards TWY A and from RWY 07R/25L towards TWY C are colour coded (yellow/green). Landing ACFT are requested to report RWY vacated at the end of the colour coded TWY centerline lights to indicate that the ACFT has vacated the ILS 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 center line.

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/intersection, spaced at intervals 10'/3m across the overall width of a TWY at 90° to the TWY centerline. Taxiing across an operating stop bar is strictly prohibited.

1.4. TAXI PROCEDURES

**1.4.1. GENERAL**
Taxiing on TWY B EAST permitted to ACFT with a size up to A321 (tail unit height MAX 39'/11.8m) regardless of approaches to RWY 25L/R.

To avoid crossing the aprch ground lines 25L/R while another ACFT is flying over TWY B EAST, pilots can choose taxiing speed at their own discretion, or can wait at the appropriate stop point (295'/90m in front of aprch ground line on TWY B EAST). Pilots can continue to taxi w/o a renewed clearance from ATC.

ACFT are permitted to taxi on the manoeuvring area between RWY 07L/25R and TWY A only with the minimum engine revolutions absolutely required.

Turns from TWY Hto to Cto & conversely not authorized.

TWY M1 MAX wingspan 115'/34.5m.

TWY’s N blue, N orange and Z MAX wingspan 118'/36m.

Part of TWY K (South of TWY 5) and TWY N SOUTH MAX wingspan 171'/52m.

**1.4.2. TAXIING OF THE APRON**
Wing-tip clearance for B747-400 on ACFT stand taxilanes is 25'/7.5m as a minimum, to parallel service roads or 10'/3m - height - limited objects, is 16'/5m as a minimum.

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.

Push-backs to TWY N have to be executed facing West.

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. PARKING INFORMATION


1.6. OTHER INFORMATION

**1.6.1. GENERAL**
Glider areas in the vicinity of APT.

**1.6.2. OPERATION OF SSR-MODE S TRANSPONDERS**

**1.6.2.1. GENERAL**
An improved surface surveillance system using Mode S multilateration has been installed.

**1.6.2.2. OPERATION OF MODE S TRANSPONDERS WHEN ACFT IS ON THE GROUND**
ACFT operators shall ensure that the Mode S transponders are able to operate when the ACFT is on the ground. Therefore it is necessary that aircrews select AUTO mode or its equivalent, according to specific installation and assigned mode A code, if AUTO mode is not available (e.g. XPDH) and assigned mode A code under the following conditions:

- From the request for push-back or taxi, whichever comes first.
- After landing, continuously until the ACFT is fully parked on the stand.

When fully parked on the stand, the transponder shall be switched off.

Whenever the ACFT is capable of reporting ACFT identification (i.e. call sign used in flight), the ACFT identification should also be entered from the request for push-back or taxi, whichever comes first (through the FMS or the transponder control panel). Aircrews shall use the format as defined in Field 7 of the ICAO Flight plan for entry of the ACFT identification (e.g. DLH123, TAP234, AFR6380,...).

To ensure that the performance of systems based on SSR frequencies (including airborne TCAS units and SSR radars) is not compromised, TCAS shall not be activated before receiving the clearance to line-up. After landing, it shall be deactivated after vacating the RWY.
2.1. SPEED RESTRICTIONS
MAX 250 KT below FL100 or as by ATC.
Not applicable within Airspace C.

2.2. NOISE ABATEMENT PROCEDURES
Between 2300-0500LT all inbound ACFT should expect clearances whereby final will be reached not closer to the APT than:
- approximately 18 NM (RWYs 25R/L) and
- approximately 19 NM (RWYs 07L/R) from THR.
These "final-interception points" correspond to the GPS/FMS waypoints DF022 (RWYs 25L/R) and DF052 (RWYs 07L/R). The fly-by function of these waypoints is not affected.

2.3. CAT II/III OPERATIONS
RWY 07L/25R and RWY 07R/25L(except THR 26L) approved for CAT II/III operations, special aircrew and ACFT certification required.

2.4. RWY OPERATIONS
2.4.1. LANDING THR 26L
2.4.1.1. GENERAL
Second landing THR 26L established on RWY 25L in connection with the High Approach Landing System (HALS).
The HALS offers the possibility to reduce wake turbulence separation for ACFT of categories Medium or Light to the permissible Radar separation minima. For this purpose, RWY 25L is provided with a second landing THR designated as 26L.

2.4.1.2. DESCRIPTION OF THE SECOND LANDING THR 26L
Threshold 26L is only permitted for landings of ACFT with a maximum certified take-off mass of less than 136,000 kg. THR 26L is displaced by 4921'/1500m from landing THR 25L. Simultaneous operation of two THRs on one RWY is not permitted.

2.4.1.3. MARKINGS AND LIGHTING
For operation on THR 26L, special markings and lighting is installed which deviate from the ‘Guidelines for the Markings and Lighting at APTs’, as well as ICAO.
For detailed depiction refer to page 10-9H. Lighting for THR 26L, including PAPI, will be kept working together with the edge and centerline lights while operations are being conducted. Approach-, THR- and TDZ lighting 25L, as well as PAPI 25L, will be turned off when THR 26L is in operation.

2.4.1.4. HALS OPERATION
- Approach procedure:
  An additional instrument landing system (ILS DME 26L) has been installed.
- ATIS broadcasts:
  As soon as the HALS operations begin, the ATIS broadcast will provide pilots with the pertinent information.
- Use of procedure:
  Pilots who do not wish to use the THR 26L approach procedure must explicitly inform Frankfurt Approach when establishing initial contact.
- Taxi procedure:
  Two types of standard taxi guidance procedures will be used for ACFT having landed after use of THR 26L.
  Type 1: Guidance via TWY C and intersection of RWY North.
  Type 2: Guidance via TWYs R, W and A to destinations West of TWY H.

2.4.1.5. METEOROLOGICAL AND FLIGHT OPERATIONS CONDITIONS
THR 26L will be used under the following conditions:
- Ground visibility is 2400m or more;
- Ceiling is approx. 400 ft (ceiling must be such that THR 26L is in sight at outer marker);
- No tailwind prevails;
- Braking action is good;
- All ILS DME facilities are fully serviceable;
- Lighting for use of THR 26L, including PAPI 26L, is fully serviceable.

2.4.2. HIGH INTENSITY RWY OPERATIONS (HIRO)
2.4.2.1. APPROACH
Approaching ACFT for which a parking position is designated on the Southern airport area shall advise LANGEN Radar on 120.8. These ACFT and propeller-driven ACFT which park in the Eastern part of the Northern apron will preferably be assigned to RWY 07R/25L. When changing frequency from LANGEN Radar to FRANKFURT Director initial contact shall be restricted to FRANKFURT DIRECTOR & CALLSIGN in order to avoid frequency congestion. When being transferred to FRANKFURT Tower initial contact shall consist of FRANKFURT TOWER, CALLSIGN & RWY.
2. ARRIVAL

2.4.2.2. LANDINGS

Pilots are reminded that by leaving the RWY quickly, ATC will be able to guide ACFT on final using minimum radar separation.

In order to reduce RWY occupancy times, pilots shall apply the following procedures:

The RWYs shall, as a rule, be used via the existing high-speed turn-offs.

