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Airport Information For LEBB

Terminal Charts For LEBB

Revision Letter For Cycle 13-2016

Change Notices

Notebook

General Information

Location: BILBAO ESP
ICAO/IATA: LEBB / BIO
Lat/Long: N43° 18.07', W002° 54.63'
Elevation: 136 ft

Airport Use: Public
Daylight Savings: Observed
UTC Conversion: -1:00 = UTC
Magnetic Variation: 1.0° W

Fuel Types: 100 Octane (LL), Jet A-1
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: Yes
Beacon: No

Sunrise: 0431 Z
Sunset: 1955 Z

Runway Information

Runway: 10
Length x Width: 6266 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 116 ft
Lighting: Edge, ALS

Runway: 12
Length x Width: 8530 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 131 ft
Lighting: Edge, ALS, Centerline

Runway: 28
Length x Width: 6266 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 118 ft
Lighting: Edge
Displaced Threshold: 1821 ft

Runway: 30
Length x Width: 8530 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 134 ft
Lighting: Edge, ALS, Centerline, TDZ
Displaced Threshold: 1509 ft

Communication Information

ATIS: 118.825

Bilbao Tower: 118.500

Bilbao Tower: 25.780 Military

Bilbao Ground: 121.700

Bilbao Approach: 128.575 Secondary

Bilbao Approach: 127.450

LEBB/BIO
BILBAO**JEPPESEN**
27 NOV 15

10-1P

Eff 10 Dec

BILBAO, SPAIN**AIRPORT BRIEFING****1. GENERAL****1.1. ATIS**

*D-ATIS 118.825

1.2. NOISE ABATEMENT PROCEDURES**1.2.1. RUN-UP TESTS**

Run-up test higher than idle regime will be requested to CECOPS through SITA or fax.

Run-up tests at medium or high regime are not allowed between 2400-0600 LT.

1.3. LOW VISIBILITY PROCEDURES (LVP)**1.3.1. GENERAL**

Low visibility take-offs are authorized from RWY 30.

LVP shall be applied for take-off, when RVR measurement of any transmissometer is 500m or below, or, in case transmissometers are out of service, visibility is 800m or below.

Pilots shall be informed about the application of LVP by the appropriate ATIS service with the phraseology "Low Visibility Procedure in force".

During LVP, de-icing is only available on stand 13.

LVP shall be cancelled when RVR measurements of every transmissometer are higher than 1000m, or the visibility is higher than 1000m in case transmissometers are out of service and meteorological conditions have a strong tendency to improve.

Operation of Code F ACFT not allowed during LVP.

1.3.2. GROUND MOVEMENT**1.3.2.1. GENERAL**

When the RVR is 1000m or below, in addition to appropriate lighting, stop bars that protect the RWY access and lights of intermediate holding positions will be activated.

Pilots shall verify at every moment the ACFT position, checking that taxiing is being executed under total safety conditions. In case of being disoriented or in doubt, pilots shall stop the ACFT and immediately notify TWR.

When a departing ACFT needs to return to the apron, the pilot shall inform TWR and wait for new taxiing instructions.

1.3.2.2. ARRIVAL

ACFT that have already landed, shall

- notify RWY vacated and TWY used when all the TWY centerline lights have become green instead of green-yellow;
- wait for taxiing instructions from TWR.

North Apron:

RWY 30 in use: ACFT shall leave RWY by TWY C5, or C6 and then taxi via TWY T to gate B, A1 or A2 (according to the parking assigned and ATC instructions), where a "Follow-me" vehicle will be waiting.

South Apron:

RWY 30 in use: Traffic shall be instructed to leave the RWY by gate D1 to proceed to the stand guided by a "Follow-me" vehicle.

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27 NOV 15 (10-1P1)

Eff 10 Dec

BILBAO, SPAIN
AIRPORT BRIEFING**1. GENERAL****1.3.2.3. DEPARTURE****From North Apron:**

RWY 30 in use: ACFT shall leave the apron via gate B, A1 or A2, according to ATC instructions. It shall taxi via TWY T to the RWY holding position K1, or C2, or C1, according to ATC instructions.

From South Apron:

RWY 30 in use: ACFT shall be guided by a "Follow-me" vehicle and shall leave the apron by D3. It shall taxi to the RWY holding position in TWY D1, where it shall wait for ATC clearance to cross the RWY in use. The "Follow-me" vehicle guidance shall be made to the North apron. ACFT shall keep on taxiing on TWY T to the RWY holding position K1, or C2, or C1, according to ATC instructions.

1.3.3. ANOMALOUS OCCURRENCES IN MANOEUVRING AREA**Uncertainty regarding the Position on the Manoeuvring Area**

If a pilot is in doubt about the position of the ACFT relative to the manoeuvring area, he shall immediately stop the ACFT and shall notify ATC (including the last known position).

In situations where the pilot doubts about the position of the ACFT with reference to the manoeuvring area, but recognizes that the ACFT is on a RWY, he shall immediately notify ATC (including the last known position). He shall evacuate the RWY as soon as possible if he is able to locate an appropriate near TWY, unless ATC stated otherwise, and then stop the ACFT.

Loss of Visual Contact between Traffic

In case of loss of visual contact between an ACFT and another, or a vehicle with its own separation, ATC shall immediately be informed and the ACFT shall stop. ATC will then take necessary actions.

Failure of an ACFT

ACFT shall notify the situation to ATC and wait for the arrival of assistance. In case it is on a RWY, if possible and if ATC does not indicate the contrary, shall evacuate the RWY.

1.3.4. COMMUNICATION FAILURE

Departure ACFT shall continue on the assigned route and stop at the limit of the ATC clearance, taking extreme caution, where it shall maintain position and shall wait for the arrival of an assistance vehicle.

If an arriving ACFT has just landed, it shall maintain position when leaving and shall wait for the arrival of an assistance vehicle.

If the ACFT already had a taxiing ATC clearance, it shall continue on the assigned route to the limit of such authorization, taking extreme caution, then maintain position and wait for the arrival of an assistance vehicle.

1.4. TAXI PROCEDURES

- TWY A1 and C1 restricted to MAX Code C ACFT.
- TWY S1 restricted to MAX Code A ACFT.
- Taxiing via TWYs A1 and A2 not authorized if ACFT with code letter E leaves stand 111.
- Taxiing via TWY T3 or T4 is not allowed if an ACFT is on holding position C4.
- Taxiing of ACFT with code letter E via TWY T1 not authorized if other ACFT is on de-icing aprons.
- Taxiing of ACFT with code letter E in the curved sections of TWYs C2 and C6 must be made with oversteering manoeuvre.
- Code letter F ACFT Antonov-124 must use an oversteering manoeuvre on the access TWY to the stand after entering via TWY D3.

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27 NOV 15

10-1P2

Eff 10 Dec

BILBAO, SPAIN

AIRPORT BRIEFING

1. GENERAL**1.5. PARKING INFORMATION****South Apron**

- Stand 7 push-back required if stand 8 is occupied, towed exit for ACFT longer than A320.
- Stand 8 push-back required if stand 9 is occupied, towed exit for ACFT longer than A320.
- Stand 9 push-back required if stand 10 is occupied, towed exit for ACFT longer than A320.
- Stand 10 push-back required if stand 11 is occupied, towed exit for ACFT longer than A320.
- Stand 11 towed exit for ACFT longer than A320.
- Stand 89 push-back required.
- Stands H1 thru H5 are helicopter stands.

North Apron

- Stand 7 push-back required if stand 8 is occupied, towed exit for ACFT longer than A320.
- Stand 9 push-back required if stand 8 is occupied.
- On stands 12 and 13 push-back required when stand 123 is occupied, towed exit for ACFT longer than CRJ2.
- Stand 14 thru 17 towed exit for ACFT longer than CRJ2.
- Stand 19 push-back required if stand 20 is occupied.
- Stand 21 push-back required if stand 20 is occupied, towed exit for ACFT longer than A320.
- Stands 1 thru 6A, 8, 11, 11A, 20, 78, 89 and 123 push-back required.
- Stands H12 and H21 are helicopter stands.

1.6. OTHER INFORMATION**1.6.1. GENERAL**

RWYs 10 and 30 right-hand circuit.

Apron South not visible from Control Tower.

The minimum vertical margin for the wheel clearance is not sufficient for code E ACFT and code F ACFT Antonov-124.

PAPI RWY 12/30 not usable for code E ACFT and code F ACFT Antonov-124.

1.6.2. WIND PHENOMENA

With upper winds from the SW and surface winds with a southerly component, shear effects associated to moderate to severe turbulence appear in different forms:

- Strong vertical wind gradient, in general with a significant crosswind component of direction from 170° to 230° and intensity above 20 KT.
- Situations where low-level wind is funneled through the valley, generating vertical wind shear with surface winds of direction from 120° to 150° and intensity of 15 to 25 KT.

These situations are encountered most frequently from October to March.

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27 NOV 15 **10-1P3**

BILBAO, SPAIN
Eff 10 Dec **AIRPORT BRIEFING**

2. ARRIVAL

2.1. SPEED RESTRICTIONS

2.1.1. SPEED ADJUSTMENTS UNDER RADAR CONTROL

- MAX 250 KT at or below FL 120.
- MAX 210 KT when starting the turn to intercept ILS/LOC.
- MAX 180 KT when turn is completed and ACFT is established on ILS/LOC course within 20NM of the landing THR.
- MAX 160 KT when crossing 4NM to landing THR.
- ACFT with cruising speed lower than the mentioned above shall maintain cruising speed up to the adjusting fix concerned.

2.2. TAXI PROCEDURES

ACFT with code letter E must leave RWY 12 via TWY C2 and RWY 30 via TWY C6, and must taxi on TWY T to TWY A2.

Entry into apron via TWYs A1 or B not authorized for ACFT with code letter E.

ACFT with code letter E entering stand 6A must use oversteering manoeuvre under guidance of a signalman.

For code letter F ACFT Antonov-124 cargo operations:

RWY 12: ACFT must leave RWY 12 via TWY C2, taxiing on TWY T to TWY C4, cross RWY 10/28 to TWY D3 and enter South Apron.

RWY 30: ACFT must leave RWY 30 via TWY D1, cross RWY 10/28 and enter via TWY D3 to South Apron.

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27 NOV 15 **(10-1P4)** **Eff 10 Dec**

BILBAO, SPAIN
AIRPORT BRIEFING

3. DEPARTURE

3.1. DE-ICING

De-icing apron is available for ACFT with MAX wingspan 126.3'/38.5m.
De-icing on stand 111 is available for ACFT with code letter E.

3.2. START-UP, PUSH-BACK & TAXI PROCEDURES

Request clearance to start up engines from GROUND and report:

- Callsign;
- Parking stand;
- ATIS message received.

Pilots shall request clearance for taxi on the appropriate frequency.

Departing ACFT with wingspan more than 118'/36m report to ATC during first contact to Tower.

Simultaneous push-back manoeuvres from stands 2 and 6A not authorized if ACFT with code letter E is pushed back from stand 6A.

Taxi to holding position C1 is not allowed if holding position C2 is occupied.

ACFT with code letter E must exit the apron via TWY A2 and must taxi on TWY T to enter RWY 12 via TWY C6 or RWY 30 via holding position K1 and, with ATC clearance, TWY C2.

For code letter F ACFT Antonov-124 cargo operations:

RWY 12: ACFT must leave Apron via TWY D2, wait for ATC clearance to enter RWY 10/28 and taxi via TWY D1 to RWY 12.

RWY 30: ACFT must leave apron via TWY D2, wait for ATC clearance to enter RWY 10/28, cross RWY 12/30 and leave via TWY C4 to TWY T to RWY holding position K1. ATC clearance will give access to RWY 30 via TWY C2.

RWY HOLDING POSITION K1

Due to RWY 30 displaced THR, an ACFT taxiing from RWY holding position K1 to THR RWY 30 penetrates the APCH obstacle limitation surface.

TWY C1 holding position is available for ACFT with MAX height of 31.66'/9.65m.

TWY C2 holding position is available for ACFT with MAX height of 24.9'/7.6m.

Normally, departing ACFT will be instructed to holding position K1 by ATC.

ACFT shall notify they are ready to departure when reaching the holding position K1.

3.3. SPEED RESTRICTIONS

MAX 250 KT until leaving FL 100.

Alt Set: hPa Trans level: By ATC Trans alt: 6000'
The published minimum altitudes integrate no correction for low temperatures.



