International Civil Aviation Organization

Sixth Meeting of the Frequency Management Working Group (FM WG/6)

(Cairo, Egypt, 27 – 28 September 2026)

Agenda Item 4: Frequency Congestion Issue

ASSESSMENT OF VHF COMMUNICATIONS CHANNELS AVAILABILITY OVER THE MID REGION AND PROPOSED MODIFICATIONS TO THE MID REGION FREQUENCY ALLOTMENT PLAN

(Presented by GCAAN/Iraq)

SUMMARY

This paper presents an assessment of VHF communications (COM) channel availability across the MID Region, carried out using a compatibility assessment tool that has been updated to allow testing of multiple locations at once. Results covering all VHF air-ground communication services, including Aeronautical Operational Control (AOC), are provided in the two spreadsheets attached to this paper. The paper points to areas of channel congestion, particularly along the boundary with the EUR Region and around the Gulf area, and proposes several modifications to the MID Region VHF frequency allotment plan, most notably a reduction and re-purposing of part of the AOC sub-band, aimed at improving the efficiency of frequency assignment planning in the Region.

Action by the meeting is at paragraph 3.1.

REFERENCES

- FM WG/5-WP/09, A Review of VHF COM Frequency Allotment Plan and Utilization in the MID Region.
- ICAO Doc 9718, Handbook on Radio Frequency Spectrum Requirements for Civil Aviation, Volume II — Frequency assignment planning criteria for aeronautical radio communication and navigation systems, Second Edition, 2022.
- ICAO Doc 9718, Volume II — Supplement (Regional frequency allotment tables), 30 June 2017.
- Annex 10 to the Convention on International Civil Aviation, Volume V — Aeronautical Radio Frequency Spectrum Utilization.
- ICAO Frequency Finder (FF) — ICAO frequency assignment database extract, 16 August 2026.

1. INTRODUCTION

1.1 This paper follows on from the presentation made at the fifth meeting of the Frequency Management Working Group (FM WG/5) (Doha, Qatar, 10–14 May 2026), WP/09, A Review of VHF COM Frequency Allotment Plan and Utilization in the MID Region, and builds on the points raised there with a more detailed assessment of VHF channel availability across the Region. That presentation put forward several suggestions to help address the frequency congestion issue, including a suggestion to reduce the AOC allotted band and free up additional channels for other services.

1.2 The paper presents an assessment of VHF communications (COM) channel availability across the MID Region and proposes several modifications to the MID Region VHF frequency allotment plan.

1.3 The assessment covered most VHF air-ground communication services, using uniform Designated Operational Coverage (DOC) values in line with ICAO Doc 9718, Volume II. It was run over the majority of MID Region airports, with additional test points added to widen the coverage of the assessment.

1.4 The test was carried out against the ICAO frequency assignment database, extracted from the ICAO Frequency Finder (FF) on 16 August 2026. Detailed results are provided in the two spreadsheets attached to this paper and are summarized in the Discussion section below.

2. DISCUSSION

2.1 This assessment does not rely on the standard ICAO Frequency Finder (FF) application. Instead, a special tool was updated for this purpose, to allow testing across multiple locations at once, since the FF application takes a long time to identify available frequencies, cannot identify more than 10 available frequencies for each site, and the current version (Frequency Finder COM Module) appears to have errors in its “find frequency” function, particularly where conflicts with EUR Region assignments are involved.

2.2 The compatibility method used by the tool is based on line-of-sight separation: the minimum required separation between the DOC of two facilities operating on the same frequency must be larger than the sum of the distance to the radio horizon of each facility. The tool does not apply the 5:1 distance ratio principle described in ICAO Doc 9718, Volume II, or any other compatibility method.

2.3 The tool does not support polygons for FIR or ACC/APP sector boundaries, so stations defined by polygons in the ICAO database are, in most cases, converted to a uniform circular DOC when imported; even with this simplification, it still gives a good overview of channel availability across the Region.

2.4 Results are provided in the two attached spreadsheets (Appendix A, VHF channel availability by service, and Appendix B, AOC channel availability) and are summarized below by service.

2.5 AOC: channels are available in all the MID Region States within the suggested reduced AOC band (130.900–132.025 MHz). Treating AOC as a protected service would leave

limited free channels within this band for airports in Syria, Lebanon, and central and northern Iraq. It is worth noting that about 39 current AOC assignments exist in the sub-band 128.900–130.875 MHz, and about 28 assignments for other services exist in the sub-band 130.900–132.025 MHz.

2.6 AOC is an unprotected service from a frequency management standpoint: there is no need to keep two AOC stations sharing a frequency apart, as long as both are used solely for AOC and not for other ATC services. Keeping a sub-band reserved for AOC only is therefore the more efficient approach.

2.7 For this reason, it would be more efficient, from a frequency management standpoint, to keep the MID Region AOC band aligned with the bands used in neighbouring Regions.

2.8 Both the EUR and AFI Regions allot the band 131.400–131.975 MHz for aeronautical operational control. The APAC Region still allots the band 128.900–132.025 MHz to AOC, with a proposal to give priority to the sub-band 130.900–132.025 MHz.

2.9 ACC-L: channels are available across almost the entire MID Region.

2.10 Only 16 channels in the MID Region are allotted solely to ACC-L, yet the database shows 36 assignments within this allotment; most of these are registered as ACC-U or other services with a DOC height of 45 000 ft, and only a few are genuinely ACC-L.

2.11 ACC-U: channels are available across most of the MID Region, with the exception of Syria and Lebanon, where availability is limited.

2.12 APP-I: channels are available across almost the entire MID Region.

2.13 APP-L: channels are available across almost the entire MID Region.

2.14 APP-PAR: channels are available across almost the entire MID Region, except in the Gulf area, where there are few or none available.

2.15 The Precision approach radar (PAR) service is defined in the ICAO frequency handbook with a uniform DOC of 25/40, the same as for TWR. This type of approach give pilots radiocommunication guidance during the final stages of an approach to land, it sees little to no use at civil airports at present, and there are currently no assignments for this service in Mid Region.

2.16 APP-U: no channels are available in the Gulf area or the surrounding parts of Saudi Arabia, Iraq and Iran. A preliminary comparison of the current APP-U assignments in the Region against States' AIP publications suggests that many are not genuinely APP-U, which requires a DOC height of 45 000 ft; these assignments should be reviewed and the DOC adjusted to reflect the actual coverage requirement.

2.17 FIS-L: channels are available across almost the entire MID Region, apart from some limitation in the Gulf area. Current FIS-L assignments in the Region are very limited.

2.18 FIS-U: channels are scarce or unavailable in Iraq, western Syria, northern Egypt, and around the Gulf area. FIS-L and FIS-U share the same allotted channels.

2.19 Most current FIS assignments in the MID Region are registered as FIS-U, with a height of 45 000 ft, yet a review of States' AIP publications shows the actual usage is often different: some of these frequencies serve one of the ATC services, others function as an aerodrome flight

information service (AFIS), which shall carry the same DOC as TWR (25/40), and others seems not in use at all.

