

ENR 4 RADIO NAVIGATION AIDS/SYSTEMS

ENR 4.1 RADIO NAVIGATION AIDS - EN-ROUTE

Name of Station/ MAG Var/ VOR Declination	Ident	Frequency (Channel)	Hours of Operation	Coordinates	DME Aerial Elevation	Remarks
1.	2.	3.	4.	5.	6.	7.
ABERDEEN VOR/DME 2.15°W (2017) 3.1°W	ADN	114.300 MHz 90X	H24	571837.62N 0021601.95W	600 ft	APCH Aid to Aberdeen/Dyce. VOR/DME DOC: 90 nm/50000 ft (200 nm/ 50000 ft in Sector R048°-138°). ENR Purpose: 571838N 0021602W
BARKWAY VOR/DME 0.5°W (2017) 1.3°W	BKY	116.250 MHz 109Y	H24	515923.17N 0000342.87E	486 ft	VOR/DME DOC: 40 nm/25000 ft.
BELFAST VOR/DME 3.32°W (2017) 4.0°W	BEL	117.200 MHz 119X	H24	543940.12N 0061347.67W	224 ft	APCH Aid to Belfast/Aldergrove. On Belfast/Aldergrove AD. VOR/DME DOC: 40 nm/50000 ft (200 nm/ 50000 ft in Sector R229°-349°). ENR Purpose: 543940N 0061348W
BENBECULA DME	BEN	86Y 113.950 MHz	H24	572840.57N 0072155.08W	36 ft	No associated En-route VOR. APCH Aid to Benbecula. On Benbecula AD. DME DOC: 150 nm/50000 ft (200 nm/ 50000 ft in Sector R200°-005°). ENR Purpose: 572841N 0072155W
BERRY HEAD VOR/DME 1.57°W (2017) 1.5°W	BHD	112.050 MHz 57Y	H24	502354.98N 0032937.46W	215 ft	VOR DOC: 85 nm/50000 ft. DME DOC: 85 nm/50000 ft (160 nm in Sector R212°-017°). Due to terrain effects significant bearing errors may occur below 3000 ft in Sector R012°-027° at ranges between 14 nm and 19 nm.
BIGGIN VOR/DME 0.43°W (2017) 0.4°W	BIG	115.100 MHz 98X	H24	511951.15N 0000205.32E	590 ft	APCH Aid to Biggin Hill. On Biggin Hill AD. VOR/DME DOC: 60 nm/50000 ft (125 nm/ 50000 ft in Sector R285°-045° and 100 nm/ 50000 ft in Sector R045°-135°). Due to terrain, coverage at low level is reduced in Sector R115°-220°. In addition DME un- locks may occur in Sector R005°-040° at ranges up to 25 nm. ENR Purpose: 511951N 0000205E
BOVINGDON VOR/DME 0.68°W (2017) 1.2°W	BNN	113.750 MHz 84Y	H24	514334.19N 0003259.10W	500 ft	VOR/DME DOC: 60 nm/50000 ft.
BRECON VOR/DME 1.67°W (2017) 2.3°W	BCN	117.450 MHz 121Y	H24	514331.89N 0031546.92W	1450 ft	VOR DOC: 65 nm/50000 ft. DME DOC: 65 nm/50000 ft (125 nm/50000 ft in Sector R137°-002°).
BROOKMANS PARK VOR/DME 0.53°W (2017) 1.1°W	BPK	117.500 MHz 122X	H24	514459.05N 0000624.25W	382 ft	VOR/DME DOC: 40 nm/50000 ft (80 nm/ 50000 ft in Sector R286°-001°).
CLACTON VOR/DME 0.12°W (2017) 0.1°W	CLN	114.550 MHz 92Y	H24	515054.50N 0010851.32E	100 ft	VOR/DME DOC: 100 nm/50000 ft (150 nm/50000 ft in Sector R315°-045°).
COMPTON VOR/DME 0.9°W (2017) 0.7°W	CPT	114.350 MHz 90Y	H24	512929.66N 0011310.89W	498 ft	VOR/DME DOC: 80 nm/50000 ft (150 nm/ 50000 ft in Sector R226°-046° and 130 nm/ 50000 ft in Sector R046°-136°).