When RWY conditions permit, pilots should prepare their landings in order to leave the RWYs via the high-speed turn-offs listed below:

<table>
<thead>
<tr>
<th>RWY</th>
<th>ACFT</th>
<th>Turn off intersections</th>
<th>Dist from THR ft (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>07L</td>
<td>medium</td>
<td>G</td>
<td>8202' (2500m)</td>
</tr>
<tr>
<td></td>
<td>/ light</td>
<td>Gto</td>
<td>7054' (2150m)</td>
</tr>
<tr>
<td>07R</td>
<td>heavy</td>
<td>Gto</td>
<td>5906' (1800m)</td>
</tr>
<tr>
<td></td>
<td>/ medium</td>
<td>Cto</td>
<td>5757' (1700m)</td>
</tr>
<tr>
<td>25L</td>
<td>medium</td>
<td>Jto</td>
<td>7546' (2300m)</td>
</tr>
<tr>
<td></td>
<td>(JET)</td>
<td>Hto</td>
<td>6070' (1850m)</td>
</tr>
<tr>
<td></td>
<td>/ light</td>
<td>G</td>
<td>3609' (1100m)</td>
</tr>
<tr>
<td>25R</td>
<td>heavy</td>
<td>Hto</td>
<td>6890' (2100m)</td>
</tr>
<tr>
<td></td>
<td>(JET)</td>
<td>Ato</td>
<td>6070' (1850m)</td>
</tr>
<tr>
<td></td>
<td>/ light</td>
<td>Gto</td>
<td>3773' (1150m)</td>
</tr>
</tbody>
</table>

Name the expected high-speed turn-off during the approach briefing to ensure a minimum RWY occupancy time. The possibility of FRANKFURT Tower applying reduced RWY separation remains unaffected and shall continue to be observed.

The frequency change after landing from FRANKFURT Tower to FRANKFURT Apron shall only be carried out on request.

If the pilot-in-command does not receive further taxi clearance, he should stop in front of TWY A.

2.5. 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 07L/25R.

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

Taxi to stands F236 thru F240 via TWY N NORTH, facing North.

Taxi to stands V119 thru V130 or V150 thru V178 via TWY N, facing South.

3. DEPARTURE

3.1. DE-ICING

3.1.1. GENERAL

De-icing notification shall be directed to FRANKFURT De-icing 135.22 via 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" shall 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 ACFT waiting and subject flight will have to wait until other vehicles become available for disposal.

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 pads are located West of the head of RWY 18 and fall within the responsibility of FRANKFURT Tower. When carrying out de-icing procedures, responsibility will temporarily be transferred to FRANKFURT Apron.

On the remote de-icing pads, only jet ACFT with running engines and APU switched off 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.

Taxiing manoeuvres may only be carried out at the indispensable minimum engine speed. On the de-icing pads ACFT shall stop in front of the clearance bar or follow the advice of the marshaller and will be advised by FRANKFURT Apron to establish radio contact with the de-icing crew teamleader on an assigned frequency.

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

3.2. START-UP & TAXI PROCEDURES

3.2.1. GENERAL

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

3.2.2. FROM 0600 - 2200LT

All ACFT up to A321 parked at positions East of TWY E and planned for departure from RWY 18 have to expect to taxi via TWY's B EAST (ATTENTION: Overflying ACFT on extended CL RWY 25L/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.

3.3. SPEED RESTRICTIONS

MAX 250 KT below FL100 or as by ATC.

Not applicable within Airspace C.
3.4 DEPARTURE DESIGNATION

For additional depiction refer to 10-4.

3.4.1 DEPARTURE DESIGNATION

RWYs 07L/R:

a) Between 0700-2200LT:
   - SIDs with designator ECHO may be used by all MEDIUM and LIGHT ACFT able to comply with the climb restrictions;
   - SIDs with designator DELTA shall be used by all HEAVY ACFT and by all ACFT unable to comply with the climb restrictions in SIDs with designator ECHO.

b) Between 2200-0700LT:
   - All ACFT shall use SIDs with designator DELTA.
   - NON RNAV (enroute only) equipped ACFT shall use SIDs with designator CHARLIE.

RWYs 25L/R:

a) Between 0700-2200LT:
   - SIDs with designator FOXTROT may be used by all MEDIUM and LIGHT ACFT able to comply with the climb restrictions;
   - SIDs with designator JULIETT shall be used by all HEAVY ACFT northbound able to comply with the climb restrictions;
   - SIDs with designator GOLF shall be used by all ACFT unable to comply with the climb restrictions in SIDs with designators FOXTROT or JULIETT and by all HEAVY ACFT west-, south- and southeastbound.

   EXCEPTION: ACFT via BIBOS shall use SIDs with designators FOXTROT for MEDIUM or LIGHT ACFT and GOLF for HEAVY ACFT.

b) Between 2200-0700LT:
   - All 3- and 4-engined jet ACFT, except Avroliner, BAE 146, FA50, FA90 and L29A (C140) via BIBOS, MARUN, SOBRA and TOBAK, shall use SIDs with designator NOVEMBER;
   - Single- and twin-engined ACFT shall use SIDs according to paragraphs a) & c) respectively.
   - SIDs with designator PAPA may be used by single and twin-engined propeller-driven ACFT and DASH 7 only.
   - NON RNAV (enroute only) equipped ACFT shall use SIDs with designator QUEBEQ.

RWY 18:

NON RNAV (enroute only) equipped ACFT shall use SIDs with designator CHARLIE and QUEBEQ respectively.

3.5. RWY OPERATIONS

3.5.1 HIGH INTENSITY RWY OPERATIONS (HIRO)

Cockpit checks should be completed prior to line-up and any checks requiring completion on the RWY should be kept to a minimum.

ACFT ready for departure should be in a position to taxi directly from hold upon receiving take-off clearance from FRANKFURT Tower.

When using landing direction 07, the pilot shall advise FRANKFURT Tower on initial contact of the earliest possible take-off intersection.

3.6 OTHER INFORMATION

3.6.1 GENERAL

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

3.6.2 DATALINK DEPARTURE CLEARANCE (DCL)

DFS (Deutsche Flugsicherung GmbH) is offering start-up and enroute clearances using Datalink. The procedures have been described in an AIC.

Deviations from this, in special situations (e.g. snow), enroute clearance may be transmitted via Datalink in advance after receiving a RCD, while at the appropriate time, start-up approval will be granted on the frequency specified in the CLD.

Pilots shall maintain listening watch on this frequency and shall refrain from making enquiries about the start-up approval.

The following time parameters apply:

- t_1: 25 min prior to EOBT for unregulated flights.
- t_2: 1 min prior to EOBT for ATFM regulated flights.
- t_3: 15 min prior to CTOT for ATFM regulated flights.
- t_4: 1 min prior to CTOT for ATFM regulated flights.

3.6.3 DEPARTURE MANAGEMENT SYSTEM

3.6.3.1 INTRODUCTION

To optimize the outbound process from the parking position to the RWY, a computerized Departure Management System (DMAN) calculating a departure sequence and generating target times for Start-Up and Off-Block, has been established. The target times TSAT (Target Start-Up Approval Time) and TOAT (Target Off-Block Approval Time) are generated. TOAT is published in the AIP. Push-back or taxi is to be requested at TOAT. Pilots should adhere to the assigned target times.

For any inquiries contact the back office on (94 69 690 DMAN1 (49 69 690 3626)).

The basic for the calculation of the target times is the COB (Confirmed Off-Block) which is reported by the airline or the assigned handling agent. It indicates the time when all ground handling services will be completed and the ACFT is ready to leave the parking position.

3.6.3.2 PROCEDURES

All IFR flights with ATC flight plan are taken into consideration.

STANDARD PROCEDURES

Reporting of end of ground handling (COB)

Input and update of COB

All airlines or assigned handling agents are required to deliver a COB in time, but no later than 60 minutes prior to the completion of ground handling to the Traffic Data Center using the described ways to report. Any deviation from an already published COB must immediately be reported after having become known. This must be done continuously until the actual off-block. Changes of the COB are continuously possible, the COB must be indicated in the form of a precise minute.