2.20 The MID Region database also includes several AFIS assignments, even though AFIS is not defined as a service in the MID Region allotment plan.

2.21 FIS-U (GPS): channels are available across almost the entire MID Region, apart from some limitation in Iraq. Despite 48 channels being allotted to this service, none are currently assigned in the MID Region.

2.22 TWR: channels are available across almost the entire MID Region, except parts of the Gulf area.

2.23 The MID Region allotment plan allots only 40 channels to the TWR service, reflecting its relatively small DOC (25/40). It is important that these channels remain reserved for the TWR service only, and are not assigned to other services with a higher DOC. A review of TWR assignments in the Gulf area shows that many are for national use, including military purposes; channels could be freed up for the TWR service in these congested areas by keeping the existing assignments for civil airports on the allotted TWR channels and moving the national/military assignments to the "Not Allotted" channels instead.

2.24 VOLMET/ATIS: channels are available across most of the MID Region, apart from some limitation in western Syria and Lebanon.

2.25 For several services, available frequencies are limited in some boundary areas with the EUR Region, where assignments are already congested. New frequency assignment requests in these areas should be reviewed carefully, with the DOC adjusted to the actual coverage requirement, since a significant increase in DOC size will reduce the number of frequencies available for assignment.

2.26 Based on the above, the meeting may wish to consider the following:

a) reduce the AOC allotted band from 128.900–132.025 MHz (126 channels) to 130.900–132.025 MHz (46 channels);

b) leave the band 129.700–130.875 MHz (48 channels) as "Not Allotted", so these channels can be used for any service;

c) re-allot the sub-band 128.900–129.675 MHz (32 channels) to the ACC-L/ACC-U services;

d) merge the FIS-U (GPS) allotment with FIS-L/FIS-U;

e) remove the APP-PAR service from the allotment plan and add its allotted channels to the TWR service;

f) consult the ATM Sub-Group (ATM SG) to determine the operational status of APP-PAR, FIS-U (GPS), and APP-U services within the MID Region.;

g) review the APP-U frequency assignments by each State and adjust the DOC to reflect actual coverage requirements; and

h) review the FIS-U frequency assignments by each State and adjust the DOC to reflect actual coverage requirements.

2.27 An updated MID Region VHF frequency allotment plan, reflecting the changes proposed above, is attached as Appendix C.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper;

b) endorse the proposal for enhancing the MID Region frequency allotment plan set out in the Suggestions at paragraph 2.26 above; and

c) discuss any other relevant matter.

- END -



Appendix A - VHF Channels Availability c



Appendix B - AOC Channels Availability A



Appendix C - Proposed Mid region

VHF Channels Availability over MID Region

State	Location	Coordinates (DMS)	ACC-L (200/250)	ACC-U (260/450)	APP-I (75/250)	APP-L (50/120)	APP-PAR (25/40)	APP-U (150/450)	VOLMET/ATIS (200/450)	FIS-L (100/250)	FIS-U (200/450)	FIS-U (GPS) (200/450)	TWR (25/40)
Bahrain	Bahrain International Airport	26°16'02.26"N 50°38'15.50"E	20	19	12	14	3	0	16	4	2	12	0
Egypt	Abu Simbel Airport	22°22'33.33"N 31°36'42.24"E	85	66	65	70	13	25	36	30	19	32	33
Egypt	Alexandria International Airport	30°55'56.96"N 29°41'47.17"E	27	5	16	39	12	7	6	6	2	14	19
Egypt	Aswan International Airport	23°57'39.87"N 32°49'13.38"E	74	47	53	64	11	20	31	24	14	26	27
Egypt	Asyut International Airport	27°02'45.46"N 31°00'45.94"E	55	33	47	53	11	17	19	18	12	26	23
Egypt	Cairo International Airport	30°06'41.52"N 31°23'48.10"E	30	14	27	42	9	8	15	11	3	19	16
Egypt	El Alamein International Airport	30°55'27.57"N 28°27'41.80"E	27	4	20	47	13	7	5	6	2	14	23
Egypt	El Arish International Airport	31°03'19.17"N 33°49'40.67"E	27	6	27	32	8	8	13	9	2	17	17
Egypt	Hurghada International Airport	27°10'36.39"N 33°47'48.09"E	52	26	40	47	10	14	17	16	8	22	18
Egypt	Luxor International Airport	25°40'15.66"N 32°42'23.21"E	67	36	46	53	10	20	29	18	13	26	19
Egypt	Marsa Alam International Airport	25°33'19.97"N 34°35'32.82"E	53	37	44	51	10	20	30	18	10	21	17
Egypt	Mersa Matruh International Airport	31°19'27.53"N 27°13'20.17"E	22	4	20	46	13	6	5	5	1	7	25
Egypt	Port Said International Airport	31°16'45.43"N 32°14'26.10"E	26	3	21	33	8	8	7	8	2	17	17
Egypt	Sharm El Sheikh International Airport	27°58'38.18"N 34°23'40.98"E	48	21	39	45	9	13	15	16	7	20	18
Egypt	Taba International Airport	29°35'40.19"N 34°46'32.71"E	30	15	34	40	8	9	14	14	6	17	16
Egypt	TEST Location	27°12'50.67"N 27°18'9.11"E	66	37	59	69	14	19	28	21	11	28	33
Egypt	TEST Location	23° 0'40.32"N 26°46'17.34"E	110	76	74	77	14	28	44	32	24	36	34
Iran	Abu Musa Island Airport	25°52'32.52"N 55°01'58.80"E	21	19	13	17	0	0	16	3	2	12	1
Iran	Ardabil Airport	38°19'32.52"N 48°25'27.84"E	31	8	45	51	14	14	15	21	4	4	24
Iran	Ayatollah Hashemi Rafsanjani International Airport	30°16'16.59"N 56°56'58.89"E	23	19	22	31	7	0	17	5	3	11	28
Iran	Bam Airport	29°05'03.12"N 58°27'00.00"E	22	16	24	29	7	0	21	5	3	11	23
Iran	Bandar Abbas International Airport	27°13'05.88"N 56°22'40.08"E	22	16	13	24	2	0	17	3	2	12	9
Iran	Birjand International Airport	32°53'47.49"N 59°16'52.53"E	26	18	44	60	13	1	33	7	5	11	32
Iran	Bojnord Airport	37°29'34.80"N 57°18'29.52"E	34	22	66	74	16	4	36	13	8	9	32
Iran	Bushehr Airport	28°56'41.28"N 50°50'04.56"E	20	13	12	21	6	0	16	4	3	7	14
Iran	Chabahar Konarak International Airport	25°26'35.48"N 60°22'55.80"E	19	15	28	39	7	2	25	4	2	11	19