DAVENTRY VOR/DME 0.95°W (2017) 0.9°W	DTY	116.400 MHz 111X	H24	521048.51N 0010649.64W	600 ft	VOR/DME DOC: 60 nm/50000 ft (75 nm/ 50000 ft in Sector R286°-346°)
DEAN CROSS DME	DCS	99X 115.200 MHz	H24	544318.88N 0032026.30W	700 ft	No associated VOR. Any VOR indications should be ignored. DME DOC: 100 nm/50000 ft. Due to terrain, coverage at low level is reduced in Sector R093°-163°.

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1.	2.	3.	4.	5.	6.	7.
DETLING VOR/DME 0.25°W (2017) 0.7°W	DET	117.300 MHz 120X	H24	511814.41N 0003550.19E	645 ft	VOR/DME DOC: 60 nm/50000 ft.
DOVER VOR/DME 0.03°E (2017) 0.3°W	DVR	114.950 MHz 96Y	H24	510945.44N 0012132.72E	315 ft	VOR/DME DOC: 80 nm/50000 ft (200 nm/ 50000 ft in Sector R015°-075°).
GAMSTON VOR/DME 1.02°W (2017) 0.6°W	GAM	112.800 MHz 75X	H24	531653.28N 0005649.79W	115 ft	VOR/DME DOC: 80 nm/25000 ft.
GLASGOW VOR/DME 2.82°W (2017) 3.5°W	GOW	115.400 MHz 101X	H24	555213.81N 0042644.61W	37 ft	APCH Aid to Glasgow. On Glasgow AD. VOR/DME DOC: 70 nm/50000 ft (300 nm/ 70000 ft in Sector R243°-003°). Due to terrain, coverage at low level is reduced in Sectors R348°-028° and R183°-203° ENR Purpose: 555214N 0042645W
GOODWOOD VOR/DME 0.67°W (2017) 1.1°W	GWC	114.750 MHz 94Y	H24	505118.78N 0004524.25W	113 ft	APCH Aid to Chichester/Goodwood. On Chichester/Goodwood AD. VOR/DME DOC: 80 nm/50000 ft. Due to terrain, coverage at low level is reduced in Sector R301°-046°. ENR Purpose: 505119N 0004524W
HENTON NDB 0.78°W	HEN	433.500 kHz	H24	514535.07N 0004725.05W		Range 30 nm.
HONILEY VOR/DME 1.17°W (2017) 1.8°W	HON	113.650 MHz 83Y	H24	522124.04N 0013949.41W	435 ft	VOR/DME DOC: 60 nm/50000 ft (85 nm/ 50000 ft in Sector R182°-242° and 100 nm/ 50000 ft in Sector R317°-002°).
ISLE OF MAN VOR/DME 2.62°W (2017) 2.9°W	IOM	112.200 MHz 59X	H24	540400.72N 0044548.51W	573 ft	APCH Aid to Isle of Man. VOR/DME DOC: 60 nm/50000 ft. ENR Purpose: 540401N 0044549W
JERSEY VOR/DME 0.92°W (2017) 2.14°W	JSY	112.200 MHz 59X	H24	491315.97N 0020246.15W	264 ft	APCH Aid to Jersey. DOC: 60 nm/50000 ft (40 nm/50000 ft in Sector 048°-183°M). Due to terrain effects DME coverage is reduced in Sector R180°-360° and unlocks occur. DME unlocks may occur on the 08 Ap- proach Procedure. ENR Purpose: 491316N 0020246W
LAMBOURNE VOR/DME 0.43°W (2017) 0.2°W	LAM	115.600 MHz 103X	H24	513845.69N 0000906.13E	200 ft	VOR/DME DOC: 40 nm/50000 ft (110 nm/ 50000 ft in Sector R315°-135°).
LANDS END VOR/DME 2.3°W (2017) 2.2°W	LND	114.200 MHz 89X	H24	500810.62N 0053812.96W	800 ft	VOR/DME DOC: 200 nm/50000 ft
LONDON VOR/DME 0.63°W (2017) 1°W	LON	113.600 MHz 83X	H24	512914.09N 0002759.54W	110 ft	VOR/DME DOC: 40 nm/50000 ft (100 nm/ 50000 ft in Sector R181°-256° and 80 nm/ 50000 ft in Sector R256°-316°). DME unlocks may occur in the Sector R181°-251° at ranges greater than 50 nm.