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JEPPESSEN
27 NOV 15 (10-2) Eff 10 Dec

BILBAO, SPAIN
STAR

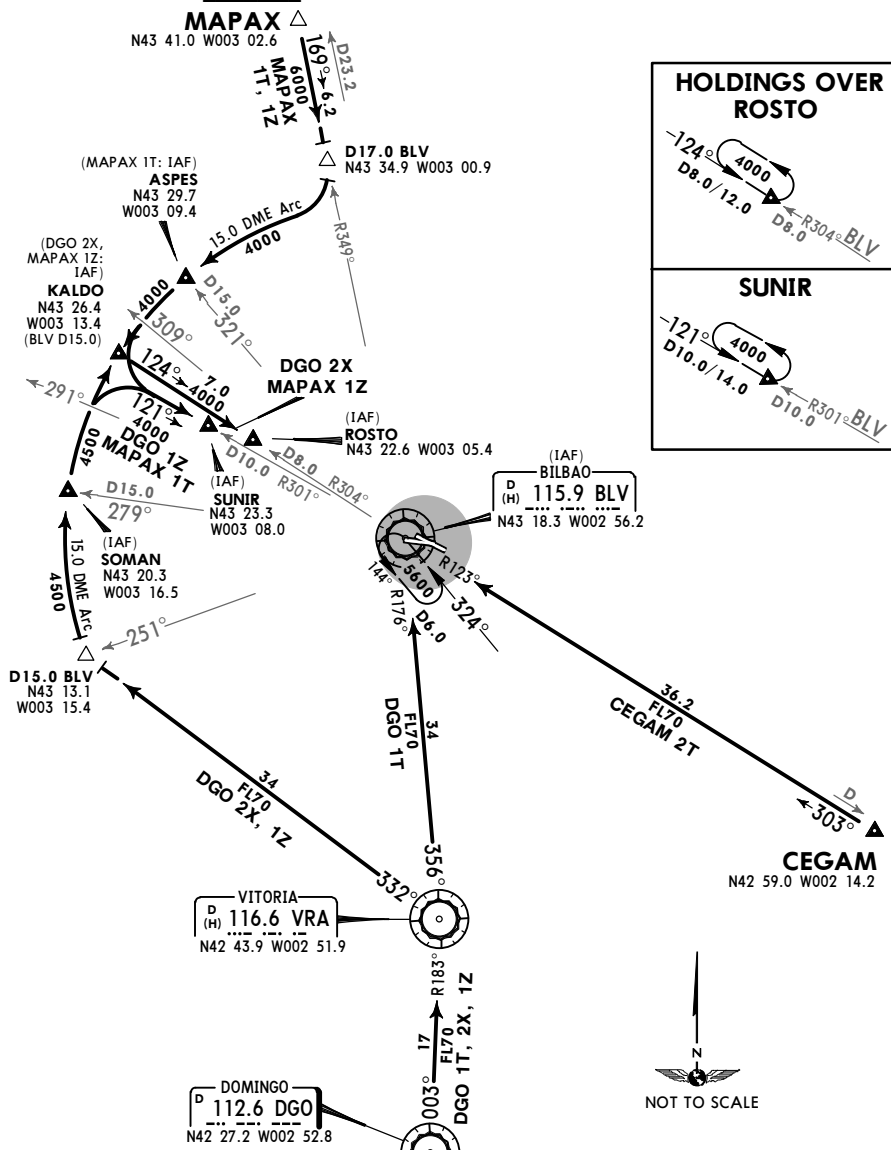
*D-ATIS
118.825

Apt Elev
136'

Alt Set: hPa
Trans level: By ATC Trans alt: 6000'

CEGAM TWO TANGO (CEGAM 2T) [CEGA2T]
DOMINGO ONE TANGO (DGO 1T)
DOMINGO TWO X-RAY (DGO 2X)
DOMINGO ONE ZULU (DGO 1Z)
MAPAX ONE TANGO (MAPAX 1T) [MAPA1T]
MAPAX ONE ZULU (MAPAX 1Z) [MAPA1Z]
RWY 12 ARRIVALS

SPEED: MAX 250 KT AT OR BELOW FL120



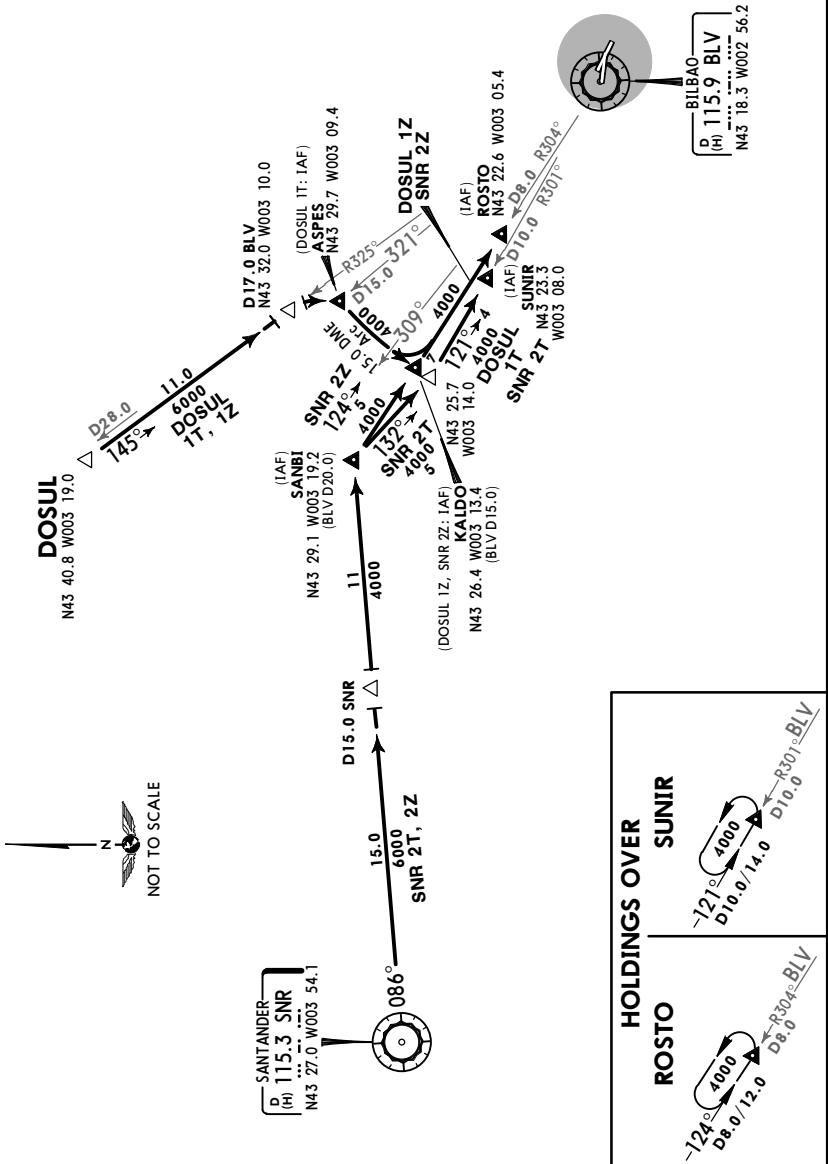
LEBB/BIO
BILBAO

JEPPESSEN
27 NOV 15 (10-2B) Eff 10 Dec

BILBAO, SPAIN
STAR

*D-ATIS 118.825	Apt Elev 136'	Alt Set: hPa Trans level: By ATC Trans alt: 6000'
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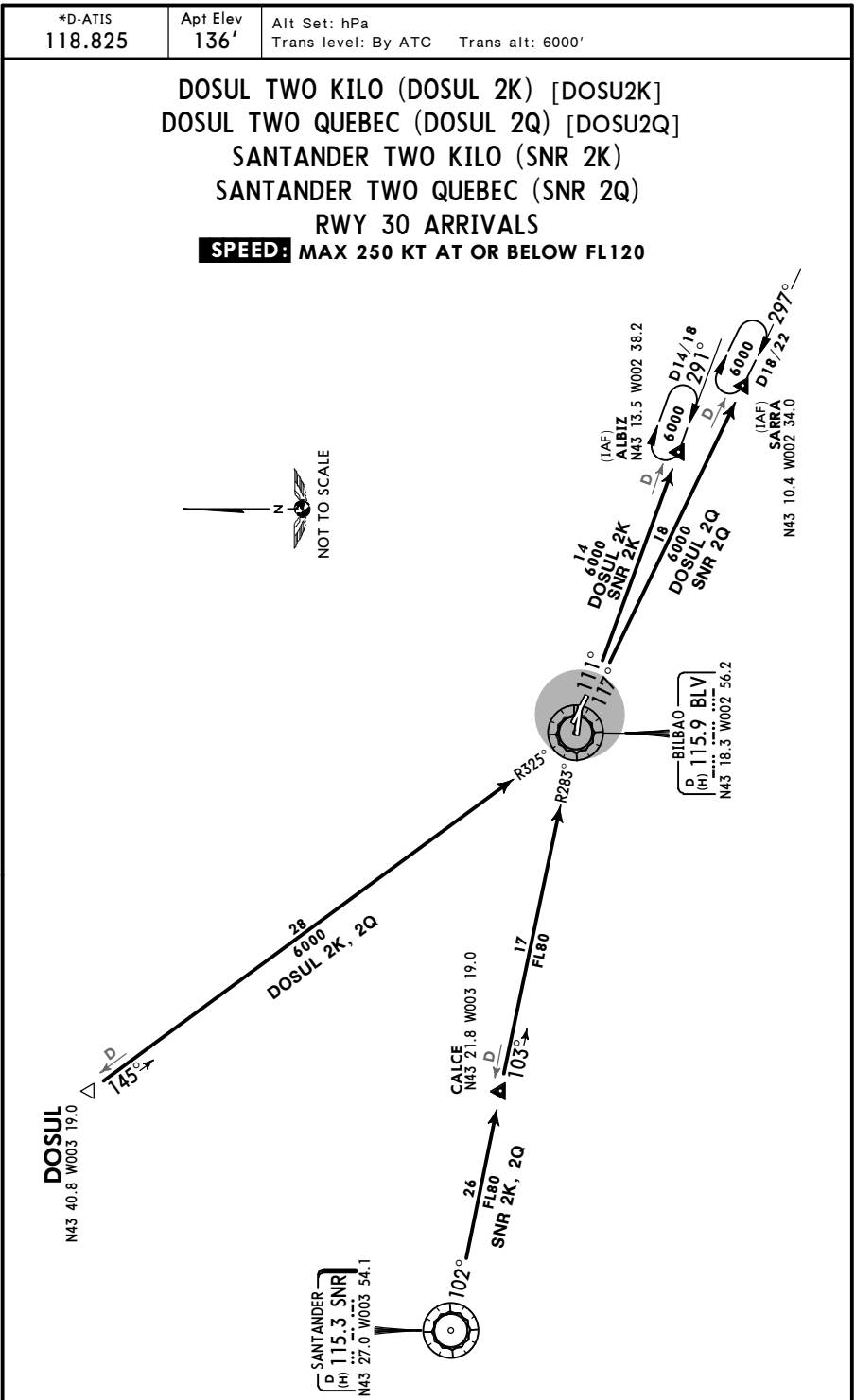
DOSUL ONE TANGO (DOSUL 1T) [DOSU1T]
DOSUL ONE ZULU (DOSUL 1Z) [DOSU1Z]
SANTANDER TWO TANGO (SNR 2T)
SANTANDER TWO ZULU (SNR 2Z)
RWY 12 ARRIVALS
SPEED: MAX 250 KT AT OR BELOW FL120



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BILBAO

27 NOV 15 (10-2C) Eff 10 Dec

BILBAO, SPAIN
STAR



LEBB/BIO
BILBAO

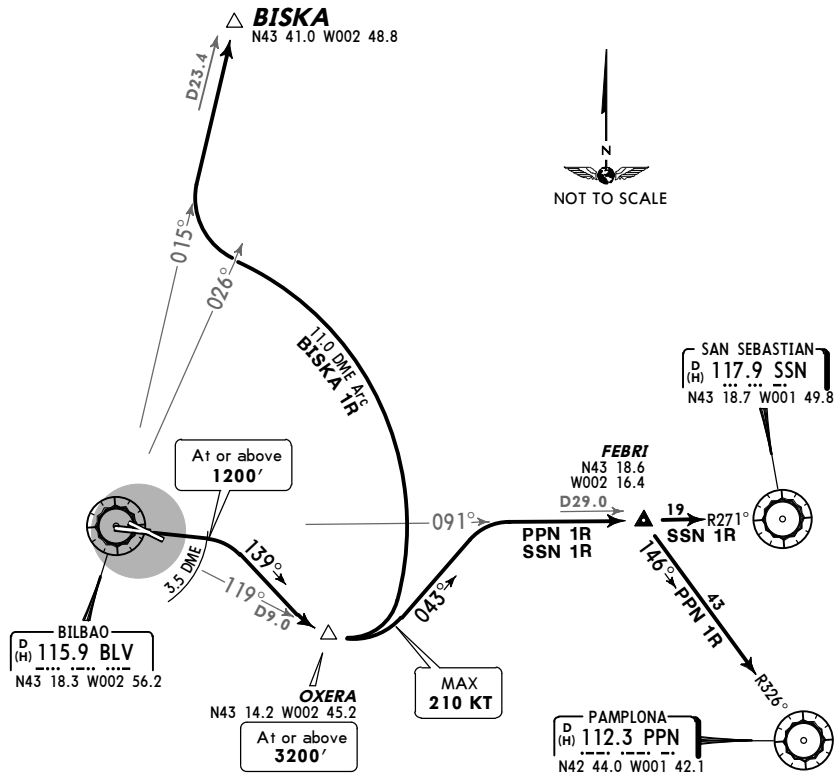
JEPPESSEN
15 AUG 14 (10-3)

BILBAO, SPAIN
SID

Apt Elev
136'

Trans level: By ATC Trans alt: 6000'
EXPECT close-in obstacles.