Iran	Dezful Airport	32°26'03.84"N 48°23'51.35"E	14	9	29	46	12	0	17	7	2	5	23
Iran	Gachsaran Airport	30°20'01.93"N 50°50'01.67"E	18	12	17	22	10	0	17	5	4	7	19
Iran	Hamadan Airport	34°51'59.10"N 48°33'38.48"E	14	9	37	47	14	1	10	9	2	5	27
Iran	Imam Khomeini International Airport	35°24'57.96"N 51°09'07.92"E	20	12	43	59	14	1	25	8	6	6	26
Iran	Isfahan Shahid Beheshti International Airport	32°45'18.51"N 51°53'01.96"E	20	13	26	41	12	0	20	6	4	7	25
Iran	Jask Airport	25°39'17.13"N 57°48'06.18"E	21	17	22	24	4	0	20	3	2	10	8
Iran	Kashan Airport	33°53'43.09"N 51°34'37.20"E	19	12	36	51	12	0	21	8	5	7	27
Iran	Khoram Abad Airport	33°26'07.43"N 48°16'58.45"E	13	9	29	44	13	1	17	8	3	5	24
Iran	Kish International Airport	26°31'31.54"N 53°58'49.66"E	20	20	13	15	0	0	16	3	2	12	0
Iran	Lar Airport	27°40'28.92"N 54°22'59.88"E	20	19	13	18	0	0	16	3	3	11	10
Iran	Mashhad International Airport	36°14'05.36"N 59°38'34.62"E	33	22	63	79	16	4	41	9	7	9	35
Iran	Nowshahr Airport	36°39'51.43"N 51°27'45.83"E	26	14	48	58	14	2	26	9	6	6	28
Iran	Parsabad-Moghan Airport	39°36'12.96"N 47°52'53.40"E	40	9	39	52	15	24	16	21	6	4	22
Iran	Persian Gulf International Airport	27°22'46.56"N 52°44'15.72"E	20	20	13	15	0	0	16	4	3	11	0
Iran	Qasem Soleimani International Airport	31°20'11.04"N 48°45'49.64"E	14	10	21	35	12	0	17	6	2	5	18
Iran	Ramsar Airport	36°54'25.24"N 50°41'14.34"E	24	10	50	56	14	2	25	10	7	6	29
Iran	Sabzevar National Airport	36°10'05.15"N 57°35'42.72"E	28	21	62	71	16	3	38	10	6	9	33
Iran	Sanandaj Airport	35°14'45.24"N 47°00'33.12"E	14	7	35	44	13	1	10	10	3	3	23
Iran	Sardar-e-Jangal Airport	37°19'24.00"N 49°37'04.00"E	26	8	47	53	14	2	15	16	4	6	30
Iran	Sari Dasht-e Naz International Airport	36°38'39.87"N 53°11'19.54"E	28	15	53	64	15	2	32	9	6	7	28
Iran	Semnan Municipal Airport	35°35'27.96"N 53°29'42.35"E	22	16	48	63	14	1	29	8	6	7	28
Iran	Shahid Ashrafi Esfahani Airport	34°20'45.24"N 47°09'29.16"E	11	7	35	39	13	0	9	9	2	5	26
Iran	Shahid Sadooghi Airport	31°54'17.64"N 54°16'35.40"E	21	16	23	32	10	0	18	6	4	7	28
Iran	Shiraz Shahid Dastghaib International Airport	29°32'21.12"N 52°35'23.29"E	20	16	12	20	8	0	16	4	3	7	20
Iran	Tabriz International Airport	38°08'02.04"N 46°14'06.00"E	22	7	32	44	10	13	15	16	2	3	10
Iran	Urmia Airport	37°40'05.15"N 45°04'07.32"E	17	6	28	40	9	12	11	14	1	3	8
Iran	Zahedan International Airport	29°28'32.52"N 60°54'22.32"E	20	17	35	43	9	1	27	6	3	11	30
Iraq	Al Najaf International Airport	31°59'28.02"N 44°24'18.07"E	8	7	31	43	13	0	10	4	0	3	29
Iraq	Baghdad International Airport	33°15'45.00"N 44°14'04.56"E	11	6	31	41	12	1	10	5	0	3	26
Iraq	Basra International Airport	30°32'56.76"N 47°39'43.57"E	12	10	20	35	11	0	17	6	1	6	19
Iraq	Erbil International Airport	36°14'09.77"N 43°56'47.81"E	13	7	26	35	8	6	10	8	0	3	11

Iraq	Jalal Talabani International Airport	35°33'37.75"N 45°18'54.49"E	14	6	33	41	11	2	11	10	1	2	19
Iraq	Kirkuk International Airport	35°28'10.20"N 44°20'56.04"E	14	5	25	38	11	5	10	8	0	2	18
Iraq	Mosul International Airport	36°18'19.65"N 43°8'51.53"E	14	6	25	32	8	6	8	9	0	3	6
Iraq	Nasiriyah International Airport	30°56'1.81"N 46° 5'19.69"E	12	7	29	38	12	0	17	8	1	5	22
Iraq	TEST Location	34° 6'24.01"N 42°24'0.35"E	13	5	26	38	11	4	9	7	0	2	22
Iraq	TEST Location	33° 2'22.36"N 40°18'48.39"E	14	4	22	38	9	3	9	6	0	2	21
Jordan	King Hussein International Airport	29°36'41.76"N 35°01'05.16"E	31	15	32	40	8	9	14	14	6	16	17
Jordan	Marka International (Amman Civil) Airport	31°58'21.72"N 35°59'29.76"E	20	5	24	30	8	8	11	8	3	11	19
Jordan	TEST Location	30°21'2.74"N 36°20'34.71"E	31	14	27	36	8	8	12	11	5	13	19
Jordan	TEST Location	32°14'35.17"N 37°58'7.50"E	19	9	27	31	7	8	7	9	4	9	20
Kuwait	Kuwait International Airport	29°13'28.15"N 47°58'11.33"E	14	11	19	30	11	0	16	5	3	5	17
Lebanon	Beirut Rafic Hariri International Airport	33°49'11.40"N 35°29'14.79"E	11	1	16	29	6	6	3	6	0	5	10
Lebanon	TEST Location	34°17'42.23"N 36°27'9.32"E	11	1	19	27	4	6	3	6	0	5	9
Libya	Al Abraq International Airport	32°47'20.53"N 21°57'17.51"E	29	0	42	56	13	6	6	17	0	9	30
Libya	Benina International Airport	32°05'48.49"N 20°16'10.20"E	55	9	48	60	14	14	11	23	1	16	35
Libya	Ghadames Airport	30°08'43.74"N 9°42'07.54"E	95	52	60	68	14	30	35	23	17	24	36
Libya	Ghat Airport	25°08'44.16"N 10°08'33.36"E	130	110	77	80	14	40	51	32	29	45	37
Libya	Kufra Airport	24°10'43.32"N 23°18'50.40"E	123	74	77	79	15	38	47	33	29	40	40
Libya	Misrata International Airport	32°19'30.00"N 15°03'39.60"E	63	15	42	64	14	19	21	19	10	14	33
Libya	Mitiga International Airport	32°53'30.37"N 13°17'16.36"E	56	20	42	54	12	17	16	17	11	12	32
Libya	Sabha Airport	26°59'32.83"N 14°27'58.18"E	121	91	77	79	14	36	46	31	29	42	37
Oman	Duqm International Airport	19°30'07.00"N 57°38'03.00"E	22	19	30	41	9	2	28	3	2	11	26
Oman	Khasab Airport	26°10'15.60"N 56°14'26.16"E	21	16	14	22	2	0	17	3	2	12	5
Oman	Muscat International Airport	23°36'00.78"N 58°17'06.96"E	20	17	24	30	5	0	22	2	2	10	9
Oman	Salalah International Airport	17°02'19.32"N 54°05'28.68"E	30	22	38	58	11	1	36	5	2	14	31
Oman	Suhar International Airport	24°23'09.74"N 56°37'31.48"E	21	16	17	25	3	0	19	2	2	10	5
Oman	TEST Location	21°44'7.53"N 56°10'54.73"E	23	17	23	26	4	0	22	2	2	10	12
Oman	TEST Location	19° 3'38.36"N 54° 0'53.94"E	23	22	28	37	9	1	25	2	2	12	27
Qatar	Doha International Airport	25°15'33.95"N 51°33'55.90"E	20	20	14	15	0	0	16	3	2	12	0
Qatar	Hamad International Airport	25°16'23.00"N 51°36'29.00"E	20	20	14	15	0	0	16	3	2	12	0
Saudi Arabia	Abha International Airport	18°14'25.44"N 42°39'23.76"E	39	24	60	69	15	5	37	12	9	14	34

