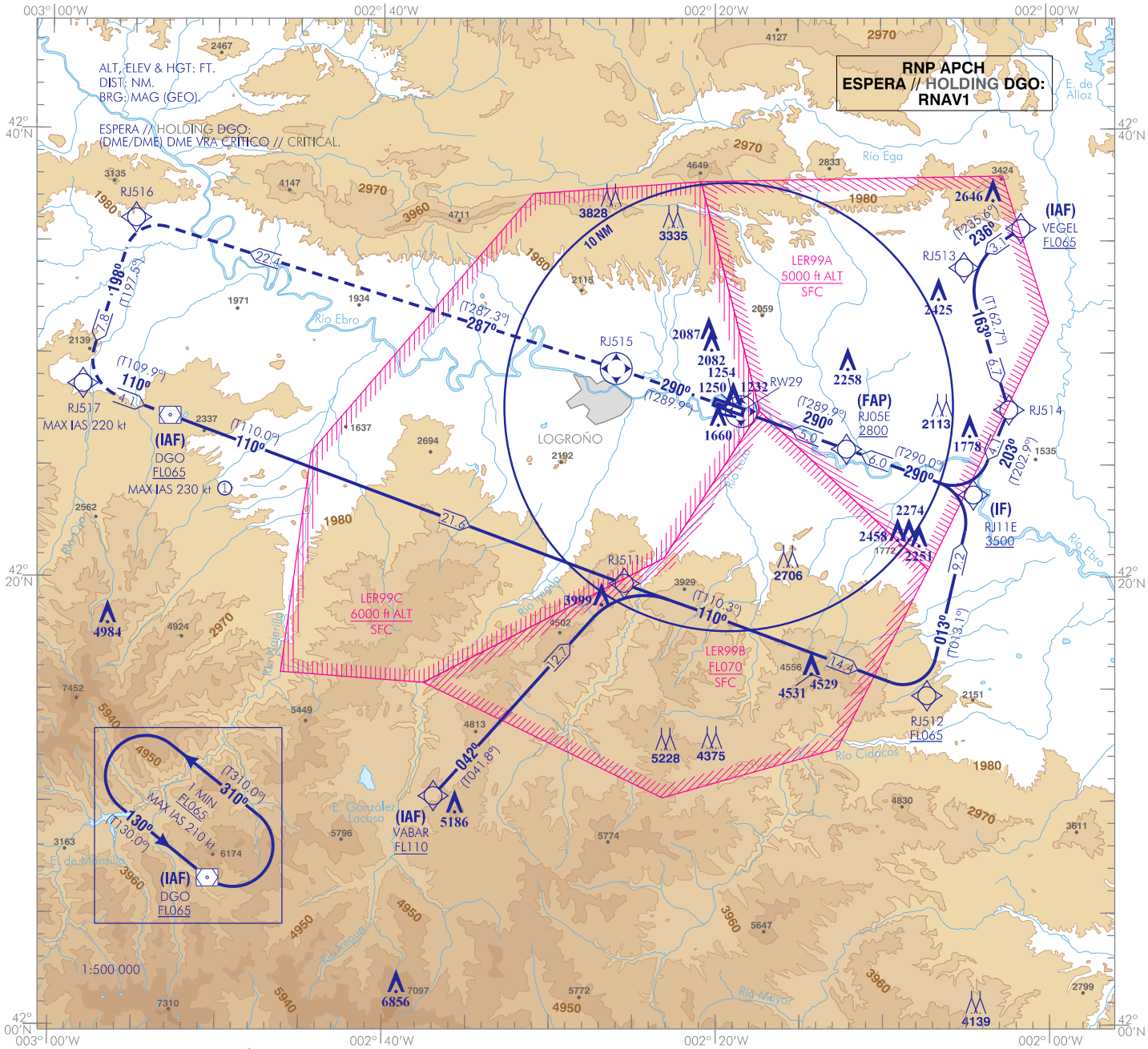
CARTA DE APROXIMACIÓN
POR INSTRUMENTOS-OACI

EGNOS
CH 97980
E29A

ELEV AD
1156 ft
VAR 0° (2020)

