



International Civil Aviation Organization

MIDANPIRG ATM/AIM/SAR Sub-Group

**Thirteenth Meeting (ATM/AIM/SAR SG/13)
(Cairo, Egypt, 30 September – 3 October 2013)**

Agenda Item 4: ATM/SAR Issues

REALIGNMENT OF JEDDAH FIR

(Presented by the Saudi Arabia)

SUMMARY

This paper presents information on the re-alignment of Bahrain and Jeddah FIRs agreed between GACA and BCAA. The AIRAC Cycle 01/2014 (9 January 2014) has been adopted as the effective date of the new airspace structure and the switch-over of the provision of ATS from Bahrain ACC (West Sector) to Jeddah and Riyadh ACCs.

Action by the meeting is at paragraph 3.

1. INTRODUCTION

1.1 The General Authority of Civil Aviation (GACA) of the Kingdom of Saudi Arabia and the Kingdom of Bahrain Civil Aviation Affairs (BCAA) have agreed to re-align Jeddah and Bahrain FIRs as the portion of airspace presently delegated to Bahrain will be integrated into Jeddah FIR by the AIRAC Cycle 01/2014 (9 January 2014), AIC 08/13 dated 10 September 2013 at **Appendix A** to this working paper refers. Subsequently, Bahrain and Jeddah FIRs will be re-aligned to reflect the new airspace structure.

1.2 The re-alignment of Bahrain and Jeddah FIRs necessitates establishment of three new sectors that have to be designed to manage the traffic without increased complexity in terms of Air Traffic Controller workload or Air Traffic Control coordination procedures.

1.3 As part of the re-alignment of Bahrain and Jeddah FIRs, GACA and BCAA have adopted detailed work programs to ensure safe and smooth switch over of transferring the responsibility of Air Traffic Services from present Bahrain ACC (West Sector) to Jeddah and Riyadh ACCs.

2. DISCUSSION

2.1 Overview on GACA and BCAA work programs

2.1.1 GACA and BCAA have agreed on detailed activities to ensure readiness of their ATS Units for the switch – over of the responsibility of ATS as part of the re-alignment of Bahrain and Jeddah FIRs. A Joint Air Navigation Committee (JANC) has been established to oversee, approve and validate all technical and operational activities.

2.1.2 To ensure effective progress of all agreed activities, the JANC has established three ad-hoc groups (ATM ad-hoc Group, AIS ad-hoc Group and Training ad-hoc group). These groups are composed of experts from GACA and BCAA and are supported by a well-known European German ANSP (DFS). These groups are in charge of the following:

- Review of LoAs and Common Control boundary (CCBs): New CCB were established and will be published as part of supplement to KSA and Bahrain AIPs, as at **Appendix B** to this working paper. The LoAs are under revision and it is expected that a final arrangements will be agreed by the end of October 2013;
- Review Review of all relevant information published within KSA and Bahrain AIPs: Both parties have agreed to publish an AIP supplement on the major changes that will be introduced as part of the re-alignment of Jeddah and Bahrain FIRs;
- Training and Qualification of ATCOs: All GACA ATCOs working at Jeddah and Riyadh ACCs will be trained using simulations and extensive exercises using the busiest traffic day within Jeddah and Bahrain FIRs with an additional of 15 to 20% of traffic. These exercises will be complemented by the training material and exercises used by Bahrain ACC to qualify the Bahraini ATCOs. Visits to the training ATS Units are planned during the coming weeks;
- Transition Phases: Both parties have agreed on detailed activities that will be performed during the transition phases that will start with a full checks, assessment and monitoring of the new working positions that will be activated at Jeddah and Riyadh ACCs. The transition comprises three major phases: readiness, shadow operations, switch-over and initial operations. In each phase, detailed arrangements will be activated to check the readiness and ensure safe and smooth transition;
- Safety assessment: Both parties have agreed to conduct comprehensive safety assessments to identify potential hazards and their mitigations. For GACA, the transition will be subject of specific Safety assessment to ensure scrutiny of all hazards and issues that may affect the transition and the switch-over of the ATS responsibility as consequence of the realignment of Jeddah and Bahrain FIRs.

GACA and BCAA have designated focal points who are in close contact to monitor the progress of the agreed activities.

2.2 Coordination with adjacent ANSPs

2.2.1 As part of the switch-over strategy, GACA will keep the same working procedures with all ANSPs affected by the realignment of Jeddah and Bahrain FIRs namely Emirates ACC, Doha APP, Muscat ACC and Sanaa ACC. GACA has approached all ANSPs and made proposals for the establishment of new LoAs and revision of existing LoA.

2.2.2 Regarding the technical aspects, GACA is coordinating with all ANSPs to establish the necessary Ground – Ground communications (Hotlines and Direct lines). All these lines will be tested and validated as part of the readiness phase which is part of the overall transition.

2.3 Amendment of ICAO MID ANP

2.3.1 As part of the GACA and BCAA work program, a joint letter was submitted to the ICAO MID Office in May 2013 requesting the Secretariat to take the appropriate actions to amend ICAO MID ANP as required. The content of the proposal of amendment was also coordinated with the ICAO MID Office and it is expected that a State letter will be circulated soon.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) take note of the information provided in this paper; and
- b) discuss the operational issues related to the planned change.

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Jeddah and Bahrain FIR

RE-ALIGNMENT OF JEDDAH AND BAHRAIN FIR

1. Introduction:

1.1 Since February 2012, General Authority of Civil Aviation (GACA) of the Kingdom of Saudi Arabia and Kingdom of Bahrain Civil Aviation Affairs (BCAA) have agreed to re-align Jeddah and Bahrain FIRs through and extension of Jeddah FIR to the east. The current delineation of Jeddah and Bahrain FIRs is depicted in Figure 1.

1.2 The Provision of ATS will be re-arranged considering the new FIR boundaries and the area of responsibility will be revised accordingly. The two parties have established comprehensive and detailed work programs to ensure safe, efficient transition to the new FIRs boundaries and orderly transfer and coordination of air traffic.

2. Extension of Eastern boundary of Jeddah FIR:

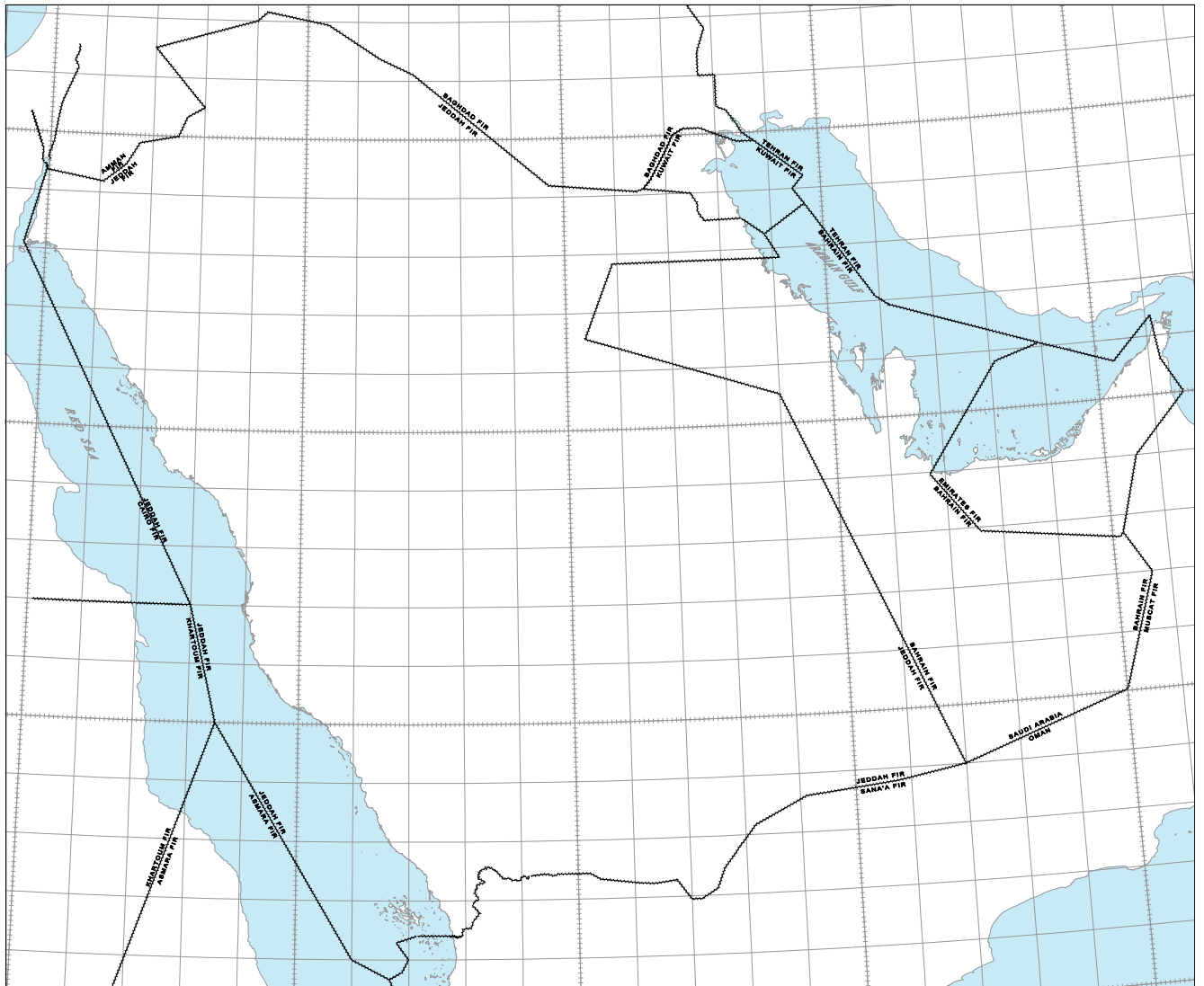
From 09 January 2014, 00:01 UTC time (AIRAC Cycle 01/2014), the Eastern boundary of Jeddah FIR will be extended with the following new coordinates:

NO.	COORDs.	NO.	COORDs
1	28° 15' 00.00"N 048° 52' 00.00"E	2	27° 50' 00.00"N 049° 08' 00.00"E
3	26° 52' 34.00"N 050° 08' 55.00"E	4	26° 34' 20.00"N 050° 27' 59.00"E
5	26° 31' 48.00"N 050° 23' 15.00"E	6	26° 24' 23.93"N 050° 22' 18.51"E
7	26° 22' 17.45"N 050° 20' 26.57"E	8	26° 15' 14.69"N 050° 19' 07.80"E
9	26° 10' 18.28"N 050° 18' 52.34"E	10	26° 04' 50.10"N 050° 16' 10.65"E
11	25° 57' 09.25"N 050° 17' 35.44"E	12	25° 53' 01.53"N 050° 18' 06.62"E
13	25° 49' 08.47"N 050° 22' 00.71"E	14	25° 42' 27.58"N 050° 25' 03.18"E
15	25° 40' 57.00"N 050° 26' 07.75"E	16	25° 35' 43.98"N 050° 31' 47.55"E
17	25° 31' 11.00"N 050° 35' 44.00"E	18	25° 28' 28.00"N 050° 36' 53.00"E
19	25° 25' 10.00"N 050° 37' 16.00"E	20	25° 23' 36.00"N 050° 37' 41.00"E
21	25° 21' 44.00"N 050° 38' 18.00"E	22	25° 18' 49.00"N 050° 38' 55.00"E
23	25° 15' 22.00"N 050° 38' 48.00"E	24	25° 13' 55.00"N 050° 39' 18.00"E
25	25° 11' 53.00"N 050° 39' 40.00"E	26	25° 07' 58.00"N 050° 39' 51.00"E
27	25° 05' 16.00"N 050° 41' 01.00"E	28	25° 02' 43.00"N 050° 42' 39.00"E
29	24° 59' 27.00"N 050° 43' 29.00"E	30	24° 56' 31.00"N 050° 44' 38.00"E
31	24° 55' 34.00"N 050° 45' 43.00"E	32	24° 52' 44.00"N 050° 47' 38.00"E
33	24° 49' 27.00"N 050° 48' 04.00"E	34	24° 46' 53.00"N 050° 48' 28.00"E
35	24° 45' 43.00"N 050° 48' 28.00"E	36	24° 44' 40.00"N 050° 48' 42.00"E