Saudi Arabia	Al Wajh Domestic Airport	26°11'54.96"N 36°28'35.03"E	40	26	42	48	11	15	29	14	8	16	19
Saudi Arabia	Al-Ahsa International Airport	25°17'07.08"N 49°29'06.72"E	21	16	14	15	4	0	16	4	2	12	2
Saudi Arabia	Al-Jawf International Airport	29°46'59.88"N 40°06'03.26"E	18	8	33	40	9	5	13	9	0	4	25
Saudi Arabia	Al-Ula International Airport	26°29'01.08"N 38°07'01.37"E	37	13	39	50	11	8	27	12	1	8	26
Saudi Arabia	Arar Domestic Airport	30°54'23.76"N 41°08'17.52"E	15	6	33	42	10	3	12	9	0	4	27
Saudi Arabia	Batha Airport	24°12'52.89"N 51°26'59.60"E	20	20	14	14	0	0	16	3	2	12	0
Saudi Arabia	Bisha Airport	19°59'03.84"N 42°37'15.24"E	27	18	59	61	15	1	33	9	8	12	32
Saudi Arabia	Dawadmi Domestic Airport	24°26'59.64"N 44°07'16.32"E	15	12	33	41	13	0	22	8	5	9	31
Saudi Arabia	Gurayat Domestic Airport	31°24'44.69"N 37°16'44.03"E	21	9	26	35	8	8	10	10	5	11	20
Saudi Arabia	Hail International Airport	27°26'16.44"N 41°41'10.67"E	13	8	37	44	13	0	20	5	0	7	30
Saudi Arabia	King Abdullah bin Abdulaziz Airport	16°54'03.96"N 42°35'08.88"E	49	26	67	71	15	13	40	22	9	14	34
Saudi Arabia	King Abdulaziz International Airport	21°40'48.87"N 39°09'26.77"E	49	17	60	67	15	12	31	21	8	10	31
Saudi Arabia	King Fahd International Airport	26°28'08.76"N 49°47'53.55"E	21	15	12	16	6	0	16	4	3	12	1
Saudi Arabia	King Khalid International Airport	24°57'27.36"N 46°41'55.68"E	18	11	17	27	10	0	17	6	3	9	23
Saudi Arabia	Najran Domestic Airport	17°36'41.04"N 44°25'09.12"E	28	25	62	72	15	3	38	9	8	14	34
Saudi Arabia	Neom Bay Airport	27°55'27.34"N 35°17'36.89"E	42	21	34	44	9	13	16	16	5	16	19
Saudi Arabia	Prince Abdulmohsen Bin Abdulaziz International Airport	24°08'39.12"N 38°03'48.24"E	44	15	52	59	13	13	29	17	3	9	25
Saudi Arabia	Prince Mohammad Bin Abdulaziz Airport	24°33'12.24"N 39°42'18.36"E	28	9	45	60	14	6	25	15	3	8	29
Saudi Arabia	Prince Naif bin Abdulaziz International Airport	26°18'10.08"N 43°46'27.84"E	12	10	31	42	13	0	18	9	1	8	29
Saudi Arabia	Prince Sultan bin Abdulaziz International Airport	28°22'15.96"N 36°37'29.51"E	36	14	34	41	10	14	16	14	6	13	19
Saudi Arabia	Qaisumah–Hafar Al-Batin International Airport	28°20'08.61"N 46°07'37.59"E	11	10	20	33	12	0	17	7	1	6	19
Saudi Arabia	Rafha Domestic Airport	29°37'35.04"N 43°29'26.16"E	11	7	29	42	13	0	12	4	0	4	29
Saudi Arabia	Sharurah Domestic Airport	17°28'00.84"N 47°07'17.04"E	27	24	50	64	16	2	36	9	4	13	35
Saudi Arabia	Taif International Airport	21°29'05.06"N 40°32'38.67"E	31	13	59	66	15	6	32	15	8	10	32
Saudi Arabia	Turaif Domestic Airport	31°41'31.88"N 38°43'53.56"E	17	5	27	37	7	6	8	7	1	5	24
Saudi Arabia	Wadi Al Dawasir Domestic Airport	20°30'15.48"N 45°11'58.56"E	25	18	44	58	14	1	24	8	5	13	35
Sudan	Dongola Airport	19°09'13.20"N 30°25'48.25"E	121	88	71	75	16	39	51	32	28	42	37
Sudan	El Fasher Airport	13°36'53.64"N 25°19'28.56"E	145	122	82	83	16	45	54	32	32	49	37