**BISKA ONE ROMEO (BISKA 1R) [BISK1R]
PAMPLONA ONE ROMEO (PPN 1R)
SAN SEBASTIAN ONE ROMEO (SSN 1R)
RWY 10 DEPARTURES**
~~SPEED~~ MAX 250 KT UNTIL LEAVING FL100



These SIDs require a minimum climb gradient of
BISKA 1R: 7.0% up to 3200'.
PPN 1R, SSN 1R: 7.0% up to 5000'.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V (fpm)	532	709	1063	1418	1772	2127

Initial climb clearance **FL80** , except ATC clearance

SID	INITIAL CLIMB/ROUTING
BISKA 1R	Climb on runway heading to BLV 3.5 DME, turn RIGHT, 139° track, intercept BLV R-119 to OXERA, turn LEFT, along BLV 11.0 DME arc, when passing BLV R-026 turn RIGHT, intercept BLV R-015 to BISKA.
PPN 1R	Climb on runway heading to BLV 3.5 DME, turn RIGHT, 139° track, intercept BLV R-119 to OXERA, turn LEFT, 043° track, intercept BLV R-091 to FEBRI, turn RIGHT, intercept PPN R-326 inbound to PPN.
SSN 1R	Climb on runway heading to BLV 3.5 DME, turn RIGHT, 139° track, intercept BLV R-119 to OXERA, turn LEFT, 043° track, intercept BLV R-091 via FEBRI to SSN.

Apt Elev

136'

Trans level: By ATC

Trans alt: 6000'

EXPECT close-in obstacles.

BISKA THREE BRAVO (BISKA 3B) [BISK3B]

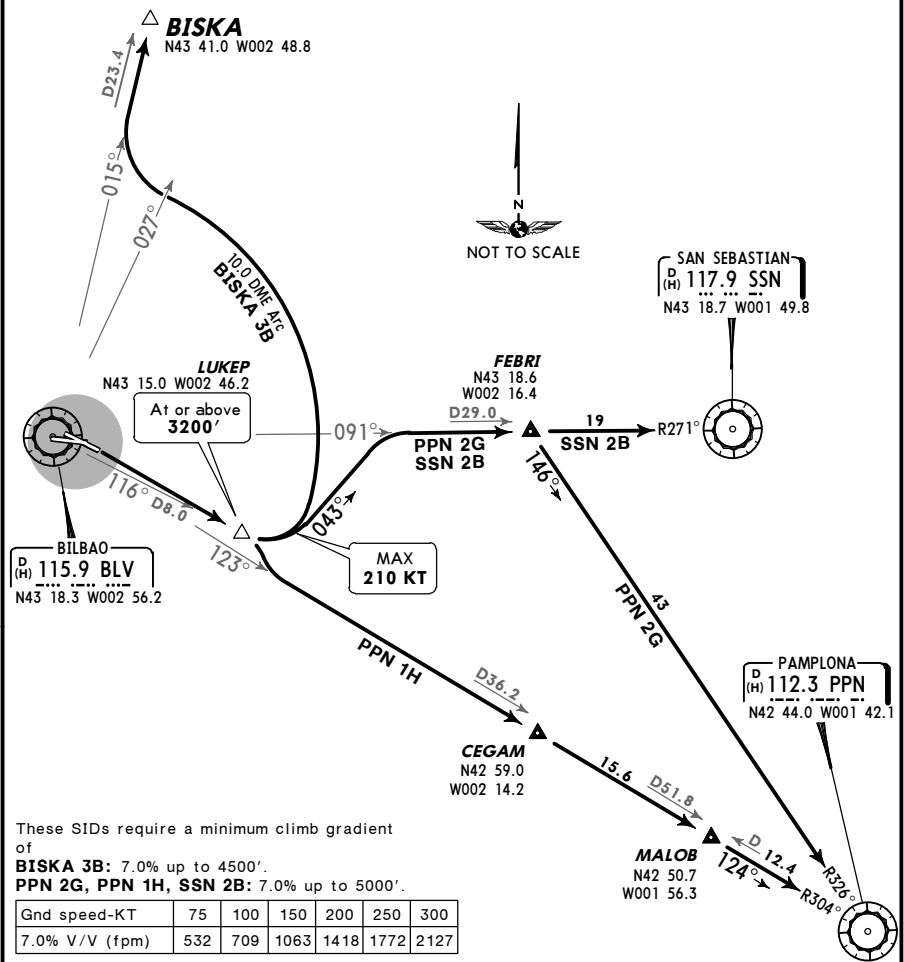
PAMPLONA TWO GOLF (PPN 2G)

PAMPLONA ONE HOTEL (PPN 1H)

SAN SEBASTIAN TWO BRAVO (SSN 2B)

RWY 12 DEPARTURES

~~SPEED~~ MAX 250 KT UNTIL LEAVING FL100



Initial climb clearance FL80 , except ATC clearance	
SID	INITIAL CLIMB/ROUTING
BISKA 3B	Climb on runway heading to LUKEP, turn LEFT, along BLV 10.0 DME arc, when passing BLV R-027 turn RIGHT, intercept BLV R-015 to BISKA.
PPN 2G	Climb on runway heading to LUKEP, turn LEFT, 043° track, turn RIGHT, intercept BLV R-091 to FEBRI, turn RIGHT, intercept PPN R-326 inbound to PPN.
PPN 1H	Climb on runway heading to LUKEP, turn RIGHT, intercept BLV R-123 via CEGAM to MALOB, then to PPN.
SSN 2B	Climb on runway heading to LUKEP, turn LEFT, 043° track, turn RIGHT, intercept BLV R-091 via FEBRI to SSN.

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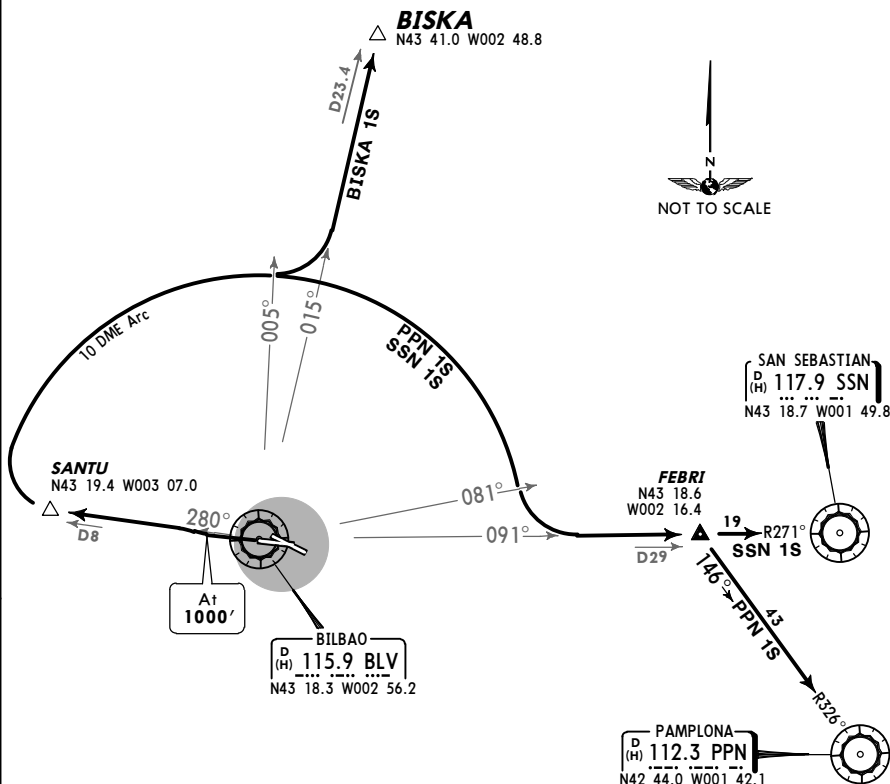
JEPPESSEN
15 AUG 14 (10-3B)

BILBAO, SPAIN
SID

Apt Elev
136'

Trans level: By ATC Trans alt: 6000'

BISKA ONE SIERRA (BISKA 1S) [BISK1S]
PAMPLONA ONE SIERRA (PPN 1S)
SAN SEBASTIAN ONE SIERRA (SSN 1S)
RWY 28 DEPARTURES
SPEED MAX 250 KT UNTIL LEAVING FL100



These SIDs require a minimum climb gradient of 7.0% up to 5000'.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V (fpm)	532	709	1063	1418	1772	2127

Initial climb clearance **FL80** , except ATC clearance

SID	INITIAL CLIMB/ROUTING
BISKA 1S	Climb on runway heading to 1000', turn RIGHT, intercept BLV R-280 to SANTU, turn RIGHT, along BLV 10 DME arc, when passing BLV R-005 turn LEFT, intercept BLV R-015 to BISKA.
PPN 1S	Climb on runway heading to 1000', turn RIGHT, intercept BLV R-280 to SANTU, turn RIGHT, along BLV 10 DME arc, when passing BLV R-081 turn LEFT, intercept BLV R-091 to FEBRI, turn RIGHT, intercept PPN R-326 inbound to PPN.
SSN 1S	Climb on runway heading to 1000', turn RIGHT, intercept BLV R-280 to SANTU, turn RIGHT, along BLV 10 DME arc, when passing BLV R-081 turn LEFT, intercept BLV R-091 via FEBRI to SSN.

LEBB/BIO
BILBAO

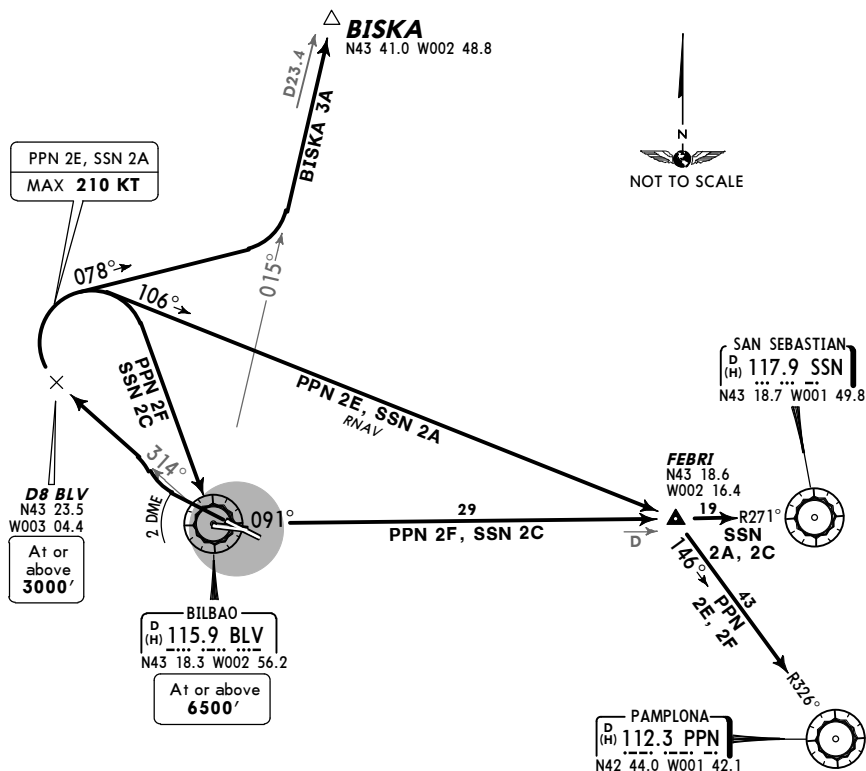
JEPPESSEN
15 AUG 14 (10-3C)

BILBAO, SPAIN
SID

Apt Elev
136'

Trans level: By ATC Trans alt: 6000'
EXPECT close-in obstacles.

