

ARABSAT 5A

30.5°E

Technical Users Guide

August 2008

Version 1.1, August 2008

Pre-launch

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Sales & Customer Service

Riyadh Office :

(Saudi Arabia, Levant, East Africa & Yemen)
Hesham Khalipha, Regional Manager
Tel: + 966-1-482-0000 / ext. 234
Fax: + 966-1-483-0940
Mobile: +966-50-410-3208
email: heshamk@arabsat.com
Diplomatic Quarter
P.O. Box 1038, Riyadh 11431, Saudi Arabia

Dubai Office:

(Arabian Gulf (excl. Saudi Arabia) , Iran & Asia)
Zaid Al-Khudhairi, Regional Manager
Tel: + 971-4-367-1113
Fax: +971-4-368-8102
Mobile: +971-50-466-6834
email: zaidk@arabsat.com
Dubai Media City
Al Thuraya Tower, Office N° 1301
P.O. Box 502008, Dubai, UAE

Sales & Customer Service

Cairo Office:

(Egypt & Libya)
Moneef Al-Harbi, Regional Manager
Tel: +20-2-690-9971/2
Fax: +20-2-690-9973
Mobile: + 966-55-577-9651
email: moneefh@arabsat.com
17 Alahram St., AlKorba, Heliopolis,
Building A, 3rd Floor, Postal N° 11341, Cairo, Egypt

Paris Office:

(Europe, North Africa (excl. Egypt & Libya) , Americas)
Bertrand PERSEHAYE
Senior Advisor, Sales & Regional Manager
Mobile: +33-6-8811-1065
email: bertrandp@arabsat.com

General Information

ARABSAT Headquarters

P.O. Box 1038 (Diplomatic Quarter)
Riyadh 11431, Saudi Arabia
Tel: + 966-1 482-0000
Fax: + 966-1 488-7999
email: arabsat@arabsat.com

Technical and Operational Services

ARABSAT Operations

Ammar Baranbo, Operations Director
P.O. Box 1038 (Diplomatic Quarter)
Riyadh 11431, Saudi Arabia
Tel: + 966-1-482-0000
Fax: + 966-1-488-7999
email: arabsat@arabsat.com

ARABSAT Engineering Services Center (ECS)

Tel: + 966-1-482-0000
Fax: + 966-1-488-7999
email: ecs@arabsat.com

ARABSAT Operations Center (AOC)

Tel: + 966-1 404-2019 Fax: + 966-1 402-4169
email: operation@arabsat.com

ARABSAT Primary Control Facility (PCF)

Dirab, Saudi Arabia
Tel: + 966-1 403-0392 Fax: + 966-1 403-3072

ARABSAT Secondary Control Facility (SCF)

