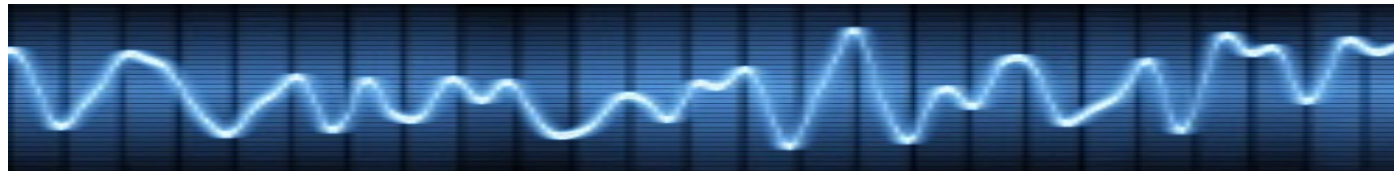


## Frequency Management Webinar

ICAO Handbook on Radio Frequency Spectrum Requirements  
for Civil Aviation



11-12/11/2020



Frequency Finder

File Edit View Insert Format Records Scripts Window Help



FF-2020-3

User Manual ST Time Zone 2  
Sync Manual NV Pro 16.0.4

**Applications**  
VIEW ROUTES

**Start page - Select system**

VHF COM   VHF NAV   NDB   HF COM   SSR II

Server <https://frequency.icao.int/ffopen/>  
User Regional Office

The server <http://frequency.icao.int/fflogin> is not operational until the compatibility issues with Windows 10 have been addressed.

Active Region  
**==MID**

The ICAO Regional Offices are responsible for the coordination of frequency assignments.

**Start page for frequency assignment planning for CNS systems**

Welcome to the Frequency Finder Server - Open Access (temporary)



Frequency Finder

File Edit View Insert Format Records Scripts Window Help

**Start** *Home page for ILS, VOR, DME and GBAS systems* **User Manual** **Sync Manual** **ST**

**FF-2020-3** **Regional Office** **Pro 16.0.4** **MID** **Connected** **VIEW ROUTES**

Server <https://frequency.icao.int/ffopen/> Time Zone 2

**Download MOD NAV list 2** **Download ALL NAV COM list 2**

Synchronization (all times in UTC; dd/mm/yyyy hh:mm:

Recent download from Global COM list 2

Download NAV 11/11/2020 21:00:50

**Check Sync** **NAV list 2 synchronized**

Recent uploads to Global COM list 2

NAV AFI synchronized	06/02/2019 03:10:33
NAV APAC synchronized	15/10/2020 12:51:52
NAV CAR synchronized	15/12/2019 16:46:22
NAV EUR synchronized	23/09/2018 00:10:34
NAV MID synchronized	14/02/2020 14:51:37
NAV SAM synchronized	15/12/2019 16:00:07
Summary NAV:	15/10/2020 12:51:52

**LOCAL BACK UP**

Recover from local back-up  
dd/mm/yyyy  
**28/09/2020 8:49:09**

**Go to COM list 2:**

**AFI**

**APAC**

**CAR**

**EUR**

**MID** Active Region

**SAM**

**GLOBAL**

Polygons ICAO FIR synchronized

For any question or comment, contact Loftur Jonasson at [ljonasson@icao.int](mailto:ljonasson@icao.int) or the CNS Officer at the ICAO Regional Office.  
14 May 2020. Frequency Finder version FF-2020-04R available



Frequency Finder

File Edit View Insert Format Records Scripts Window Help

NAV Data Base (COM List 2) ==MID NAV Data Base (COM List 2) Pro 16.0.4

Start Home Global COM list 2 Active Find Delete Record New or Mod or Del Test Frequency Calculation results Mapping Export COM list