Sudan	El-Obeid Airport	13°09'11.52"N 30°13'57.72"E	132	114	80	80	16	42	54	32	29	49	38
Sudan	Kassala Airport	15°23'15.00"N 36°19'43.68"E	125	89	70	76	15	38	50	31	30	48	35
Sudan	Khartoum International Airport	15°35'22.20"N 32°33'11.52"E	125	105	75	78	16	41	54	32	28	48	38
Sudan	Nyala Airport	12°03'12.60"N 24°57'22.32"E	146	127	82	83	16	45	54	32	32	49	37
Sudan	Port Sudan New International Airport	19°26'04.41"N 37°14'02.85"E	88	48	65	69	15	33	40	30	19	27	33
Syria	Aleppo International Airport	36°10'52.54"N 37°13'36.73"E	6	1	17	27	3	4	2	5	0	4	3
Syria	Damascus International Airport	33°24'41.40"N 36°30'56.15"E	17	1	19	30	7	7	8	7	1	7	13
Syria	Latakia International Airport	35°24'03.96"N 35°56'55.32"E	4	1	14	22	4	4	2	6	0	4	6
Syria	Qamishli International Airport	37°01'14.16"N 41°11'29.04"E	19	3	22	30	6	9	10	8	2	7	5
Syria	TEST Location	35°36'56.99"N 40° 6'40.89"E	18	3	23	28	7	9	9	6	4	8	7
Syria	TEST Location	33°54'56.50"N 38°13'30.27"E	16	2	22	27	6	8	10	8	3	8	15
UAE	Al Ain International Airport	24°15'42.12"N 55°36'33.12"E	22	16	15	23	2	0	17	2	2	12	5
UAE	Delma Airport	24°30'36.00"N 52°20'06.72"E	20	20	14	15	0	0	16	3	2	12	0
UAE	Dubai International Airport	25°14'59.24"N 55°22'15.57"E	21	16	13	21	2	0	16	3	2	12	1
UAE	Fujairah International Airport	25°06'30.28"N 56°19'41.02"E	20	16	16	22	2	0	17	3	2	12	5
UAE	Ras Al Khaimah International Airport	25°36'48.60"N 55°56'19.68"E	21	16	14	22	2	0	17	3	2	12	5
UAE	Zayed International Airport	24°26'27.48"N 54°38'57.25"E	20	19	13	17	0	0	16	2	2	12	1
UAE	TEST Location	23°16'6.48"N 54°10'10.78"E	20	19	16	17	2	0	16	2	2	12	4
Yemen	Aden International Airport	12°49'46.43"N 45°01'47.91"E	87	31	77	80	16	37	49	32	9	20	34
Yemen	Al Ghaydah International Airport	16°11'36.03"N 52°10'27.07"E	30	23	57	65	15	1	41	8	2	14	33
Yemen	Mokha International Airport	13°17'48.99"N 43°13'54.69"E	100	43	75	79	16	37	49	32	15	25	34
Yemen	Riyan International Airport	14°39'44.07"N 49°22'31.04"E	31	26	68	79	16	5	43	11	5	15	36
Yemen	Sanaa International Airport	15°28'34.68"N 44°13'10.92"E	48	26	72	74	15	13	42	21	9	15	32
Yemen	Seiyun Hadhramaut International Airport	15°57'57.19"N 48°47'17.33"E	28	24	62	71	16	2	43	10	5	15	37
Yemen	Socotra Airport	12°37'55.53"N 53°54'22.22"E	45	33	77	79	16	11	46	17	7	16	38

AOC Channels Availability Assessment over the MID Region

State	Airport Name	Coordinates (DMS)	AOC (100/250) channels Available in sub-band (130.9 - 132.025 MHz)		AOC (100/250) channels Available in the current AOC Band (128.9 - 132.025 MHz)
			As a Protected service	Unprotected	As a Protected service
Bahrain	Bahrain International Airport	26°16'02.26"N 50°38'15.50"E	17	34	35
Egypt	Abu Simbel Airport	22°22'33.33"N 31°36'42.24"E	31	41	96
Egypt	Alexandria International Airport	30°55'56.96"N 29°41'47.17"E	7	30	23
Egypt	Aswan International Airport	23°57'39.87"N 32°49'13.38"E	21	40	77
Egypt	Asyut International Airport	27°02'45.46"N 31°00'45.94"E	11	37	56
Egypt	Cairo International Airport	30°06'41.52"N 31°23'48.10"E	8	32	28
Egypt	El Alamein International Airport	30°55'27.57"N 28°27'41.80"E	8	31	26
Egypt	El Arish International Airport	31°03'19.17"N 33°49'40.67"E	7	30	27
Egypt	Hurghada International Airport	27°10'36.39"N 33°47'48.09"E	11	35	53
Egypt	Luxor International Airport	25°40'15.66"N 32°42'23.21"E	11	37	59
Egypt	Marsa Alam International Airport	25°33'19.97"N 34°35'32.82"E	11	36	60
Egypt	Mersa Matruh International Airport	31°19'27.53"N 27°13'20.17"E	8	31	25
Egypt	Port Said International Airport	31°16'45.43"N 32°14'26.10"E	7	29	22
Egypt	Sharm El Sheikh International Airport	27°58'38.18"N 34°23'40.98"E	11	33	52
Egypt	Sphinx International Airport	30°06'29.44"N 30°53'44.62"E	8	32	28
Egypt	Suhaj International Airport	26°20'33.05"N 31°44'34.86"E	11	36	58
Egypt	Taba International Airport	29°35'40.19"N 34°46'32.71"E	9	31	38
Iran	Abadan Ayatollah Jami International Airport	30°22'04.39"N 48°13'48.27"E	16	34	38
Iran	Abu Musa Island Airport	25°52'32.52"N 55°01'58.80"E	20	35	40
Iran	Ardabil Airport	38°19'32.52"N 48°25'27.84"E	10	28	58
Iran	Ayatollah Hashemi Rafsanjani International Airport	30°16'16.59"N 56°56'58.89"E	20	35	42
Iran	Bam Airport	29°05'03.12"N 58°27'00.00"E	18	35	40
Iran	Bandar Abbas International Airport	27°13'05.88"N 56°22'40.08"E	20	35	40
Iran	Bandar Lengeh International Airport	26°31'56.22"N 54°49'29.42"E	20	35	40
Iran	Birjand International Airport	32°53'47.49"N 59°16'52.53"E	28	37	66
Iran	Bojnord Airport	37°29'34.80"N 57°18'29.52"E	31	35	91

Iran	Bushehr Airport	28°56'41.28"N 50°50'04.56"E	18	35	39
Iran	Chabahar Konarak International Airport	25°26'35.48"N 60°22'55.80"E	20	36	42
Iran	Dezful Airport	32°26'03.84"N 48°23'51.35"E	14	31	38
Iran	Gachsaran Airport	30°20'01.93"N 50°50'01.67"E	17	36	39
Iran	Hamadan Airport	34°51'59.10"N 48°33'38.48"E	14	28	52
Iran	Imam Khomeini International Airport	35°24'57.96"N 51°09'07.92"E	15	30	60
Iran	Isfahan Shahid Beheshti International Airport	32°45'18.51"N 51°53'01.96"E	16	33	36
Iran	Jask Airport	25°39'17.13"N 57°48'06.18"E	18	35	40
Iran	Kashan Airport	33°53'43.09"N 51°34'37.20"E	14	31	44
Iran	Khark Airport	29°15'37.81"N 50°19'19.89"E	17	35	39
Iran	Khoram Abad Airport	33°26'07.43"N 48°16'58.45"E	15	32	48
Iran	Kish International Airport	26°31'31.54"N 53°58'49.66"E	20	34	40
Iran	Lamerd Airport	27°22'21.72"N 53°11'19.68"E	17	34	36
Iran	Lar Airport	27°40'28.92"N 54°22'59.88"E	20	35	40
Iran	Mahshahr Airport	30°33'22.32"N 49°09'06.84"E	16	35	37
Iran	Mashhad International Airport	36°14'05.36"N 59°38'34.62"E	34	37	95
Iran	Mehrabad International Airport	35°41'21.03"N 51°18'51.81"E	15	30	61
Iran	Nowshahr Airport	36°39'51.43"N 51°27'45.83"E	16	29	66
Iran	Parsabad-Moghan Airport	39°36'12.96"N 47°52'53.40"E	14	29	61
Iran	Payam International Airport	35°46'33.96"N 50°49'36.11"E	15	29	60
Iran	Persian Gulf International Airport	27°22'46.56"N 52°44'15.72"E	17	34	36
Iran	Qasem Soleimani International Airport	31°20'11.04"N 48°45'49.64"E	14	33	36
Iran	Qeshm International Airport	26°45'16.70"N 55°54'08.47"E	20	35	40
Iran	Rafsanjan Airport	30°17'54.04"N 56°02'56.32"E	20	35	42
Iran	Ramsar Airport	36°54'25.24"N 50°41'14.34"E	15	29	66
Iran	Sabzevar National Airport	36°10'05.15"N 57°35'42.72"E	33	38	91
Iran	Sanandaj Airport	35°14'45.24"N 47°00'33.12"E	8	25	49
Iran	Sardar-e-Jangal Airport	37°19'24.00"N 49°37'04.00"E	13	29	62
Iran	Sari Dasht-e Naz International Airport	36°38'39.87"N 53°11'19.54"E	17	31	69
Iran	Semnan Municipal Airport	35°35'27.96"N 53°29'42.35"E	18	33	65
Iran	Shahid Ashrafi Esfahani Airport	34°20'45.24"N 47°09'29.16"E	8	27	45
Iran	Shahid Sadooghi Airport	31°54'17.64"N 54°16'35.40"E	18	36	42