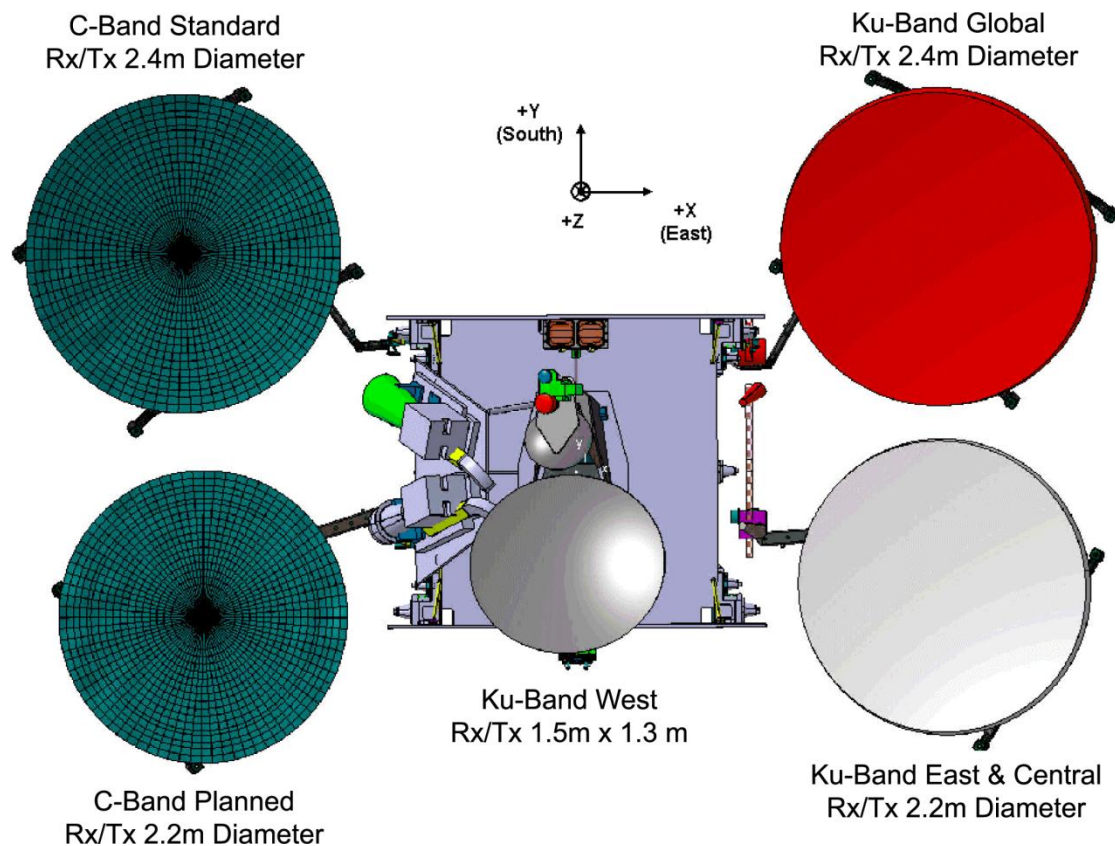
Tunis, Tunisia
Tel: + 216-71 645-333 Fax: + 216-71 645-346

ARABSAT 5A General Information

Orbit:	30.5°E Geostationary
Station Keeping:	±0.05° latitude, ±0.05° longitude
Satellite Type:	EADS Astrium Eurostar 3000
Launch Mass:	4,800 kg
Launch Date:	4th Quarter 2009 (Expected)
In-Service Date:	4th Quarter 2009 (Expected)
Expected Operational Life:	15 Years
Payload Power:	12.0 kW (BOL) / 11 kW (EOL)
C-Band Transponders:	Standard: 8 x 72 MHz, 8 x 36 MHz, 120W Planned (Appendix 30B): 4 x 72 MHz, 6 x 36 MHz, 90W
Ku-Band Transponders:	FSS: 8 x 36 MHz, 150W Planned (Appendix 30B): 8 x 36 MHz, 150W

BOL: Beginning of Life ; EOL: End of Life

ARABSAT 5A Antenna Configuration



Schematic of ARABSAT 5A satellite showing the BSS and FSS communications antennas

Transponder Nominal IBO/OBO

Typical Transponder Operating Mode	Single Carrier IBO (dB)	Single Carrier OBO (dB)	Two Carrier IBO (dB)	Two Carrier OBO (dB)	Multi-Carrier IBO (dB)	Multi-Carrier OBO (dB)
C-Band 90 W Amplifiers	0.0 dB	0.0 dB	TBD	TBD	TBD	TBD
C-Band 120 W Amplifiers	0.0 dB	0.0 dB	TBD	TBD	TBD	TBD
Ku-Band 150 W Amplifiers	0.0 dB	0.0 dB	TBD	TBD	TBD	TBD

IBO: Input Backoff With Respect to Single-Carrier Saturation
 OBO: Output Backoff With Respect to Single-Carrier Saturation