37	24° 40' 24.00"N	050° 51' 34.00"E	38	24° 32' 43.00"N	050° 55' 44.00"E
39	24° 30' 00.00"N	051° 00' 00.00"E	40	24° 28' 16.00"N	051° 05' 55.00"E
41	24° 29' 07.00"N	051° 18' 49.00"E	42	24° 31' 16.00"N	051° 21' 54.00"E
43	24° 35' 49.00"N	051° 24' 49.00"E	44	24° 37' 31.00"N	051° 24' 06.00"E
45	24° 37' 47.00"N	051° 24' 21.00"E	46	24° 38' 17.00"N	051° 26' 08.00"E
47	24° 42' 47.00"N	051° 34' 22.00"E	48	24° 14' 58.00"N	051° 35' 26.00"E
49	24° 07' 24.00"N	051° 35' 26.00"E	50	22° 56' 09.00"N	052° 34' 52.00"E
51	22° 37' 41.00"N	055° 08' 14.00"E	52	22° 42' 02.00"N	055° 12' 10.00"E
53	22° 42' 30.00"N	055° 12' 30.00"E	54	22° 00' 00.00"N	055° 40' 00.00"E
55	20° 00' 00.00"N	055° 00' 00.00"E	56	19° 00' 00.00"N	052° 00' 00.00"E

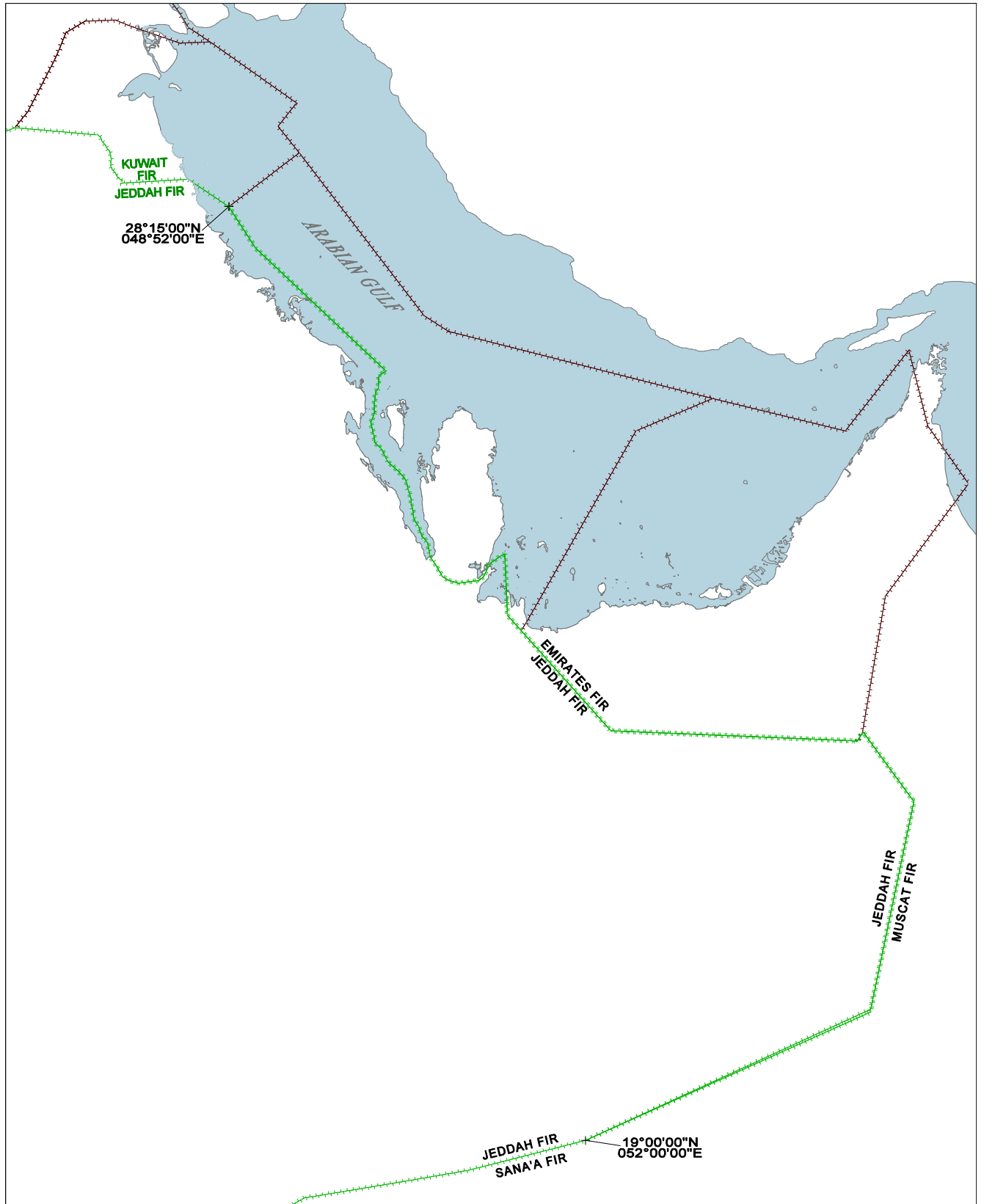
The re-alignment of Jeddah and Bahrain FIRs will not affect the adjacent FIRs boundaries. The current and new delineation between Jeddah and Bahrain FIRs are shown in Figure 2 and 3 respectively. Figure 3 also shows the list of coordinates for the new delineation in green.

Figure 1 : THE CURRENT DELINEATION BETWEEN JEDDAH AND BAHRAIN FIRs



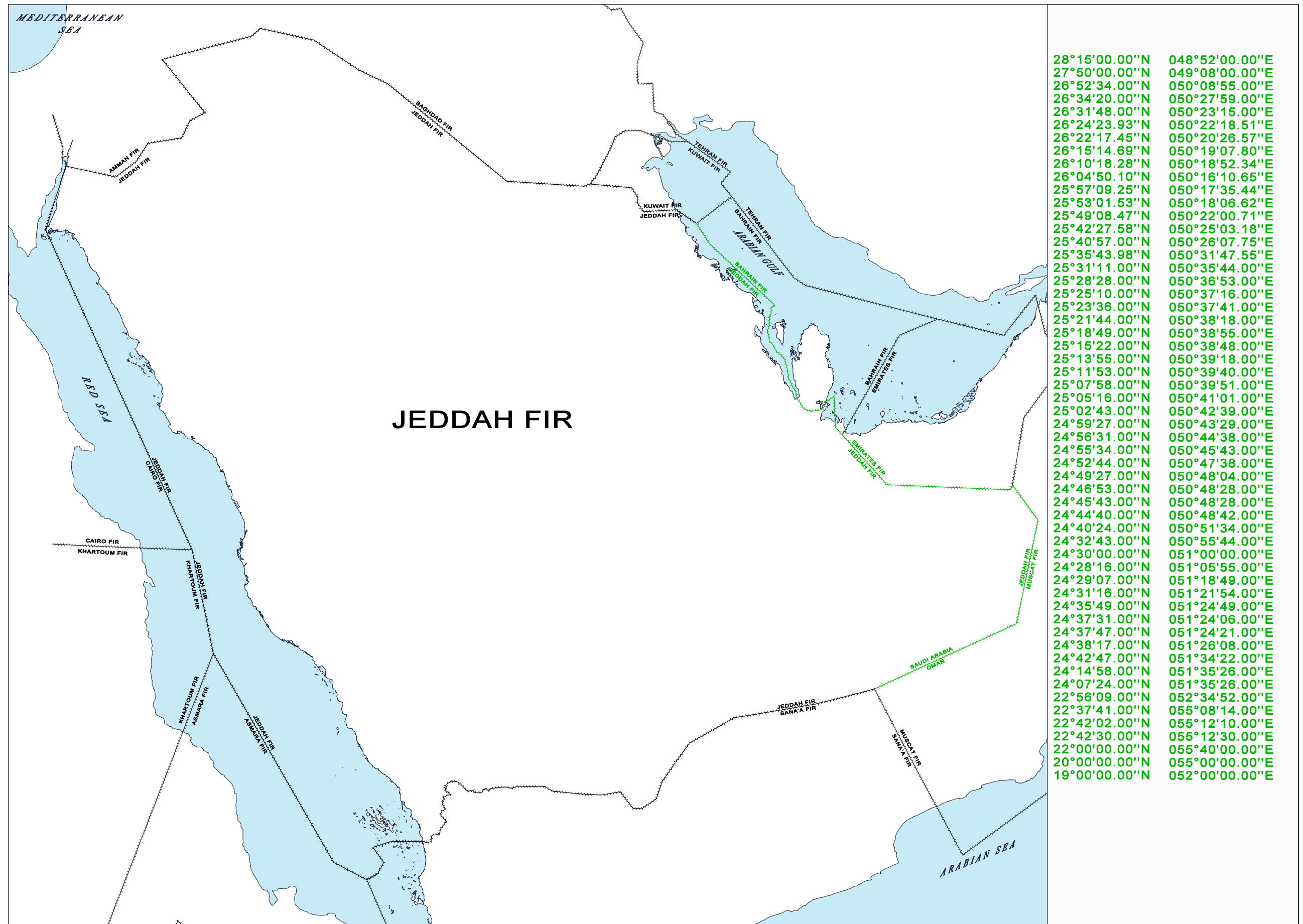
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Figure 2 : THE NEW DELINEATION BETWEEN JEDDAH AND BAHRAIN FIRS



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Figure 3 : THE NEW DELINEATION BETWEEN JEDDAH AND BAHRAIN FIRs WITH THE LIST OF THE COORDINATES.



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3. Airspace re-organization:

3.1 The extension of the Eastern boundary of Jeddah FIR has led to introduce a revision / change of the existing controlled airspace structure in the East and South portions. Two new sectors will be introduced namely, North-east Sector (upper and lower) and South-east Sector.

3.2 The new airspace sectorization in the East and South portions of Jeddah FIR and the revision of ATS route network will be published in AIP Supplement 01/13 and AIP AIRAC Amendment 01/14.

Note: Letters of Agreements have been signed regarding traffic transfer and coordination between the affected ATS Units. The new Air Traffic Services working procedures are being assessed using fast and real-time simulations.

4. Search and Rescue Region (SRR):

The area of responsibility for Search and Rescue Regions (SRR) is being revised and will be published in KSA and Bahrain AIPs (Refer to KSA and Bahrain AIPs Sections GEN 3.6).

5. Transition plan:

5.1 General Authority of Civil Aviation and Bahrain Civil Aviation Affairs have agreed on the details of transition phases ensuring a safe and smooth transfer of responsibility for ATM considering the new delineation between Jeddah and Bahrain FIRs.

5.2 An Aeronautical Information Circular will be published with the specifics of the transition phases.

6. Additional information:

For further information and details on the re-alignment of Jeddah and Bahrain FIRs, please use the following contacts during businesses hours:

General Authority of Civil Aviation - Air Navigation Services	Bahrain Civil Aviation Affairs
Hamad M Alaufi Director of Aeronautical Information Services Cell phone : +966 555 6111 36 Tel : +966 12 629 0564 Fax : +966 12 640 5333 Email : hmalaufi@gaca.gov.sa P.O.Box 929, Jeddah 21421 Saudi Arabia	Salah M Alhumood Head of Aeronautical Information & Airspace Planning Cell phone : +973 36400424 Tel : +973 17321180 Fax : +973 17321992 Email : shumood@caa.gov.bh P.O.Box 586, Kingdom of Bahrain

- END -

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Jeddah and Bahrain FIR

S01 : RE-ALIGNMENT OF JEDDAH AND BAHRAIN FIRS.