APP/TWR 118.580 C
GMC 121.705 C

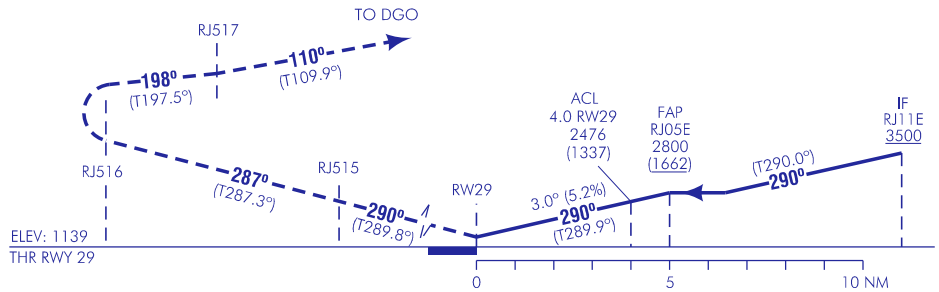
# LOGROÑO
RNP
**RWY 29** (LPV ONLY)




**FRUSTRADA:** SUBIR EN CURSO MAGNÉTICO 290° HASTA RJ515. CONTINUAR A RJ516. VIRAR A LA IZQUIERDA HASTA RJ517. VIRAR A LA IZQUIERDA (IAS MAX 220 kt) HASTA DGO A FL065 O SUPERIOR (IAS MAX 230 kt) E INCORPORARSE A LA ESPERA.
**MISSED APCH:** CLIMB ON MAGNETIC COURSE 290° TO RJ515. CONTINUE TO RJ516. TURN LEFT TO RJ517. TURN LEFT (MAX IAS 220 kt) TO DGO AT FL065 OR ABOVE (MAX IAS 230 kt) AND JOIN THE HOLDING.

NOTAS:
① SOLO FRUSTRADA.

NOTES:
① ONLY MISSED APPROACH.



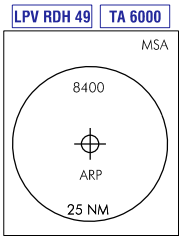

**HGT REF ELEV THR RWY 29**

| OCA/H | | | A | B | C | D |
|---|---|---|---|---|---|---|
| STA | LPV (CAT I) | (2.5 %) | 2144 (1005) | 2156 (1017) | 2164 (1025) | 2175 (1036) |
| | | (4.0 %) | 1384 (245) | 1396 (257) | 1404 (265) | 1415 (276) |
| | | | | | | |
| En circuito (H) sobre Circling (H) over 1156 | | | 2160 (1010) | 2380 (1230) | 2490 (1340) | 2660 (1510) |

| GS | kt | 80 | 100 | 120 | 140 | 160 | 180 |
|---|---|---|---|---|---|---|---|
| FAP-THR: 5.0 NM | min:s | 3:45 | 3:00 | 2:30 | 2:08 | 1:52 | 1:40 |
| FAF-MAPT: | min:s | NO AUTORIZADO EL CRONOMETRAJE // TIMING NOT AUTHORISED | | | | | |
| ROD: 5.2 % | ft/min | 424 | 531 | 637 | 743 | 849 | 955 |

| ALT/HGT RWY29 FNA | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| | | | | | | | | | 2480 (1340) | 2160 (1020) | 1830 (690) | 1510 (370) |

LPV RDH 49 | TA 6000




CAMBIOS: NOMBRE DE LA APROXIMACIÓN, CORRECCIÓN DEL PUNTO RJ11E COMO IF, OBSTÁCULOS.
CHANGES: APPROACH NAME, CORRECTION OF RJ11E FIX AS IF, OBSTACLES.

LOGROÑO AD

REQUISITOS DE LA BASE DE DATOS AERONÁUTICA
AERONAUTICAL DATABASE REQUIREMENTS

PROCEDIMIENTOS DE APROXIMACIÓN POR INSTRUMENTOS // INSTRUMENT APPROACH PROCEDURES

RNP RWY 29 (LPV ONLY)

| COORDENADAS WAYPOINTS // WAYPOINTS COORDINATES | |
|---|---|
| WPT | COORD |
| DGO (IAF) | 422711.9N 0025250.5W |
| RJ05E (FAP) | 422543.5N 0021205.6W |
| RJ11E (IF) | 422340.8N 0020428.3W |
| RJ511 | 421945.2N 0022528.5W |
| RJ512 | 421443.8N 0020717.5W |
| RJ513 | 423349.7N 0020459.5W |
| RJ514 | 422728.2N 0020218.8W |
| RJ515 | 422924.8N 0022555.8W |
| RJ516 | 423601.4N 0025456.9W |
| RJ517 | 422836.8N 0025806.0W |
| RW29 (LTP) | 422725.3N 0021826.4W |
| VABAR (IAF) | 421015.6N 0023655.2W |
| VEGEL (IAF) | 423534.3N 0020133.0W |

| | |
|---|---|
| Aproximación final SBAS CAT I - Pendiente (Ángulo de descenso) //<br>SBAS CAT I final approach - Slope (Descent angle) | 5.24% (3.00º) |

| DME CRÍTICO // CRITICAL DME | | |
|---|---|---|
| INSTALACIÓN (ID)<br>FACILITY (ID) | FREQ / CH | COORD |
| VITORIA (VRA) | 116.60 MHz<br>CH 113X | 424354.7770N<br>0025156.0984W |

