

CARTA DE SALIDA NORMALIZADA  
VUELO POR INSTRUMENTOS  
STANDARD DEPARTURE CHART  
INSTRUMENT (SID)

TA: 18500 FT

|              |        |
|--------------|--------|
| TWR          | 118.5  |
| APP          | 119.75 |
| ATIS         | 127.8  |
| ACCMZT SEC 3 | 128.0  |
| ACCMZT SEC 4 | 124.4  |
| ACCMZT SEC 5 | 124.2  |
| ACCMZT SEC 6 | 126.5  |
| ACCMZT SEC 5 | 125.6  |

AD ELEV: 105 FT  
VAR 8° E (17)

CULIACAN  
AEROPUERTO INTL / INTL AIRPORT  
CULIACAN INTL

RNAV DEPARTURE RWY 20

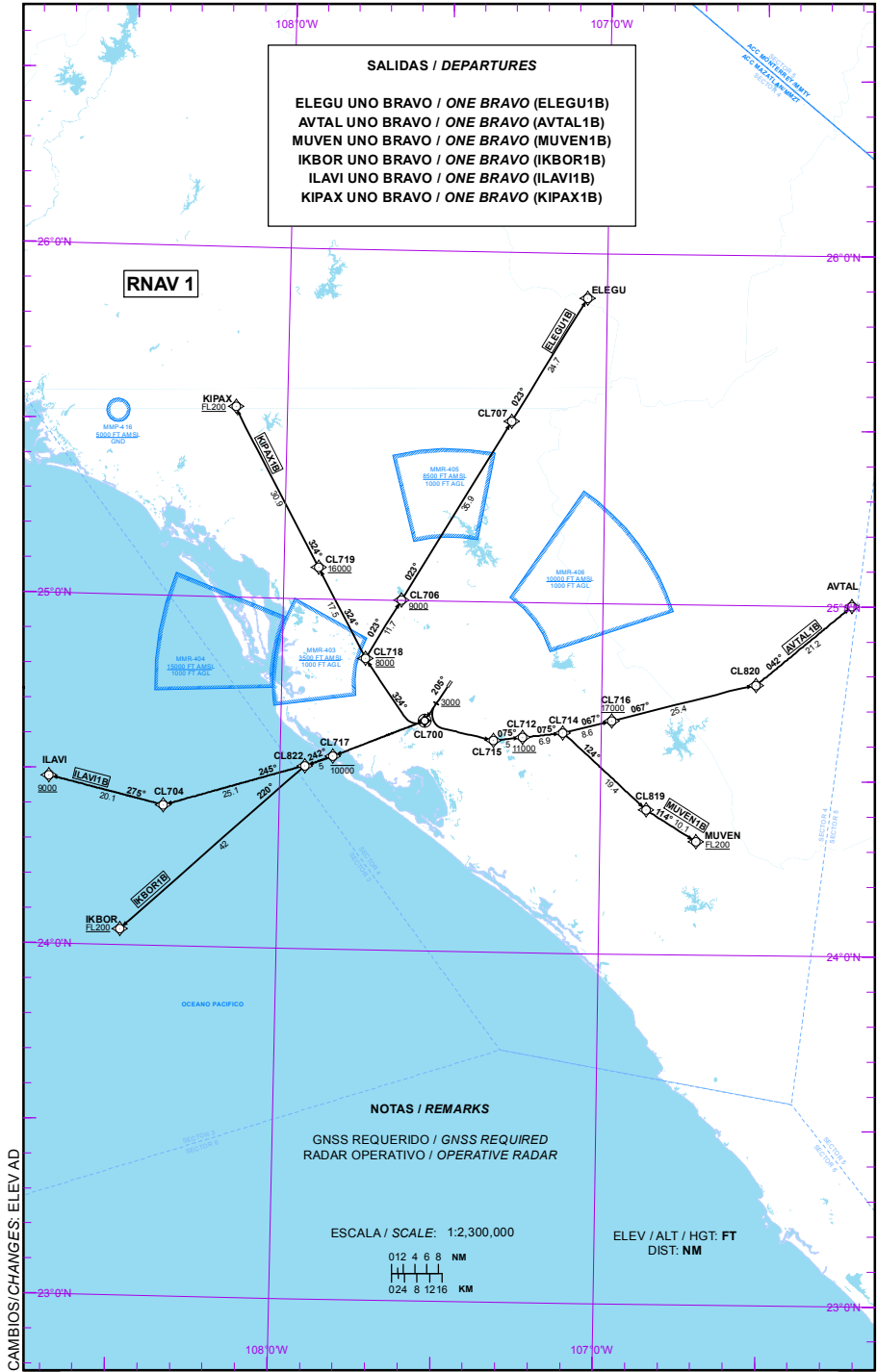


TABLA DE CODIFICACIÓN DEL PROCEDIMIENTO DE SALIDA POR INSTRUMENTOS RNAV PISTA 20  
 RUNWAY 20 RNAV INSTRUMENT DEPARTURE PROCEDURE CODING TABLE