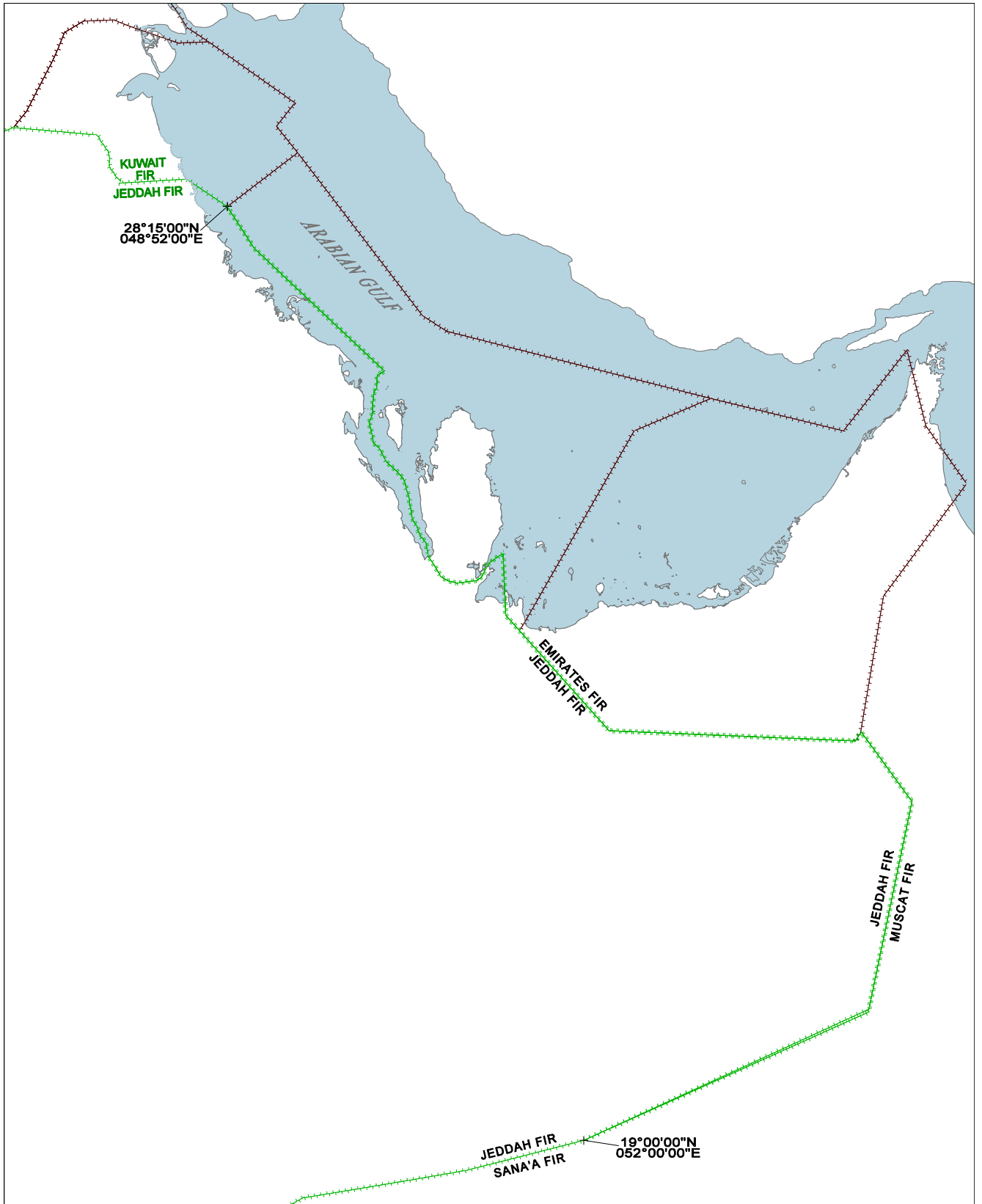
1. Extension of Eastern boundary of Jeddah FIR:

From 08 January 2014, 23:59 UTC , the Eastern boundary of Jeddah FIR will be extended with the following new coordinates:

NO	COORDs.	NO	COORDs
1	28° 15' 00.00"N 048° 52' 00.00"E	2	27° 50' 00.00"N 049° 08' 00.00"E
3	26° 52' 34.00"N 050° 08' 55.00"E	4	26° 34' 20.00"N 050° 27' 59.00"E
5	26° 31' 48.00"N 050° 23' 15.00"E	6	26° 24' 23.93"N 050° 22' 18.51"E
7	26° 22' 17.45"N 050° 20' 26.57"E	8	26° 15' 14.69"N 050° 19' 07.80"E
9	26° 10' 18.28"N 050° 18' 52.34"E	10	26° 04' 50.10"N 050° 16' 10.65"E
11	25° 57' 09.25"N 050° 17' 35.44"E	12	25° 53' 01.53"N 050° 18' 06.62"E
13	25° 49' 08.47"N 050° 22' 00.71"E	14	25° 42' 27.58"N 050° 25' 03.18"E
15	25° 40' 57.00"N 050° 26' 07.75"E	16	25° 35' 43.98"N 050° 31' 47.55"E
17	25° 31' 11.00"N 050° 35' 44.00"E	18	25° 28' 28.00"N 050° 36' 53.00"E
19	25° 25' 10.00"N 050° 37' 16.00"E	20	25° 23' 36.00"N 050° 37' 41.00"E
21	25° 21' 44.00"N 050° 38' 18.00"E	22	25° 18' 49.00"N 050° 38' 55.00"E
23	25° 15' 22.00"N 050° 38' 48.00"E	24	25° 13' 55.00"N 050° 39' 18.00"E
25	25° 11' 53.00"N 050° 39' 40.00"E	26	25° 07' 58.00"N 050° 39' 51.00"E
27	25° 05' 16.00"N 050° 41' 01.00"E	28	25° 02' 43.00"N 050° 42' 39.00"E
29	24° 59' 27.00"N 050° 43' 29.00"E	30	24° 56' 31.00"N 050° 44' 38.00"E
31	24° 55' 34.00"N 050° 45' 43.00"E	32	24° 52' 44.00"N 050° 47' 38.00"E
33	24° 49' 27.00"N 050° 48' 04.00"E	34	24° 46' 53.00"N 050° 48' 28.00"E
35	24° 45' 43.00"N 050° 48' 28.00"E	36	24° 44' 40.00"N 050° 48' 42.00"E
37	24° 40' 24.00"N 050° 51' 34.00"E	38	24° 32' 43.00"N 050° 55' 44.00"E
39	24° 30' 00.00"N 051° 00' 00.00"E	40	24° 28' 16.00"N 051° 05' 55.00"E
41	24° 29' 07.00"N 051° 18' 49.00"E	42	24° 31' 16.00"N 051° 21' 54.00"E
43	24° 35' 49.00"N 051° 24' 49.00"E	44	24° 37' 31.00"N 051° 24' 06.00"E
45	24° 37' 47.00"N 051° 24' 21.00"E	46	24° 38' 17.00"N 051° 26' 08.00"E
47	24° 42' 47.00"N 051° 34' 22.00"E	48	24° 14' 58.00"N 051° 35' 26.00"E
49	24° 07' 24.00"N 051° 35' 26.00"E	50	22° 56' 09.00"N 052° 34' 52.00"E
51	22° 37' 41.00"N 055° 08' 14.00"E	52	22° 42' 02.00"N 055° 12' 10.00"E
53	22° 42' 30.00"N 055° 12' 30.00"E	54	22° 00' 00.00"N 055° 40' 00.00"E
55	20° 00' 00.00"N 055° 00' 00.00"E	56	19° 00' 00.00"N 052° 00' 00.00"E

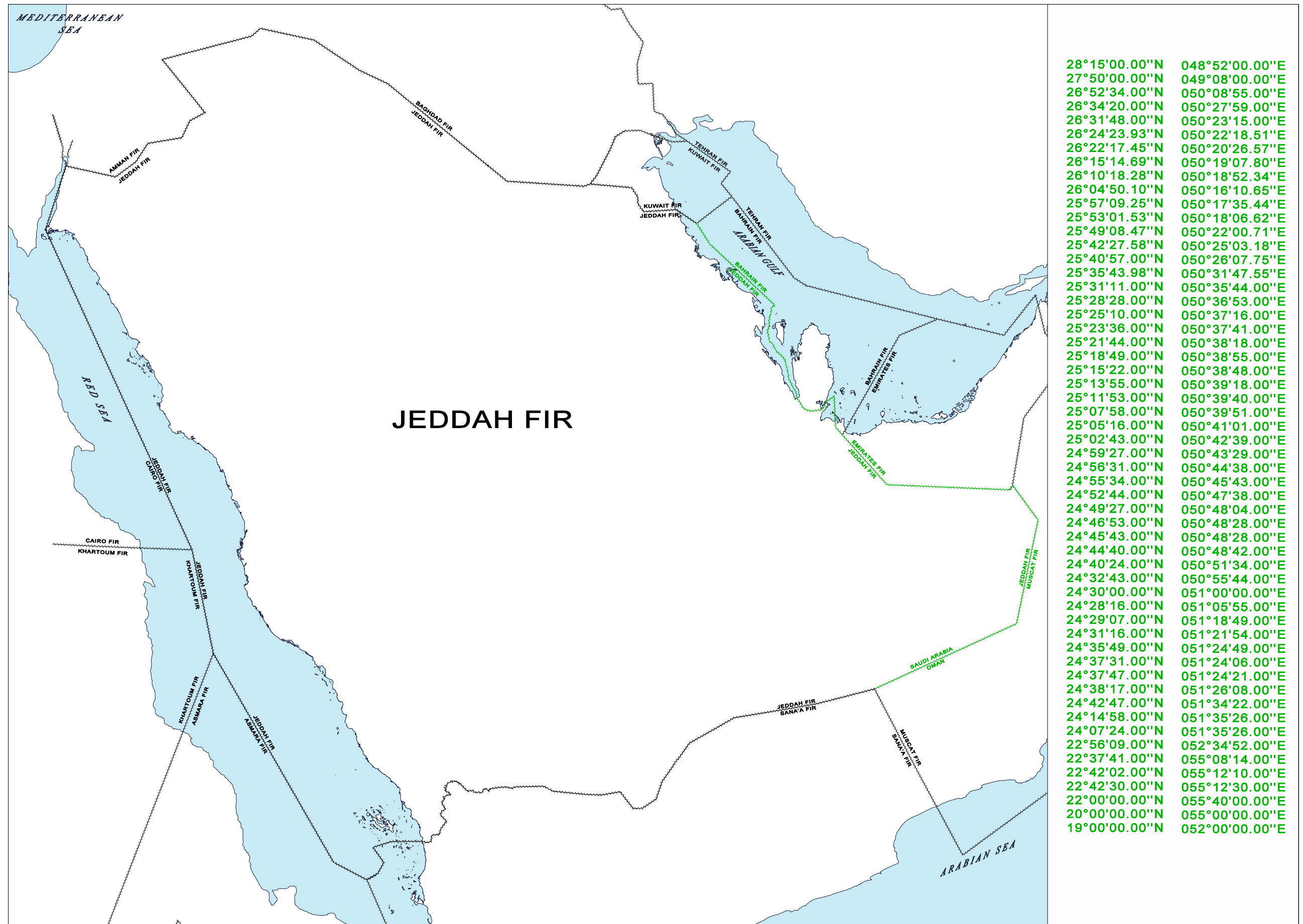
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ANNEX A: THE NEW DELINEATION BETWEEN JEDDAH AND BAHRAIN FIRs



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Annex A : NEW JEDDAH FIR



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2. Airspace re-organization:

The extension of the Eastern boundary of Jeddah FIR has led to introduce a revision/change of the existing controlled airspace structure in the East and South portions. Two new sectors were introduced sectors (namely, North-east Sector (upper and lower) and South-east Sector).

The new airspace sectorization in the East and South portions of Jeddah FIR are depicted in Annex B.