Responsibility for the COB

The responsibility for entering and updating the COB is in the hands of the airline, the assigned handling agent, or the pilot-in-command for all flights without handling agent.
**ATTENTION: PRINTED FROM AN EXPired REvision. Disc 01-2008**

**JEPPESEN JeppView 3.5.2.0**

**FRANKFURT/MAIN, GERMANY**

**RAPID MINIMUM ALTITUDES**

**EDDF/FRA**

**FRANKFURT/MAIN**

**Arrival**

- **120.05**
- **120.02**
- **120.01**

**Departure**

- **121.50**
- **121.35**

**Alt Set: NPA (IN on request)**

**Trans level: By ATC**

**Trans alt: 5000'**

The MRVA (Minimum Radar Vectoring Altitude) is the lowest altitude which may be used for radar vectors. 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'). Below the MRVA, IFR flights will normally be cleared on published IFR procedures only.

Altitudes in brackets apply for the period from AIRAC date in November until AIRAC date in March in order to meet required obstacle clearance at cold temperatures.

**CHANGES:**

- **17 AUG 07**
- **Eff. 30 Aug**

**SPESSART THREE ECHO (PSA 3E)**

**SPESSART THREE WHISKEY (PSA 3W)**

**RWYS 07L/R ARRIVALS**

**FROM EAST**

**SPERRART THREE ECHO (PSA 3E)**

**SPERRART THREE WHISKEY (PSA 3W)**

**RWYS 25L/R ARRIVALS**

**FROM EAST**

**STAR**

**ATIS**

*118.02 114.2*  **Alt Set: NPA (IN on request)**

**Trans level: By ATC**

**Trans alt: 5000'**

GPS/FMS equipped aircraft expect GED 07 (10-2B)/GED 25 (10-2F) Transition.

GPS/FMS equipped aircraft expect PSA 07 (10-2D)/PSA 25 (10-2H) Transition.

**STARs renumbered & revised.**

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Use of RNAV Transition Only when cleared by ATC.

FWYS OL/R RNAV Transition
PSA 07

**CHANGES:**
- RNAV transition revised.

**NOTICE:** PRINTED FROM AN EXPIRED REVISION. Disc 01-2008. MAX. 16 Feb 2008.
RNAV TRANSITION

USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

1. Alt Set: hPa (IN on request)    Trans level: By ATC    Trans alt: 5000'
2. Speed restrictions on Transition (even without profile) are always mandatory, unless cancelled by ATC.

CHANGES: RNAV transition revised.
**OSMAX 25 [OSM25]**

**RWY 25L/R**

**RNAV TRANSITION**

**GPS- OR FMS-EQUIPPED AIRCRAFT**

USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

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**PSA 25**

**RWY 25L/R RNAV TRANSITION**

**GPS- OR FMS-EQUIPPED AIRCRAFT**

USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

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**NOTES**

1. Speed restrictions on Transition (even without profile) are always mandatory, unless cancelled by ATC.

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**holding over OSMAX**

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**RNAV Transition revised.**

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**NOT TO SCALE**
1. On downwind transition expect vectors to final.

2. Speed restrictions on Transition (even without profile) are always mandatory, unless cancelled by ATC.

For RNAV SID designation refer to page 10-3A
**RNAV SID DESIGNATION**

**REFER TO CHART**

- AMUGI 1D, 1E: 10-3Q1
- ANEKI 6D, 8E: 10-3Q2
- ANEKI 5F, 5G, 4L: 10-3Q3
- BIBOS 1D, 7E: 10-3Q4
- BIBOS 6F, 6G, 6N: 10-3Q5
- BIBOS 6L, 6S: 10-3Q6
- BIBOS 7T: 10-3Q7
- DKB 6D, 4E, 3F, 4G: 10-3Q8
- DKB 2L, 5S: 10-3T
- MARUN 5D, 2E: 10-3T1
- MARUN 1F, 1J: 10-3T2
- MARUN 1N: 10-3T3
- MARUN 1T: 10-3T4
- NEKOM 2D, 2E: 10-3T5
- NEKOM 1F, 1G, 1L: 10-3T6
- NOMBO 5D, 4E, 3F, 4G: 10-3T7
- NOMBO 3L, 4S: 10-3T8
- RATIM 2D, 2E, 2F, 2G: 10-3U
- RATIM 2S: 10-3V
- ROTEN 3F, 2G, 1L, 4S: 10-3V1
- SOBRA 2D, 2E: 10-3V2
- SOBRA 1F, 1G, 2N, 1P: 10-3V3
- SOBRA 2L, 1S, 2U: 10-3V4
- SULUS 3D, 2E, 3F, 4G: 10-3V5
- SULUS 4L, 4S: 10-3V6
- TOBAG 5D, 5E: 10-3V7
- TOBAG 2F, 2J: 10-3V8
- TOBAG 3N: 10-3W
- TOBAG 2S, 3T: 10-3X
- ULKIG 3U: 10-3X1
- **RNAV SIDs renumbered.**
- **RNAV SIDs established; ANEKI SIDs transferred.**

### CHANGES:
- RNAV SIDs renumbered.
- RNAV SIDs established; ANEKI SIDs transferred.

---

**SPEED RESTRICTION**

Max 250 KT below FL100 or as by ATC.

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**ROUTING**

Initial climb clearance 4000'

Climb on runway track to 800°, via FR to FRD 5000' (FFM 5 DME outbound), turn RIGHT, 099° track, intercept FFM R-086 to AMUGI.

---

**AMUGI**

**AMUGI ONE DELTA (AMUGI 1D)**

**AMUGI ONE ECHO (AMUGI 1E)**

**RWYS 07L/R DEPARTURES**

**ONLY FOR FLIGHTS TERMINATING WITHIN EDDN AREA**

**TRANSPORT LEVEL:**

By ATC, Trans alt: 5000'

1. Contact LANGEN Radar immediately after take-off.
2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. For departure designation refer to 10-1P pages.

**NOT TO SCALE**

---

**NOT TO SCALE**

---

**NOT TO SCALE**

---
Trans level: By ATC. Trans alt: 5000'.
1. Contact LANGEN Radar immediately after take-off.
2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. For departure designation refer to 10-4P pages.

MAX 220 KT until established on MTR R-192.

ANEKI SIX DELTA (ANEKI 6D)
ANEKI EIGHT ECHO (ANEKI 8E)
RWYS 07L/R DEPARTURES
NON RNAV (ROUTE ONLY) EQUIPPED
AIRCRAFT SHALL USE SIDS WITH DESIGNATOR C.

ANEKI FIVE FOXTROT (ANEKI 5F)
ANEKI FIVE GOLF (ANEKI 5G)
ANEKI FOUR LIMA (ANEKI 4L)
RWYS 25L/R, 18 DEPARTURES

ANEKI SIX DELTA (ANEKI 6D)
ANEKI EIGHT ECHO (ANEKI 8E)

MAX 220 KT until established on FRD R-199.

ANEKI 5F, 5G
ANEKI 4L:

Initial climb clearance 4000'.

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC.
Any departure must comply with approaches to ANEKI.

Contact LANGEN Radar immediately after take-off.

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC.
Any departure must comply with approaches to ANEKI.

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

ANEKI 6D
ANEKI 8E

MAX 220 KT until established on FRD R-199.

ANEKI 5F, 5G
ANEKI 4L:

INITIAL CLIMB CLEARANCE 4000'.

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC.
Any departure must comply with approaches to ANEKI.

Contact LANGEN Radar immediately after take-off.
**SID ROUTING**

**BIBOS 1D**

Climb on runway track to 800', or FR (FRD 5 DME/FFM 2 DME outbound), turn LEFT immediately, intercept MTR R-203 inbound to D13.1 FFM, turn LEFT, intercept MTR R-288 via ODAGA → to KUSOM, turn LEFT, 252' track to GUBAX, turn RIGHT, 294' track to RAVID, turn RIGHT, 335' track via DITAM to ABAXA, turn LEFT, 328' track to BIBOS.

**BIBOS 7E**

Climb on runway track to FRD 1.6 DME (FFM 1.5 DME inbound) or 800', whichever is later, turn LEFT, 252' track to GUBAX, turn RIGHT, 294' track to RAVID, turn RIGHT, 335' track via DITAM to ABAXA, turn LEFT, 328' track to BIBOS.