BISKA THREE ALFA (BISKA 3A) [BISK3A]
PAMPLONA TWO ECHO (PPN 2E)
PAMPLONA TWO FOXTROT (PPN 2F)
SAN SEBASTIAN TWO ALFA (SSN 2A)
SAN SEBASTIAN TWO CHARLIE (SSN 2C)
RWY 30 DEPARTURES
SPEED MAX 250 KT UNTIL LEAVING FL100



These SIDs require a minimum climb gradient of

BISKA 3A: 7.0% up to 5000'.

PPN 2E, 2F, SSN 2A, 2C: 7.0% up to 4000'.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V (fpm)	532	709	1063	1418	1772	2127

Initial climb clearance FL80 , except ATC clearance

INITIAL CLIMB

Climb on runway heading to BLV 2 DME, turn RIGHT, intercept BLV R-314 to D8 BLV.

SID	ROUTING
BISKA 3A	At D8 BLV turn RIGHT, 078° track, intercept BLV R-015 to BISKA.
PPN 2E RNAV	At D8 BLV turn RIGHT, 106° track to FEBRI, turn RIGHT, intercept PPN R-326 inbound to PPN.
PPN 2F	At D8 BLV turn RIGHT to BLV, BLV R-091 to FEBRI, turn RIGHT, intercept PPN R-326 inbound to PPN.
SSN 2A RNAV	At D8 BLV turn RIGHT, 106° track to FEBRI, turn LEFT, intercept BLV R-091 to SSN.
SSN 2C	At D8 BLV turn RIGHT to BLV, BLV R-091 via FEBRI to SSN.

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BILBAO

JEPPESSEN
15 AUG 14 (10-3D)

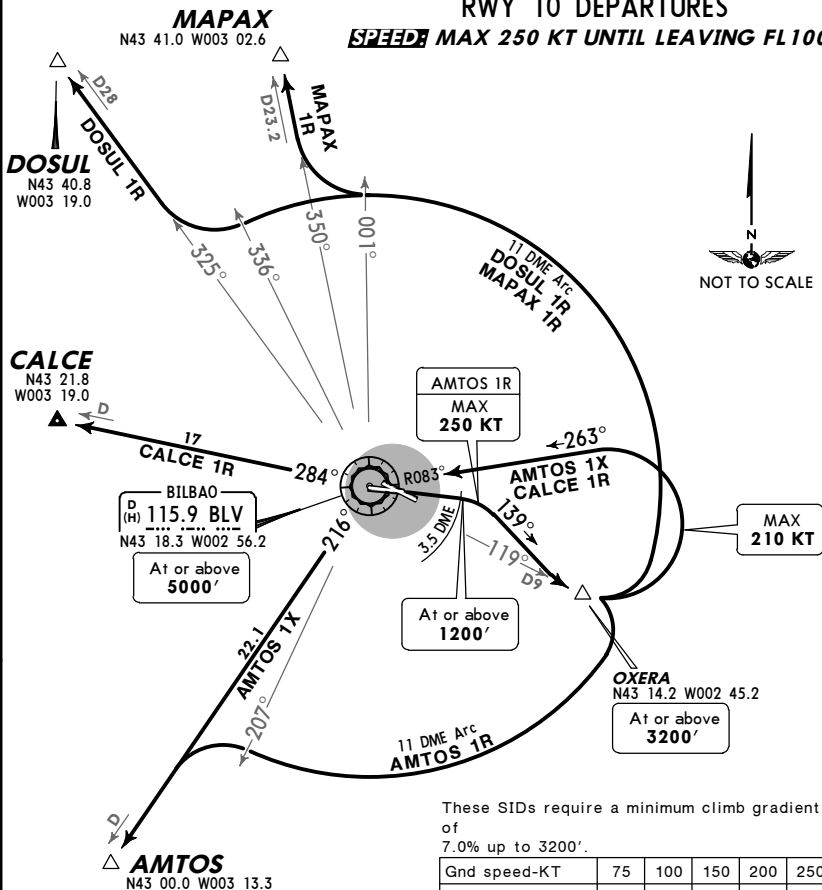
BILBAO, SPAIN
SID

Apt Elev
136'

Trans level: By ATC Trans alt: 6000'
EXPECT close-in obstacles.

AMTOS ONE ROMEO (AMTOS 1R) [AMTO1R]
AMTOS ONE X-RAY (AMTOS 1X) [AMTO1X]
CALCE ONE ROMEO (CALCE 1R) [CALC1R]
DOSUL ONE ROMEO (DOSUL 1R) [DOSU1R]
MAPAX ONE ROMEO (MAPAX 1R) [MAPA1R]
RWY 10 DEPARTURES

~~SPEED~~ MAX 250 KT UNTIL LEAVING FL100



These SIDs require a minimum climb gradient
of
7.0% up to 3200'.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V (fpm)	532	709	1063	1418	1772	2127

Initial climb clearance **FL80** , except ATC clearance

INITIAL CLIMB

Climb on runway heading to BLV 3.5 DME, turn RIGHT, 139° track, intercept BLV R-119 to OXERA.

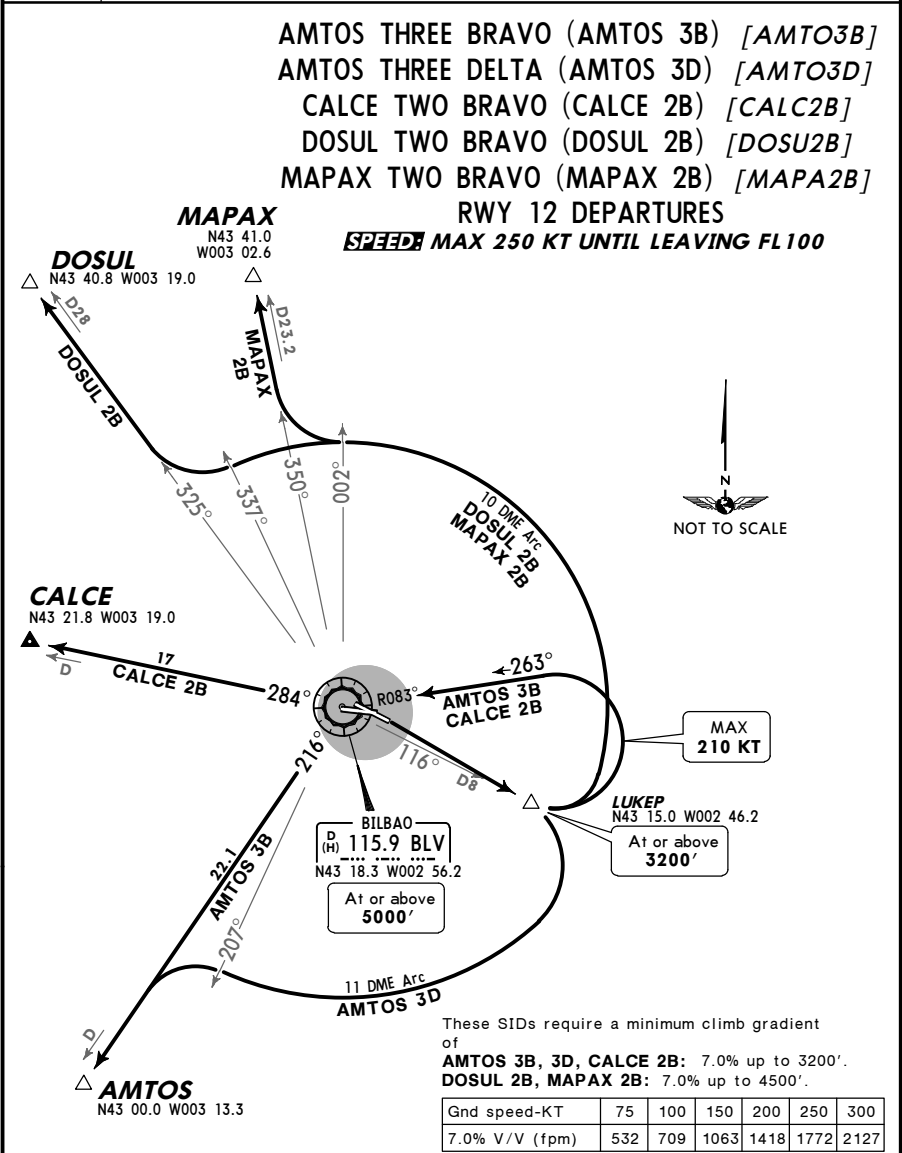
SID	ROUTING
AMTOS 1R	At OXERA turn RIGHT, along BLV 11 DME arc, when passing BLV R-207 turn LEFT, intercept BLV R-216 to AMTOS.
AMTOS 1X	At OXERA turn LEFT, intercept BLV R-083 inbound to BLV, BLV R-216 to AMTOS.
CALCE 1R	At OXERA turn LEFT, intercept BLV R-083 inbound to BLV, BLV R-284 to CALCE.
DOSUL 1R	At OXERA turn LEFT, along BLV 11 DME arc, when passing BLV R-336 turn RIGHT, intercept BLV R-325 to DOSUL.
MAPAX 1R	At OXERA turn LEFT, along BLV 11 DME arc, when passing BLV R-001 turn RIGHT, intercept BLV R-350 to MAPAX.

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BILBAO

15 AUG 14 **10-3E**

BILBAO, SPAIN
SID

Apt Elev 136'	Trans level: By ATC Trans alt: 6000'
EXPECT close-in obstacles.	



Initial climb clearance FL80 , except ATC clearance	
SID	INITIAL CLIMB/ROUTING
AMTOS 3B	Climb on runway heading to LUKEP, turn LEFT, intercept BLV R-083 inbound to BLV, BLV R-216 to AMTOS.
AMTOS 3D	Climb on runway heading to LUKEP, turn RIGHT, along BLV 11 DME arc, when passing BLV R-207 turn LEFT, intercept BLV R-216 to AMTOS.
CALCE 2B	Climb on runway heading to LUKEP, turn LEFT, intercept BLV R-083 inbound to BLV, BLV R-284 to CALCE.
DOSUL 2B	Climb on runway heading to LUKEP, turn LEFT, along BLV 10 DME arc, when passing BLV R-337 turn RIGHT, intercept BLV R-325 to DOSUL.
MAPAX 2B	Climb on runway heading to LUKEP, turn LEFT, along BLV 10 DME arc, when passing BLV R-002 turn RIGHT, intercept BLV R-350 to MAPAX.

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BILBAO

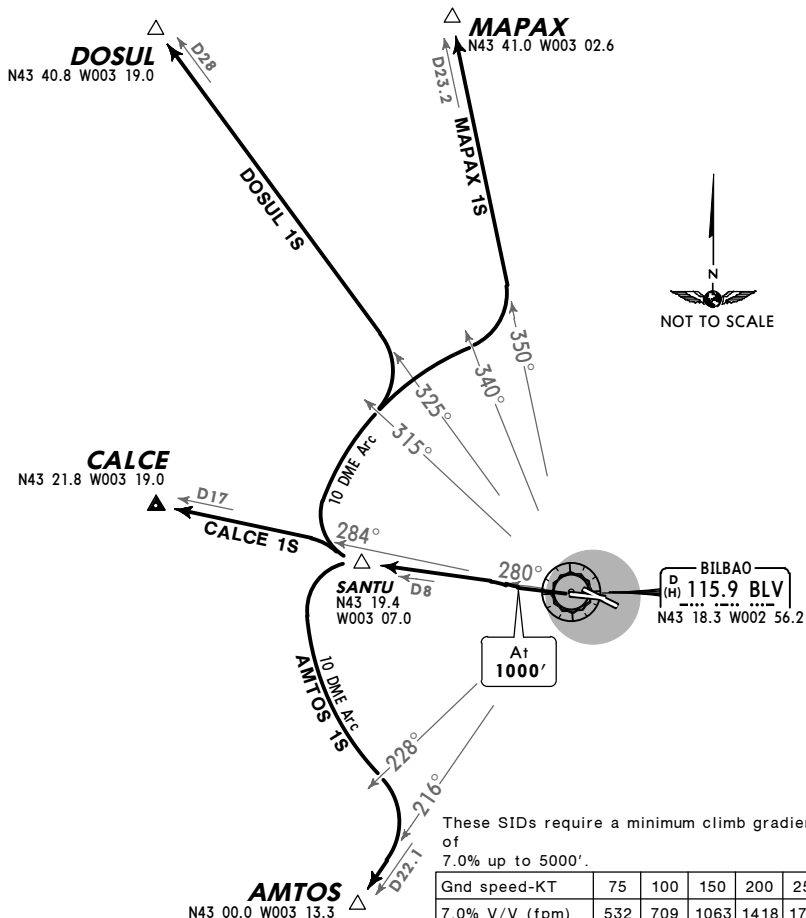
JEPPESSEN
15 AUG 14 (10-3F)

BILBAO, SPAIN
SID

Apt Elev
136'

Trans level: By ATC Trans alt: 6000'

AMTOS ONE SIERRA (AMTOS 1S) [AMTO1S]
CALCE ONE SIERRA (CALCE 1S) [CALC1S]
DOSUL ONE SIERRA (DOSUL 1S) [DOSU1S]
MAPAX ONE SIERRA (MAPAX 1S) [MAPA1S]
RWY 28 DEPARTURES
SPEED MAX 250 KT UNTIL LEAVING FL100



Initial climb clearance **FL80** , except ATC clearance

INITIAL CLIMB

Climb on runway heading to 1000', turn RIGHT, intercept BLV R-280 to SANTU.