Annex B - New Airspace Sectorization in the East and South portions of KSA

EAST SECTOR

JEDDAH ACC	<u>FL345</u>
EAST Lower Sector	SFC

RIYADH ACC	<u>FL460</u>
EAST Upper Sector	FL345

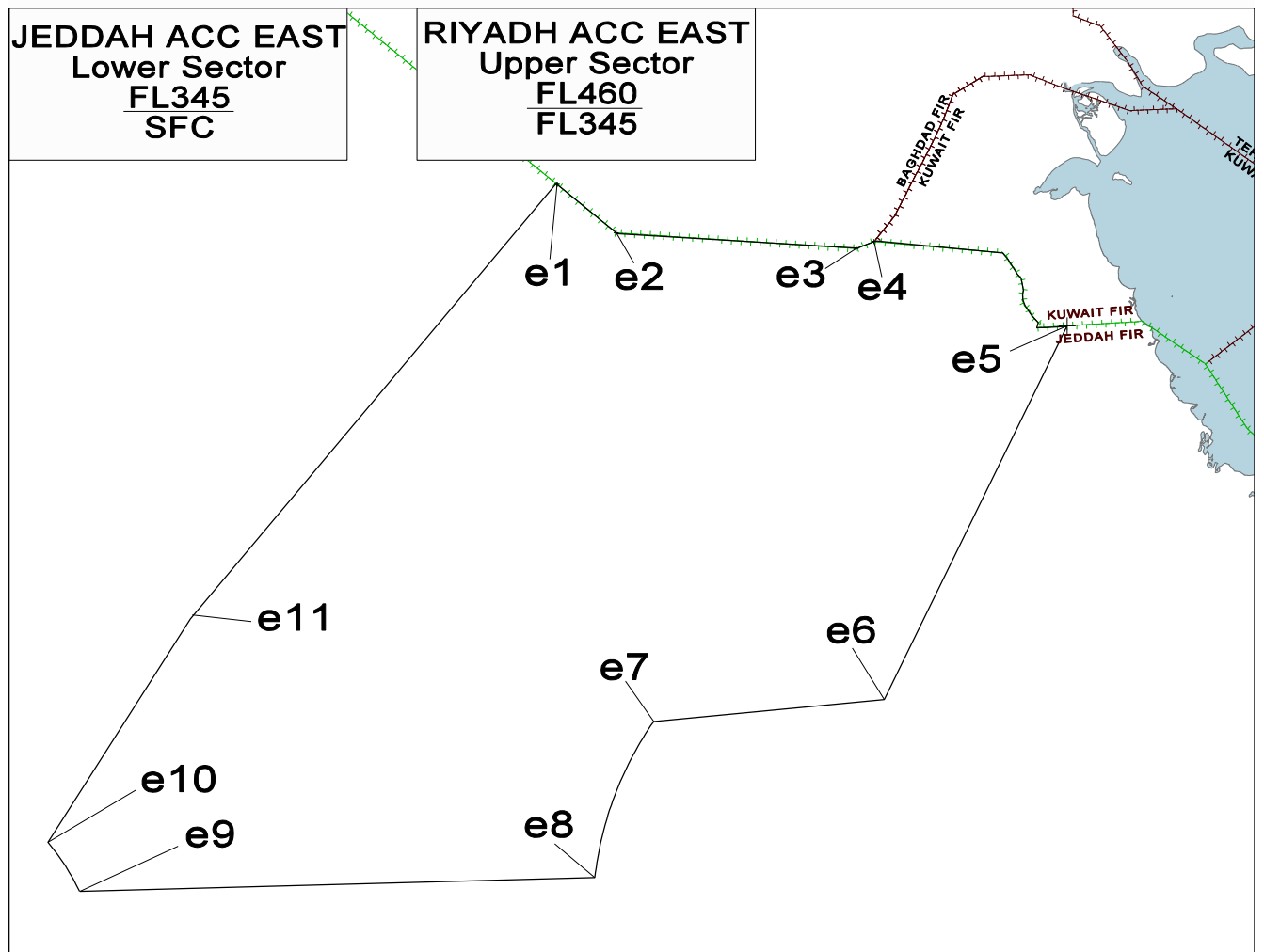
EAST SECTOR

Realigned as follows:

NO	COORDs.
e1	29° 30' 30.00"N 044° 18' 24.00"E
e2	29° 11' 53.00"N 044° 43' 21.00"E
e3	29° 03' 38.00"N 046° 25' 36.00"E
e4	29° 06' 02.00"N 046° 33' 13.00"E
then along the national boundary between Kuwait and Saudi Arabia to	
e5	28° 31' 37.42"N 047° 53' 57.21"E
e6	26° 14' 00.00"N 046° 31' 03.00"E
e7	26° 08' 13.00"N 044° 54' 51.00"E
then anticlockwise by the arc of a circle radius 125NM centered on KIA DVORTAC (24° 53' 09.80"N 046° 45' 33.80"E) to	
e8	25° 10' 00.00"N 044° 29' 10.00"E
e9	25° 05' 42.00"N 040° 56' 24.00"E
then anticlockwise by the arc of a circle radius 75NM centered on PMA DVOR/DME (24° 32' 51.30"N 039° 42' 19.20"E) to	
e10	25° 24' 08.00"N 040° 43' 05.00"E
e11	26° 49' 55.00"N 041° 42' 40.00"E
then back to origin.	

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Annex B : EAST SECTOR



NORTH EAST SECTOR (New)

JEDDAH ACC NORTH-EAST Lower Sector	<u>FL345</u> SFC	(with the exception of Dammam CTA)
RIYADH ACC NORTH-EAST Upper Sector	<u>FL460</u> FL345	

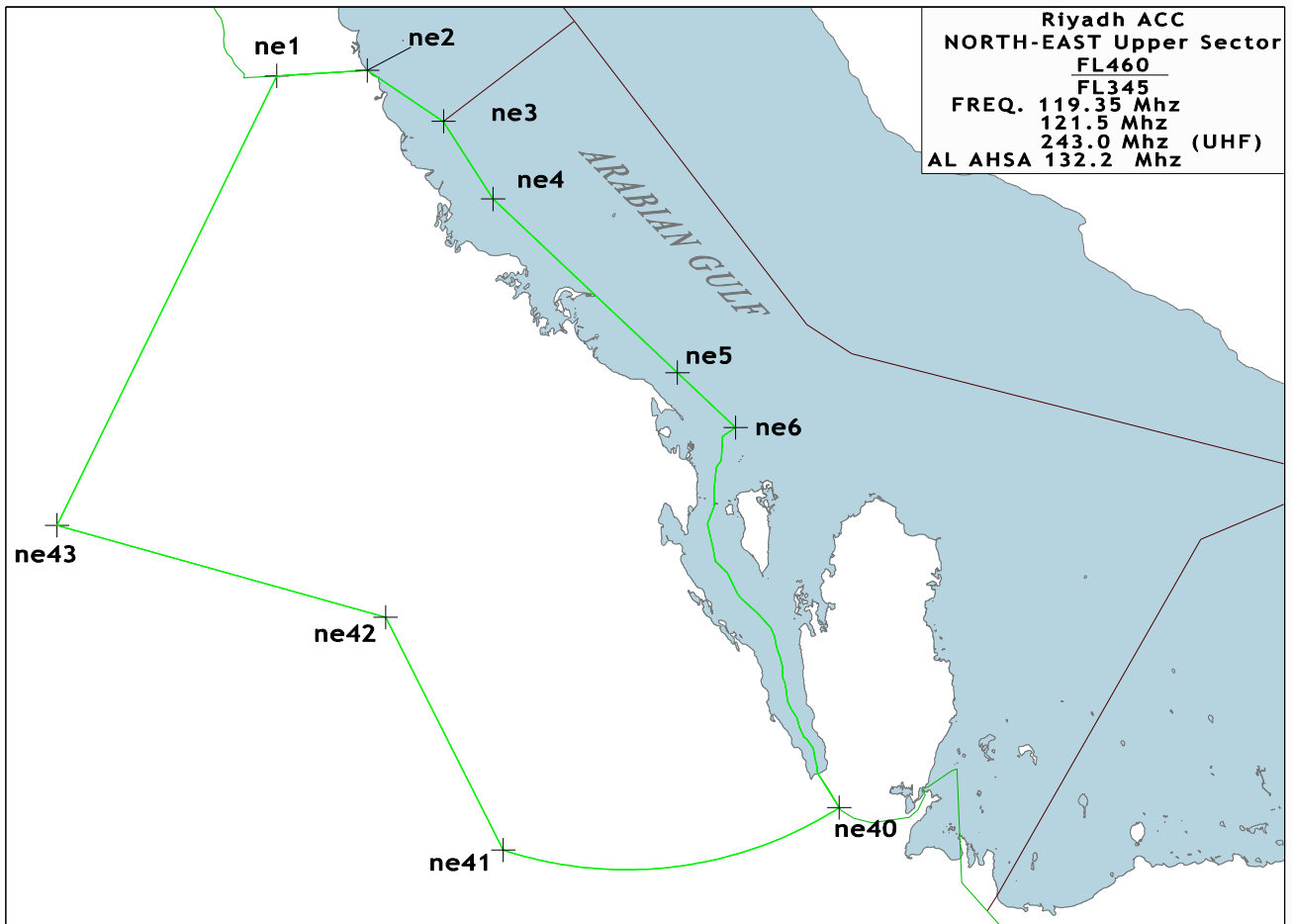
NO	COORDs.
ne1	28° 31' 37.42"N 047° 53' 57.21"E
ne2	28° 32' 02.488"N 048° 25' 59.019"E
ne3	28° 15' 00.00"N 048° 52' 00.00"E
ne4	27° 50' 00.00"N 049° 08' 00.00"E
ne5	26° 52' 34.00"N 050° 08' 55.00"E
ne6	26° 34' 20.00"N 050° 27' 59.00"E
ne7	26° 31' 48.00"N 050° 23' 15.00"E
ne8	26° 24' 23.93"N 050° 22' 18.51"E
ne9	26° 22' 17.45"N 050° 20' 26.57"E
ne10	26° 15' 14.69"N 050° 19' 07.80"E
ne11	26° 10' 18.28"N 050° 18' 52.34"E
ne12	26° 04' 50.10"N 050° 16' 10.65"E
ne13	25° 57' 09.25"N 050° 17' 35.44"E
ne14	25° 53' 01.53"N 050° 18' 06.62"E
ne15	25° 49' 08.47"N 050° 22' 00.71"E
ne16	25° 42' 27.58"N 050° 25' 03.18"E
ne17	25° 40' 57.00"N 050° 26' 07.75"E
ne18	25° 35' 43.98"N 050° 31' 47.55"E
ne19	25° 31' 11.00"N 050° 35' 44.00"E
ne20	25° 28' 28.00"N 050° 36' 53.00"E
ne21	25° 25' 10.00"N 050° 37' 16.00"E
ne22	25° 23' 36.00"N 050° 37' 41.00"E
ne23	25° 21' 44.00"N 050° 38' 18.00"E
ne24	25° 18' 49.00"N 050° 38' 55.00"E
ne25	25° 15' 22.00"N 050° 38' 48.00"E
ne26	25° 13' 55.00"N 050° 39' 18.00"E
ne27	25° 11' 53.00"N 050° 39' 40.00"E
ne28	25° 07' 58.00"N 050° 39' 51.00"E
ne29	25° 05' 16.00"N 050° 41' 01.00"E
ne30	25° 02' 43.00"N 050° 42' 39.00"E
ne31	24° 59' 27.00"N 050° 43' 29.00"E
ne32	24° 56' 31.00"N 050° 44' 38.00"E

ne33	24° 55' 34.00"N	050° 45' 43.00"E
ne34	24° 52' 44.00"N	050° 47' 38.00"E
ne35	24° 49' 27.00"N	050° 48' 04.00"E
ne36	24° 46' 53.00"N	050° 48' 28.00"E
ne37	24° 45' 43.00"N	050° 48' 28.00"E
ne38	24° 44' 40.00"N	050° 48' 42.00"E
ne39	24° 40' 24.00"N	050° 51' 34.00"E
ne40	24° 33' 40.95"N	050° 55' 12.65"E
then clockwise by the arc of a circle radius 123NM centered on KFA DVORTAC (26° 21' 53.30"N 049° 49' 10.20"E) to		
ne41	24° 26' 37.87"N	048° 59' 42.22"E
ne42	25° 41' 08.00"N	048° 23' 17.00"E
ne43	26° 14' 00.00"N	046° 31' 03.00"E (TORKI)
then back to origin.		

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Annex B : NORTH-EAST SECTOR
RIYADH ACC NORTH-EAST UPPER SECTOR