Iran	Shiraz Shahid Dastghaib International Airport	29°32'21.12"N 52°35'23.29"E	17	35	37
Iran	Tabriz International Airport	38°08'02.04"N 46°14'06.00"E	3	24	40
Iran	Urmia Airport	37°40'05.15"N 45°04'07.32"E	3	23	36
Iran	Zahedan International Airport	29°28'32.52"N 60°54'22.32"E	21	36	46
Iraq	Al Najaf International Airport	31°59'28.02"N 44°24'18.07"E	4	27	30
Iraq	Baghdad International Airport	33°15'45.00"N 44°14'04.56"E	3	24	35
Iraq	Basra International Airport	30°32'56.76"N 47°39'43.57"E	15	34	38
Iraq	Erbil International Airport	36°14'09.77"N 43°56'47.81"E	2	24	28
Iraq	Jalal Talabani International Airport	35°33'37.75"N 45°18'54.49"E	3	25	34
Iraq	Kirkuk International Airport	35°28'10.20"N 44°20'56.04"E	3	25	30
Iraq	Mosul International Airport	36°18'19.65"N 43°8'51.53"E	2	23	29
Iraq	Karbala International Airport	32°21'31.20"N 44°11'33.49"E	3	26	29
Iraq	Nasiriyah International Airport	30°56'1.81"N 46° 5'19.69"E	8	30	37
Jordan	King Hussein International Airport	29°36'41.76"N 35°01'05.16"E	9	31	38
Jordan	Marka International (Amman Civil) Airport	31°58'21.72"N 35°59'29.76"E	7	28	31
Jordan	Queen Alia International Airport	31°43'21.36"N 35°59'35.51"E	8	30	32
Kuwait	Kuwait International Airport	29°13'28.15"N 47°58'11.33"E	18	35	40
Lebanon	Beirut Rafic Hariri International Airport	33°49'11.40"N 35°29'14.79"E	3	24	19
Libya	Al Abraq International Airport	32°47'20.53"N 21°57'17.51"E	10	35	48
Libya	Benina International Airport	32°05'48.49"N 20°16'10.20"E	11	36	61
Libya	Ghadames Airport	30°08'43.74"N 9°42'07.54"E	20	42	86
Libya	Ghat Airport	25°08'44.16"N 10°08'33.36"E	37	44	110
Libya	Kufra Airport	24°10'43.32"N 23°18'50.40"E	32	44	103
Libya	Misrata International Airport	32°19'30.00"N 15°03'39.60"E	12	37	65
Libya	Mitiga International Airport	32°53'30.37"N 13°17'16.36"E	11	36	59
Libya	Sabha Airport	26°59'32.83"N 14°27'58.18"E	22	42	93
Oman	Duqm International Airport	19°30'07.00"N 57°38'03.00"E	26	36	52
Oman	Khasab Airport	26°10'15.60"N 56°14'26.16"E	20	35	40
Oman	Muscat International Airport	23°36'00.78"N 58°17'06.96"E	21	35	43
Oman	Salalah International Airport	17°02'19.32"N 54°05'28.68"E	25	35	53
Oman	Suhar International Airport	24°23'09.74"N 56°37'31.48"E	18	35	39
Qatar	Doha International Airport	25°15'33.95"N 51°33'55.90"E	20	34	39
Qatar	Hamad International Airport	25°16'23.00"N 51°36'29.00"E	20	34	39

Saudi Arabia	Abha International Airport	18°14'25.44"N 42°39'23.76"E	37	39	107
Saudi Arabia	Al Wajh Domestic Airport	26°11'54.96"N 36°28'35.03"E	10	34	55
Saudi Arabia	Al-Ahsa International Airport	25°17'07.08"N 49°29'06.72"E	18	35	37
Saudi Arabia	Al-Jawf International Airport	29°46'59.88"N 40°06'03.26"E	6	31	41
Saudi Arabia	Al-Ula International Airport	26°29'01.08"N 38°07'01.37"E	7	34	48
Saudi Arabia	Arar Domestic Airport	30°54'23.76"N 41°08'17.52"E	5	29	36
Saudi Arabia	Batha Airport	24°12'52.89"N 51°26'59.60"E	20	34	39
Saudi Arabia	Bisha Airport	19°59'03.84"N 42°37'15.24"E	31	36	88
Saudi Arabia	Dawadmi Domestic Airport	24°26'59.64"N 44°07'16.32"E	20	32	52
Saudi Arabia	Gurayat Domestic Airport	31°24'44.69"N 37°16'44.03"E	7	30	32
Saudi Arabia	Hail International Airport	27°26'16.44"N 41°41'10.67"E	8	31	41
Saudi Arabia	/ King Abdullah bin Abdulaziz Airport	16°54'03.96"N 42°35'08.88"E	37	39	110
Saudi Arabia	King Abdulaziz International Airport	21°40'48.87"N 39°09'26.77"E	37	38	100
Saudi Arabia	King Fahd International Airport	26°28'08.76"N 49°47'53.55"E	18	35	37
Saudi Arabia	King Khalid International Airport	24°57'27.36"N 46°41'55.68"E	18	34	40
Saudi Arabia	King Saud Bin Abdulaziz (Al Baha) Airport	20°17'54.62"N 41°38'10.15"E	34	37	99
Saudi Arabia	Najran Domestic Airport	17°36'41.04"N 44°25'09.12"E	35	37	101
Saudi Arabia	Neom Bay Airport	27°55'27.34"N 35°17'36.89"E	10	33	51
Saudi Arabia	Prince Abdulmohsen Bin Abdulaziz International Airport	24°08'39.12"N 38°03'48.24"E	20	37	70
Saudi Arabia	Prince Mohammad Bin Abdulaziz Airport	24°33'12.24"N 39°42'18.36"E	16	37	62
Saudi Arabia	Prince Naif bin Abdulaziz International Airport	26°18'10.08"N 43°46'27.84"E	16	33	48
Saudi Arabia	Prince Sultan bin Abdulaziz International Airport	28°22'15.96"N 36°37'29.51"E	9	33	50
Saudi Arabia	Qaisumah–Hafar Al-Batin International Airport	28°20'08.61"N 46°07'37.59"E	15	33	37
Saudi Arabia	Rafha Domestic Airport	29°37'35.04"N 43°29'26.16"E	7	29	36
Saudi Arabia	Red Sea International Airport	25°37'40.71"N 37°05'20.09"E	10	34	57
Saudi Arabia	Sharurah Domestic Airport	17°28'00.84"N 47°07'17.04"E	30	36	75
Saudi Arabia	Taif International Airport	21°29'05.06"N 40°32'38.67"E	36	38	99
Saudi Arabia	Turaif Domestic Airport	31°41'31.88"N 38°43'53.56"E	6	29	31
Saudi Arabia	Wadi Al Dawasir Domestic Airport	20°30'15.48"N 45°11'58.56"E	22	33	62
Sudan	Dongola Airport	19°09'13.20"N 30°25'48.25"E	41	43	116
Sudan	El Fasher Airport	13°36'53.64"N 25°19'28.56"E	44	45	120