DESCRIPCIÓN TABULAR DEL PROCEDIMIENTO
PROCEDURE TABULAR DESCRIPTION

| Número de serie<br>Serial number | Descriptor de trayectoria<br>Path Terminator | Identificador de punto de recorrido<br>Waypoint identifier | Sobrevuelo<br>Fly-over | Curso/Derrota<br>Course/Track<br>ºM (ºT) | Variación magnética<br>Magnetic variation | Distancia<br>Distance (NM) | Dirección de viraje<br>Turn direction | Altitud<br>Altitude (ft) | Velocidad<br>Speed (kt) | VPA/TCH (º/ft) | Especificación de navegación<br>Navigation specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **IAF DGO** | | | | | | | | | | | |
| 001 | IF | DGO | – | – | +0.1 | – | – | – | – | – | RNP APCH |
| 002 | TF | RJ511 | – | 110 (110.0) | +0.1 | 21.6 | – | – | – | – | RNP APCH |
| 003 | TF | RJ512 | – | 110 (110.3) | +0.1 | 14.4 | – | +FL065 | – | – | RNP APCH |
| 004 | TF | RJ11E | – | 013 (013.1) | +0.1 | 9.2 | – | +3500 | – | – | RNP APCH |
| 005 | TF | RJ05E | – | 290 (290.0) | +0.1 | 6.0 | – | +2800 | – | – | RNP APCH |
| 006 | TF | RW29 | Y | 290 (289.9) | +0.1 | 5.0 | – | +1188 | – | -3.0/49 | RNP APCH |
| 007 | CF | RJ515 | Y | 290 (289.8) | +0.1 | – | – | – | – | – | RNP APCH |
| 008 | TF | RJ516 | – | 287 (287.3) | +0.1 | 22.4 | – | – | – | – | RNP APCH |
| 009 | TF | RJ517 | – | 198 (197.5) | +0.1 | 7.8 | – | – | -220 | – | RNP APCH |
| 010 | TF | DGO | – | 110 (109.9) | +0.1 | 4.1 | – | +FL065 | -230 | – | RNP APCH |

| DESCRIPCIÓN TABULAR DEL PROCEDIMIENTO<br>PROCEDURE TABULAR DESCRIPTION | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Número de serie<br>Serial number | Descriptor de trayectoria<br>Path Terminator | Identificador de punto de recorrido<br>Waypoint identifier | Sobrevuelo<br>Fly-over | Curso/Derrota<br>Course/Track<br>ºM (ºT) | Variación magnética<br>Magnetic variation | Distancia<br>Distance (NM) | Dirección de viraje<br>Turn direction | Altitud<br>Altitude (ft) | Velocidad<br>Speed (kt) | VPA/TCH (º/ft) | Especificación de navegación<br>Navigation specification |
| **IAF VEGEL** | | | | | | | | | | | |
| 001 | IF | VEGEL | – | – | +0.1 | – | – | +FL065 | – | – | RNP APCH |
| 002 | TF | RJ513 | – | 236 (235.6) | +0.1 | 3.1 | – | – | – | – | RNP APCH |
| 003 | TF | RJ514 | – | 163 (162.7) | +0.1 | 6.7 | – | – | – | – | RNP APCH |
| 004 | TF | RJ11E | – | 203 (202.9) | +0.1 | 4.1 | – | +3500 | – | – | RNP APCH |
| 005 | TF | RJ05E | – | 290 (290.0) | +0.1 | 6.0 | – | +2800 | – | – | RNP APCH |
| 006 | TF | RW29 | Y | 290 (289.9) | +0.1 | 5.0 | – | +1188 | – | -3.0/49 | RNP APCH |
| 007 | CF | RJ515 | Y | 290 (289.8) | +0.1 | – | – | – | – | – | RNP APCH |
| 008 | TF | RJ516 | – | 287 (287.3) | +0.1 | 22.4 | – | – | – | – | RNP APCH |
| 009 | TF | RJ517 | – | 198 (197.5) | +0.1 | 7.8 | – | – | -220 | – | RNP APCH |
| 010 | TF | DGO | – | 110 (109.9) | +0.1 | 4.1 | – | +FL065 | -230 | – | RNP APCH |
| **IAF VABAR** | | | | | | | | | | | |
| 001 | IF | VABAR | – | – | +0.1 | – | – | +FL110 | – | – | RNP APCH |
| 002 | TF | RJ511 | – | 042 (041.8) | +0.1 | 12.7 | – | – | – | – | RNP APCH |
| 003 | TF | RJ512 | – | 110 (110.3) | +0.1 | 14.4 | – | +FL065 | – | – | RNP APCH |
| 004 | TF | RJ11E | – | 013 (013.1) | +0.1 | 9.2 | – | +3500 | – | – | RNP APCH |
| 005 | TF | RJ05E | – | 290 (290.0) | +0.1 | 6.0 | – | +2800 | – | – | RNP APCH |
| 006 | TF | RW29 | Y | 290 (289.9) | +0.1 | 5.0 | – | +1188 | – | -3.0/49 | RNP APCH |
| 007 | CF | RJ515 | Y | 290 (289.8) | +0.1 | – | – | – | – | – | RNP APCH |
| 008 | TF | RJ516 | – | 287 (287.3) | +0.1 | 22.4 | – | – | – | – | RNP APCH |
| 009 | TF | RJ517 | – | 198 (197.5) | +0.1 | 7.8 | – | – | -220 | – | RNP APCH |
| 010 | TF | DGO | – | 110 (109.9) | +0.1 | 4.1 | – | +FL065 | -230 | – | RNP APCH |