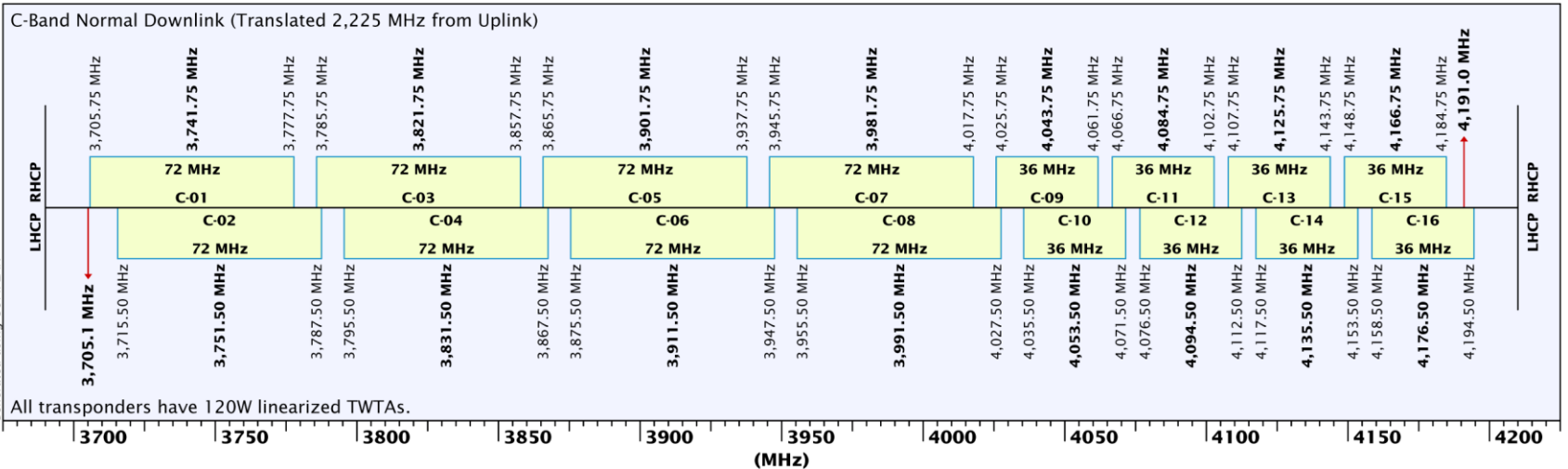
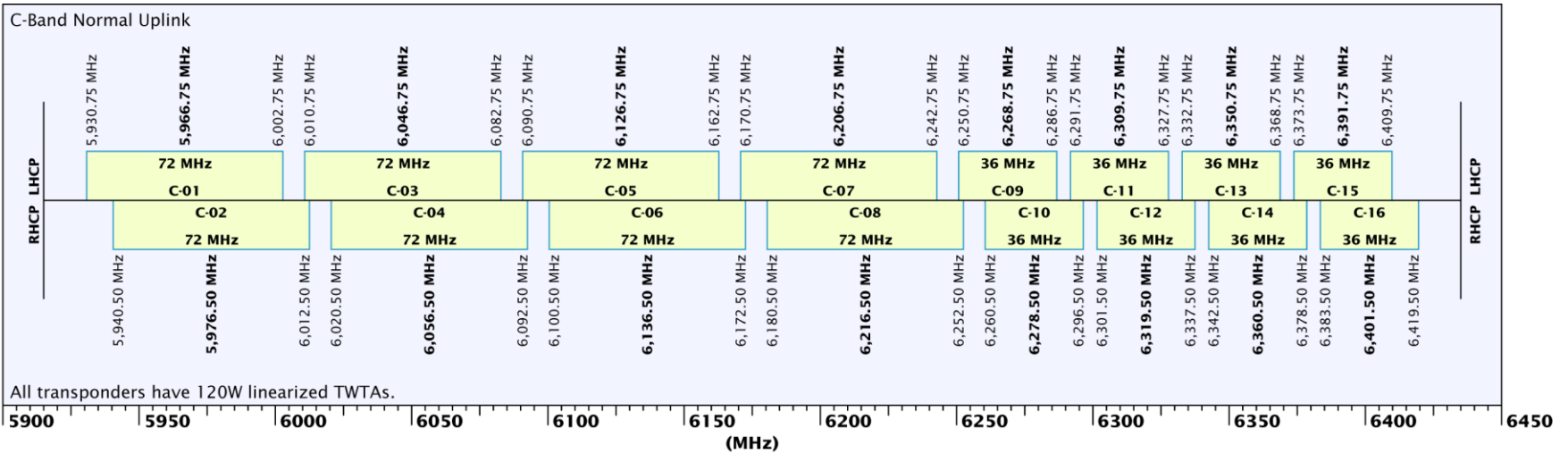
Transponder nominal BO/OBO values will be specified by ARABSAT prior to launch.