## ELEGU-1B

| Número de serie / Serial Number | Descriptor de trayectoria / Path terminator | Identificador de punto de recorrido / Waypoint identifier | Sobrevuelo / Fly Over | Curso / derrota Course / Track *MAG (*T) | Variación Magnética / Magnetic variation (°) | Distancia / Distance (NM) | Dirección del Viraje / Turn direction | Altitud / Altitude (FT) | Velocidad / Velocity (KTS) | VPA (°) / TCH (FT) | Especificación de Navegación / Navigation Specification |
|---------------------------------|---|---|-----------------------|--|--|---------------------------|---------------------------------------|-------------------------|----------------------------|--------------------|---|
| 001                             | CF  | CL700   | Y                     | 205 (213.1)                              | 8  | -                         | -                                     | -                       | -                          | -                  | RNAV 1  |
| 002                             | CF  | CL718   | -                     | 324 (331.8)                              | 8  | -                         | -                                     | @8000                   | -                          | -                  | RNAV 1  |
| 003                             | TF  | CL706   | -                     | 023 (030.5)                              | 8  | 11.7                      | -                                     | +9000                   | -                          | -                  | RNAV 1  |
| 004                             | TF  | CL707   | -                     | 023 (030.5)                              | 8  | 35.9                      | -                                     | -                       | -                          | -                  | RNAV 1  |
| 005                             | TF  | ELEGU   | -                     | 023 (030.7)                              | 8  | 24.7                      | -                                     | -                       | -                          | -                  | RNAV 1  |

LA SALIDA **ELEGU-1B** REQUIERE UN GRADIENTE MÍNIMO DE ASCENSO DE **320 FT/NM (5.3%)** HASTA ALCANZAR **8000 FT.** (THE **SID ELEGU-1B** REQUIRES A MINIMUM CLIMB GRADIENT OF **320 FT/NM (5.3%)** UNTIL CROSSING **8000 FT**)

## REGIMEN DE ASCENSO / RATE OF CLIMB

\*PDG: PENDIENTE DE DISEÑO DEL PROCEDIMIENTO / PROCEDURE DESIGN GRADIENT

| *PDG VEL (GS) KTS | 80  | 100 | 120 | 140 | 160 | 180 | 200  |
|-------------------|-----|-----|-----|-----|-----|-----|------|
| FT/MIN            | 427 | 533 | 640 | 747 | 853 | 960 | 1067 |

## AVTAL-1B

| Número de serie / Serial Number | Descriptor de trayectoria / Path terminator | Identificador de punto de recorrido / Waypoint identifier | Sobrevuelo / Fly Over | Curso / derrota Course / Track *MAG (*T) | Variación Magnética / Magnetic variation (°) | Distancia / Distance (NM) | Dirección del Viraje / Turn direction | Altitud / Altitude (FT) | Velocidad / Velocity (KTS) | VPA (°) / TCH (FT) | Especificación de Navegación / Navigation Specification |
|---------------------------------|---|---|-----------------------|--|--|---------------------------|---------------------------------------|-------------------------|----------------------------|--------------------|---|
| 001                             | CA  | -   | -                     | 205 (213.1)                              | 8  | -                         | -                                     | +3000                   | -                          | -                  | RNAV 1  |
| 002                             | DF  | CL715   | -                     | -  | 8  | -                         | -                                     | -                       | -                          | -                  | RNAV 1  |
| 003                             | TF  | CL712   | -                     | 075 (082.9)                              | 8  | 5                         | -                                     | +11000                  | -                          | -                  | RNAV 1  |
| 004                             | TF  | CL714   | -                     | 075 (082.9)                              | 8  | 6.9                       | -                                     | -                       | -                          | -                  | RNAV 1  |
| 005                             | TF  | CL716   | -                     | 067 (075.3)                              | 8  | 8.6                       | -                                     | +17000                  | -                          | -                  | RNAV 1  |
| 006                             | TF  | CL820   | -                     | 067 (075.4)                              | 8  | 25.4                      | -                                     | -                       | -                          | -                  | RNAV 1  |
| 007                             | TF  | AVTAL   | -                     | 042 (049.9)                              | 8  | 21.2                      | -                                     | -                       | -                          | -                  | RNAV 1  |