MID COM list 2 RESET FIND Query

total 6345 394 found D ID

MOD	Key	Region	Country	Ctry	Location	Latitude	Longitude	Facility	ID	Freq.	Gl. P.	Ch.	TRD	VHFDOC	VHFpwr	DMEDOC	DMEPwr	Cat	Remarks	Ch-date	Ch-By	NAV Pc	
R	928198	MID	United Arab	UAE	DUBAI INTL	25°15'00" N	055°20'00" E	DME	A	n/a	n/a	038X				200/450	40	N	operational since lo	06/11/2009	REDA		
R	928199	MID	United Arab	UAE	DUBAI INTL	25°15'00" N	055°20'00" E	DME	A	n/a	n/a	021X				200/450	40	N	operational since lo	06/11/2009	REDA		
R	928197	MID	United Arab	UAE	DUBAI INTL	25°15'00" N	055°20'00" E	ILS/DME	A	110.100	334.400	038X		25/62.5	17	80/100	27	N	operational since lo	06/11/2009	REDA		
R	928179	MID	United Arab	UAE	DUBAI INTL	25°15'00" N	055°22'00" E	VOR	DXB	108.400	n/a	n/a		200/450	29			I	opening 01 Mrch 2006; DVOR	19/10/1999	MTraore		
R	927734	MID	United Arab	UAE	DUBAI INTL	25°15'00" N	055°23'00" E	ILS/DME	IDBR	109.500	332.600	032X		25/62.5	17	25/62.5	27	N		25/08/2003	MAMADOU		
R	927730	MID	United Arab	UAE	DUBAI INTL	25°14'00" N	055°23'00" E	ILS/DME	IDBL	110.100	334.400	038X		25/62.5	17	25/62.5	27	N		01/01/1999	Expert		
R	927731	MID	United Arab	UAE	DUBAI INTL	25°15'00" N	055°21'00" E	ILS/DME	IDBE	110.900	330.800	046X		25/62.5	17	25/62.5	27	N		01/01/1999	Expert		
R	927733	MID	United Arab	UAE	DUBAI INTL	25°15'00" N	055°23'00" E	ILS/DME	IDBW	111.300	332.300	050X		25/62.5	17	25/62.5	27	N		01/01/1999	Expert		
R	927732	MID	United Arab	UAE	DUBAI INTL	25°15'00" N	055°22'00" E	VOR/DME	DUB	115.700	n/a	104X		300/450	29	300/450	40	I		01/01/1999	Expert		
R	928186	MID	United Arab	UAE	DUBAI JEBEL ALI	24°58'00" N	055°02'00" E	VOR/DME	A	113.400	n/a	081X		200/450	29	200/450	40	I	CH81X DVOR 113.400 A; DVOR	14/05/2007	GULAM		
R	928180	MID	United Arab	UAE	FUJAIRAH INTL	25°06'02" N	056°21'17" E	VOR	A	113.800	n/a	n/a		200/450	29			I	DVOR	10/03/2006	GULAM		
R	927736	MID	United Arab	UAE	FUJAIRAH INTL	25°07'00" N	056°18'00" E	ILS	IFJR	111.500	332.900	n/a		25/62.5	17			N		01/01/1999	Expert		
R	927735	MID	United Arab	UAE	FUJAIRAH INTL	25°06'00" N	056°21'00" E	VOR/DME	FJR	114.700	n/a	094X		200/450	29	200/450	40	I		01/01/1999	Expert		
R	928184	MID	United Arab	UAE	JEBEL AL DHANNA	24°10'00" N	052°35'00" E	ILS/DME	A	109.750	333.050	034Y		25/62.5	17	80/100	27	I	New Jebel Ali AP DME	05/08/2007	GULAM		
R	928183	MID	United Arab	UAE	JEBEL AL DHANNA	24°10'00" N	052°35'00" E	ILS/DME	A	111.750	333.350	054Y		25/62.5	17	80/100	27	I	New Jebel Ali AP DME	05/08/2007	GULAM		
R	927822	MID	United Arab	UAE	OMAL	24°17'00" N	055°37'00" E	ILS/DME	IALA	111.900	331.100	056X		25/62.5	17	25/62.5	27	N	56 X to be checked	14/02/2020	Robert		
R	927737	MID	United Arab	UAE	OMAL	24°16'00" N	055°36'00" E	VOR	ALN	112.600	n/a	n/a		200/450	29			N	73 X to be checked; DVOR	01/01/1999	Expert		
R	928263	MID	United Arab	UAE	OMAL	24D14'55" N	055D36'15" E	VOR/DME	ALA	115.900	n/a	106X		200/450	27	200/450	37	N		24/10/2019	Muna		
R	927739	MID	United Arab	UAE	OMAM	00°00'00" N	000°00'00" E	ILS/DME	IMA	109.100	331.400	028X		25/62.5	17	25/62.5	27	N	Military Facilities?	01/01/1999	Expert		
R	928081	MID	United Arab	UAE	OMAM	00°00'00" N	000°00'00" E	ILS/DME	MMA	111.100	331.700	048X		25/62.5	17	25/62.5	27	N	Military facilit	06/06/2002	Traore		
R	927738	MID	United Arab	UAE	OMAM	00°00'00" N	000°00'00" E	VOR/TAC	MA	114.900	n/a	096X		200/450	29	200/450		N	Military facilities	01/01/1999	Expert		
R	927740	MID	United Arab	UAE	OMDM	00°00'00" N	000°00'00" E	ILS/DME	IMIN	109.900	333.800	036X		25/62.5	17	25/62.5	27	N	Military facilities	01/01/1999	Expert		
R	927741	MID	United Arab	UAE	OMDM	00°00'00" N	000°00'00" E	VOR/DME	MIN	115.200	n/a	099X		200/450	29	200/450	40	N	Military facilities	01/01/1999	Expert		
R	927742	MID	United Arab	UAE	RAS AL KHAIMAH INTL	25°38'00" N	055°56'00" E	ILS/DME	IRK	110.500	329.600	042X		25/62.5	17	25/62.5	27	I		01/01/1999	Expert		
R	927743	MID	United Arab	UAE	RAS AL KHAIMAH INTL	25°35'00" N	055°57'00" E	VOR/DME	RAV	113.600	n/a	083X		25/100	17	25/100	27	N		01/01/1999	Expert		
D	R	928261	MID	United Arab	UAE	Reema Air Base	24D02'45" N	055D27'43" E	ILS/DME	XXX	0.000	0.000	O00X		25/62.5	17	25/100	27	ICAO	111.700/054X	16/01/2020	Muna	
R	R	928262	MID	United Arab	UAE	Reema Air Base	24D02'45" N	055D27'43" E	ILS/DME	xxx	111.100	331.700	048X		25/62.5	17	25/100	27	ICAO		29/01/2020	Robert	
R	R	928266	MID	United Arab	UAE	Reema Air Base	24D00'59" N	055D17'58" E	VOR	RMH	114.100	n/a	n/a		200/450	27			ICAO		28/04/2020	Muna	