LYDD VOR/DME 0.12°W (2017) 0.7°W	LYD	114.050 MHz 87Y	H24	505958.87N 0005243.18E	30 ft	VOR/DME DOC: 80 nm/50000 ft (100 nm/ 50000 ft in Sector R196°-256°).

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1.	2.	3.	4.	5.	6.	7.
MACHRIHANISH DME	MAC	107X 116.000 MHz	H24	552548.08N 0053901.49W	95 ft	No associated En-route VOR. DME DOC: 150 nm/50000 ft (200 nm/ 50000 ft in Sector R228°-348°). Due to terrain, coverage at low level is reduced in Sectors R123°-163°, R208°- 238° and R348°-083°. ENR Purpose: 552548N 0053901W
MANCHESTER VOR/DME 1.53°W (2017) 2.1°W	MCT	113.550 MHz 82Y	H24	532125.29N 0021544.24W	282 ft	APCH Aid to Manchester. On Manchester AD. VOR/DME DOC: 90 nm/50000 ft. ENR Purpose: 532125N 0021544W
MAYFIELD VOR/DME 0.38°W (2017) 0.4°W	MAY	117.900 MHz 126X	H24	510101.86N 0000658.04E	360 ft	VOR/DME DOC: 40 nm/25000 ft (60 nm/ 25000 ft in Sector R105°-165°). Due to terrain, coverage at low level is reduced in Sector R315°-040°.
MIDHURST VOR/DME 0.63°W (2017) 0.8°W	MID	114.000 MHz 87X	H24	510314.23N 0003730.01W	200 ft	VOR/DME DOC: 60 nm/50000 ft (100 nm/ 50000 ft in Sector R241°-001°).
NEWCASTLE DME	NEW	89Y 114.250 MHz	H24	550218.41N 0014154.13W	287 ft	On Newcastle AD. No associated VOR. Any VOR indications should be ignored. DME DOC: 200 nm/50000 ft. ENR Purpose: 550218N 0014154W
NEW GALLOWAY NDB 2.57°W	NGY	399.000 kHz	H24	551038.52N 0041007.02W		Range 35 nm.
OCKHAM VOR/DME 0.6°W (2017) 1.5°W	OCK	115.300 MHz 100X	H24	511818.17N 0002649.86W	200 ft	VOR/DME DOC: 70 nm/25000 ft (90 nm/ 25000 ft in Sector R061°-091°).
OTTRINGHAM VOR/DME 0.77°W (2017) 1.0°W	OTR	113.900 MHz 86X	H24	534153.57N 0000613.45W	0 ft	VOR/DME DOC: 100 nm/60000 ft (200 nm/60000 ft in Sector R016°-076° and 150 nm/60000 ft in Sector R076°-136°).
PERTH VOR 2.47°W (2017) 3.0°W	PTH	110.400 MHz	H24	562632.63N 0032206.96W		VOR DOC 80 nm/50000 ft. No associated DME. Any DME indications should be ignored.
POLE HILL VOR/DME 1.52°W (2017) 1.3°W	POL	112.100 MHz 58X	H24	534437.56N 0020611.98W	1400 ft	VOR/DME DOC: 115 nm/50000 ft (150 nm/50000 ft in Sector R076°-016°). Due to terrain, coverage at low level is reduced in Sector R281°-336°.
SAINT ABBS VOR/DME 1.9°W (2017) 1.6°W	SAB	112.500 MHz 72X	H24	555427.04N 0021222.81W	760 ft	VOR DOC: 50 nm/50000 ft (200 nm/50000 ft in Sector R047°-137° and 100 nm/50000 ft in Sector R242°-287°). DME DOC: 90 nm/50000 ft (200 nm/50000 ft in Sector R047°-137° and 100 nm/50000 ft in Sector R242°-287°).
SEAFORD VOR/DME 0.35°W (2017) 0.9°W	SFD	117.000 MHz 117X	H24	504538.49N 0000718.89E	300 ft	VOR/DME DOC: 50 nm/50000 ft (120 nm/ 50000 ft in Sector R256°-301°).