## MUVEN-1B

| Número de serie / Serial Number | Descriptor de trayectoria / Path terminator | Identificador de punto de recorrido / Waypoint identifier | Sobrevuelo / Fly Over | Curso / derrota Course / Track *MAG (*T) | Variación Magnética / Magnetic variation (°) | Distancia / Distance (NM) | Dirección del Viraje / Turn direction | Altitud / Altitude (FT) | Velocidad / Velocity (KTS) | VPA (°) / TCH (FT) | Especificación de Navegación / Navigation Specification |
|---------------------------------|---|---|-----------------------|--|--|---------------------------|---------------------------------------|-------------------------|----------------------------|--------------------|---|
| 001                             | CA  | -   | -                     | 205 (213.1)                              | 8  | -                         | -                                     | +3000                   | -                          | -                  | RNAV 1  |
| 002                             | DF  | CL715   | -                     | -  | 8  | -                         | -                                     | -                       | -                          | -                  | RNAV 1  |
| 003                             | TF  | CL712   | -                     | 075 (082.9)                              | 8  | 5                         | -                                     | +11000                  | -                          | -                  | RNAV 1  |
| 004                             | TF  | CL714   | -                     | 075 (082.9)                              | 8  | 6.9                       | -                                     | -                       | -                          | -                  | RNAV 1  |
| 005                             | TF  | CL819   | -                     | 124 (131.8)                              | 8  | 19.4                      | -                                     | -                       | -                          | -                  | RNAV 1  |
| 006                             | TF  | MUVEN   | -                     | 114 (121.9)                              | 8  | 10.1                      | -                                     | +FL200                  | -                          | -                  | RNAV 1  |

LAS SALIDAS **AVTAL-1B** Y **MUVEN-1B** REQUIEREN UN GRADIENTE MÍNIMO DE ASCENSO DE **390 FT/NM (6.4%)** HASTA ALCANZAR **11000 FT.** (THE **SID's AVTAL-1B**, AND **MUVEN-1B** REQUIRE A MINIMUM CLIMB GRADIENT OF **390 FT/NM (6.4%)** UNTIL CROSSING **11000 FT**)

## REGIMEN DE ASCENSO / RATE OF CLIMB

\*PDG: PENDIENTE DE DISEÑO DEL PROCEDIMIENTO / PROCEDURE DESIGN GRADIENT

| *PDG VEL (GS) KTS | 80  | 100 | 120 | 140 | 160  | 180  | 200  |
|-------------------|-----|-----|-----|-----|------|------|------|
| FT/MIN            | 520 | 650 | 780 | 910 | 1040 | 1170 | 1300 |

## IKBOR-1B

| Número de serie / Serial Number | Descriptor de trayectoria / Path terminator | Identificador de punto de recorrido / Waypoint identifier | Sobrevuelo / Fly Over | Curso / derrota Course / Track *MAG (*T) | Variación Magnética / Magnetic variation (°) | Distancia / Distance (NM) | Dirección del Viraje / Turn direction | Altitud / Altitude (FT) | Velocidad / Velocity (KTS) | VPA (°) / TCH (FT) | Especificación de Navegación / Navigation Specification |
|---------------------------------|---|---|-----------------------|--|--|---------------------------|---------------------------------------|-------------------------|----------------------------|--------------------|---|
| 001                             | CF  | CL700   | Y                     | 205 (213.1)                              | 8  | -                         | -                                     | -                       | -                          | -                  | RNAV 1  |
| 002                             | DF  | CL717   | -                     | -  | 8  | -                         | -                                     | -10000                  | -                          | -                  | RNAV 1  |
| 003                             | TF  | CL822   | -                     | 242 (249.6)                              | 8  | 5                         | -                                     | -                       | -                          | -                  | RNAV 1  |
| 004                             | TF  | IKBOR   | -                     | 220 (227.4)                              | 8  | 42                        | -                                     | +FL200                  | -                          | -                  | RNAV 1  |

## ILAVI-1B

| Número de serie / Serial Number | Descriptor de trayectoria / Path terminator | Identificador de punto de recorrido / Waypoint identifier | Sobrevuelo / Fly Over | Curso / derrota Course / Track *MAG (*T) | Variación Magnética / Magnetic variation (°) | Distancia / Distance (NM) | Dirección del Viraje / Turn direction | Altitud / Altitude (FT) | Velocidad / Velocity (KTS) | VPA (°) / TCH (FT) | Especificación de Navegación / Navigation Specification |
|---------------------------------|---|---|-----------------------|--|--|---------------------------|---------------------------------------|-------------------------|----------------------------|--------------------|---|
| 001                             | CF  | CL700   | Y                     | 205 (213.1)                              | 8  | -                         | -                                     | -                       | -                          | -                  | RNAV 1  |
| 002                             | DF  | CL717   | -                     | -  | 8  | -                         | -                                     | -10000                  | -                          | -                  | RNAV 1  |
| 003                             | TF  | CL822   | -                     | 242 (249.6)                              | 8  | 5                         | -                                     | -                       | -                          | -                  | RNAV 1  |
| 004                             | TF  | CL704   | -                     | 245 (253.4)                              | 8  | 25.1                      | -                                     | -                       | -                          | -                  | RNAV 1  |
| 005                             | TF  | ILAVI   | -                     | 275 (283.4)                              | 8  | 20.1                      | -                                     | +9000                   | -                          | -                  | RNAV 1  |