FL460
FL345

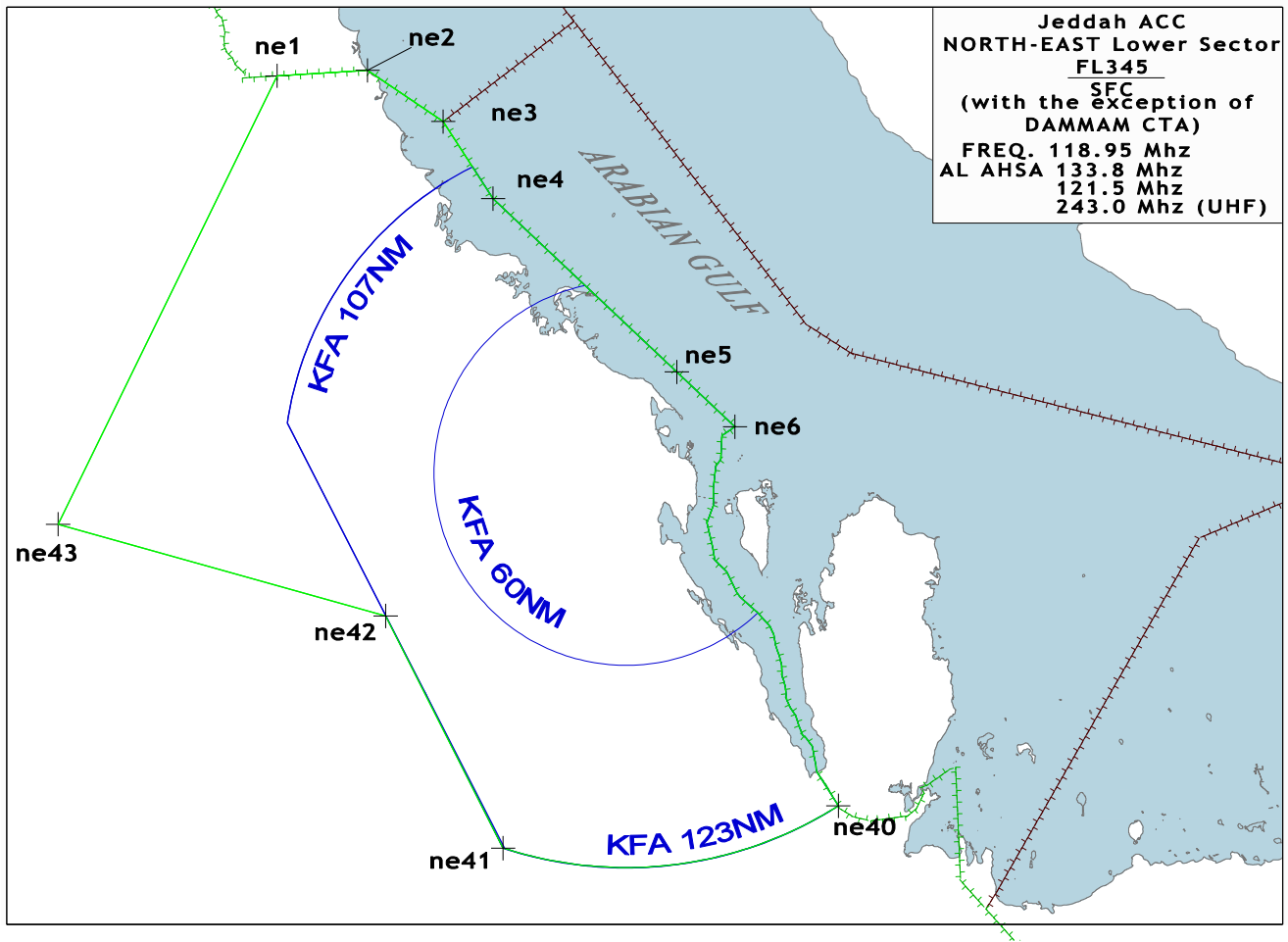


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Annex B : NORTH-EAST SECTOR
JEDDAH ACC NORTH-EAST LOWER SECTOR (with the exception of Dammam CTA)

FL345
SFC

Jeddah ACC
NORTH-EAST Lower Sector
FL345
SFC
(with the exception of
DAMMAM CTA)
FREQ. 118.95 Mhz
AL AHSA 133.8 Mhz
121.5 Mhz
243.0 Mhz (UHF)



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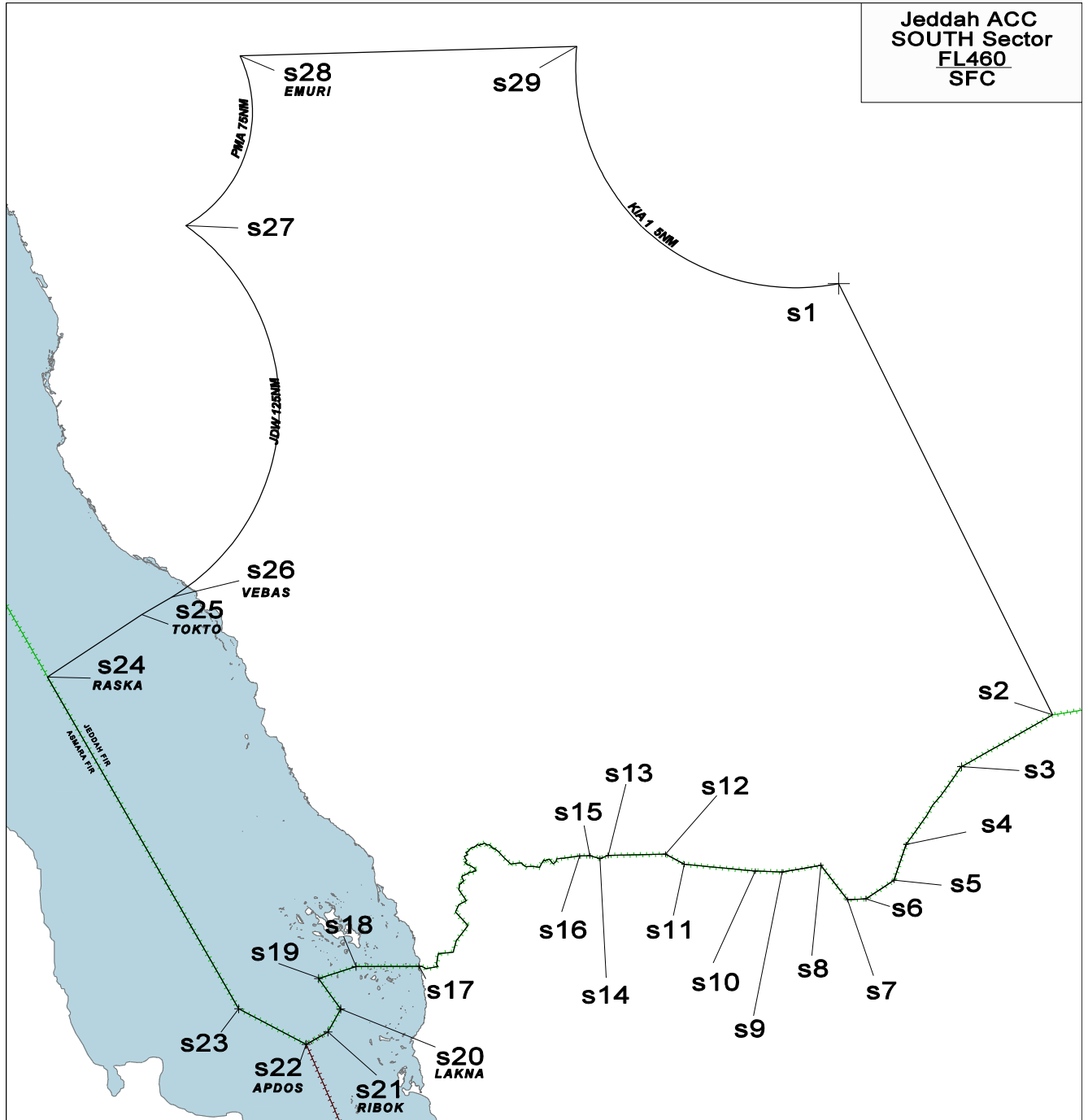
**JEDDAH ACC SOUTH
SECTOR**

**FL460
SFC**

NO	COORDs.
s1	22° 49' 35.52"N 047° 08' 45.44" E
s2	18° 37' 00.00"N 049° 07' 00.00"E
s3	18° 10' 00.00"N 048° 11' 00.00"E
s4	17° 27' 00.00"N 047° 36' 00.00"E
s5	17° 07' 00.00"N 047° 28' 00.00"E
s6	16° 57' 00.00"N 047° 11' 00.00"E
s7	16° 57' 00.00"N 047° 00' 00.00"E
s8	17° 17' 00.00"N 046° 45' 00.00"E
s9	17° 14' 00.00"N 046° 22' 00.00"E
s10	17° 15' 00.00"N 046° 06' 00.00"E
s11	17° 20' 00.00"N 045° 24' 00.00"E
s12	17° 26' 00.00"N 045° 13' 00.00"E
s13	17° 26' 00.00"N 044° 39' 00.00"E
s14	17° 24' 20.00"N 044° 34' 00.00"E
s15	17° 26' 00.00"N 044° 28' 00.00"E
s16	17° 26' 00.00"N 044° 21' 58.00"E
then follow Saudi Arabia and Republic of Yemen international boundaries in accordance with Jeddah treaty to the coast line boundary to	
s17	16° 24' 14.80"N 042° 46' 19.70"E
s18	16° 24' 14.80"N 042° 09' 00.00"E
s19	16° 17' 24.00"N 041° 47' 00.00"E
s20	then direct to LAKNA (16°00' 00.00"N 042° 00' 00.00)
s21	then direct to RIBOK (15° 47' 00.00"N 041° 52 '30.00"E)
s22	then direct to APDOS (15° 39' 55.00"N 041° 39' 47.00"E)
s23	then direct to 16° 00' 00.00"N 041° 00' 00.00"E
s24	then direct to RASKA (19° 07' 32.00"N 039° 03' 29.00"E)
s25	then direct to TOKTO (19° 44' 21.00"N 039° 59' 45.00"E)
s26	then direct to VEBAS (19° 54' 35.00"N 040° 17' 39.00"E)
then anticlockwise by the arc of a circle radius 125 NM centered on JDW DVORTAC (21° 42' 36.70"N 039° 09' 47.80"E) to :	
s27	23° 27' 46.00"N 040° 23' 25.00"E
then anticlockwise by the arc of a circle radius 75NM centered on PMA DVOR/DME	
s28	then direct to EMURI 25° 05' 42.00"N 040° 56' 24.00"E
s29	25° 10' 00.00"N 044° 29' 10.00"E
then anticlockwise by the arc of a circle radius 125 NM centered on KIA DVORTAC (24° 53' 09.80"N 046° 45' 33.80"E)	
then back to origin.	

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Annex B : JEDDAH ACC SOUTH SECTOR
FL460
SFC