**SPEED RESTRICTION**

MAX 250 KT below FL100 or as by ATC.

**CHANGES:**

SID BIBOS 9D renumbered 1D & revised. Chart reindexed.
**EDDF/FRA**

**FRANKFURT/MAIN, GERMANY**

**SID**

**BIBOS SIX LIMA (BIBOS 6L)**
**BIBOS SIX SIERRA (BIBOS 6S)**

**BY ATC**

**RWY 18 DEPARTURES**

**NON RNAV [ENROUTE ONLY] EQUIPPED AIRCRAFT SHALL USE SIDS WITH DESIGNATOR Z**

**WILL ONLY BE ASIGNED WHEN LANDING DIRECTION IS 25**

- Flights via BIBOS and UZ 29 to UK or beyond have to cross BIBOS at or above FL250, except for flights terminating within London TMA. If unable to comply, request routing via FL280 and cross BIBOS at or above FL250. Also for flights destination EDDK or continuing to UK or beyond use SID 6L.

**CHANGES:** Chart reindexed. No applicable within airspace C.

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This SID requires a minimum climb gradient of 280' per NM (4.6%) due to airspace structure.  

Gnd speed-KT:  

- 75 100 150 200 250 300  
- 280' per NM:  

- 348 466 699 832 1165 1398  

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

**Initial climb clearance 4000'**

**SPEED RESTRICTION**

- MAX 250 KT below FL100 as by ATC.

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**INITIAL CLEARANCE 1400'**

**RWY 18 DEPARTURE**

**BY ATC**

**SPEED RESTRICTION**

- MAX 250 KT below FL100 as by ATC.

---

**INITIAL CLEARANCE 1400'**

**ROUTING**

Climb on runway track to **800'**, intercept RID R-357 inbound to D7 RID **1**, turn **RIGHT**, 239° track to XAMUB, turn **RIGHT**, 320° track to MASIR, turn **RIGHT**, 335° track via RAVKI and DITAM to ABAXA, turn **LEFT**, 328° track to BIBOS.

**BIBOS 6S**

Climb on runway track to **800'**, turn **RIGHT**, intercept FFM R-233 to D14 FFM, turn **RIGHT**, intercept RID R-302 to D16 RID **2**, turn **RIGHT**, 319° track to MASIR, turn **RIGHT**, 335° track via RAVKI and DITAM to ABAXA, turn **LEFT**, 328° track to BIBOS.

**After D7 RID **3**, D16 RID **4**, BRNAV equipment necessary.

**CHANGES:** None.
1. Contact LANGEN Radar immediately after take-off.
2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Wind shears and increased turbulences must be expected when winds heavy.
4. For departure designation refer to 10-1P pages.
5. Only for flights terminating within EDMM FIR.

**SID ROUTING**

**DKB 6D, 4E: Initial climb clearance 4000'**

Climb on runway track to 800', via FR to FRD 6 DME (FFM 3 DME outbound), turn RIGHT, intercept MTR R-192, at D10.8 FFM turn LEFT, intercept 108° bearing to KNQ, turn LEFT, 103° bearing to AKONI, turn RIGHT, intercept FMM R-135/DKB R-310 inbound to DKB.

**DKB 3F, 4G: Initial climb clearance 5000'**

Climb on runway track to FFM 4.5 DME/FRD 1.5 DME or 800', whichever is later, turn LEFT towards RID, at RID 12 DME turn LEFT, intercept 118° bearing to KNG, turn LEFT, 103° bearing to AKONI, turn RIGHT, intercept FMM R-135/DKB R-310 inbound to DKB.

**SPEED RESTRICTION**

MAX 250 KT below FL100 or as by ATC. Not applicable within airspace C.

**CHANGES:** SIDs renumbered and revised.

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**SPEED RESTRICTION**

MAX 250 KT below FL100 or as by ATC. Not applicable within airspace C.

**DKB 6D, 4E:**

Climb on runway track to 800', via FR to FRD 6 DME (FFM 3 DME outbound), turn RIGHT, intercept MTR R-192, at D10.8 FFM turn LEFT, intercept 108° bearing to KNQ, turn LEFT, 103° bearing to AKONI, turn RIGHT, intercept FMM R-135/DKB R-310 inbound to DKB.

**DKB 3F, 4G:**

Climb on runway track to FFM 4.5 DME/FRD 1.5 DME or 800', whichever is later, turn LEFT towards RID, at RID 12 DME turn LEFT, intercept 118° bearing to KNG, turn LEFT, 103° bearing to AKONI, turn RIGHT, intercept FMM R-135/DKB R-310 inbound to DKB.

**DKB 5S:**

Climb on runway track to 800' or RID 12 DME, whichever is later, turn LEFT, intercept 118° bearing to KNG, turn LEFT, 103° bearing to AKONI, turn RIGHT, intercept FMM R-135/DKB R-310 inbound to DKB.

**CHANGES:** SIDs renumbered and revised.
KOENIG FOUR CHARLIE (KNG 4C)

RWYS 07L/R DEPARTURE
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 IN GERMAN AIRSPACE
SPECIAL PERMISSION NEEDED PRIOR TO FLIGHT

SPEED LIMIT: MAX 250 KT IN GERMAN AIRSPACE

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

RWYS 07L/R DEPARTURES
BRNAV equipment necessary.

Initial climb clearance 4000'

Climb on runway track to 800', turn LEFT, FRD 1.6 DME (FFM 1.5 DME inbound) or whichever is later, intercept MTR R-192, at D10.8 FFM turn LEFT, intercept 106° bearing to KNG.

Gnd speed - KT
75 100 150 200 250 300
383' per NM 479 638 957 1276 1595 1914

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

This SID requires a minimum climb gradient of 383' per NM (6.3%) until passing 2000'
MARUN ONE FOXTROT (MARUN 1F)
MARUN ONE GOLF (MARUN 1G)
MARUN ONE JULIETT (MARUN 1J)

RWYS 25L/R DEPARTURES

1. Contact LANGEN Radar immediately after take-off.
2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. For departure designation refer to 10-1P pages.

**SPEED RESTRICTION**
MAX 250 KT below FL100 or as by ATC.
Not applicable within airspace C.

**GND SPEED-KT**
230
250
270
290

climb on runway track to FFM 5 DME or climb on runway track to FFM 5 DME or

**INTERCEPT**
FFM R-259, at turn RIGHT towards TAU, but not before reaching FFM R-259, when passing 4400’ turn RIGHT to TABUM, turn LEFT, 018’ track to LIKSI, turn LEFT, 016’ track via LORPA to MARUN.

**TRANS LEVEL: By ATC**
**TRANS ALT: 5000’**

**CHANGES:** SID MARUN 1G routing text.
1. Contact LANGEN Radar immediately after take-off. SIDs are also noise abatement procedures (refer to 10-4C). Strict adherence within the limits of aircraft performance is mandatory. 2. Expect close-in obstacles. 3. Wind shears and increased turbulence must be expected when winds heavy. 4. For departure designation refer to page 10-4. SIDs transferred & established; MSA; communications.

3. Expect close-in obstacles. 4. Wind shears and increased turbulence must be expected when winds heavy. 5. For departure designation refer to page 10-4. SIDs transferred & established; MSA; communications.

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC. Not applicable within airspace C.

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC. Not applicable within airspace C.

MARUN ONE SIERRA (MARUN 1S)
RWY 18 DEPARTURE
BY ATC
WILL ONLY BE ASSIGNED WHEN LANDING DIRECTION IS RWY 25 NON RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT SHALL USE SIDS WITH DESIGNATOR Z

MARUN ONE TANGO (MARUN 1T)
RWY 18 DEPARTURE
BY ATC
NON RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT SHALL USE SIDS WITH DESIGNATOR Z

ROUTEING
Climb on runway track to 800', turn RIGHT, intercept FFM R-223 to D14 FFM, turn RIGHT, intercept RID R-302 to D16 RID, turn RIGHT, intercept FFM R-223 to TABUM, turn LEFT, 018' track to LIKSI, turn LEFT, 016' track via ALIDI to MARUN.