| CIRCUITOS DE ESPERA // HOLDING PATTERN | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Descriptor de trayectoria<br>Path terminator | Identificador de punto de recorrido<br>Waypoint identifier | Sobrevuelo<br>Fly-over | Curso/Derrota<br>Course/Track<br>ºM (ºT) | Variación magnética<br>Magnetic variation | Distancia/ Tiempo de alejamiento<br>Distance/ Outbound time | Dirección de viraje<br>Turn direction | Altitud MNM<br>MNM altitude (ft) | Altitud MAX<br>MAX altitude (ft) | Velocidad<br>Speed (kt) | Especificación de navegación<br>Navigation specification |
| HM | DGO (1) | – | 130 (130.0) | +0.1 | 4.0 MIN | L | FL065 | – | -210 | RNAV1 |

(1) (DME/DME) DME VRA crítico // critical.

| SBAS LPV FAS DATA BLOCK | | |
|---|---|---|
| FAS DATA BLOCK | | |
| 1 | OPERATION TYPE | 00 |
| 2 | SBAS PROVIDER | 01* |
| 3 | AIRPORT IDENTIFIER | LERJ |
| 4 | RUNWAY | 29 |
| 5 | APPROACH PERFORMANCE DESIGNATOR | 0** |
| 6 | ROUTE INDICATOR | – |
| 7 | REFERENCE PATH DATA SELECTOR | 00 |
| 8 | REFERENCE PATH IDENTIFIER | E29A*** |
| 9 | LTP/FTP LATITUDE | 422725.2900N |
| 10 | LTP/FTP LONGITUDE | 0021826.3580W |
| 11 | LTP/FTP ELLIPSOIDAL HEIGHT (METRES) | 398.1 |
| 12 | FPAP LATITUDE | 422749.4340N |
| 13 | FPAP LONGITUDE | 0021956.9935W |
| 14 | THRESHOLD CROSSING HEIGHT | 15.0 |
| 15 | TCH UNITS SELECTOR | [1] M |
| 16 | GLIDEPATH ANGLE (DEGREES) | 3.00 |
| 17 | COURSE WIDTH (METRES) | 105.00 |
| 18 | LENGTH OFFSET (METRES) | 0 |
| 19 | HORIZONTAL ALERT LIMIT (HAL) | 40.0 |
| 20 | VERTICAL ALERT LIMIT (VAL) | 35.0 |
| → 21 | PRECISION APPROACH PATH POINT CRC REMINDER | EB3AA5D1 |
| NON - FAS DATA BLOCK | | |
| 22 | ICAO CODE | LE |
| 23 | LTP ORTHOMETRIC HEIGHT | 347.1 |

NOTAS // NOTES:

*: Este valor “01” identifica a EGNOS como proveedor de servicio. // This value “01” identifies EGNOS as service provider.

**: LPV.

***: “E” se refiere a EGNOS. // “E” refers to EGNOS.