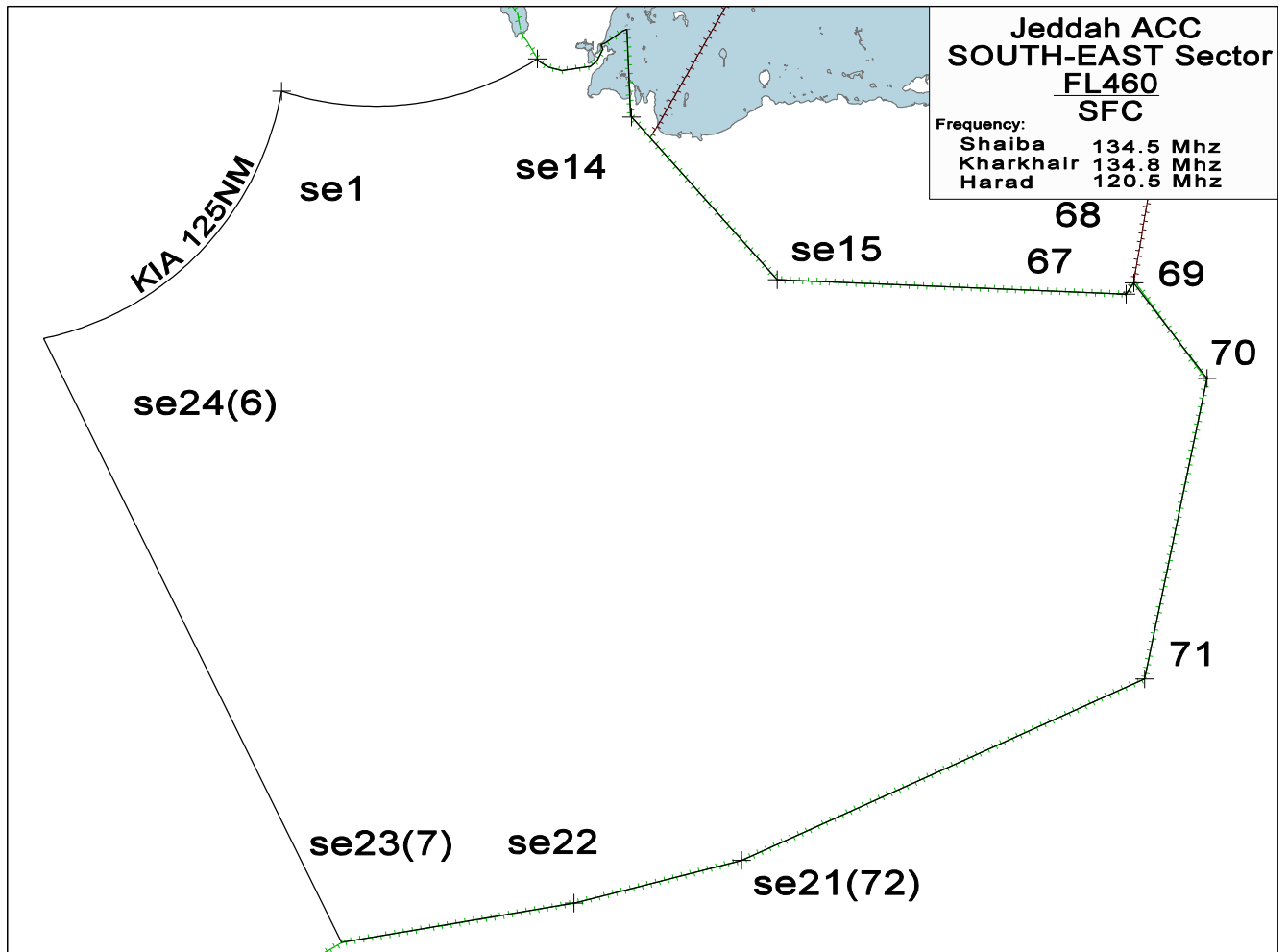


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JEDDAH ACC SOUTH-EAST SECTOR (new) <u>FL460</u> SFC	
se1	24° 26' 37.87"N 048° 59' 42.22"E
then anticlockwise by the arc of a circle radius 123NM centered on KFA DVORTAC(26° 21' 53.3"N 049° 49' 10.2"E) to	
se2	24° 33' 40.95"N 050° 55' 12.65"E
se3	24° 32' 43.00"N 050° 55' 44.00"E
se4	24° 30' 00.00"N 051° 00' 00.00"E
se5	24° 28' 16.00"N 051° 05' 55.00"E
se6	24° 29' 07.00"N 051° 18' 49.00"E
se7	24° 31' 16.00"N 051° 21' 54.00"E
se8	24° 35' 49.00"N 051° 24' 49.00"E
se9	24° 37' 31.00"N 051° 24' 06.00"E
se10	24° 37' 47.00"N 051° 24' 21.00"E
se11	24° 38' 17.00"N 051° 26' 08.00"E
se12	24° 42' 47.00"N 051° 34' 22.00"E
se13	24° 14' 58.00"N 051° 35' 26.00"E
se14	24° 07' 24.00"N 051° 35' 26.00"E
se15	22° 56' 09.00"N 052° 34' 52.00"E
se16	22° 37' 41.00"N 055° 08' 14.00"E
se17	22° 42' 02.00"N 055° 12' 10.00"E
se18	22° 42' 30.00"N 055° 12' 30.00"E
se19	22° 00' 00.00"N 055° 40' 00.00"E
se20	20° 00' 00.00"N 055° 00' 00.00"E
se21	19° 00' 00.00"N 052° 00' 00.00"E
se22	18° 47' 20.00"N 050° 47' 00.00"E
se23	18° 37' 00.00"N 049° 07' 00.00"E
se24	22° 49' 35.52"N 047° 08' 45.44"E
then anticlockwise by the arc of a circle radius 125 NM centered on KIA DVORTAC (24° 53' 09.80"N 046° 45' 33.80"E)	
then back to origin.	

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Annex B : JEDDAH ACC SOUTH-EAST SECTOR



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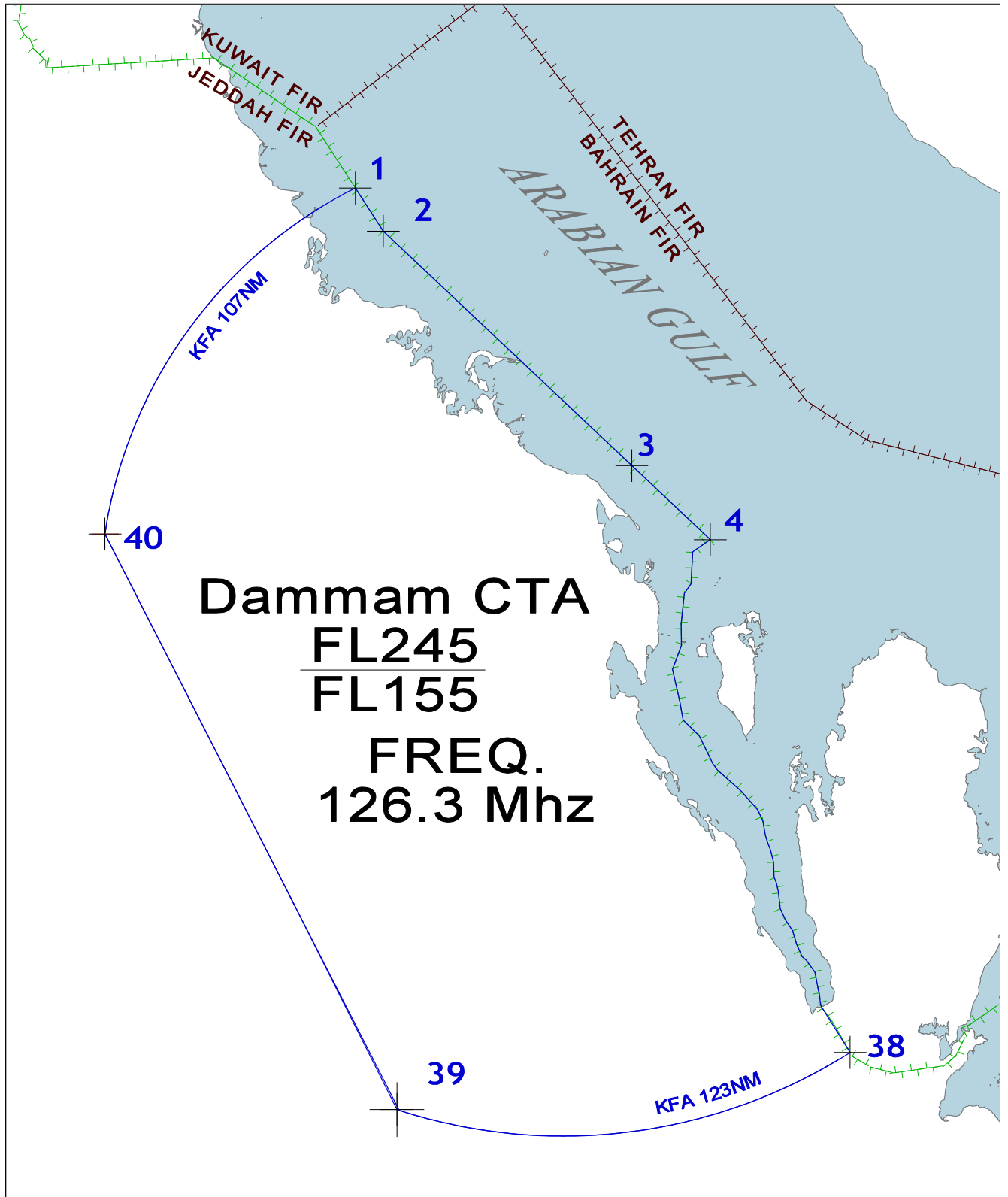
DAMMAM CONTROL AREA CTA:

The DAMMAM CTA is that airspace, extending upward from FL155 up to and including FL245 bounded by the following coordinates from:

NO	COORDs.	NO	COORDs.
1	28° 00' 18.82"N 049° 01' 19.47"E	2	27° 50' 00.00"N 049° 08' 00.00"E
3	26° 52' 34.00"N 050° 08' 55.00"E	4	26° 34' 20.00"N 050° 27' 59.00"E
5	26° 31' 48.00"N 050° 23' 15.00"E	6	26° 24' 23.93"N 050° 22' 18.51"E
7	26° 22' 17.45"N 050° 20' 26.57"E	8	26° 15' 14.69"N 050° 19' 07.80"E
9	26° 10' 18.28"N 050° 18' 52.34"E	10	26° 04' 50.10"N 050° 16' 10.65"E
11	25° 57' 09.25"N 050° 17' 35.44"E	12	25° 53' 01.53"N 050° 18' 06.62"E
13	25° 49' 08.47"N 050° 22' 00.71"E	14	25° 42' 27.58"N 050° 25' 03.18"E
15	25° 40' 57.00"N 050° 26' 07.75"E	16	25° 35' 43.98"N 050° 31' 47.55"E
17	25° 31' 11.00"N 050° 35' 44.00"E	18	25° 28' 28.00"N 050° 36' 53.00"E
19	25° 25' 10.00"N 050° 37' 16.00"E	20	25° 23' 36.00"N 050° 37' 41.00"E
21	25° 21' 44.00"N 050° 38' 18.00"E	22	25° 18' 49.00"N 050° 38' 55.00"E
23	25° 15' 22.00"N 050° 38' 48.00"E	24	25° 13' 55.00"N 050° 39' 18.00"E
25	25° 11' 53.00"N 050° 39' 40.00"E	26	25° 07' 58.00"N 050° 39' 51.00"E
27	25° 05' 16.00"N 050° 41' 01.00"E	28	25° 02' 43.00"N 050° 42' 39.00"E
29	24° 59' 27.00"N 050° 43' 29.00"E	30	24° 56' 31.00"N 050° 44' 38.00"E
31	24° 55' 34.00"N 050° 45' 43.00"E	32	24° 52' 44.00"N 050° 47' 38.00"E
33	24° 49' 27.00"N 050° 48' 04.00"E	34	24° 46' 53.00"N 050° 48' 28.00"E
35	24° 45' 43.00"N 050° 48' 28.00"E	36	24° 44' 40.00"N 050° 48' 42.00"E
37	24° 40' 24.00"N 050° 51' 34.00"E	38	24° 33' 40.95"N 050° 55' 12.65"E
then clockwise by the arc of a circle radius 123NM centered on KFA DVORTA (26° 21' 53.30"N 049° 49' 10.2"E) to			
39	24° 26' 37.87"N 048° 59' 42.22"E	40	26° 43' 05.00"N 047° 52' 10.00"E
then clockwise by the arc of a circle radius 107NM centered on KFA DVORTAC (26° 21' 53.30"N 049° 49' 10.2"E)			
then back to origin.			

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Annex B : DAMMAM CTA



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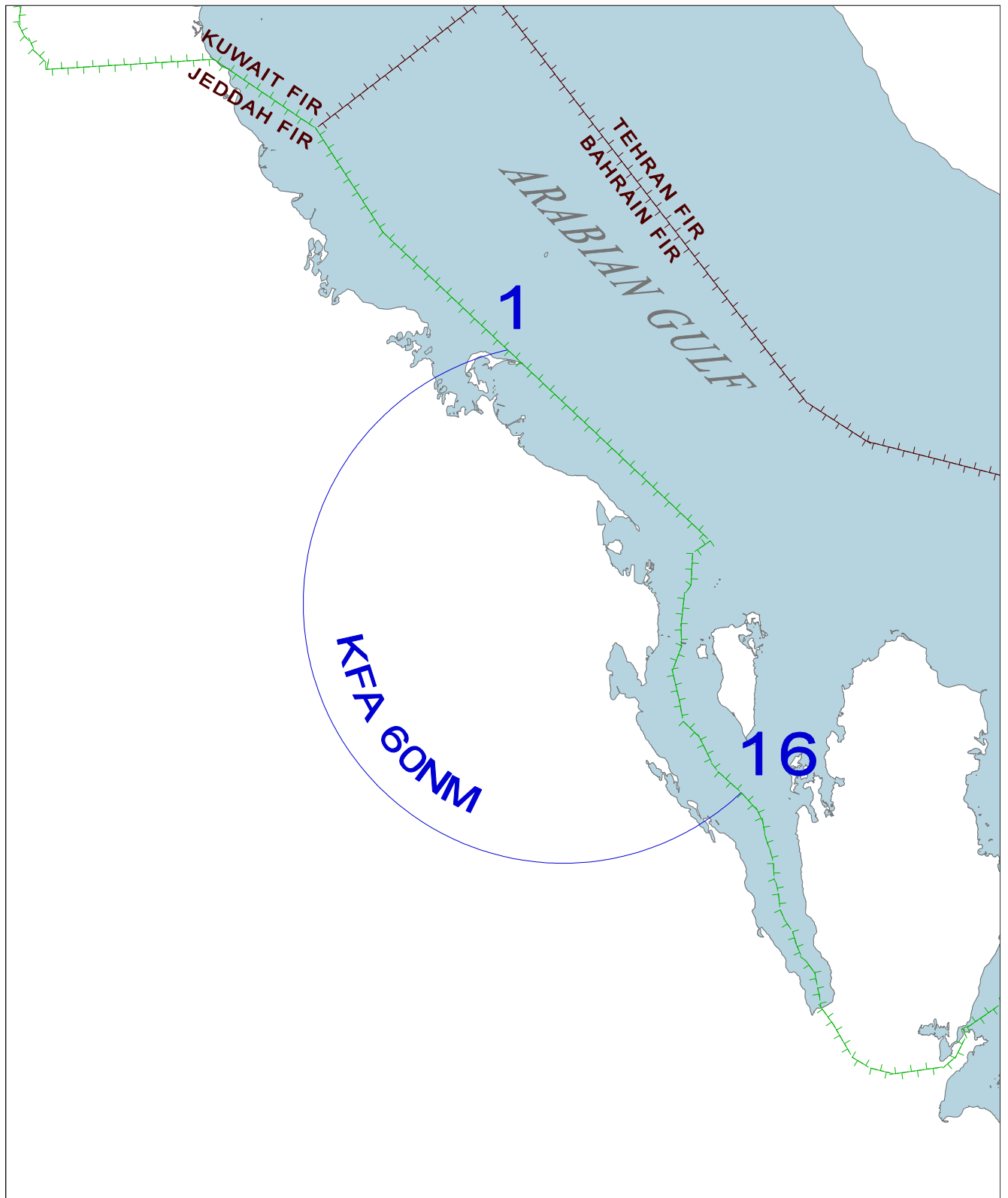
DAMMAM TERMINAL CONTROL AREA (TMA)