VHF-NAV VHF-NAV VHF-NAV VHF-NAV VHF-NAV VHF/UHF NAVIGATION SYSTEMS Frequency Assignment Planning VHF-NAV Scroll with up or down keys using Ctrl-up or Ctrl-down PresetRegion MID



Frequency Finder

NAV Data Base (COM List 2) ==MID NAV Data Base (COM List 2) Pro 16.0.4

Start Home Global COM list 2 Active Find Delete Record

MID COM list 2 RESET FIND Query

NEW facility ADD facility MODIFY facility DELETE facility

Test Frequency Calculation results Mapping Export COM list

----- Upload -----

total 6345 394 found D ID

MOD	Key	Region	Country	Ctry	Location	Latitude	ID	Freq.	Gl. P.	Ch.	TRD	VHFDOC	VHFpwr	DMEDOC	DMEPwr	Cat	Remarks	Ch-date	Ch-By	NAV P
R	927589	MID	Saudi Arabia	ARS	GASSIM	26°17'00"			n/a	118X		200/450	29	200/450		I		01/01/1999	Expert	
R	928161	MID	Saudi Arabia	ARS	GURIAT	31°24'29"		IGRY	110.900	330.800	046X	25/62.5	17	80/100	27	N	RWY 28	07/03/2005	MAMADOU	
R	927593	MID	Saudi Arabia	ARS	GURIAT	31°30'00"	N 037°25'00"	GRY	114.700	n/a	094X	60/450	20	60/450		N		01/01/1999	Expert	
R	928157	MID	Saudi Arabia	ARS	HAFR AL BATIN	28°19'21"	N 046°07'50"	IHFR	108.500	329.900	022X	25/62.5	17	80/100	27	N	RWY 34	07/03/2005	MTraore	
R	927594	MID	Saudi Arabia	ARS	HAFR AL BATIN	28°19'00"	N 046°08'00"	HFR	113.100	n/a	078X	200/450	29	200/450		I		01/01/1999	Expert	
R	927596	MID	Saudi Arabia	ARS	HAIL	27°26'00"	N 041°41'00"	IHL	110.300	335.000	n/a	25/62.5	17			N	CAT I	01/01/1999	Expert	
R	927595	MID	Saudi Arabia	ARS	HAIL	27°25'00"	N 041°41'00"	HIL	113.500	n/a	082X	100/350	23	100/350		I	DVOR	01/01/1999	Expert	
R	927597	MID	Saudi Arabia	ARS	HALAIFA	26°25'00"	N 039°16'00"	HLF	116.700	n/a	114X	200/350	29	200/350		N		01/01/1999	Expert	
R	927591	MID	Saudi Arabia	ARS	JAZAN PRINCE ABDULLAH B	16°55'00"	N 042°35'00"	IGZN	109.900	333.800	036X	25/62.5	17	25/62.5	27	N	CAT I DME-36	01/01/1999	Expert	
R	927592	MID	Saudi Arabia	ARS	JAZAN PRINCE ABDULLAH BI	16°54'00"	N 042°34'00"	GIZ	117.700	n/a	124X	200/450	29	200/450		I		01/01/1999	Expert	
R	927599	MID	Saudi Arabia	ARS	JEDDAH KAIA	21°42'00"	N 039°10'00"	IEAL	108.300	334.100	020X	25/62.5	17	25/62.5	27	N	CAT I	01/01/1999	Expert	
R	927600	MID	Saudi Arabia	ARS	JEDDAH KAIA	21°40'00"	N 039°11'00"	IDFJ	108.500	329.900	022X	25/62.5	17	25/62.5	27	N	CAT I	01/01/1999	Expert	