## KIPAX-1B

| Número de serie / Serial Number | Descriptor de trayectoria / Path terminator | Identificador de punto de recorrido / Waypoint identifier | Sobrevuelo / Fly Over | Curso / derrota Course / Track *MAG (*T) | Variación Magnética / Magnetic variation (°) | Distancia / Distance (NM) | Dirección del Viraje / Turn direction | Altitud / Altitude (FT) | Velocidad / Velocity (KTS) | VPA (°) / TCH (FT) | Especificación de Navegación / Navigation Specification |
|---------------------------------|---|---|-----------------------|--|--|---------------------------|---------------------------------------|-------------------------|----------------------------|--------------------|---|
| 001                             | CF  | CL700   | Y                     | 205 (213.1)                              | 8  | -                         | -                                     | -                       | -                          | -                  | RNAV 1  |
| 002                             | CF  | CL718   | -                     | 324 (331.8)                              | 8  | -                         | -                                     | @8000                   | -                          | -                  | RNAV 1  |
| 003                             | TF  | CL719   | -                     | 324 (331.7)                              | 8  | 17.5                      | -                                     | +16000                  | -                          | -                  | RNAV 1  |
| 004                             | TF  | KIPAX   | -                     | 324 (331.7)                              | 8  | 30.9                      | -                                     | +FL200                  | -                          | -                  | RNAV 1  |

LA SALIDA **KIPAX-1B** REQUIERE UN GRADIENTE MÍNIMO DE ASCENSO DE **320 FT/NM (5.3%)** HASTA ALCANZAR **8000 FT.** (THE **SID KIPAX-1B** REQUIRES A MINIMUM CLIMB GRADIENT OF **320 FT/NM (5.3%)** UNTIL CROSSING **8000 FT**)

## REGIMEN DE ASCENSO / RATE OF CLIMB

\*PDG: PENDIENTE DE DISEÑO DEL PROCEDIMIENTO / PROCEDURE DESIGN GRADIENT

| *PDG VEL (GS) KTS | 80  | 100 | 120 | 140 | 160 | 180 | 200  |
|-------------------|-----|-----|-----|-----|-----|-----|------|
| FT/MIN            | 427 | 533 | 640 | 747 | 853 | 960 | 1067 |

**COORDENADAS DE LOS PUNTOS DE RECORRIDO**  
**WAYPOINT COORDINATES**

| Punto de recorrido /<br>Waypoint | Coordenadas /<br>Coordinates  | Punto de recorrido /<br>Waypoint | Coordenadas /<br>Coordinates  |
|----------------------------------|-------------------------------|----------------------------------|-------------------------------|
| AVTAL                            | 25°00'03.0"N<br>106°13'14.8"W | CL719                            | 25°05'24.8"N<br>107°53'31.9"W |
| CL700                            | 24°39'30.0"N<br>107°33'04.8"W | CL819                            | 24°24'48.4"N<br>106°51'23.7"W |
| CL704                            | 24°24'07.5"N<br>108°21'40.0"W | CL820                            | 24°46'21.1"N<br>106°31'06.3"W |
| CL706                            | 25°00'05.0"N<br>107°37'52.6"W | CL822                            | 24°31'20.9"N<br>107°55'20.8"W |
| CL707                            | 25°31'02.9"N<br>107°17'44.1"W | ELEGU                            | 25°52'20.7"N<br>107°03'45.7"W |
| CL712                            | 24°36'55.9"N<br>107°14'43.0"W | IKBOR                            | 24°02'45.6"N<br>108°29'10.7"W |
| CL714                            | 24°37'46.5"N<br>107°07'12.4"W | ILAVI                            | 24°28'46.3"N<br>108°43'08.9"W |
| CL715                            | 24°36'18.9"N<br>107°20'09.7"W | KIPAX                            | 25°32'39.8"N<br>108°09'44.5"W |
| CL716                            | 24°39'57.8"N<br>106°58'03.8"W | MUVEN                            | 24°19'27.7"N<br>106°42'01.1"W |
| CL717                            | 24°33'06.9"N<br>107°50'09.6"W |                                  |                               |
| CL718                            | 24°49'58.5"N<br>107°44'24.5"W |                                  |                               |