**EDDL AD 2.19 Radio navigation and landing aids**

| Type of aid<br>MAG VAR<br>Type of supported OPS<br>VOR/ILS/MLS<br>*declination* | ID | Frequency/<br>Channel<br>service provider<br>RPI | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Service volume radius GBAS | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **Barmen** | | | | | | | |
| DVOR/DME<br>*(2° E/2023)* | BAM | 114.00 MHz<br>CH87x | H24 | N 51 19 39.93<br>E 007 10 37.14 | 865 | - | Operational coverage<br>sector 292°–338°: 60 NM, 50000 ft MSL<br>sector 338°–292°: 40 NM, 50000 ft MSL<br>The DVOR may only be used for the radials in the published en-route, approach and departure procedures and is not permitted for area navigation.<br>DME unusable in sector 050°–170°:<br>below<br>0 – 10 NM 3200 ft MSL<br>10 – 20 NM 5700 ft MSL<br>20 – 30 NM 8300 ft MSL<br>30 – 40 NM 11000 ft MSL<br>DME unusable in sector 170°–050°:<br>below<br>0 – 10 NM 2300 ft MSL<br>10 – 20 NM 3200 ft MSL<br>20 – 30 NM 4600 ft MSL<br>30 – 40 NM 6100 ft MSL |
| **Cola** | | | | | | | |
| DVOR/DME<br>*(1° E/2012)* | COL | 108.80 MHz<br>CH25x | H24 | N 50 47 00.70<br>E 007 35 39.03 | 968 | - | Operational coverage<br>sector 225°–315°: 60 NM, FL 250<br>sector 315°–225°: 40 NM, FL 250<br>The DVOR may only be used for the radials in the published en-route, approach and departure procedures and is not permitted for area navigation.<br>DME unusable in sector 225°–315°:<br>below<br>0 – 10 NM 2000 ft MSL<br>10 – 20 NM 3500 ft MSL<br>20 – 30 NM 5000 ft MSL<br>30 – 40 NM 6600 ft MSL<br>40 – 50 NM 8400 ft MSL<br>50 – 60 NM 10300 ft MSL<br>DME unusable in sector 315°–225°:<br>below<br>0 – 10 NM 2000 ft MSL<br>10 – 20 NM 3500 ft MSL<br>20 – 30 NM 5000 ft MSL<br>30 – 40 NM 6600 ft MSL |
| **Duesseldorf** | | | | | | | |
| DVOR/DME<br>*(2° E/2024)* | DUS | 115.15 MHz<br>CH98y | H24 | N 51 16 59.48<br>E 006 45 13.41 | 139 | - | Operational coverage<br>sector 0°–360°: 40 NM, FL 250<br>The VOR may only be used for the radials in the published en-route, approach and departure procedures and is not permitted for area navigation. A rough course structure can be expected on all radials.<br>DME unusable in sector 0°–360°:<br>below<br>0 – 5 NM 500 ft MSL<br>5 – 10 NM 1200 ft MSL<br>10 – 20 NM 2500 ft MSL<br>20 – 30 NM 3800 ft MSL<br>30 – 40 NM 5400 ft MSL |