SID	ROUTING
AMTOS 1S	At SANTU turn LEFT, along BLV 10 DME arc, when passing BLV R-228 turn RIGHT, intercept BLV R-216 to AMTOS.
CALCE 1S	At SANTU turn RIGHT, intercept BLV R-284 to CALCE.
DOSUL 1S	At SANTU turn RIGHT, along BLV 10 DME arc, when passing BLV R-315 turn LEFT, intercept BLV R-325 to DOSUL.
MAPAX 1S	At SANTU turn RIGHT, along BLV 10 DME arc, when passing BLV R-340 turn LEFT, intercept BLV R-350 to MAPAX.

LEBB/BIO
BILBAO

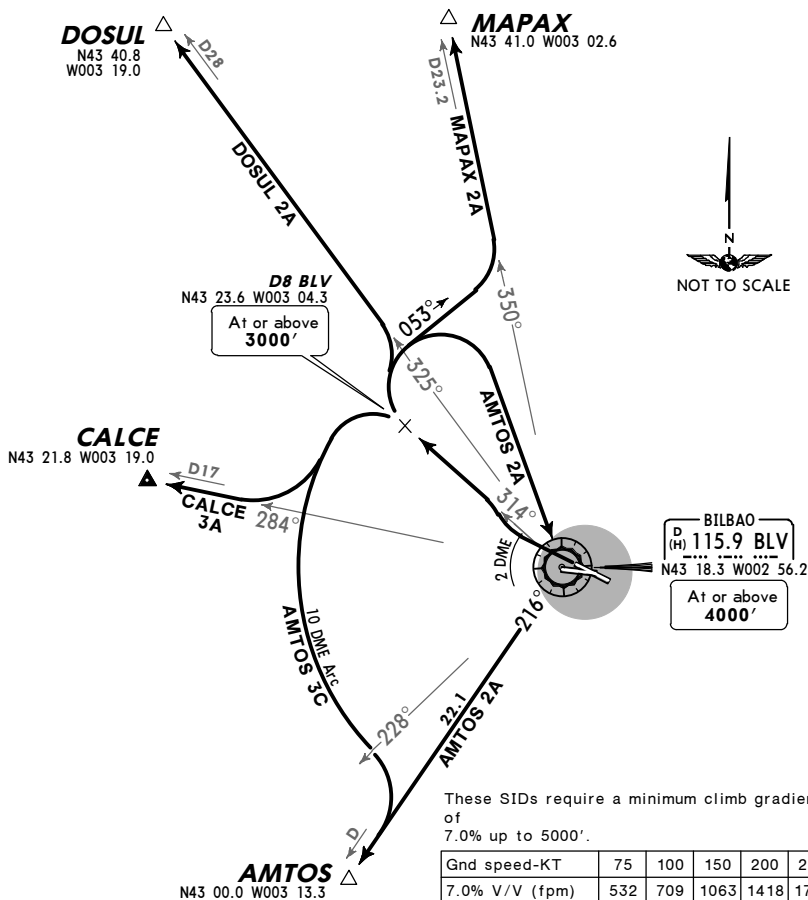
 **JEPPESSEN**
15 AUG 14 **(10-3G)**

BILBAO, SPAIN
SID

Apt Elev
136'

Trans level: By ATC Trans alt: 6000'
EXPECT close-in obstacles.

AMTOS TWO ALFA (AMTOS 2A) [AMTO2A]
AMTOS THREE CHARLIE (AMTOS 3C) [AMTO3C]
CALCE THREE ALFA (CALCE 3A) [CALC3A]
DOSUL TWO ALFA (DOSUL 2A) [DOSU2A]
MAPAX TWO ALFA (MAPAX 2A) [MAPA2A]
RWY 30 DEPARTURES
SPEED MAX 250 KT UNTIL LEAVING FL100



Initial climb clearance FL80 , except ATC clearance

INITIAL CLIMB

Climb on runway heading to BLV 2 DME, turn RIGHT, intercept BLV R-314 to D8 BLV.

SID	ROUTING
AMTOS 2A	At D8 BLV turn RIGHT to BLV, BLV R-216 to AMTOS.
AMTOS 3C	At D8 BLV turn LEFT, along BLV 10 DME arc, when passing BLV R-228 turn RIGHT, intercept BLV R-216 to AMTOS.
CALCE 3A	At D8 BLV turn LEFT, intercept BLV R-284 to CALCE.
DOSUL 2A	At D8 BLV turn RIGHT, intercept BLV R-325 to DOSUL.
MAPAX 2A	At D8 BLV turn RIGHT, 053° track, intercept BLV R-350 to MAPAX.

LEBB/BIO
BILBAO

 **JEPPESSEN**
22 FEB 13 **(10-3H)** **Eff 7 Mar**

BILBAO, SPAIN
SID

RWYS 10, 12, 28, 30 CONTINGENCY DEPARTURES

In the event of failure of one or more nav aids used for the departures from runways 10, 12, 28, 30 the following procedures shall be carried out:

RWY 10: Climb on runway heading to 1800', turn LEFT (MAX 250 KT), climb on 002° heading to 4000' and wait for ATC instructions.

RWY 12: Climb on runway heading to 1800', turn LEFT (MAX 250 KT), climb on 002° heading to 5000' and wait for ATC instructions.

RWY 28: Climb on 293° heading to 4500', turn following ATC instructions.

RWY 30: Climb on runway heading to 4500', turn following ATC instructions.

These departures require minimum climb gradients of

RWY 10: 6.5% to 4000'.

RWY 12: 6.5% to 5000'.

RWY 28, 30: 6.7% to 4500'.

Gnd speed-KT	75	100	150	200	250	300
6.7% V/V(fpm)	509	679	1018	1357	1696	2036
6.5% V/V(fpm)	494	658	987	1317	1646	1975

LEBB/BIO

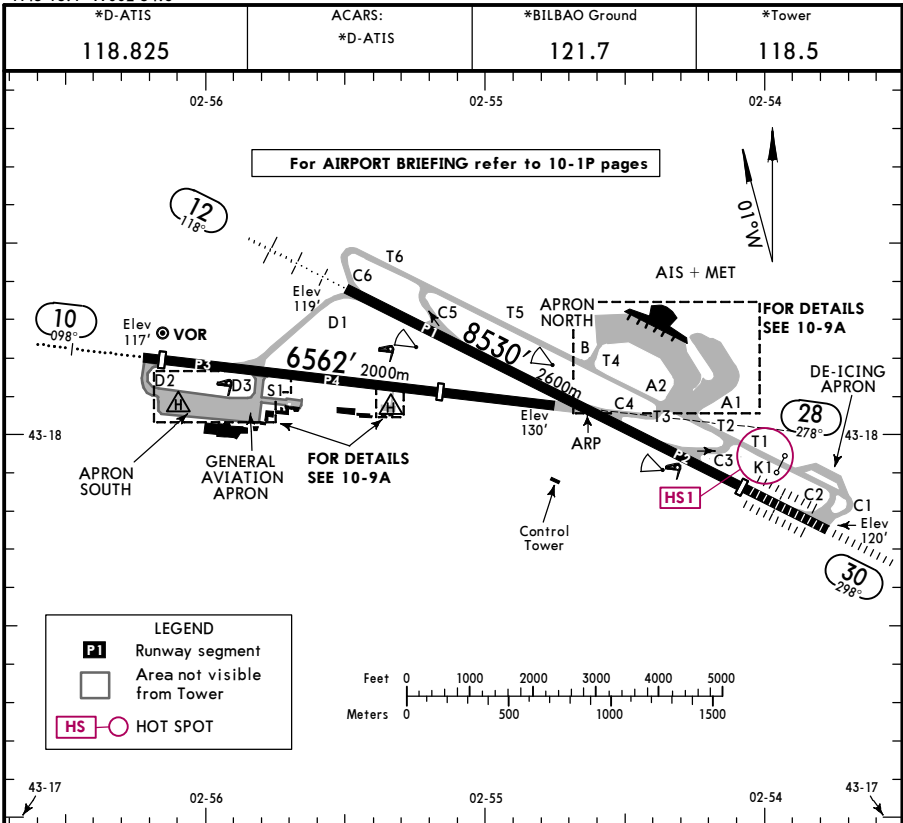
Apt Elev **136'**
N43 18.1 W002 54.6

JEPPesen

27 NOV 15 **(10-9)** **Eff 10 Dec**

BILBAO, SPAIN

BILBAO



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS			
		LANDING BEYOND		TAKE-OFF	WIDTH
		Threshold	Glide Slope		
10	HIRL (60m) HIALS PAPI (3.6°)	6266' 1910m		3921' 1195m	148' 45m
28	HIRL (60m) PAPI-L (3.4°)	4446' 1355m		6266' 1910m	
12	HIRL (50m) CL (15m) HIALS PAPI (3.1°)	8333' 2540m	①RVR	7361' 2244m	8333' 2540m
30	HIRL (50m) CL (15m) HIALS-II TDZ PAPI-L (3.4°)	②RVR 7021' 2140m	5988' 1825m	③	148' 45m

- ① HSTIL: C3.
② HSTIL: C5.
③ TAKE-OFF RUN AVAILABLE
RWY 30:
From rwy head 8530' (2600m)
twy C2 int 7661' (2335m)

HOT SPOTS

(For information only, not to be construed as ATC instructions.)

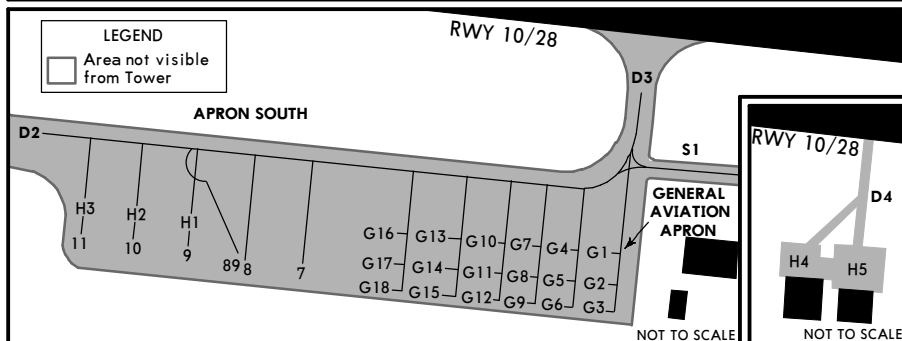
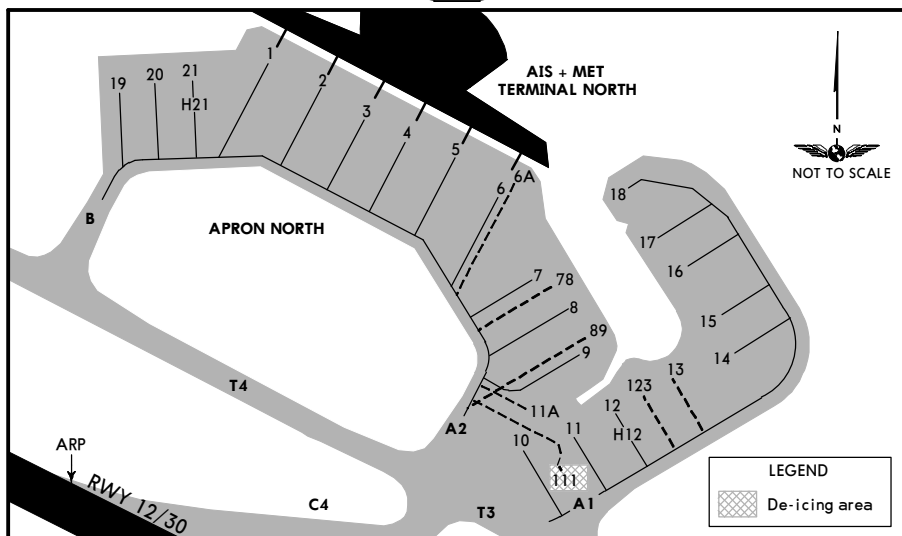
HS1 Acft holding at K1 will be cleared for take-off RWY 30 only when they have reported ready for take-off to ATC.