A stylized globe graphic composed of several overlapping, curved lines in shades of blue and grey, creating a sense of motion and global connectivity. The lines are thick and have a slight gradient, giving the globe a three-dimensional appearance.

ARABSAT 5A C-Band

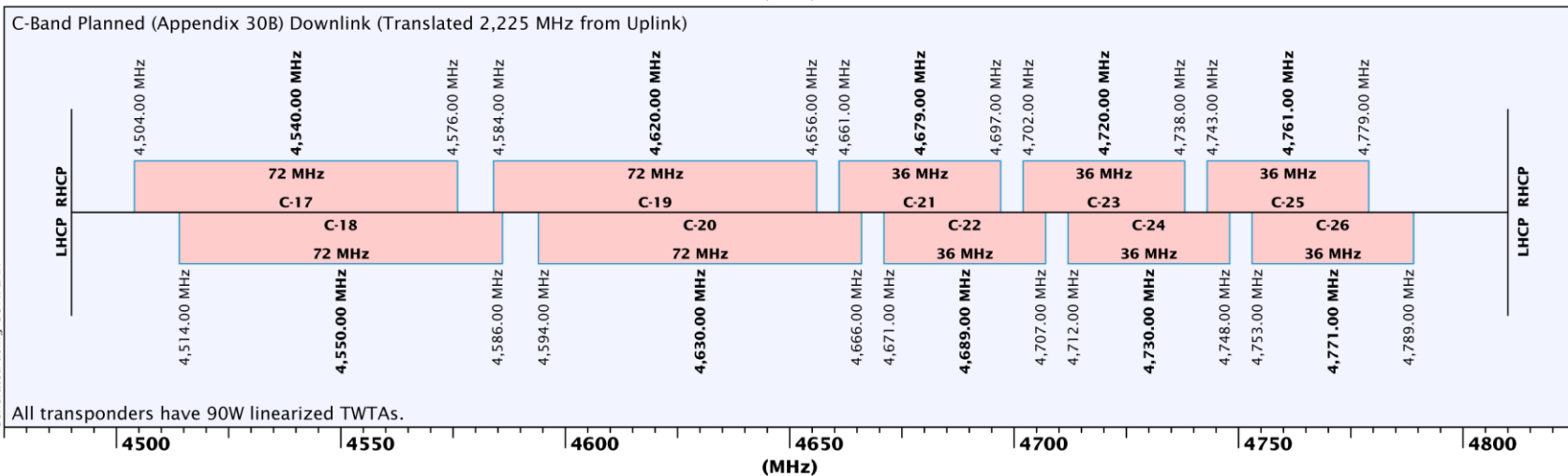
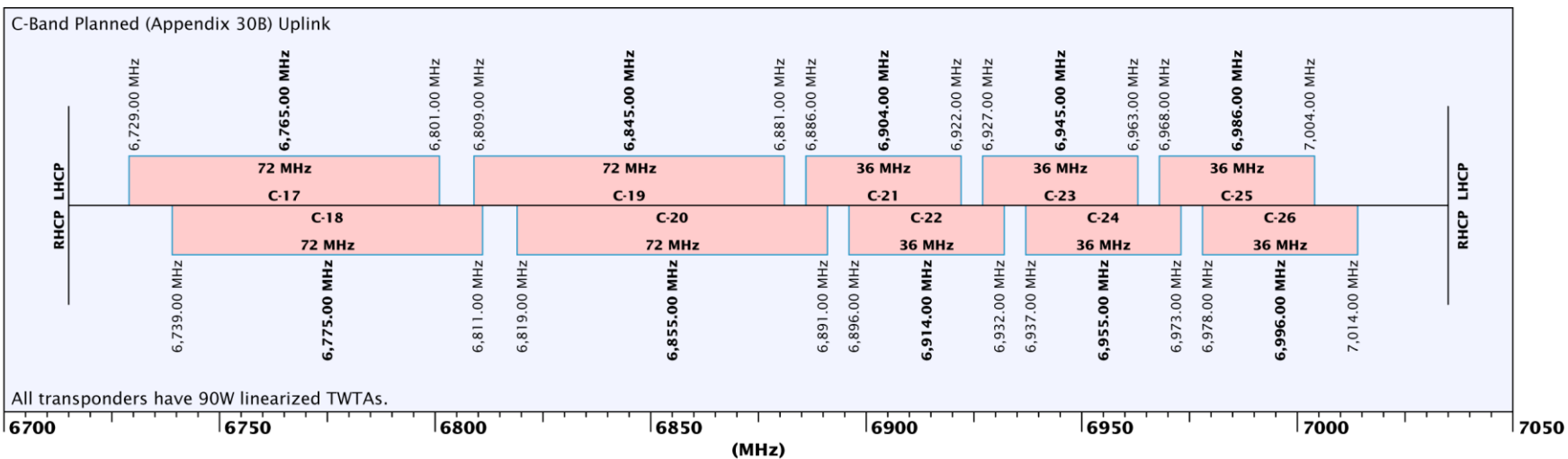
C-Band Normal Frequency Plan