R	927601	MID	Saudi Arabia	ARS	JEDDAH KAIA	21°42'00"	N 039°08'00"	IJD	109.100	331.400	028X	25/62.5	17	25/62.5	27	N	CAT II	01/01/1999	Expert	
R	927602	MID	Saudi Arabia	ARS	JEDDAH KAIA	21°40'00"	N 039°08'00"	IJD	109.300	332.000	030X	25/62.5	17	25/62.5	27	I	CAT II	01/01/1999	Expert	
R	927603	MID	Saudi Arabia	ARS	JEDDAH KAIA	21°41'00"	N 039°09'00"	IJD	109.500	332.600	032X	25/62.5	17	25/62.5	27	I	CAT II	01/01/1999	Expert	
R	927604	MID	Saudi Arabia	ARS	JEDDAH KAIA	21°40'00"	N 039°10'00"	IJD	109.700	333.200	034X	25/62.5	17	25/62.5	27	N	CAT II	01/01/1999	Expert	
R	927598	MID	Saudi Arabia	ARS	JEDDAH KAIA	21°41'00"	N 039°10'00"	JDW	114.900	n/a	096X	200/350	29	200/350		I	DVOR	01/01/1999	Expert	
R	927606	MID	Saudi Arabia	ARS	JUBAIL	27°04'00"	N 049°24'00"	IJB	109.500	332.600	032X	25/62.5	17	25/62.5	27	N	CAT I	01/01/1999	Expert	
R	927605	MID	Saudi Arabia	ARS	JUBAIL	27°02'00"	N 049°24'00"	JBL	112.900	n/a	076X	200/350	29	200/350		N	DVOR	01/01/1999	Expert	
R	927607	MID	Saudi Arabia	ARS	KHAMIS MUSHAYT	18°17'00"	N 042°46'00"	IKAM	109.500	332.600	032X	25/62.5	17	25/62.5	27	N	CAT I DME-32	01/01/1999	Expert	
R	927608	MID	Saudi Arabia	ARS	KHAMIS MUSHAYT	18°18'00"	N 042°47'00"	KAM	115.900	n/a	106X	200/350	29	200/350		N		01/01/1999	Expert	
R	927609	MID	Saudi Arabia	ARS	KKMC	27°54'00"	N 045°30'00"	IKMC	108.700	330.500	024X	25/62.5	17	25/62.5	27	N	CAT-I	01/01/1999	Expert	
R	927610	MID	Saudi Arabia	ARS	KKMC	27°52'00"	N 045°33'00"	KMC	115.900	n/a	106X	200/350	29	200/350		N		01/01/1999	Expert	
R	927611	MID	Saudi Arabia	ARS	MAGALA	26°14'00"	N 047°17'00"	MGA	116.300	n/a	110X	200/350	29	200/350		N		01/01/1999	Expert	
R	928036	MID	Saudi Arabia	ARS	MEDINAH	24°34'20"	N 039°42'10"	IDIN	111.300	332.300	050X	25/62.5	17	25/62.5	27	N	DME NAT	25/11/2001	Vitali	
R	928035	MID	Saudi Arabia	ARS	MEDINAH	24°32'10"	N 039°42'42"	INAH	111.700	333.500	054X	25/62.5	17	25/62.5	27	N	DME NAT	25/11/2001	Vitali	
R	927613	MID	Saudi Arabia	ARS	MEDINAH PRINCE ABDULAZIZ	24°34'00"	N 039°42'00"	IPMA	110.500	329.600	042X	25/62.5	17	25/62.5	27	I	DME NAT	01/01/1999	Expert	
R	927612	MID	Saudi Arabia	ARS	MEDINAH PRINCE ABDULAZIZ	24°33'00"	N 039°42'00"	PMA	114.100	n/a	088X	300/350	29	300/350		I	DVOR	01/01/1999	Expert	