SOUTHAMPTON VOR/DME 0.88°W (2017) 0.6°W	SAM	113.350 MHz 80Y	H24	505718.90N 0012042.20W	66 ft	APCH Aid to Southampton. VOR/DME DOC: 100 nm/50000 ft (150 nm/50000 ft in Sector R226°-316°). On R204° VOR flag alarms and DME unlocks may be experienced at ranges exceeding 30 nm below 8000 ft ENR Purpose: 505719N 0012042W
STORNOWAY VOR/DME 4.05°W (2017) 4.1°W	STN	115.100 MHz 98X	H24	581225.01N 0061058.97W	250 ft	APCH Aid to Stornoway. VOR/DME DOC: 105 nm/50000 ft (200 nm/50000 ft in Sector R169°-109°). ENR Purpose: 581225N 0061059W



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1.	2.	3.	4.	5.	6.	7.
STRUMBLE VOR/DME 2.37°W (2017) 2.9°W	STU	113.100 MHz 78X	H24	515940.88N 0050224.69W	600 ft	VOR DOC: 85 nm/50000 ft (300 nm/70000 ft in Sector R213°-333° and 120 nm/50000 ft in Sector R333°-018°). DME DOC: 85 nm/50000 ft (170 nm/50000 ft in Sector R138°-213°, 300 nm/70000 ft in Sector R213°-333° and 120 nm/50000 ft in Sector R333°-018°).
SUMBURGH VOR/DME 2.13°W (2017) 2.4°W	SUM	117.350 MHz 120Y	H24	595243.52N 0011711.52W	84 ft	APCH Aid to Sumburgh. On Sumburgh AD. VOR/DME DOC: 200 nm/50000 ft. Due to terrain, coverage at low level is reduced in Sectors R142°-162°, R287°-307° and R347°-007°. ENR Purpose: 595244N 0011712W.
TALLA VOR/DME 2.3°W (2017) 2.1°W	TLA	113.800 MHz 85X	H24	552956.92N 0032110.20W	2786 ft	VOR/DME DOC: 100 nm/50000 ft (120 nm/50000 ft in Sector R317°-017°).
TIREE VOR/DME 3.98°W (2017) 4.2°W	TIR	117.700 MHz 124X	H24	562935.56N 0065232.12W	36 ft	APCH Aid to Tiree. On Tiree AD. VOR/DME DOC: 90 nm/50000 ft (200 nm/50000 ft in Sector R229°-319°). ENR Purpose: 562936N 0065232W
TRENT VOR/DME 1.27°W (2017) 1.6°W	TNT	115.700 MHz 104X	H24	530314.23N 0014011.89W	968 ft	VOR/DME DOC: 80 nm/50000 ft (100 nm/50000 ft in Sector R302°-002°).
TURNBERRY VOR/DME 2.85°W (2017) 2.5°W	TRN	117.500 MHz 122X	H24	551848.28N 0044701.89W	600 ft	VOR DOC: 60 nm/50000 ft (200 nm/50000 ft in Sector R273°-003°). DME DOC: 100 nm/50000 ft (60 nm/50000 ft in Sector R078°-228° and 200 nm/50000 ft in Sector R273°-003°). Due to terrain effects bearing errors of greater than 4° may occur in Sector R173°-183°. In addition coverage at low level is reduced in Sector R068°-108°.
WALLASEY VOR/DME 1.87°W (2017) 2.4°W	WAL	114.100 MHz 88X	H24	532330.97N 0030804.06W	55 ft	VOR/DME DOC: 120 nm/50000 ft.
WESTCOTT NDB 0.85°W	WCO	335.000 kHz	H24	515110.51N 0005744.67W		Range 30 nm.
WHITEGATE NDB 1.63°W	WHI	368.500 kHz	H24	531105.53N 0023723.06W		Range 25 nm.
WICK VOR/DME 2.72°W (2017) 3.4°W	WIK	113.600 MHz 83X	H24	582731.74N 0030601.33W	145 ft	APCH Aid to Wick. On Wick AD. VOR/DME DOC: 100 nm/50000 ft (160 nm/50000 ft in Sector R333°-003°). ENR Purpose: 582732N 0030601W
WOODLEY NDB 0.77°W	WOD	352.000 kHz	H24	512710.02N 0005243.68W		Range 25 nm.