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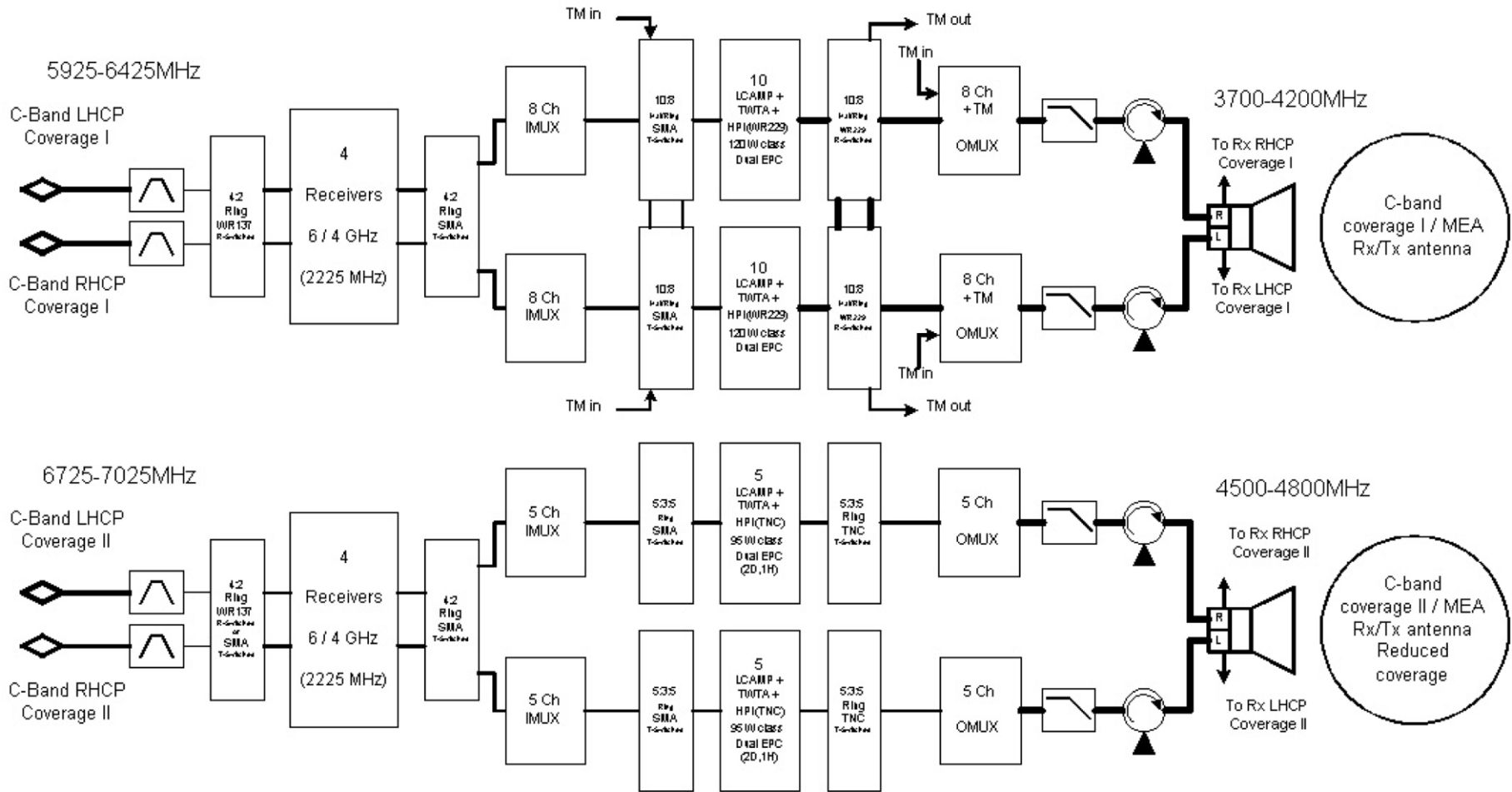
C-Band Planned (Appendix 30 B) Frequency Plan