ROUTEING
Climb on runway track to 800', intercept RID R-357 inbound to D6.4 RID, turn RIGHT, intercept FFM R-199 to D19.4 FFM, turn RIGHT, 264' track to PIPIX, turn RIGHT, 283' track to OBOXO, turn RIGHT, 074' track to RUDUS, turn RIGHT, intercept 089' bearing to WBD, turn LEFT, 028' bearing to MABO8, turn LEFT, 017' track to TESGA, turn LEFT, 004' track via ALIDI to MARUN.

NOTE: PRINTED FROM AN EXPIRED REVISION. Disc 01-2008

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NOTICE: PRINTED FROM AN EXPIRED REVISION. DISC 01-2008.
**METRO TWO CHARLIE (MTR 2C)**

**RWYS 07L/R DEPARTURE**

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 IN GERMAN AIRSPACE

SPECIAL PERMISSION NEEDED PRIOR TO FLIGHT

**SPEED**: MAX 250 KT IN GERMAN AIRSPACE

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**ROUTE**

Climb on runway track to 800', to FR (FFM 3 DME/FMM 2 DME outbound), turn LEFT immediately, intercept MTR R-192 to FRD 1.6 DME (FFM 1.5 DME inbound) or FRD 5 DME (FFM 2 DME outbound), turn LEFT, intercept MTR R-203 inbound to MTR.

---

**METRO**

110.0 MTR
N01 16.6 E008 30.9

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**FRANKFURT**

297 FR
N05 03.9 E008 41.0

---

**NEKOM TWO DELTA (NEKOM 2D)**

NEKOM TWO ECHO (NEKOM 2E)

**RWYS 07L/R DEPARTURES**

ONLY FOR FLIGHTS TERMINATING WITHIN EDDS AREA AND DESTINATION LSZH, L52R & EDNY VIA AIRWAY N 850 AT OR BELOW FL90

---

**NEKOM 2E**

This SID requires a minimum climb gradient of 328' per NM (5.4%) until passing 2500' due to airspace structure.

Gnd speed-KT
75 100 150 200 250 300

328' per NM
410 447 547 620 860 1367 1641

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

---

**INITIAL CLIMB CLEARANCE**

5000'

---

**SID ROUTING**

NEKOM 2D
Climb on runway track to 800', via FR to FRD 6 DME (FFM 3 DME outbound), turn RIGHT, intercept MTR R-192 to D15 FFM, turn LEFT, intercept FFM R-357 to NEKOM.

NEKOM 2E
Climb on runway track to FRD 1.6 DME (FFM 1.5 DME inbound) or 800', whichever is later, turn RIGHT, intercept FFM R-199, at D10.3 FFM turn LEFT, intercept RID R-357 inbound to RID, turn LEFT, RID R-163 to NEKOM.

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**CHANGES**:

Restrictions established.

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1. Contact LANGEN Radar immediately after take-off.
2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. For departure designation refer to 10-1P pages.

These SIDs require a minimum climb gradient of 316° per NM (5.2%) until passing 2500' due to airspace structure.

Delivery prior to start-up.
SID

**FRANKFURT/MAIN, GERMANY**

**JeppView 3.5.2.0**

**10-3L6**

**10 OCT 07**

**Eff. 25 Oct**

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**CHANGES:** SID N35 renumbered 45 & revised.

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**SID**

**FRANKFURT/MAIN, GERMANY**

**JeppView 3.5.2.0**

**10-3L6**

**10 OCT 07**

**Eff. 25 Oct**

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**CHANGES:** SID N35 renumbered 45 & revised.
**RATIM TWO SIERRA (RATIM 2S)**

**RWY 18 DEPARTURE**

ONLY PROP ACFT WITH MAX FL230 REQUESTED INSTEAD OF NOMBO SIDS

NOT FOR FLIGHTS TERMINATING WITHIN EDDN AREA OR EDMM FIR

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**SPEED RESTRICTION**

MAX 250 KT below FL100 or as by ATC.

Not applicable within airspace C.

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**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.

---

**INITIAL CLIMB CLEARANCE**

4000'

---

**ROUTING**

Climb on runway track to **800'** or RID 12 DME, whichever is later, turn LEFT, intercept 118° bearing to RED, turn LEFT, 103° bearing via AKONI to RATIM.

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**CHANGES:**  SID renumbered & revised.

1. Contact LANGEN Radar immediately after take-off.
2. Contact LANGEN Radar immediately after take-off.
3. RWY 18: Wind shears and increased turbulences must be expected when winds heavy. For departure designation refer to 10-1P pages.
4. If unable to comply, flight plan shall read: RUDOTT220 - Y 180 - DKF RFL

ROTEN THREE FOXTROT (ROTEN 3F)
ROTEN TWO GOLF (ROTEN 2G)
ROTEN ONE LIMA (ROTEN 1L)
ROTEN FOUR SIERRA (ROTEN 4S)

RWYS 25L/R, 18 DEPARTURES
ONLY FOR FLIGHTS TERMINATING WITHIN EDDN AREA

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC. Not applicable within airspace C.

ROTEN THREE FOXTROT (ROTEN 3F)
ROTEN TWO GOLF (ROTEN 2G)
ROTEN ONE LIMA (ROTEN 1L)
ROTEN FOUR SIERRA (ROTEN 4S)

RWYS 25L/R, 18 DEPARTURES

These SIDs require minimum climb gradients of

**316° per NM (9.2°) until passing 2500° due to airspace structure.**

**ROTEN 3F, 2G:**

**365° per NM (9.3°) until passing 2500° due to airspace structure.**

**ROTEN 4S:**

**356° per NM (9.3°) until passing 2500° due to airspace structure.**

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

**ROTEN 4S:**

MAX 220 KT until established on 118° brg

And expect routing via ROTEN 1L

**3F, 2G:** Initial climb clearance - 5000°
**4S:** Initial climb clearance - 4000°

**SBOA TWO DELTA (SBOA 2D)**
**SBOA TWO ECHO (SBOA 2E)**

**RWYS 07L/R DEPARTURES**

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250 VIA AIRWAYS Y 180/Y 181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOTT AT OR ABOVE FL240

**SBOA TWO DELTA (SBOA 2D)**
Max 220 KT until established on MTR R-192

**SBOA TWO ECHO (SBOA 2E)**
Max 220 KT until established on FFm R-199

**D10.3 FFM**
At or above 4000°

**D9 FFM**
At or above FL110

**D18 FFM**
At or above FL90

**D12.3 FFM**
At or above FL60

**FFM**
At or above FL40

**118° brg**

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

**Initial climb clearance 4000°**

**SBOA 2D**

Climb on runway track to **800°**, via FR to FRD 6 DME (FFM 3 DME outbound), turn RIGHT, intercept MTR R-192 to D18 FFM, turn RIGHT, intercept FFm R-199 to D9 FFM, turn RIGHT, 283° track via ROSIG and DONAB to SBOA.

**SBOA 2E**

Climb on runway track to FRD 1.6 DME (FFM 1.5 DME inbound) or **800°**, whichever is later, turn RIGHT, intercept FFm R-199, at D17.3 FFM turn LEFT, 283° track via ROSIG and DONAB to SBOA.
SIDs are also noise abatement procedures (refer to 10-4C). Strict adherence within the limits of aircraft performance is mandatory.

1. Contact LANGEN Radar immediately after take-off.

2. If unable to comply, flight plan shall read: RUDOT FL220 - Y 180 - DIK RFL.

3. For departure designation refer to page 10-4.

4. Wind shear and increased turbulence must be expected when winds heavy.

5. For departure designation refer to page 10-4.

6. Speed restriction

   MAX 250 KT below FL100 or as by ATC.