Standard

TAKE-OFF ①

	Rwy 30				All Rwys	
	Approved Operators	LVP must be in Force				
	HIRL, CL & mult. RVR req	RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A						
B	125m	150m	200m	250m	400m	500m
C						
D	150m	200m	250m	300m		

① Operators applying U.S. Ops Specs: CL required below 300m; approved HUD required below 150m.



INS COORDINATES

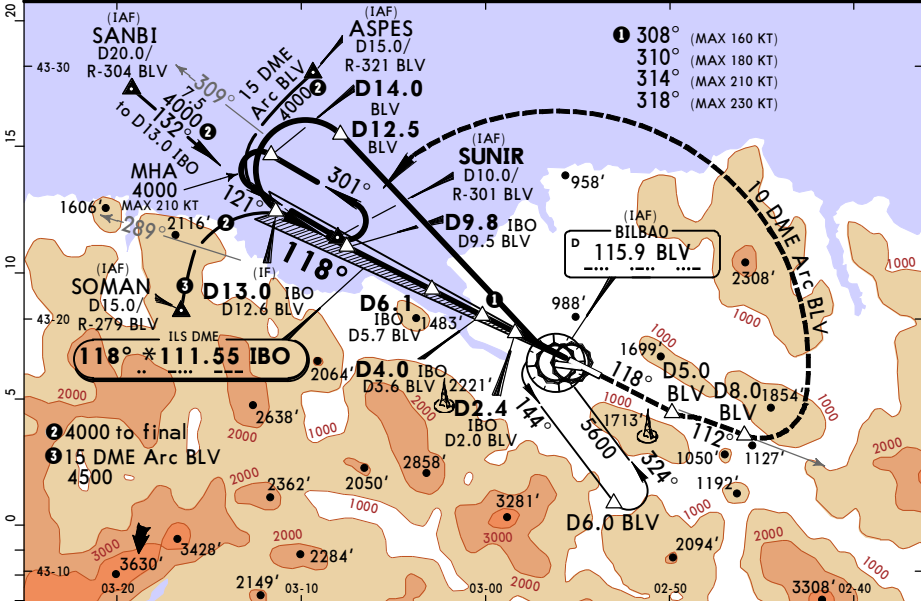
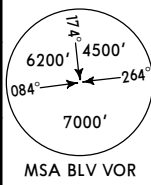
STAND No.	COORDINATES	STAND No.	COORDINATES
APRON NORTH		APRON SOUTH	
1	N43 18.3 W002 54.5	7 thru 8	N43 18.0 W002 56.0
2 thru 4	N43 18.3 W002 54.4	9 thru 11	N43 18.1 W002 56.1
5 thru 8	N43 18.2 W002 54.3	89	N43 18.0 W002 56.0
9	N43 18.1 W002 54.2	G1	N43 18.1 W002 55.8
10 thru 11A	N43 18.1 W002 54.3	G2, G3	N43 18.0 W002 55.8
12, 13	N43 18.1 W002 54.2	G4	N43 18.1 W002 55.9
14	N43 18.1 W002 54.1	G5, G6	N43 18.0 W002 55.9
15 thru 18	N43 18.2 W002 54.2	G7	N43 18.1 W002 55.9
19, 20	N43 18.3 W002 54.6	G8, G9	N43 18.0 W002 55.9
21	N43 18.3 W002 54.5	G10	N43 18.1 W002 55.9
78	N43 18.2 W002 54.3	G11, G12	N43 18.0 W002 55.9
89	N43 18.2 W002 54.2	G13 thru G15	N43 18.1 W002 55.9
111	N43 18.1 W002 54.3	G16 thru G18	N43 18.1 W002 56.0
123	N43 18.1 W002 54.2	H1 thru H3	N43 18.1 W002 56.1
H12	N43 18.1 W002 54.2	H4, H5	N43 18.1 W002 55.4
H21	N43 18.3 W002 54.5		

LEBB/BIO
BILBAO

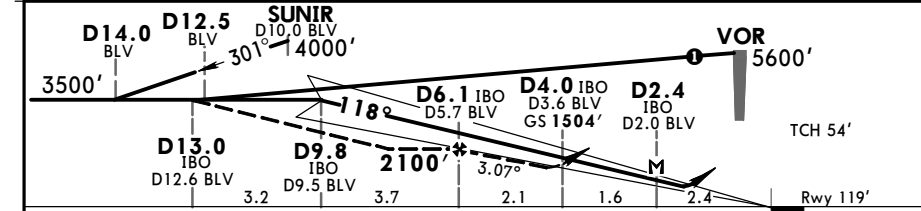
JEPPesen
27 NOV 15
Eff 10 Dec (11-1)

BILBAO, SPAIN
ILS Z or LOC Z Rwy 12

*D-ATIS 118.825	*BILBAO Approach 127.450	*BILBAO Tower 118.5	*Ground 121.7
LOC IBO *111.55	Final App Crs 118°	GS D4.0 IBO 1504' (1385')	ILS DA(H) Refer to Minimums Apt Elev 136' Rwy 119'
MISSED APCH: Climb to D5.0 BLV, then turn LEFT and follow R-112 BLV to D8.0 BLV. Turn LEFT and follow 10 DME Arc BLV to SUNIR and join holding at 4000'.			
Alt Set: hPa Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 6000'			
1. VOR and DME required. 2. ILS DME reads zero at rwy 12 thresh. 3. ILS: No obstacle free zone rwy 12.			



LOC (GS out)	IBO DME ALTIMETER	6.0 2130'	5.0 1800'
-----------------	----------------------	--------------	--------------



Gnd speed-Kts	70	90	100	120	140	160	HALS PAPI PAPI		D5.0 BLV
ILS GS	3.10°	384	494	548	658	768	878		
LOC Descent Angle	3.07°	380	489	543	652	760	869		
MAP at D2.4 IBO/D2.0 BLV									

Standard		STRAIGHT-IN LANDING RWY 12				LOC (GS out)		CIRCLE-TO-LAND		
DA(H) 1 5.0%		ILS 1 2.5%		DA(H) 2		DA(H) 1800' (1681')		3 Not authorized South of airport		
A: 594' (475') C: 614' (495')		C: 1023' (904')		D: 1033' (914')						
B: 606' (487') D: 624' (505')										
FULL/Limited		ALS out		FULL/Limited		ALS out				
OPS	A	RVR 1500m		RVR 1500m		CMV 5000m		Max Kts	MDA(H)	VIS
	100							1800' (1664')	1500m	
	B	135	1970' (1834')	1600m						
	C	RVR 1800m	CMV 2300m	180	2110' (1974')			2400m		
	D	RVR 1900m	CMV 2400m	205	2110' (1974')			3600m		

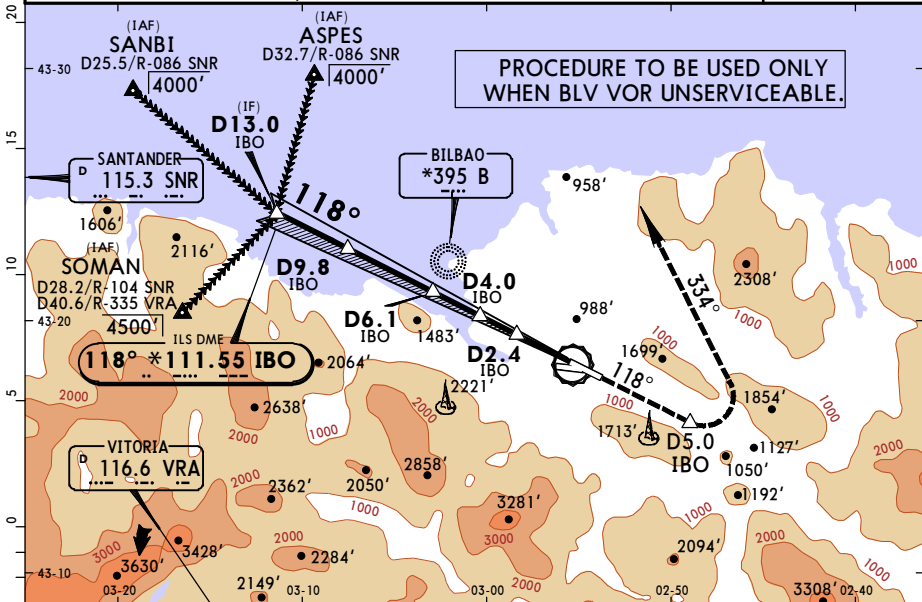
1 Missed apch climb grad mim: 2 DA(H) A: 1003' (884'), B: 1015' (896').
3 or higher minimums of preceding straight-in approach.

LEBB/BIO
BILBAO

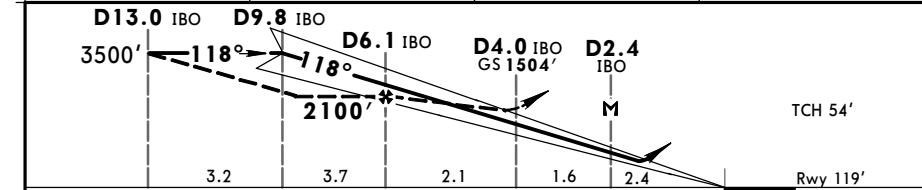
JEPPESEN
27 NOV 15
Eff 10 Dec 11-2

BILBAO, SPAIN
ILS Y or LOC Y Rwy 12

*D-ATIS	*BILBAO Approach	*BILBAO Tower	*Ground
118.825	127.450	118.5	121.7
LOC IBO *111.55	Final Apch Crs 118°	GS D4.0 IBO 1504' (1385')	ILS DA(H) Refer to Minimums Apt Elev 136' Rwy 119'
MISSED APCH: Climb on rwy heading to D5.0 IBO, then turn LEFT (MAX 230 KT) on 334° climbing to 3500', expect radar vectoring.			
Alt Set: hPa Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 6000'			
1. VOR and DME and ADF required. 2. ILS DME reads zero at rwy 12 threshold. 3. ILS: No obstacle free zone rwy 12.			
			MSA B Lctr



LOC (GS out)	IBO DME ALTITUDE	6.0	5.0
		2130'	1800'



Gnd speed-Kts	70	90	100	120	140	160	HIALS		D5.0 IBO		RWY	
ILS GS	3.10°	384	494	548	658	768	878	PAPI	PAPI	on	hdg	
LOC Descent Angle	3.07°	380	489	543	652	760	869					
MAP at D2.4 IBO												

Standard 1 5.0% STRAIGHT-IN LANDING RWY 12				LOC (GS out)		CIRCLE-TO-LAND	
A: 594' (475') C: 614' (495') B: 606' (487') D: 624' (505')				DA(H) 1800' (1681')		Not authorized South of airport	
FULL/Limited ALS out FULL/Limited ALS out				ALS out			
A RVR 1500m RVR 1500m						Max Kts MDA(H) VISm	
B RVR 1800m CMV 2300m						100 1800' (1664') 1500m	
C RVR 1800m CMV 2300m						135 1970' (1834') 1600m	
D RVR 1900m CMV 2400m						180 2120' (1984') 2400m	
						205 2120' (1984') 3600m	

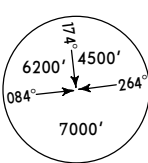
1 Missed apch climb grad min: 2 DA(H) A: 1003' (884'), B: 1015' (896').
3 or higher minimums of preceding straight-in approach.