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C-Band (Standard and Planned) Communications Payload Diagram

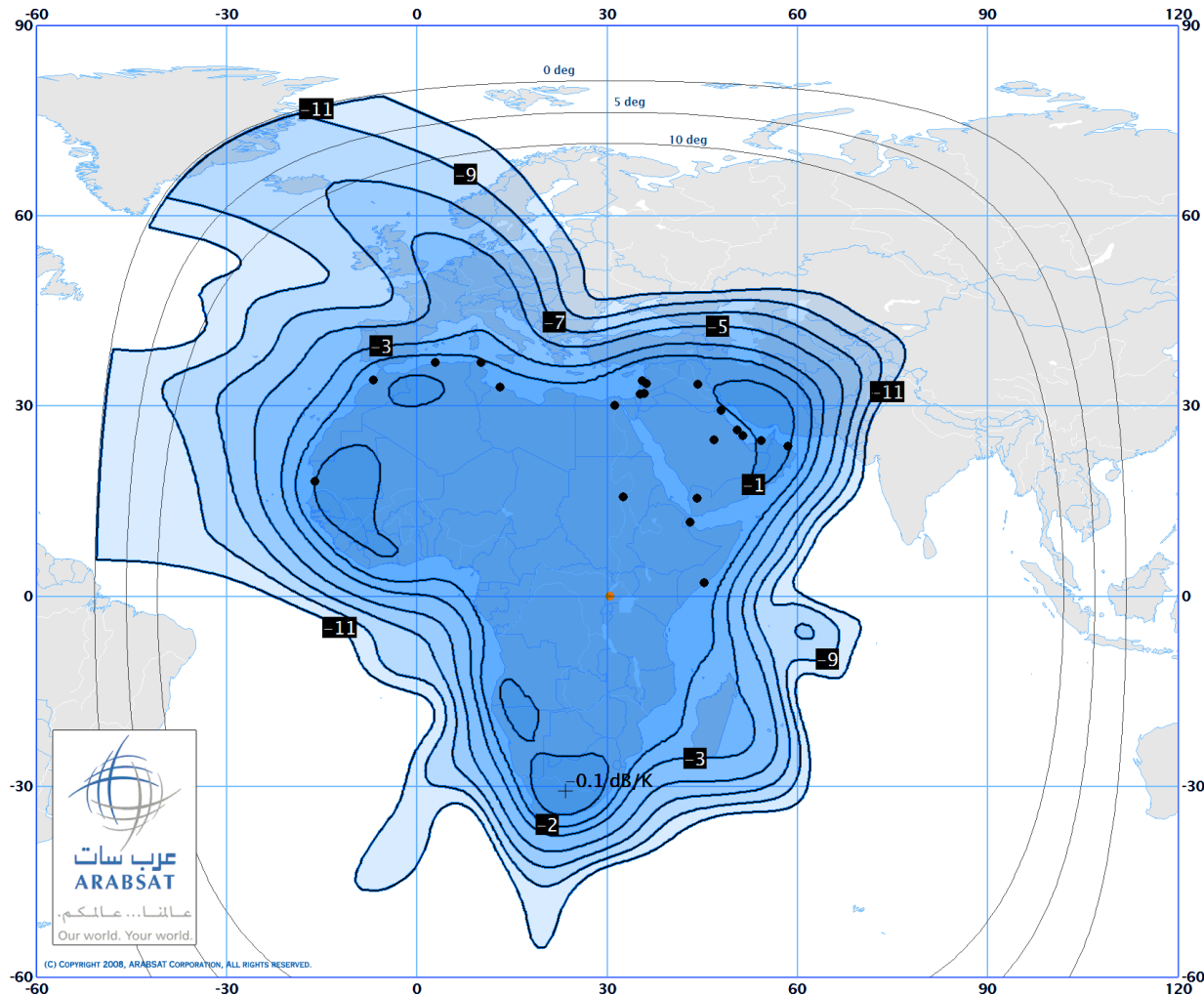