   MAX 220 KT above FL100.

7. Speed restriction

   MAX 250 KT below FL100

   Gnd speed KT 75 100 150 200 250 300

   MAX 220 KT

   Gnd speed KT 570 760 1139 1519 1880 2278

   MAX 250 KT

   Gnd speed KT 410 547 820 1094 1367 1641

At or below FL100

At or above FL100

These SIDs require minimum climb gradients of 46° per NM (7.5%) until passing FL90 due to airspace structure. If unable to comply advise FRANKFURT delivery prior to start-up and expect routing via SOBRA 2U.

32° per NM (5.4%) until passing FL90 due to airspace structure. If unable to comply advise FRANKFURT delivery prior to start-up and expect routing via UJKIG 3U.

Initial climb clearance 5000’

Initial climb clearance 4000’
These SIDs require 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.

SULUS 3F, 4G: Initial climb clearance 4000'

If unable to comply advise FRANKFURT Delivery prior to start-up and expect routing via SULUS 4L.

SULUS 2F, 3G renumbered 3F, 4G & revised.
TAUNUS ONE QUEBEC (TAU 1Q)
RWYS 25L/R DEPARTURE
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 IN GERMAN AIRSPACE
SPECIAL PERMISSION NEEDED PRIOR TO FLIGHT
SPEED MAX 250 KT IN GERMAN AIRSPACE

Initial climb clearance 5000'

Climb on runway track to FFM 5 DME or 800', whichever is later, turn RIGHT, 276° track (RWY 25L: 279° track), intercept FFM R-259, at 3500' turn RIGHT to TAU, but not before reaching FFM R-259.

TOBAK FIVE DELTA (TOBAK 5D)
TOBAK FIVE ECHO (TOBAK 5E)
RWYS 07L/R DEPARTURES
NOT FOR FLIGHTS CONTINUING VIA
AIRWAY Z 10 - GISEM - AIRWAY N 850 - WRB

Initial climb clearance 5000'

Climb on runway track to 800', whichever is later, turn LEFT, 276° track (RWY 25L: 279° track), intercept FFM R-259, 3500' turn RIGHT to TAU, but not before reaching FFM R-259.

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC.
Not applicable within airspace C.
Tobak Two Foxtrot (Tobak 2F)
Tobak Two Golf (Tobak 2G)
Tobak Two Juliett (Tobak 2J)

RWYS 25L/R Departures
Not for Flights Continuing Via
Airway Z 10 - GISEM - Airway N 850 - WRB

No RNAV Overlay existing.

SPEED RESTRICTION
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 FFM 8.4 DME (4.5 NM after DER) due to airspace structure.

Initial climb clearance 5000'

Routing

1. Climb on runway track to FFM 5 DME or 800', whichever is later, turn RIGHT, 276° track (RWY 25L: 279° track) to FFM 8.4 DME, turn RIGHT, intercept FFM R-259, at 3500', turn RIGHT towards TABUM, 041° track to TESGA, turn LEFT, 039° track to TOBAK.

2. Climb on runway track to FFM 5 DME or 800', whichever is later, turn RIGHT, 039° track to TABUM, turn LEFT, 039° track to TOBAK.

After D11.4 TAU a) (passing 4400') B RNAV equipment necessary.

CHANGES: SID TOBAK 2G routing text.
1. Contact LANGEN Radar immediately after take-off.
2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Expect close-in obstacles.
4. For departure designation refer to 10-1P pages.

TOBAK TWO SIERRA (TOBAK 2S) WILL ONLY BE ASSIGNED WHEN LANDING DIRECTION IS RWY 25

TOBAK THREE TANGO (TOBAK 3T) RWY 18 DEPARTURES BY ATC

NON RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT

SHALL USE SIDS WITH DESIGNATOR Z

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250 VIA AIRWAYS Y 180/ Y 181 NOT IN CASE TO COMPLY, FLIGHT PLAN SHALL READ:

RUDUS FL220 - Y 180 - DIX REL

NON RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT

shall use SIDS with Designator Z

SPEED RESTRICTION MAX 250 KT below FL100 or as by ATC.

Not applicable within airspace C.

WARNING Wind shears and increased turbulences must be expected when winds heavy.

SPEED RESTRICTION MAX 250 KT below FL100 or as by ATC.

Not applicable within airspace C.

Initial climb clearance 4000'
AMUGI ONE DELTA (AMUGI 1D) [AMUG1D]
AMUGI ONE ECHO (AMUGI 1E) [AMUG1E]
RWYS 07L/R RNAV DEPARTURES (OVERLAY 10-3B)
ONLY FOR FLIGHTS TERMINATING WITHIN EDDN AREA

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

LANGEN Radar 120.15
Apt Elev 364'
Initial climb clearance 4000'

MWL
1. Contact LANGEN Radar immediately after take-off.
2. SIDs are also noise abatement procedures (refer to 10-4). Strict ad-
herence within the limits of aircraft performance is mandatory.
3. For departure designation refer to 10-1P pages.

LANGEN Radar 136.12
Apt Elev 364'
Initial climb clearance 4000'

ANEKI SIX DELTA (ANEKI 6D) [ANEK6D]
ANEKI EIGHT ECHO (ANEKI 8E) [ANEK8E]
RWYS 07L/R RNAV DEPARTURES (OVERLAY 10-3C)

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

ANEKI

This SID requires a minimum climb gradient of
328' per NM (5.4%) until passing 2500' due to
airspace structure.

Gnd speed-KT 75 100 150 200 250 300
328' per NM 410 547 820 1094 1367 1641

If unable to comply advise FRANKFURT
Delivery prior to start-up.
**BIBOS ONE DELTA (BIBOS 1D)**

**BIBOS SEVEN ECHO (BIBOS 7E)**

**RWYS 07L/R RNAV DEPARTURES (OVERLAY 10-3E)**

**RNAV SID (OVERLAY)***

**Trans level: By ATC. Trans alt: 5000’**

1. Contact LANGEN Radar immediately after take-off.
2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. For departure designation refer to 10-1P pages.

**Contact LANGEN Radar immediately after take-off.**

**Radar noise abatement procedures (refer to 10-4).**

**Strict adherence within the limits of aircraft performance is mandatory.**

**For departure designation refer to 10-1P pages.**

**Max 250 KT below FL100**

**Max 250 KT below FL100**

**FL250, except for flights terminating within London TMA.**

**If unable to comply, request routing via FL210.**

**Also for flights destination EDDK or continuing to UK or beyond.**

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

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

**Not applicable within airspace C.**

**SPEED RESTRICTION**

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

**Not applicable within airspace C.**

**IF UNABLE TO COMPLY ADVISE FRANKFURT DELIVERY PRIOR TO START-UP.**

**INITIAL CLimb CLEARANCE 5000’**
**TRANSPORT LEVEL: BY ATC**

- Trans alt: 5000’
- Trans level: By ATC

**NOTICE**
- FL250, not applicable within airspace C.
- FL210, not applicable within airspace C.
- Speed restriction: Max 250 KT below FL100 or as BY ATC.
- Not applicable within airspace C.

**CHANGES**
- Chart reindexed.
- Chart reindexed.

---

**BIBOS SIX FOXTROT (BIBOS 6F) [BIBO6F]**

**BIBOS SIX GOLF (BIBOS 6G) [BIBO6G]**

**BIBOS SIX NOVEMBER (BIBOS 6N) [BIBO6N]**

**RWY 18 RNAV DEPARTURES (OVERLAY 10-3G)**

**NOT TO SCALE**

**SPEED RESTRICTION**
Max 250 KT below FL100 or as BY ATC.
Not applicable within airspace C.

**INITIAL CLimb CLEARANCE**
5000'

**INITIAL CLimb CLEARANCE**
4000'

**SID**

**ROUTING**

**SID**

**ROUTING**

---

**CHANGES**
- Chart reindexed.
- Chart reindexed.
**TRANSLATION OF THE DOCUMENT**

1. Contact LANGEN Radar immediately after take-off. 
2. SIDs are also noise abatement procedures (refer to 10-4). 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 heavy. 
5. For departure designation refer to 10-1P pages.