Sudan	El-Obeid Airport	13°09'11.52"N 30°13'57.72"E	43	44	119
Sudan	Kassala Airport	15°23'15.00"N 36°19'43.68"E	41	43	116
Sudan	Khartoum International Airport	15°35'22.20"N 32°33'11.52"E	43	44	118
Sudan	Nyala Airport	12°03'12.60"N 24°57'22.32"E	44	45	121
Sudan	Port Sudan New International Airport	19°26'04.41"N 37°14'02.85"E	39	41	111
Syria	Aleppo International Airport	36°10'52.54"N 37°13'36.73"E	2	22	19
Syria	Damascus International Airport	33°24'41.40"N 36°30'56.15"E	5	26	26
Syria	Latakia International Airport	35°24'03.96"N 35°56'55.32"E	2	23	18
Syria	Qamishli International Airport	37°01'14.16"N 41°11'29.04"E	2	22	28
United Arab Emirates	Al Ain International Airport	24°15'42.12"N 55°36'33.12"E	20	34	40
United Arab Emirates	Al Maktoum International Airport	24°53'46.22"N 55°09'44.46"E	20	34	40
United Arab Emirates	Delma Airport	24°30'36.00"N 52°20'06.72"E	20	34	39
United Arab Emirates	Dubai International Airport	25°14'59.24"N 55°22'15.57"E	20	35	40
United Arab Emirates	Fujairah International Airport	25°06'30.28"N 56°19'41.02"E	18	35	38
United Arab Emirates	Ras Al Khaimah International Airport	25°36'48.60"N 55°56'19.68"E	20	35	40
United Arab Emirates	Sharjah International Airport	25°19'42.96"N 55°31'01.92"E	20	35	40
United Arab Emirates	Zayed International Airport	24°26'27.48"N 54°38'57.25"E	20	34	40
Yemen	Aden International Airport	12°49'46.43"N 45°01'47.91"E	42	44	117
Yemen	Al Ghaydah International Airport	16°11'36.03"N 52°10'27.07"E	28	36	60
Yemen	Mokha International Airport	13°17'48.99"N 43°13'54.69"E	42	44	118
Yemen	Riyan International Airport	14°39'44.07"N 49°22'31.04"E	35	38	96
Yemen	Sanaa International Airport	15°28'34.68"N 44°13'10.92"E	40	42	113
Yemen	Seiyun Hadhramaut International Airport	15°57'57.19"N 48°47'17.33"E	32	36	84
Yemen	Socotra Airport	12°37'55.53"N 53°54'22.22"E	40	42	106
Yemen	Taiz International Airport	13°41'09.60"N 44°08'20.76"E	42	44	117

Proposed Mid region allotment plan

#	Service	Channels
1	TWR	118.000, 118.025, 118.050, 118.075, 118.100, 118.125, 118.150, 118.175, 118.200, 118.225, 118.250, 118.275, 118.300, 118.325, 118.350, 118.375, 118.400, 118.425, 118.450, 118.475, 118.500, 118.525, 118.550, 118.575, 118.600, 118.625, 118.650, 118.675, 118.700, 118.725, 118.750, 118.775, 118.800, 118.825, 118.850, 118.875, **119.500, 119.525, 119.550, 119.575, 119.600, 119.625, 119.650, 119.675, 119.800, 119.825, 119.850, 119.875, 119.900, 119.925, 119.950, 119.975**, 124.300, 124.325, 124.350, 124.375
2	AS (Aerodrome surface)	121.550, 121.575, 121.600, 121.625, 121.650, 121.675, 121.700, 121.725, 121.750, 121.775, 121.800, 121.825, 121.850, 121.875, 121.900, 121.925, 121.950, 121.975
3	ACC-L, ACC-U	118.900, 118.925, 118.950, 118.975, 119.300, 119.325, 119.350, 119.375, 120.500, 120.525, 120.550, 120.575, 120.700, 120.725, 120.750, 120.775, 120.900, 120.925, 120.950, 120.975, 123.700, 123.725, 123.750, 123.775, 124.500, 124.525, 124.550, 124.575, 125.300, 125.325, 125.350, 125.375, 125.700, 125.725, 125.750, 125.775, 125.900, 125.925, 125.950, 125.975, 128.100, 128.125, 128.150, 128.175, **128.900, 128.925, 128.950, 128.975, 129.000, 129.025, 129.050, 129.075, 129.100, 129.125, 129.150, 129.175, 129.200, 129.225, 129.250, 129.275, 129.300, 129.325, 129.350, 129.375, 129.400, 129.425, 129.450, 129.475, 129.500, 129.525, 129.550, 129.575, 129.600, 129.625, 129.650, 129.675**, 132.100, 132.125, 132.150, 132.175, 132.200, 132.225, 132.250, 132.275, 132.300, 132.325, 132.350, 132.375, 132.400, 132.425, 132.450, 132.475, 132.500, 132.525, 132.550, 132.575, 132.600, 132.625, 132.650, 132.675, 132.700, 132.725, 132.750, 132.775, 132.800, 132.825, 132.850, 132.875, 132.900, 132.925, 132.950, 132.975, 133.000, 133.025, 133.050, 133.075, 133.100, 133.125, 133.150, 133.175, 133.200, 133.225, 133.250, 133.275, 133.300, 133.325, 133.350, 133.375, 133.400, 133.425, 133.450, 133.475, 133.500, 133.525, 133.550, 133.575, 133.600, 133.625, 133.650, 133.675, 133.700, 133.725, 133.750, 133.775, 133.800, 133.825, 133.850, 133.875, 133.900, 133.925, 133.950, 133.975, 134.000, 134.025, 134.050, 134.075, 134.100, 134.125, 134.150, 134.175, 134.200, 134.225, 134.250, 134.275, 134.300, 134.325, 134.350, 134.375, 134.400, 134.425, 134.450, 134.475, 134.500
4	ACC-L	126.100, 126.125, 126.150, 126.175, 127.500, 127.525, 127.550, 127.575, 128.300, 128.325, 128.350, 128.375, 128.700, 128.725, 128.750, 128.775