LEBB/BIO
BILBAO

JEPPesen
27 NOV 15
Eff 10 Dec (11-3)

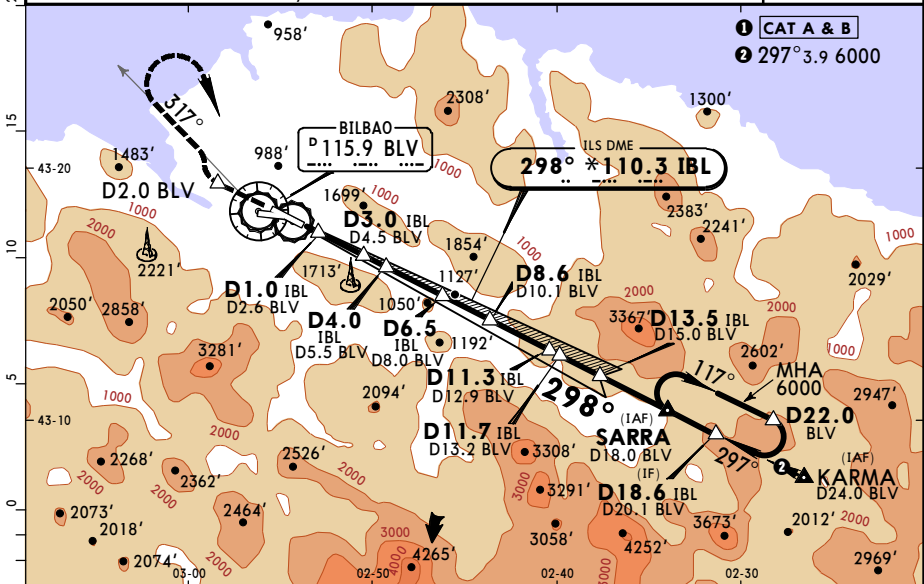
BILBAO, SPAIN
ILS Z or LOC Z Rwy 30

BRIEFING STRIP TM

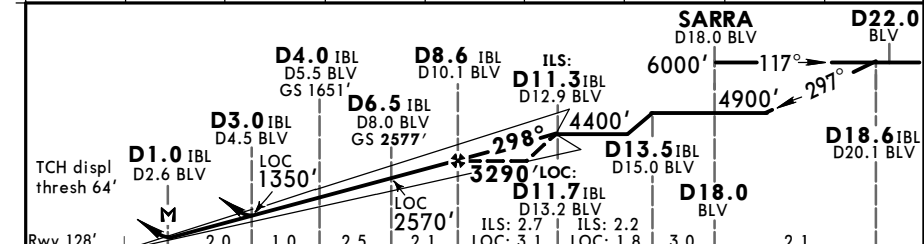
*D-ATIS 118.825		*BILBAO Approach 127.450		*BILBAO Tower 118.5		*Ground 121.7	
LOC IBL *110.3	Final Apt Crs 298°	GS D6.5 IBL 2577' (2449')	ILS DA(H) Refer to Minimums	Apt Elev 136'		Rwy 128'	
MISSED APCH: Climb to D2.0 BLV after VOR, then turn RIGHT and follow R-317 BLV to 4000'. Turn RIGHT to VOR, then direct to SARRA climbing to 6000' and hold.							
Alt Set: hPa Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 6000'							
1. VOR and DME required. 2. ILS DME reads zero at rwy 30 displaced thresh.							
3. ILS: No obstacle free zone rwy 30.							

MSA BLV VOR

20



LOC (GS out)	IBL DME ALTITUDE	2.0 960'	3.0 1350'	4.0 1710'	5.0 2070'	6.0 2420'	7.0 2780'	8.0 3130'
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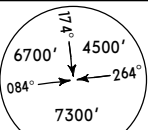
Gnd speed-Kts	70	90	100	120	140	160	
ILS GS	3.40°	421	541	602	722	842	963
LOC Desc Angle FAF - D3.0 IBL	3.34°	414	532	591	709	827	946
LOC Desc Angle after D3.0 IBL	3.68°	456	586	651	782	912	1042
						MAP at	D2.0 BLV after VOR
							↑

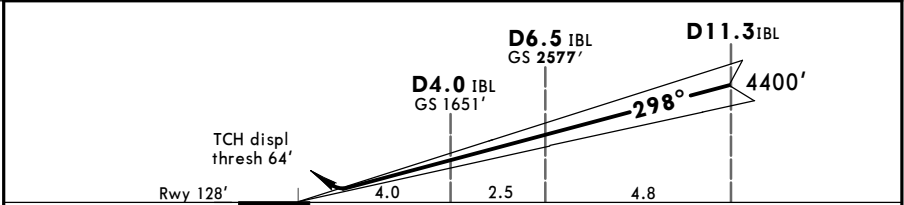
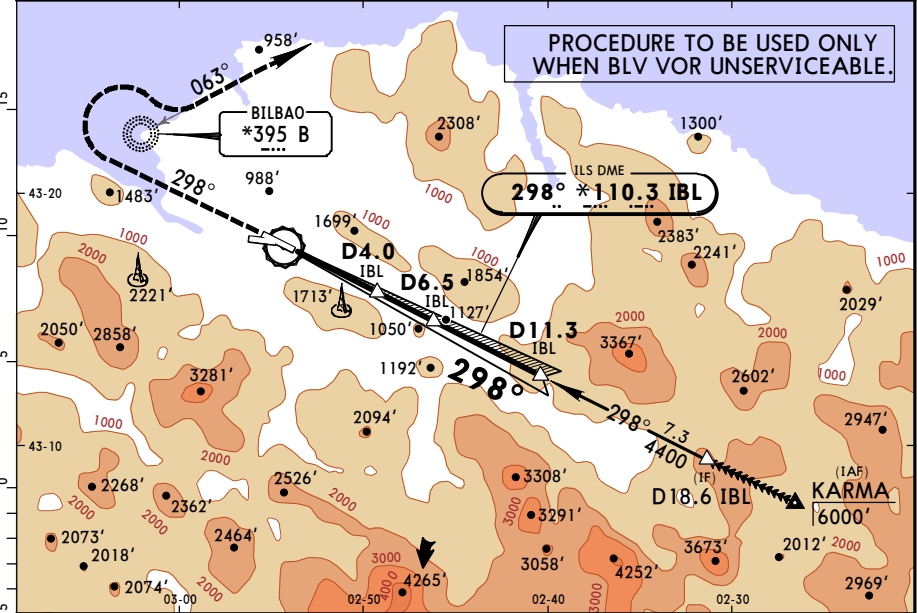
Standard			ILS STRAIGHT-IN LANDING RWY 30		LOC (GS out)		CIRCLE-TO-LAND	
DA(H) A: 418' (290') C: 438' (310') B: 430' (302') D: 449' (321')			FULL		DA(H) 700' (572')		Not authorized South of airport	
Limited			ALS out		ALS out		Max Kts	
A RVR 650m			RVR 1900m		CMV 2600m		1710' (1574') 1500m	
B RVR 700m			RVR 1900m		CMV 2600m		1970' (1834') 1600m	
C RVR 700m			RVR 1900m		CMV 2600m		2060' (1924') 2400m	
D RVR 800m			RVR 1900m		CMV 2600m		2060' (1924') 3600m	
RVR 800m			RVR 1900m		CMV 2600m		NOT APPLICABLE	
RVR 1500m			RVR 1900m		CMV 2600m		NOT APPLICABLE	

LEBB/BIO
BILBAO

JEPPSEN
27 NOV 15 11-4 Eff 10 Dec

BILBAO, SPAIN
ILS Y Rwy 30

BRIEFING STRIP ™	*D-ATIS		*BILBAO Approach		*BILBAO Tower		*Ground	
	118.825		127.450		118.5		121.7	
	LOC IBL	Final Apch Crs	GS D6.5 IBL	ILS DA(H) Refer to Minimums	Apt Elev 136'			
	*110.3	298°	2577' (2449')		Rwy 128'			
	MISSED APCH: Climb on rwy heading to 2000', then turn RIGHT (MAX 210 KT) onto 063° from Lctr climbing to 3500'. Expect radar vectoring.							
	Alt Set: hPa		Rwy Elev: 5 hPa		Trans level: By ATC		Trans alt: 6000'	
1. DME and ADF required. 2. ILS DME reads zero at rwy 30 displaced thresh. 3. ILS: No obstacle free zone rwy 30.								
MSA B Lctr								



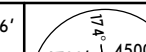
Gnd speed-Kts	70	90	100	120	140	160		
GS	3.40	421	541	602	722	842		

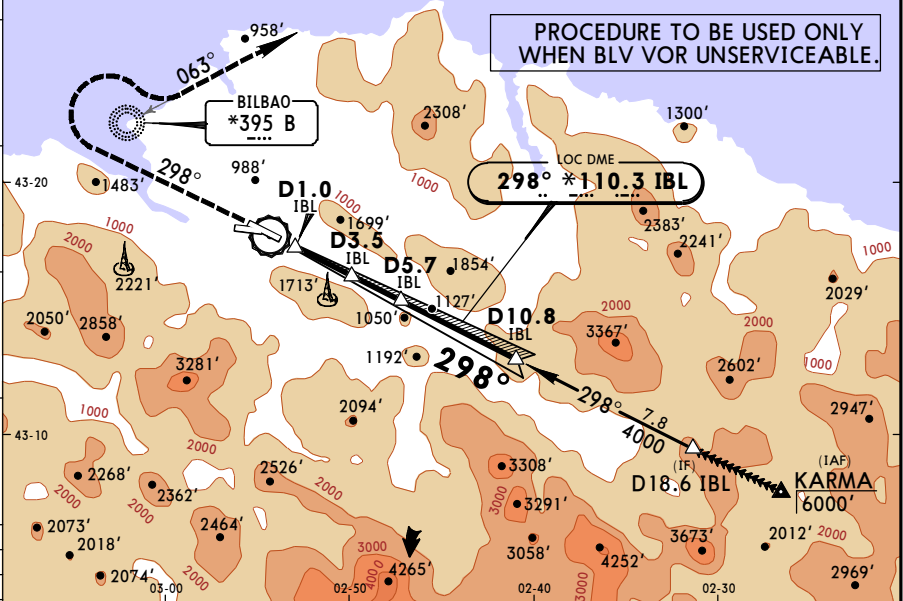
Standard STRAIGHT-IN LANDING RWY 30					CIRCLE-TO-LAND		
Missed apch climb grad min 4.0%		Missed apch climb grad min 2.5%			Not authorized South of airport		
DA(H) A: 400' (272') C: 420' (292') B: 412' (284') D: 431' (303')		DA(H) A: 719' (591') C: 739' (611') B: 731' (603') D: 750' (622')					
FULL		FULL/Limited			Max Kts	MDA(H)	VIS
A	RVR 600m	RVR 750m	RVR 1300m	RVR 1500m	100	1800' (1664')	1500m
B	RVR 650m		RVR 1400m	RVR 1500m	135	1970' (1834')	1600m
C	RVR 650m		CMV 2100m	CMV 2400m	180	2120' (1984')	2400m
D	RVR 700m		CMV 2200m	CMV 2400m	205	2120' (1984')	3600m

LEBB/BIO
BILBAO

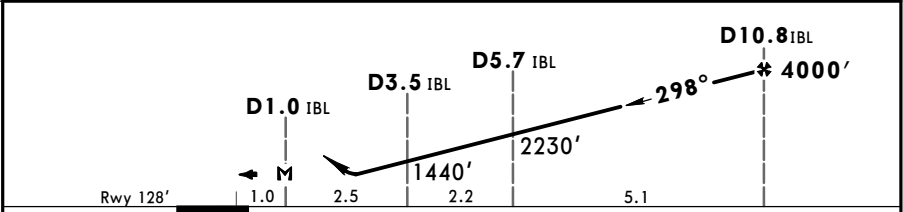
27 NOV 15 **11-5** **Eff 10 Dec**

BILBAO, SPAIN
LOC Y Rwy 30

*D-ATIS 118.825		*BILBAO Approach 127.450		*BILBAO Tower 118.5		*Ground 121.7		
LOC IBL *110.3	Final Apch Crs 298°	Minimum Alt D10.8 IBL 4000' (3872')	DA(H) 800' (672')	Apt Elev 136' Rwy 128'				
MISSED APCH: Climb on rwy heading to 2000', then turn RIGHT (MAX 210 KT) onto 063° from Lctr climbing to 3500'. Expect radar vectoring.								
Alt Set: hPa		Rwy Elev: 5 hPa	Trans level: By ATC		Trans alt: 6000'			
1. DME and ADF required.		2. LOC DME reads zero at rwy 30 displaced thresh.						
						MSA B Lctr		