**SPEED RESTRICTION**

MAX 250 KT below FL100 
or as by ATC.

Not applicable within airspace C.

**ROUTING**

**INITIAL CLIMB CLEARANCE**

4000'

**AKER**

N49 56.9 E007 12.5

**ABAXA**

N50 45.9 E007 23.2

**ANON**

N50 33.5 E007 31.8

**BIBOS**

N50 36.9 E007 12.5

**BIBOS SEVEN TANGO (BIBOS 7T) (BIBO7T)**

**RWY 18 RNAV DEPARTURE**

(OVERLAY 10-3H)

**BY ATC**

**TRANSLATION OF THE DOCUMENT**

1. Contact LANGEN Radar immediately after take-off. 
2. SIDs are also noise abatement procedures (refer to 10-4). 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 heavy. 
5. For departure designation refer to 10-1P pages.

**SPEED RESTRICTION**

MAX 250 KT below FL100 
or as by ATC.

Not applicable within airspace C.

**ROUTING**

**INITIAL CLIMB CLEARANCE**

4000'

**AKER**

N49 56.9 E007 12.5

**ABAXA**

N50 45.9 E007 23.2

**ANON**

N50 33.5 E007 31.8

**BIBOS**

N50 36.9 E007 12.5

**BIBOS SEVEN TANGO (BIBOS 7T) (BIBO7T)**

**RWY 18 RNAV DEPARTURE**

(OVERLAY 10-3H)

**BY ATC**
**Radar** Contact LANGEN Radar immediately after take-off.

**SIDs** are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.

1. For departure designation refer to 10-1P pages.

2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.

3. For departure designation refer to 10-1P pages.

**Speed Restriction**

Max 250 KT below FL100 or as by ATC. Not applicable within airspace C.

**Initial climb clearance** 4000'
MARUN ONE FOXTROT (MARUN 1F) [MARU1F] MARUN ONE JULIETT (MARUN 1J) [MARU1J] RWYS 25L/R RNAV DEPARTURES (OVERLAY 10-3J4)

**Contact LANGEN Radar immediately after take-off.**

For departure designation refer to 10-1P pages. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.

- Initial climb clearance: **5000'**

**SPEED RESTRICTION**

Max 250 KT below FL100 or as by ATC. Not applicable within airspace C.

These SIDs require a minimum climb gradient of 7.29° per NM (12%) unless FFM 8.4 DME (4.5 NM after DER) due to airspace structure.

**INITIAL CLimb CLEARANCE 5000'**

**RoutIng**

- **(3300')** - DF134 (25R)/DF135 (25L) - DF162 (25R; K220-) - DF165 (25L; K220-) - DF166
- **(800')** - DF234 (25R)/DF235 (25L) - DF233 (3300') - DF132 (4400') - TABUM - LIKSI - LTORPA - MARUN.

**ChAngeS:** Chart reference in heading.

**NOT TO SCALE**

**CHANGES:** Chart reference in heading.
1. Contact LANGEN Radar immediately after take-off. 2. SIDs are also noise abatement procedures (refer to 10-4C). 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 heavy. 5. For departure designation refer to page 10-4.

MARUN ONE SIERRA
(MARUN 1S) [MARU1S]
RWY 18 RNAV DEPARTURE
(OVERLAY 10-3K)
BY ATC
WILL ONLY BE ASSIGNED WHEN LANING DIRECTION IS RWY 25

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

Initial climb clearance 4000'

MARUN ONE TANGO
(MARUN 1T) [MARU1T]
RWY 18 RNAV DEPARTURE
(OVERLAY 10-3L)
BY ATC

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

Initial climb clearance 4000'
NEKOM ONE FOXTROT (NEKOM 1F) [NEKO1F]
NEKOM ONE GOLF (NEKOM 1G) [NEKO1G]
NEKOM ONE LIMA (NEKOM 1L) [NEKO1L]

RWYS 25L/R, 18 RNAV DEPARTURES (OVERLAY 10-3L3)
ONLY FOR FLIGHTS TERMINATING WITHIN EDDS AREA AND DESTINATIONS LSZH, LSZS & EDNY VIA AIRWAY N 850 AT OR BELOW FL90

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC.
Not applicable within airspace C.

NEKOM ONE ECHO (NEKOM 2E) [NEKO2E]

RWYS 07L/R RNAV DEPARTURES (OVERLAY 10-3L2)
ONLY FOR FLIGHTS TERMINATING WITHIN EDDS AREA AND DESTINATIONS LSZH, LSZS & EDNY VIA AIRWAY N 850 AT OR BELOW FL90

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC.
Not applicable within airspace C.

Initial climb clearance - 4000'
**TRANSLATION OF TEXT:**

**TRANSLATED NOTICE:**

**JeppView 3.5.2.0**

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NOTICE: PRINTED FROM AN EXPIRED REVISION. Disc 01-2008

**Translation:**

**RNAV SIDs (OVERLAY) FRANKFURT/MAIN, GERMANY**

**1.** Contact LANGEN Radar immediately after take-off.

**2.** SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.

**3.** Wind shears and increased turbulences must be expected when winds heavy.

**4.** For departure designation refer to 10-1P pages.

**SPEED RESTRICTION**

MAX 250 KT below FL100 or as by ATC.

**Not applicable within airspace C.**

**TRANSLATED NOTICE:**

**JeppView 3.5.2.0**

Licensed to max. Printed on 16 Feb 2008.

NOTICE: PRINTED FROM AN EXPIRED REVISION. Disc 01-2008

**Translation:**

**RNAV SIDs (OVERLAY) FRANKFURT/MAIN, GERMANY**

**1.** Contact LANGEN Radar immediately after take-off.

**2.** SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.

**3.** Wind shears and increased turbulences must be expected when winds heavy.

**4.** For departure designation refer to 10-1P pages.

**SPEED RESTRICTION**

MAX 250 KT below FL100 or as by ATC.

**Not applicable within airspace C.**
RATIM TWO DELTA (RATIM 2D) [RAT12D]
RATIM TWO ECHO (RATIM 2E) [RAT12E]
RATIM TWO FOXTROT (RATIM 2F) [RAT12F]
RATIM TWO GOLF (RATIM 2G) [RAT12G]

RWYS 07L/R, 25L/R RNAV DEPARTURES (OVERLAY 10-3L6)
ONLY PROP ACFT WITH MAX FL230 REQUESTED INSTEAD OF NOMBO RNAV SIDS
NOT FOR FLIGHTS TERMINATING WITHIN EDDN AREA OR EDMM FIR

SPEED RESTRICTION
Max 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

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

MAX 250 KT below FL100
At or above 2500'
**ROTHEN THREE FOXROT (ROTHEN 3F) [ROTE3F]**

**ROTHEN TWO GOLF (ROTHEN 2G) [ROTE2G]**

**ROTHEN ONE LIMA (ROTHEN 1L) [ROTEIL]**

**ROTHEN FOUR SIERRA (ROTHEN 4S) [ROTE4S]**

RWYS 25L/R, 18 RNAV DEPARTURES (OVERLAY 10-3M)

*FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250 FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240*

**SPEED RESTRICTION**

MAX 250 KT below FL100

or as by ATC.

Not applicable within airspace C.

**Initial climb clearance**

4000' on or as by ATC.

Rotation level: By ATC. Trans alt: 5000' after take-off. SIDs are also noise abatement procedures (refer to 10-4).

1. Contact LANGEN Radar immediately after take-off.
2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. For departure designation refer to 10-1P pages.
SIDs are also noise abatement procedures (refer to 10-4C). Strict adherence within the limits of aircraft performance is mandatory. For departure designation refer to page 10-4.