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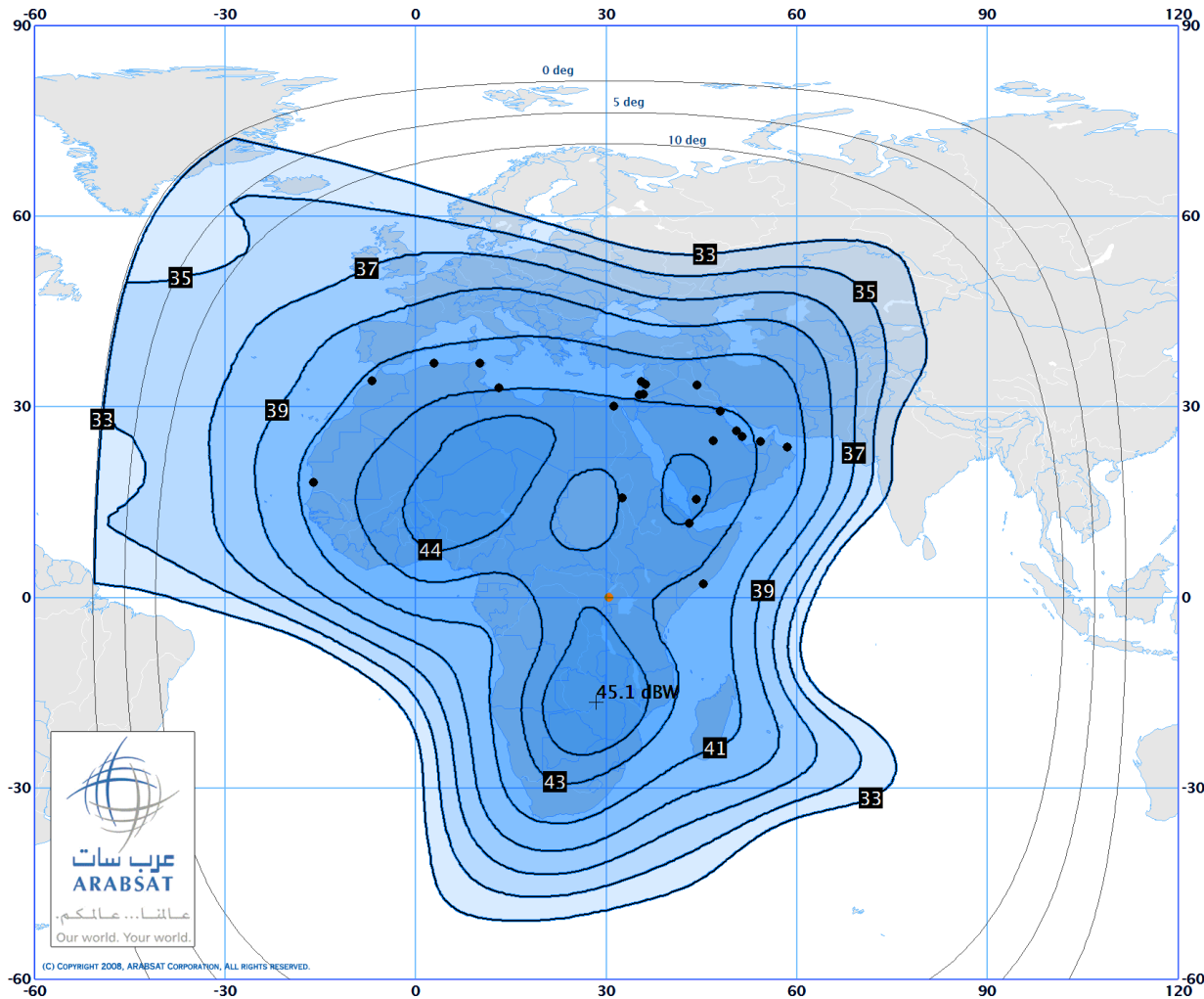
Coverage I: Standard