IBL DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	900'	1260'	1620'	1980'	2330'	2690'	3050'	3410'	3770'



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II	
Descent angle 3.38°	419	538	598	718	837	957	PAPI	PAPI
MAP at D1.0 IBL							2000' on RWY	
Standard							hdg	

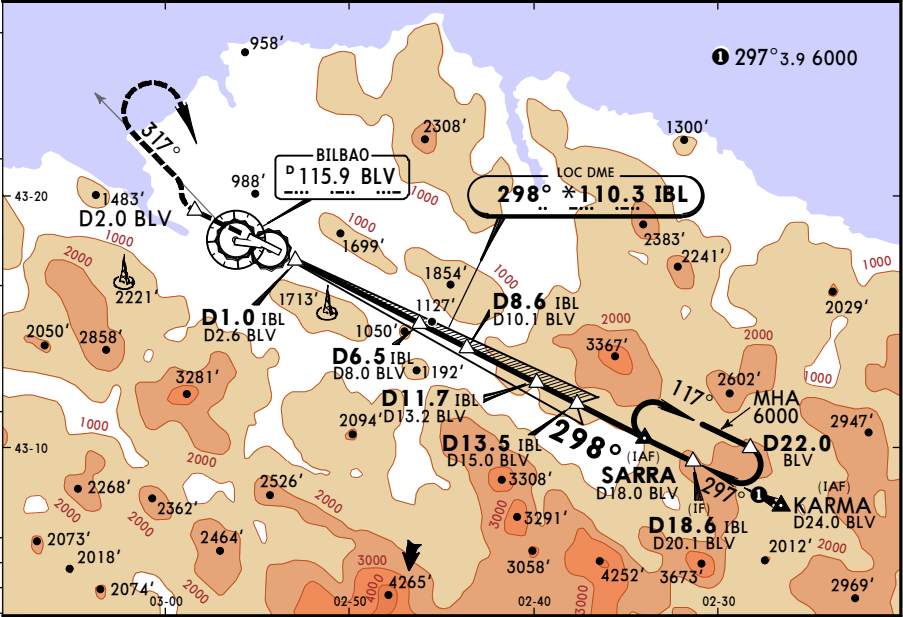
STRAIGHT-IN LANDING RWY 30						CIRCLE-TO-LAND		
DA(H) 800' (672')						Not authorized South of airport		
ALS out						Max Kts	MDA(H)	VIS
A	RVR 1500m					100	1800' (1664')	1500m
B						135	1970' (1834')	1600m
C	CMV 2400m					180	2120' (1984')	2400m
D						205	2120' (1984')	3600m

LEBB/BIO
BILBAO

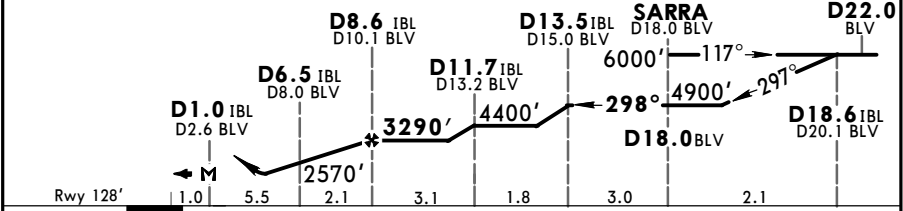
27 NOV 15
Eff 10 Dec 11-6 CAT C & D

BILBAO, SPAIN
LOC X Rwy 30

*D-ATIS 118.825		*BILBAO Approach 127.450		*BILBAO Tower 118.5		*Ground 121.7	
LOC IBL *110.3	Final Apch Crs 298°	Minimum Alt D8.6 IBL 3290' (3162')	DA(H) 1350' (1222')	Apt Elev 136' Rwy 128'		6200' 4500' 264' 7000' 084'	
MISSED APCH: Climb to D2.0 BLV after VOR, then turn RIGHT and follow R-317 BLV to 4000'. Turn RIGHT to VOR, then direct to SARRA climbing to 6000' and hold.							
Alt Set: hPa		Rwy Elev: 5 hPa	Trans level: By ATC		Trans alt: 6000'		
1. VOR and DME required.		2. LOC DME reads zero at rwy 30 displaced thresh.				MSA BLV VOR	



IBL DME	4.0	5.0	6.0	7.0	8.0
ALTITUDE	1650'	2020'	2390'	2760'	3120'



Gnd speed-Kts	70	90	100	120	140	160	
Descent angle	3.46°	429	551	612	735	857	
MAP at D1.0 IBL/D2.6 BLV							

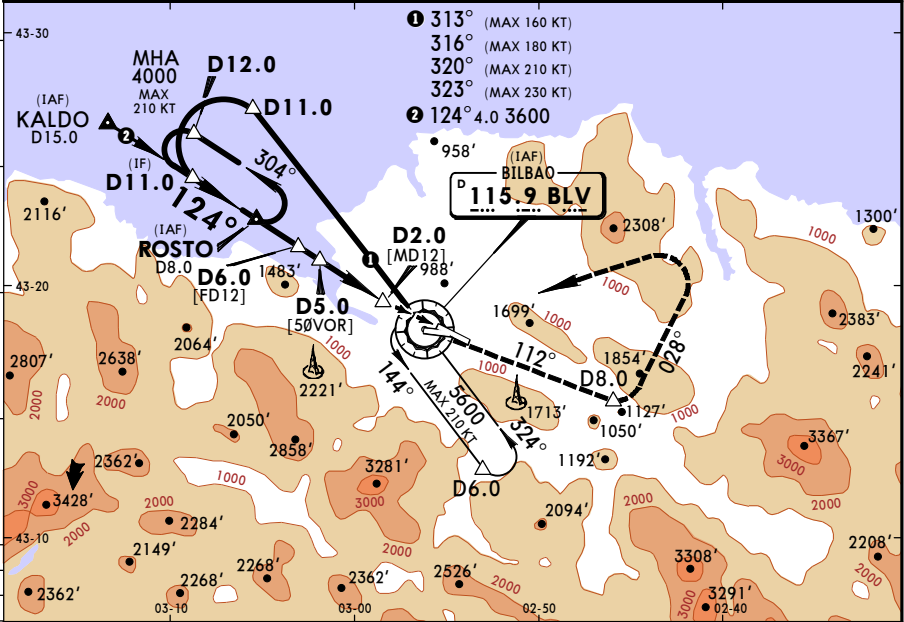
Standard STRAIGHT-IN LANDING RWY 30						CIRCLE-TO-LAND Not authorized South of airport	
DA(H) 1350' (1222')						Max Kts	MDA(H) VIS
ALS out						A	NOT APPLICABLE
NOT APPLICABLE						B	
CMV 5000m						180	2060' (1924') 5000m
						205	

LEBB/BIO
BILBAO

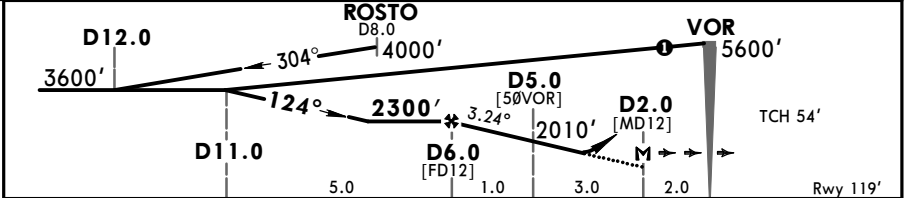
JEPPesen
27 NOV 15 (13-1) Eff 10 Dec

BILBAO, SPAIN
VOR Rwy 12

*D-ATIS	*BILBAO Approach	*BILBAO Tower	*Ground
118.825	127.450	118.5	121.7
VOR BLV 115.9	Final Apch Crs 124°	Minimum Alt D6.0 2300' (2181')	DA(H) Refer to Minimums
		Apt Elev 136'	Rwy 119'
MISSED APCH: Climb direct to VOR, follow R-112 to D8.0, then turn LEFT on 028° climbing to 3500'. Turn LEFT to VOR, then direct to ROSTO climbing to 4000' and hold.			
Alt Set: hPa Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 6000'			
1. DME required. 2. Final approach track offset 7° from rwy centerline.			
			MSA BLV VOR



BLV DME	5.0	4.0
ALTITUDE	2010'	1670'



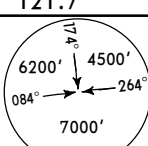
Gnd speed-Kts	70	90	100	120	140	160		HIALS	BLV	BLV
Descent Angle	3.24°	401	516	573	688	803	917	PAPI PAPI	115.9	115.9
MAP at D2.0										

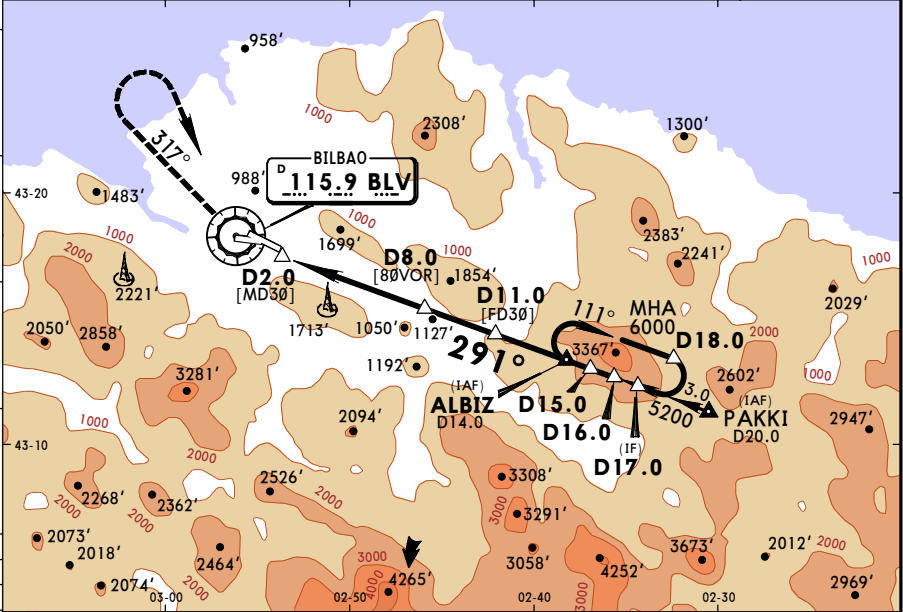
Standard STRAIGHT-IN LANDING RWY 12				CIRCLE-TO-LAND			
Missed apch climb gradient mim 5.0%				Not authorized South of airport			
DA(H) 980' (861')		DA(H) 1430' (1311')		Max Kts		MDA(H) _____ VIS	
ALS out		ALS out		100		1710' (1574') 1500m	
RVR 1500m		CMV 5000m		135		1970' (1834') 1600m	
CMV 3600m		CMV 4000m		180		2110' (1974') 4000m	
				205			

LEBB/BIO
BILBAO

JEPPesen
27 NOV 15 13-2 Eff 10 Dec

BILBAO, SPAIN
VOR Rwy 30

*D-ATIS		*BILBAO Approach		*BILBAO Tower		*Ground	
118.825		127.450		118.5		121.7	
VOR BLV 115.9	Final Apch Crs 291°	Minimum Alt D11.0 3700' (3572')	DA(H) 1750' (1622')	Apt Elev 136' Rwy 128'			
MISSED APCH: Climb direct to VOR, then follow R-317 until 4000'. Turn RIGHT to VOR, then direct to ALBIZ climbing to 6000' and hold.							
Alt Set: hPa Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 6000'							
1. DME required. 2. Final approach track offset 6° from rwy centerline.							
MSA BLV VOR							



BLV DME	6.0	7.0	8.0	9.0	10.0
ALTITUDE	1860'	2240'	2620'	3000'	3380'

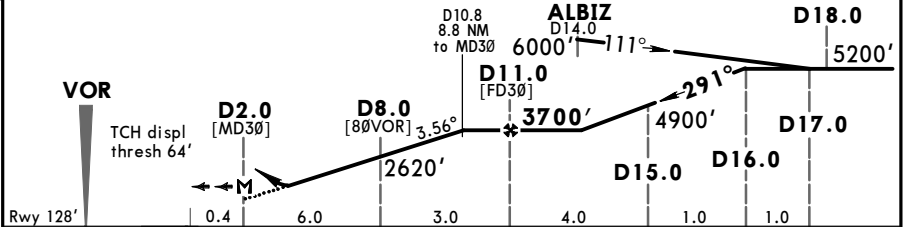




Chart changes since cycle 12-2016

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
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BILBAO, (BILBAO - LEBB)

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport LEBB