5	APP-L, APP-I	119.000, 119.025, 119.050, 119.075, 119.100, 119.125, 119.150, 119.175, 119.200, 119.225, 119.250, 119.275, 119.400, 119.425, 119.450, 119.475, 119.700, 119.725, 119.750, 119.775, 120.000, 120.025, 120.050, 120.075, 120.200, 120.225, 120.250, 120.275, 120.400, 120.425, 120.450, 120.475, 120.600, 120.625, 120.650, 120.675, 120.800, 120.825, 120.850, 120.875, 121.000, 121.025, 121.050, 121.075, 121.100, 121.125, 121.150, 121.175, 121.200, 121.225, 121.250, 121.275, 121.400, 121.425, 121.450, 123.800, 123.825, 123.850, 123.875, 124.000, 124.025, 124.050, 124.075, 124.700, 124.725, 124.750, 124.775, 125.100, 125.125, 125.150, 125.175, 125.500, 125.525, 125.550, 125.575, 126.500, 126.525, 126.550, 126.575, 127.700, 127.725, 127.750, 127.775, 127.900, 127.925, 127.950, 127.975
6	APP-U	120.300, 120.325, 120.350, 120.375, 121.300, 121.325, 121.350, 121.375, 124.400, 124.425, 124.450, 124.475, 124.600, 124.625, 124.650, 124.675, 124.800, 124.825, 124.850, 124.875, 125.000, 125.025, 125.050, 125.075, 125.200, 125.225, 125.250, 125.275, 125.400, 125.425, 125.450, 125.475, 125.600, 125.625, 125.650, 125.675, 125.800, 125.825, 125.850, 125.875, 126.000, 126.025, 126.050, 126.075, 126.300, 126.325, 126.350, 126.375
7	FIS-L, FIS-U, FIS-U (GPS)	120.100, 120.125, 120.150, 120.175, 123.900, 123.925, 123.950, 123.975, 124.100, 124.125, 124.150, 124.175, 124.900, 124.925, 124.950, 124.975, 126.700, 126.725, 126.750, 126.775, 126.900, 126.925, 126.950, 126.975, 127.100, 127.125, 127.150, 127.175, 127.300, 127.325, 127.350, 127.375, 128.500, 128.525, 128.550, 128.575, **134.600, 134.625, 134.650, 134.675, 134.700, 134.725, 134.750, 134.775, 134.800, 134.825, 134.850, 134.875, 134.900, 134.925, 134.950, 134.975, 135.000, 135.025, 135.050, 135.075, 135.100, 135.125, 135.150, 135.175, 135.200, 135.225, 135.250, 135.275, 135.300, 135.325, 135.350, 135.375, 135.400, 135.425, 135.450, 135.475, 135.500, 135.525, 135.550, 135.575, 135.600, 135.625, 135.650, 135.675, 135.700, 135.725, 135.750, 135.775, 135.800**
8	VOLMET, ATIS	126.200, 126.225, 126.250, 126.275, 126.400, 126.425, 126.450, 126.475, 126.600, 126.625, 126.650, 126.675, 126.800, 126.825, 126.850, 126.875, 127.000, 127.025, 127.050, 127.075, 127.200, 127.225, 127.250, 127.275, 127.400, 127.425, 127.450, 127.475, 127.600, 127.625, 127.650, 127.675, 127.800, 127.825, 127.850, 127.875, 128.000, 128.025, 128.050, 128.075, 128.200, 128.225, 128.250, 128.275, 128.400, 128.425, 128.450, 128.475, 128.600, 128.625, 128.650, 128.675, 128.800, 128.825, 128.850, 128.875

9	AOC	130.900, 130.925, 130.950, 130.975, 131.000, 131.025, 131.050, 131.075, 131.100, 131.125, 131.150, 131.175, 131.200, 131.225, 131.250, 131.275, 131.300, 131.325, 131.350, 131.375, 131.400, 131.425, 131.450, 131.475, 131.500, 131.525, 131.550, 131.575, 131.600, 131.625, 131.650, 131.675, 131.700, 131.725, 131.750, 131.775, 131.800, 131.825, 131.850, 131.875, 131.900, 131.925, 131.950, 131.975, 132.000, 132.025
10	VDL	136.525, 136.575, 136.625, 136.675, 136.725, 136.775, 136.825, 136.875, 136.925, 136.975
11	VDL-guard	136.500, 136.550, 136.600, 136.650, 136.700, 136.750, 136.800, 136.850, 136.900, 136.950
12	Emerg.	121.500
13	SAR	123.100
14	Air-Air	123.450
15	Not allotted	122.000, 122.025, 122.050, 122.075, 122.100, 122.125, 122.150, 122.175, 122.200, 122.225, 122.250, 122.275, 122.300, 122.325, 122.350, 122.375, 122.400, 122.425, 122.450, 122.475, 122.500, 122.525, 122.550, 122.575, 122.600, 122.625, 122.650, 122.675, 122.700, 122.725, 122.750, 122.775, 122.800, 122.825, 122.850, 122.875, 122.900, 122.925, 122.950, 122.975, 123.000, 123.025, 123.050, 123.150, 123.175, 123.200, 123.225, 123.250, 123.275, 123.300, 123.325, 123.350, 123.375, 123.400, 123.425, 123.475, 123.500, 123.525, 123.550, 123.575, 123.600, 123.625, 123.650, 123.675, 124.200, 124.225, 124.250, 124.275, **129.700, 129.725, 129.750, 129.775, 129.800, 129.825, 129.850, 129.875, 129.900, 129.925, 129.950, 129.975, 130.000, 130.025, 130.050, 130.075, 130.100, 130.125, 130.150, 130.175, 130.200, 130.225, 130.250, 130.275, 130.300, 130.325, 130.350, 130.375, 130.400, 130.425, 130.450, 130.475, 130.500, 130.525, 130.550, 130.575, 130.600, 130.625, 130.650, 130.675, 130.700, 130.725, 130.750, 130.775, 130.800, 130.825, 130.850, 130.875**, 132.050, 132.075, 134.525, 134.550, 134.575, 135.825, 135.850, 135.875, 135.900, 135.925, 135.950, 135.975, 136.000, 136.025, 136.050, 136.075, 136.100, 136.125, 136.150, 136.175, 136.200, 136.225, 136.250, 136.275, 136.300, 136.325, 136.350, 136.375, 136.400, 136.425, 136.450, 136.475
16	Blocked	121.475, 121.525, 123.075, 123.125