VHF-NAV VHF-NAV VHF-NAV VHF-NAV VHF-NAV VHF/UHF NAVIGATION SYSTEMS Frequency Assignment Planning VHF-NAV Scroll with up or down keys using Ctrl-up or Ctrl-down PresetRegion MID







## Localizer and glide path frequency pairing

The pairing of the runway localizer and glide path transmitter frequencies of an instrument landing system shall be taken from the following list in accordance with the provisions of Volume V, Chapter 4.

<i>Localizer (MHz)</i>	<i>Glide path (MHz)</i>	<i>Localizer (MHz)</i>	<i>Glide path (MHz)</i>
108.1	334.7	110.1	334.4
108.15	334.55	110.15	334.25
108.3	334.1	110.3	335.0
108.35	333.95	110.35	334.85
108.5	329.9	110.5	329.6
108.55	329.75	110.55	329.45
108.7	330.5	110.7	330.2
108.75	330.35	110.75	330.05
108.9	329.3	110.9	330.8
108.95	329.15	110.95	330.65
109.1	331.4	111.1	331.7
109.15	331.25	111.15	331.55
109.3	332.0	111.3	332.3
109.35	331.85	111.35	332.15
109.5	332.6	111.5	332.9
109.55	332.45	111.55	332.75
109.7	333.2	111.7	333.5
109.75	333.05	111.75	333.35
109.9	333.8	111.9	331.1
109.95	333.65	111.95	330.95





Channel pairing				DME parameters					
				Interrogation				Reply	
				Frequency MHz	DME/N $\mu$ s	Pulse codes		Frequency MHz	Pulse codes $\mu$ s
						Initial approach $\mu$ s	Final approach $\mu$ s		
DME channel number	VHF frequency MHz	MLS angle frequency MHz	MLS channel number	Frequency MHz	DME/N $\mu$ s	Initial approach $\mu$ s	Final approach $\mu$ s	Frequency MHz	Pulse codes $\mu$ s
28X	109.10	5 034.0	510	1 052	12	12	18	989	12
28W	–	5 034.3	511	1 052	–	24	30	989	24
28Y	109.15	5 049.6	562	1 052	36	36	42	1 115	30
28Z	–	5 049.9	563	1 052	–	21	27	1 115	15
29X	109.20	–	–	1 053	12	–	–	990	12
29Y	109.25	5 050.2	564	1 053	36	36	42	1 116	30
29Z	–	5 050.5	565	1 053	–	21	27	1 116	15
30X	109.30	5 034.6	512	1 054	12	12	18	991	12
30W	–	5 034.9	513	1 054	–	24	30	991	24
30Y	109.35	5 050.8	566	1 054	36	36	42	1 117	30
30Z	–	5 051.1	567	1 054	–	21	27	1 117	15
31X	109.40	–	–	1 055	12	–	–	992	12
31Y	109.45	5 051.4	568	1 055	36	36	42	1 118	30
31Z	–	5 051.7	569	1 055	–	21	27	1 118	15

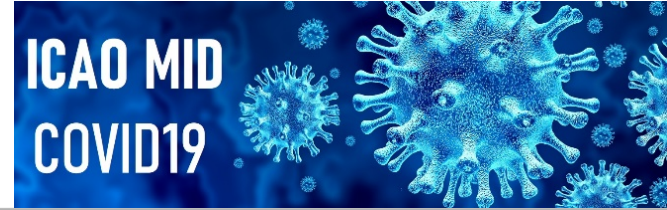
When a DME transponder is intended to operate in association with a single VHF navigation facility in the 108 MHz to 117.95 MHz frequency band, the DME operating channel shall be paired with the VHF channel.

DME (960-1215 MHz)

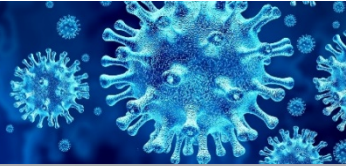




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# DEMO



**Thank you for your Attention**