The Dammam Terminal Control Area (TMA) is that airspace within the lateral confines of the Dammam CTA that is bounded by the following coordinates:

NO.	COORDs.
1	27° 21' 18.74"N 049° 38' 37.12"E
2	26° 52' 34.00"N 050° 08' 55.00"E
3	26° 34' 20.00"N 050° 27' 59.00"E
4	26° 31' 48.00"N 050° 23' 15.00"E
5	26° 24' 23.93"N 050° 22' 18.51"E
6	26° 22' 17.45"N 050° 20' 26.57"E
7	26° 15' 14.69"N 050° 19' 07.80"E
8	26° 10' 18.28"N 050° 18' 52.34"E
9	26° 04' 50.10"N 050° 16' 10.65"E
10	25° 57' 09.25"N 050° 17' 35.44"E
11	25° 53' 01.53"N 050° 18' 06.62"E
12	25° 49' 08.47"N 050° 22' 00.71"E
13	25° 42' 27.58"N 050° 25' 03.18"E
14	25° 40' 57.00"N 050° 26' 07.75"E
15	25° 35' 43.98"N 050° 31' 47.55"E
16	25° 35' 40.08"N 050° 31' 50.93"E
then clockwise arc of a circle radius 60 NM centered on KFA DVORTAC (26° 21' 53.30"N 049° 49' 10.20"E	
then back to origin.	
Excluding Dammam CTR, Dhahran CTR, Jubail ATZ and RasTanura ATZ	
<u>FL155</u> 700FT AGL within 40NM 2500FT AGL 60 to 40NM	

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Annex B : DAMMAM TMA



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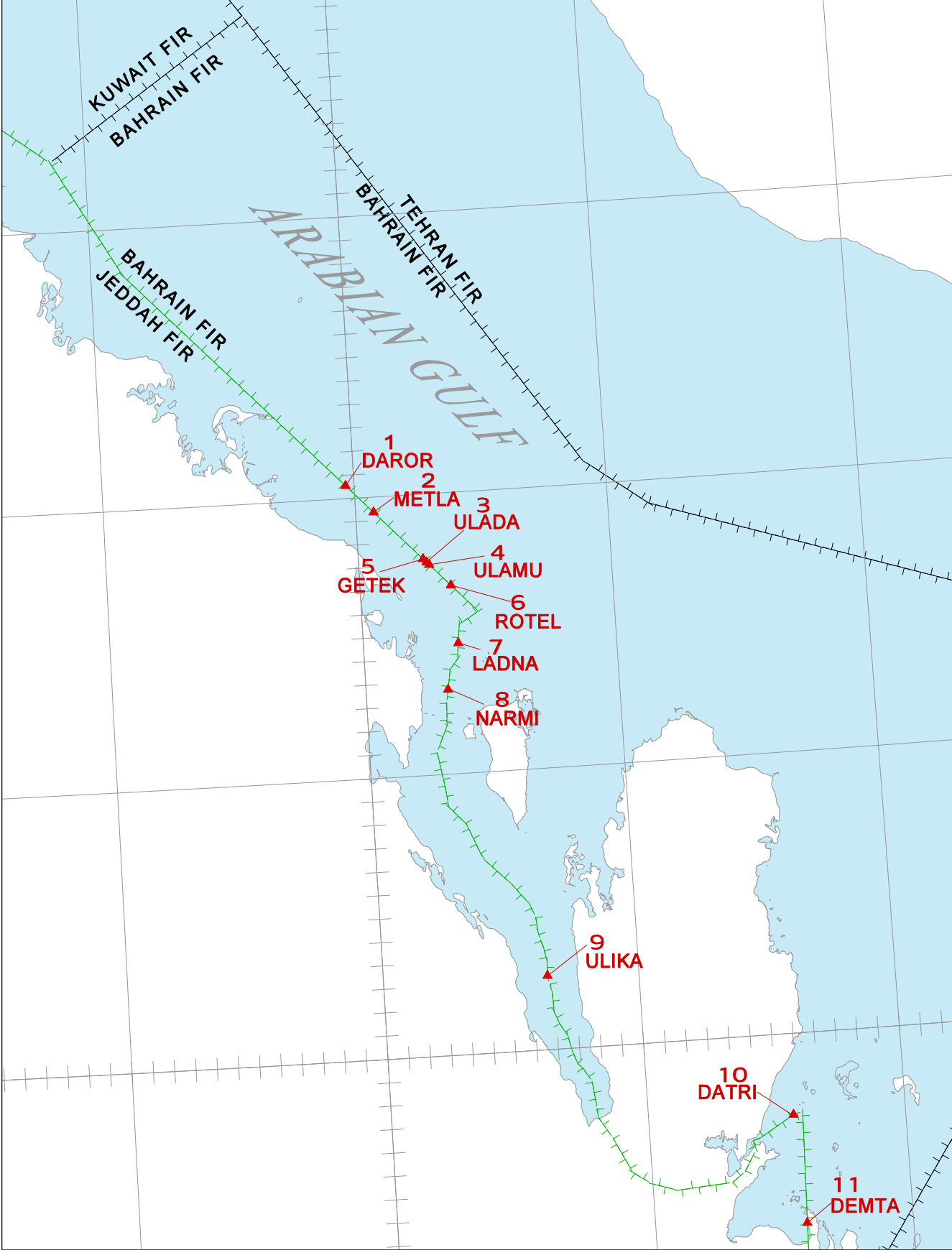
The waypoints and Common Control Boundary (CCB) located on the new eastern boundary of Jeddah FIR are given in the tables below and graphically depicted in Annex 8.

JEDDAH AND BAHRAIN CCB

NO	Intersection	CCB	COORD	Remark
1	P/UP559, L/UL308	DAROR	27° 02' 44.03"N 049° 58' 15.25"E	
2	B/UB419	METLA	26° 56' 45.21"N 050° 04' 32.59"E	
3		ULADA	26° 45' 26.72"N 050° 16' 23.55"E	Non compulsory
4		ULAMU	26° 44' 52.04"N 050° 16' 59.80"E	Non compulsory
5		GETEK	26° 46' 10.44"N 050° 15' 37.83"E	Non compulsory
6	N/UN687 M/UM872	ROTEL	26° 40' 15.01"N 050° 21' 49.08"E	
7	N/UN318	LADNA	26° 27' 49.34"N 050° 22' 44.63"E	
8	N/UN697 N/UN685 L/UL604 P/UP699 B/UB457	NARMI	26° 18' 02.33"N 050° 19' 39.01"E	
9	M/UM430 L/UL681	ULIKA	25° 15' 45.29"N 050° 38' 48.79"E	
10	L/UL564	DATRI	24° 42' 39.38"N 051° 34' 07.28"E	
11	P/UP693	DEMTA	24° 19' 26.02"N 051° 35' 32.83"E	

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Annex B : JEDDAH AND BAHRAIN CCB



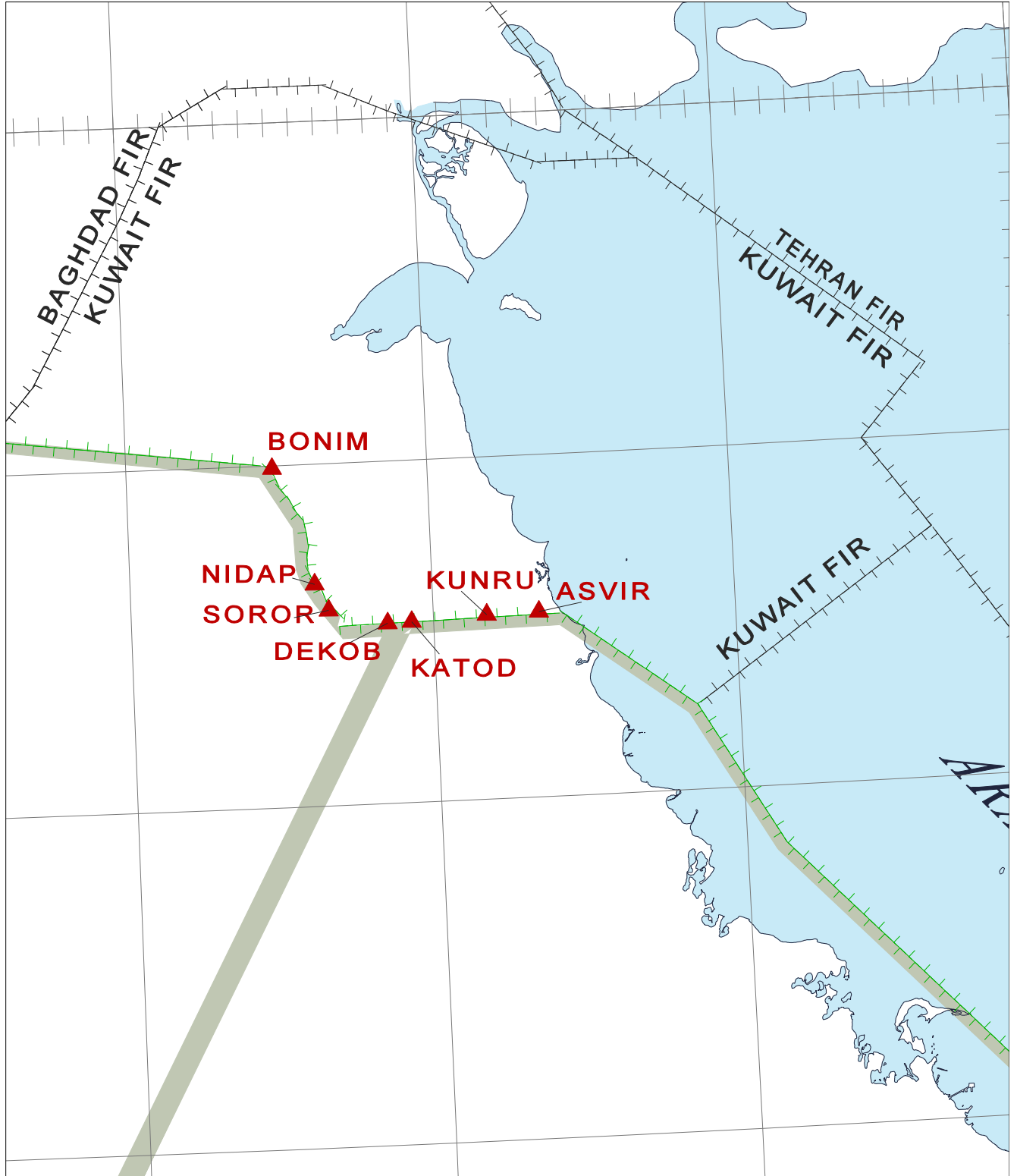
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JEDDAH AND KUWAIT CCB

REPORTING POINT	COORDINATES	ROUTE(s)
BONIM	28° 59' 29.00"N 047° 29' 25.00"E	B417
NIDAP	28° 38' 57.00"N 047° 36' 56.00"E	UL550
SOROR	28° 34' 17.00"N 047° 39' 32.00"E	A788
DEKOB	28° 31' 35.00"N 047° 51' 06.00"E	UP517
KATOD	28° 31' 41.00"N 047° 55' 54.00"E	G/UG667; G/UG785
KUNRU	28° 32' 20.00"N 048° 10' 50.00"E	UP891
ASVIR	28° 32' 26.00"N 048° 21' 14.00"E	M/UM320

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Annex B : JEDDAH AND KUWAIT CCB