These SIDs require minimum climb gradients of

456' per NM (7.5%) until passing FL90 due to airspace structure. If unable to comply advise FRANKFURT Delivery prior to start-up and expect routing via SOBRA 2U.

328' per NM (5.4%) until passing FL90 due to airspace structure. If unable to comply advise FRANKFURT Delivery prior to start-up and expect routing via ULKIG 3U.

Initial climb clearance 5000'
1. Contact LANGEN Radar immediately after take-off.
2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. For departure designation refer to 10-1P pages.

**SPEED RESTRICTION**

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 FFM 8.4 DME (4.5 NM after DER) due to airspace structure.

Initial climb clearance 5000'

**ROUTING**

(800'-) - DF149 - MTR - TOBAK.

Initial climb clearance 5000'

**ROUTING**

(800'-) - DF234 (25R)/DF235 (25L) - DF233 (3500'-) - DF132 (4400'-) - TABUM - TESGA - TOBAK.

Initial climb clearance 5000'

**ROUTING**

(800'-) - DF234 (25R)/DF235 (25L) - DF233 (3500'-) - DF132 (4400'-) - TABUM - TESGA - TOBAK.
TOBAK THREE NOVEMBER (TOBAK 3N) [TOBA3N]
RWYS 25L/R RNAV DEPARTURE (OVERLAY 10-3N8)
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z 10 - GISEM - AIRWAY N 850 - WRB

TOBAK TWO SIERRA (TOBAK 2S) [TOBA2S]
WILL ONLY BE ASSIGNED WHEN LANDING DIRECTION IS RWY 25

TOBAK THREE TANGO (TOBAK 3T) [TOBA3T]
RWY 18 RNAV DEPARTURES (OVERLAY 10-3P)

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

NOT TO SCALE
ULKIG THREE UNIFORM (ULKIG 3U) [ULKI3U] RWY 18 RNAV DEPARTURE (OVERLAY 10-3Q)

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 IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
RUDOT FL220 - Y 180 - DIK RFL

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC. Not applicable within airspace C.

Initial climb clearance 4000'

ROUTING
(800') - DF160 (K220) - DF200 (K250) - PIPIX (K250) - GISNO (K250) - ULKIG.

NOISE ABATEMENT
DO NOT TAXI BEYOND AREA OF APRON CONTROL W/ OUT CLEARANCE FROM FRANKFURT APRON.

For use of Twy B EAST and for departure from stands East of Twy E refer to 10-1P pages.

Limit of APRON WEST control competence
Parking position
One way taxiway
CAT II/III Stop bar
Taxi guidance lines
118'/36m max wingspan
Blast fence (10'/3m height)
Wing-tip clearance for B747-400 less than 16'/5m to be considered.

BY-PASS AREA

TERMINAL 1

RWY 07L/25R
RWY 07R/25L

TERMINAL 2

RUN-UP POSITION C

TERMINAL 2

TERMINAL 3

RWY 07L/25R
RWY 07R/25L

TERMINAL 1

TERMINAL 3

TERMINAL 2

TERMINAL 1

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TERMINAL 1
### CHANGES:

- V148 & V149 added.

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**HALS marking and lighting elements**

In addition to the existing lighting and marking elements on rwy 26L, the airport had to develop rwy lighting and markings for the second threshold that could be clearly differentiated from the existing ones. To achieve this requirement, the second threshold had to be deviated from present international standards. Only the 300m bar and the PAPI will remain unchanged.

**Touchdown Point Marking**

A pair of three single white stripes which are located one behind the other and arranged in steps towards the rwy axis.

**Touchdown Zone Lighting**

The lighting is installed in the area of the Touchdown Point Marking and will emphasize their shape. Three high intensity white lights are located at the outer ends of each individual element of the Touchdown Point Marking.

**Touchdown Zone Marking**

A pair of rectangular markings which are similar to a checker pattern and appear as unbroken white areas from a greater distance.

**Threshold Lighting and Marking**

Row of high-intensity green surface lights. In the central portion a gate is formed not exceeding 40% of the rwy width. A clear differentiation from the first threshold will be achieved through an extension of the light bars beyond the rwy edge. Two additional alternating flashing lights are installed at the light bars outer edges.

The rectangular markings show the same checker board structure as the threshold marking. The gap within the markings will carry the designator 26L. Threshold 26L is marked by two parallel arrows located in front of the transverse stripes.

**Approach Lighting System**

HALS provided on either side of the rwy over a distance of 900m from THR 26L. It consists of white light rows which are arranged in a staggered pattern in the direction of approach. Sequenced flashing lights are installed in the outer portion of the HALS.

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### INS COORDINATES

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**NOSE-IN PARKING PROCEDURES**

**GENERAL**
The visual guidance system for nose-in parking positions AGNIS (Aircraft Guidance for Nose-In Stands) consists of the following elements:
1. CENTERLINE GUIDANCE ELEMENT
2. YELLOW CENTERLINE
3. STOP ELEMENT - MARKER BOARD

**CAUTION**
The system is aligned with the left hand pilot seat only. In case of AGNIS failure, nose-in parking should be guided by marshaller.

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

**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.

**SIGHTING SLOT**
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.

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**AGNIS CENTRE LINE GUIDANCE STOP ELEMENT - MARKER BOARD**

<table>
<thead>
<tr>
<th>B-747</th>
<th>other types</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAC I-11</td>
<td>other types</td>
</tr>
</tbody>
</table>

All types continue taxing. BAC I-11 stop. B-747 continue taxing.

---

**LIGHT TUBE**

<table>
<thead>
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</tr>
</tbody>
</table>

Other types stop. B-747 continue taxing.
MISSED APCH RNAV: Climb on track 068° via FR Lctr to DF278 or 5000', whichever is later, then turn RIGHT to RID VOR and maintain 5000'.

NON-RNAV: Climb on track 068° to FFM VOR, then turn LEFT to TAU VOR maintain 5000'.

Descent angle: 3.0°/TCH 50°

MAP at RWY7L

CHANGES: Fix designation withdrawn.
**JeppView 3.5.2.0**

**EDDF/FRA**

**FRANKFURT/MAIN, GERMANY**

**VOR Rwy 07L**

**ATS Arrival**

**Final Approach**

**Minimum Alt**

**MDA**

**Apt Elev**

**Rwy elev**

**Miscellaneous**

**4300'**

**FFM**

**Apch Crs**

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JeppView 3.5.2.0

EDDF/FRA
FRANKFURT/Main, Germany
NDB Rwy 07L

<table>
<thead>
<tr>
<th>*ATIS Arrival</th>
<th>LANGEI Radar (APP)</th>
<th>FRANKFURT Director (APP)</th>
<th>FRANKFURT Arrival (APP)</th>
<th>FRANKFURT Tower</th>
</tr>
</thead>
<tbody>
<tr>
<td>118.02 114.2</td>
<td>120.8 125.3</td>
<td>127.27</td>
<td>118.5</td>
<td>119.9</td>
</tr>
</tbody>
</table>

Lctr	Final	Apch Crs	Minimum Alt	MDA(H)	Apt Elev	Alt Set:
FW	382	See Below	2000'	830' (501')	364'

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

*FRANKFURT Arrival (APP)

South

Final

Minimum Alt MDA(H)

Lctr

Apt Elev

Alt Set: hPa (IN on req) Rwy Elev: 12 hPa

Descent Gradient

MAP at D1.7 FRD

PANS OPS 4

<table>
<thead>
<tr>
<th>JAR-OPS</th>
<th>STRAIGHT-IN LANDING Rwy 07L</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>RVR 1000m</td>
</tr>
<tr>
<td>B</td>
<td>RVR 1200m</td>
</tr>
<tr>
<td>C</td>
<td>RVR 1600m</td>
</tr>
</tbody>
</table>

RVR

AIS out

CHANGES: Communications. Procedure.