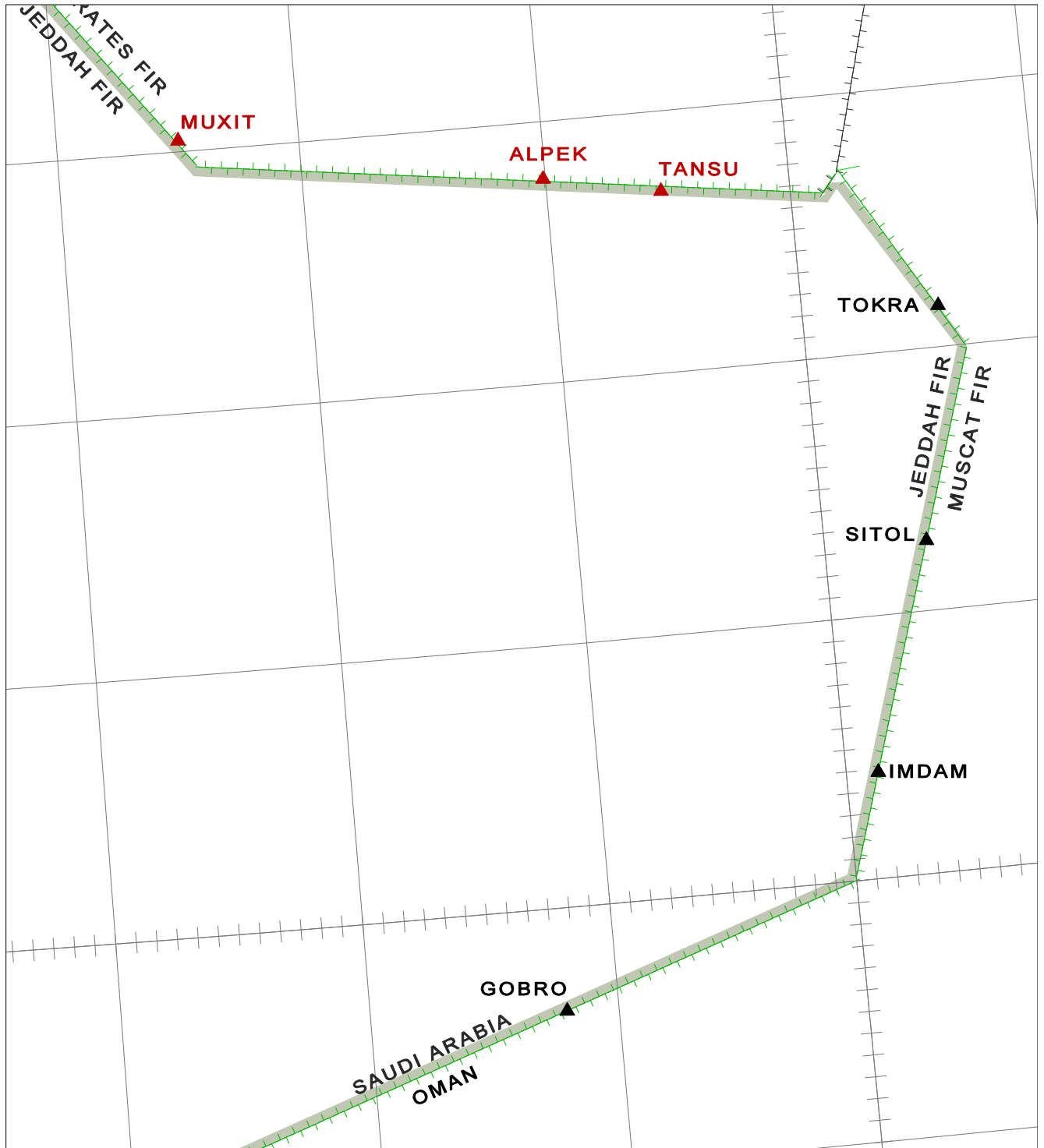
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JEDDAH AND EMIRATES CCB

REPORTING POINT	COORDINATES	ROUTE(s)
MUXIT	23° 02' 30.00"N 052° 30' 24.00"E	UM318
ALPEK	22° 46' 48.00"N 053° 59' 42.00"E	M/UM628
TANSU	22° 41' 36.00"N 054° 28' 28.00"E	UG783

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Annex B : JEDDAH AND EMIRATES CCB



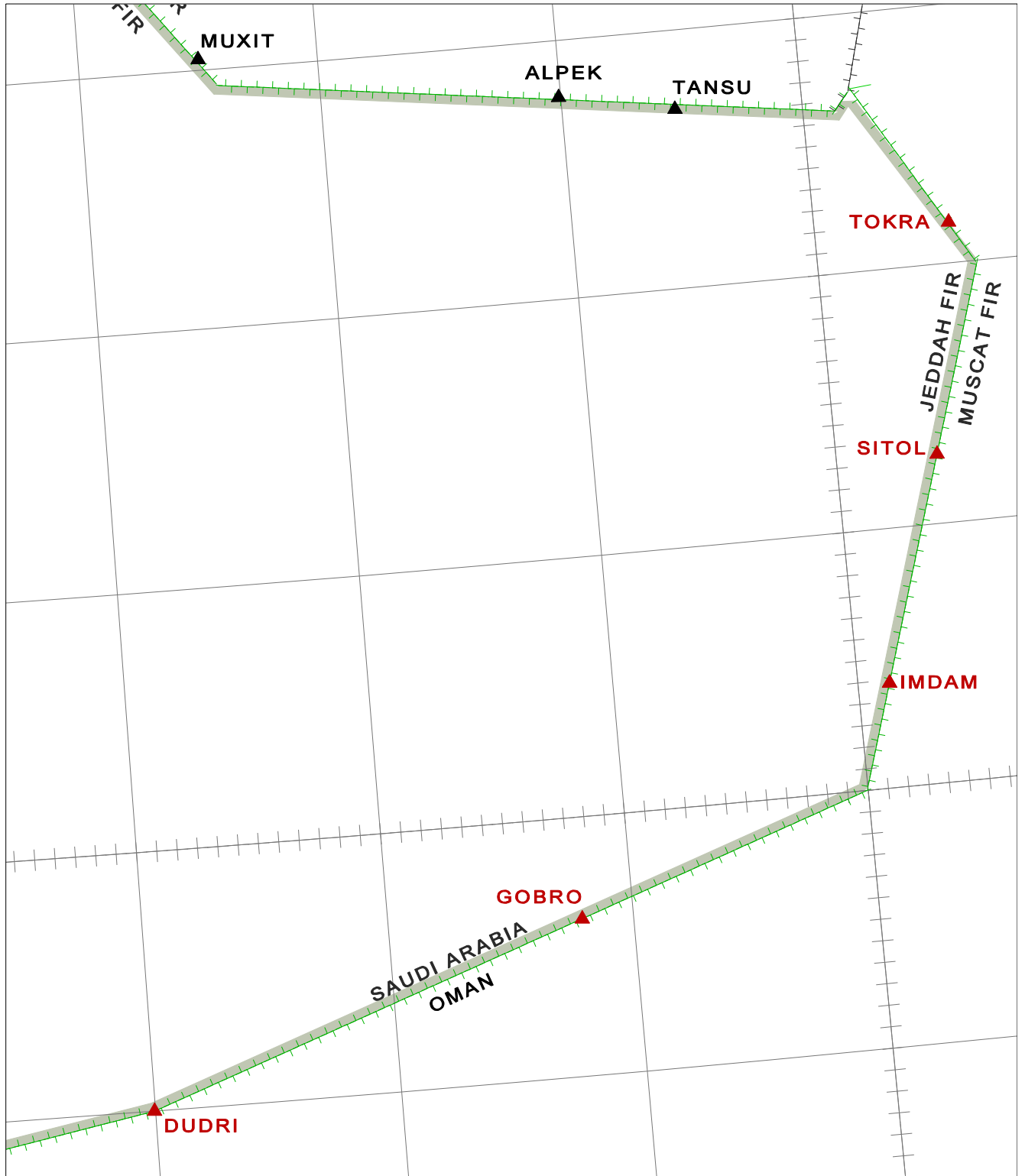
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JEDDAH AND MUSCAT CCB

REPORTING POINT	COORDINATES	ROUTE(s)
TOKRA	22° 09' 24.00"N 055° 33' 48.00"E	UM440/UN569/UG652
SITOL	21° 16' 04.00"N 055° 25' 14.00"E	UN315,L/UL883
IMDAM	20° 24' 16.00"N 055° 08' 01.00"E	UL556
GOBRO	19° 36' 22.00"N 053° 47' 41.00"E	UN324
DUDRI	19° 00' 00.00"N 052° 00' 00.00"E	UG652

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Annex B : JEDDAH AND MUSCAT CCB



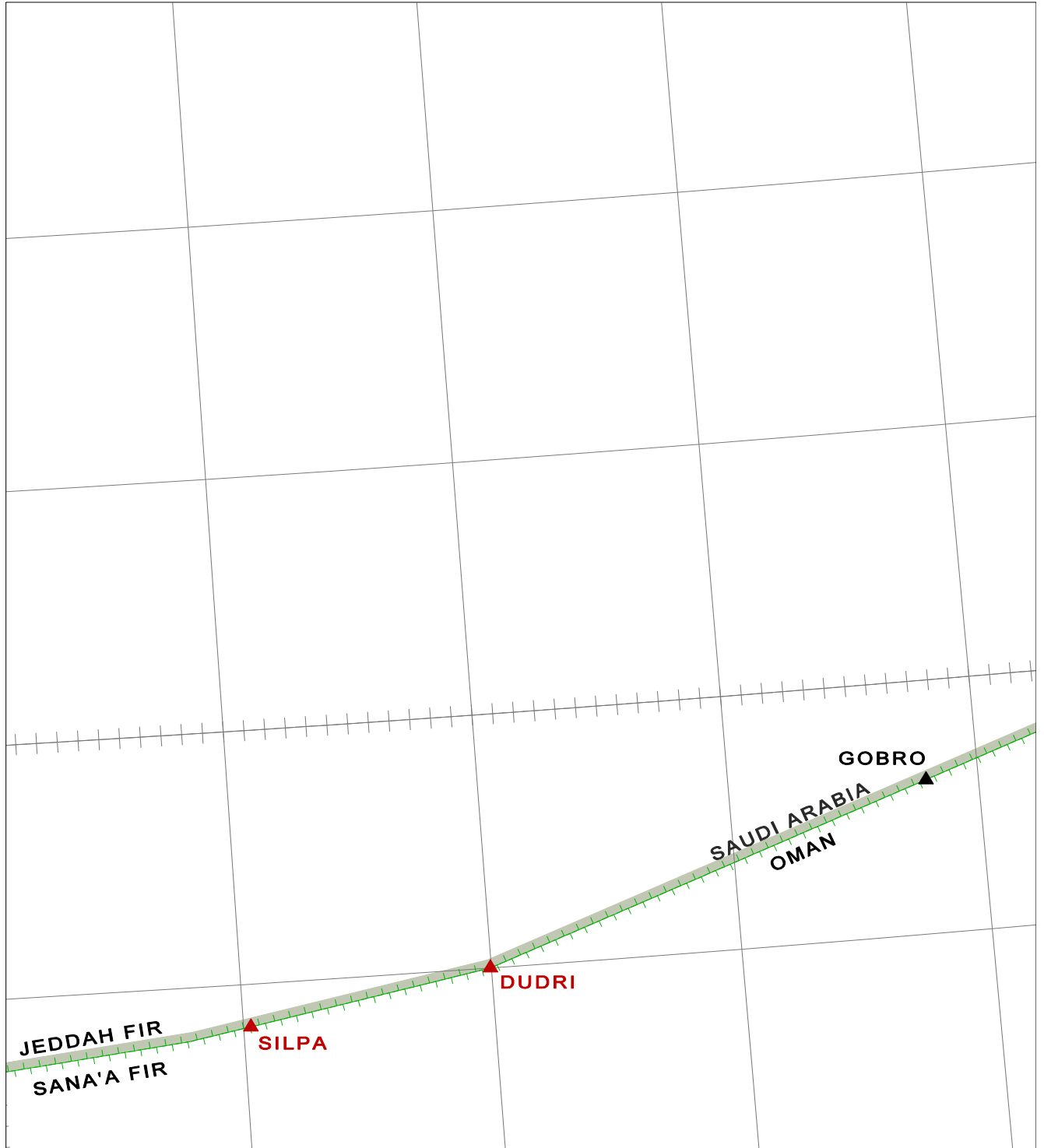
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JEDDAH SOUTH-EAST Sector and SANA'A CCB

REPORTING POINT	COORDINATES	ROUTE(s)
DUDRI	19° 00' 00.00"N 052° 00' 00.00"E	UG652
SILPA	18° 49' 53.00"N 051° 01' 58.00"E	M/UM321

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Annex B : JEDDAH SOUTH-EAST SECTOR AND SANA'A CCB



3. Search and Rescue Region (SRR):

Refer to Saudi Arabia AIP Section GEN 3.6.

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