Coverage II: Planned (Appendix 30B)

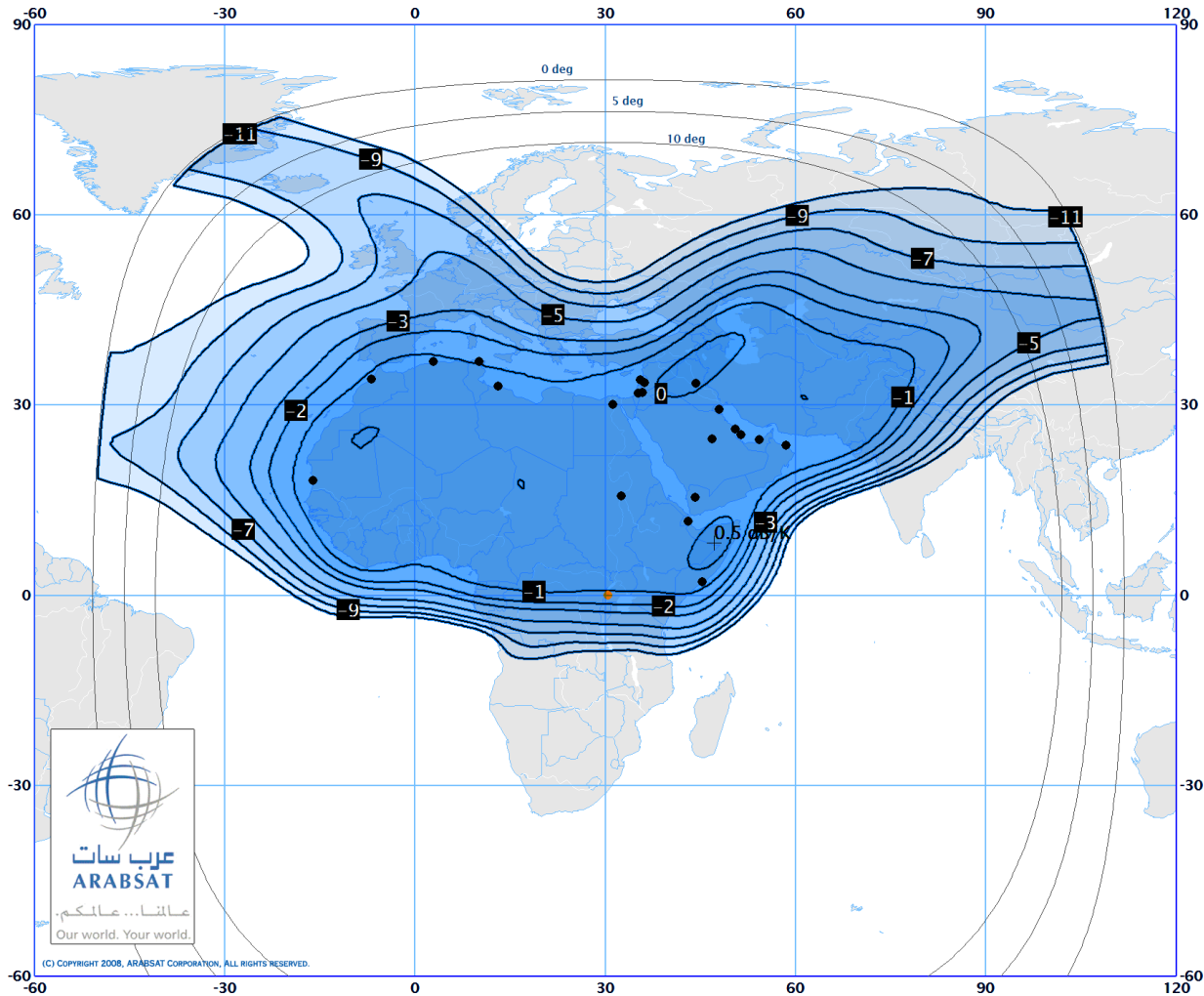
C-Band Normal Typical Uplink G/T (dB/K)



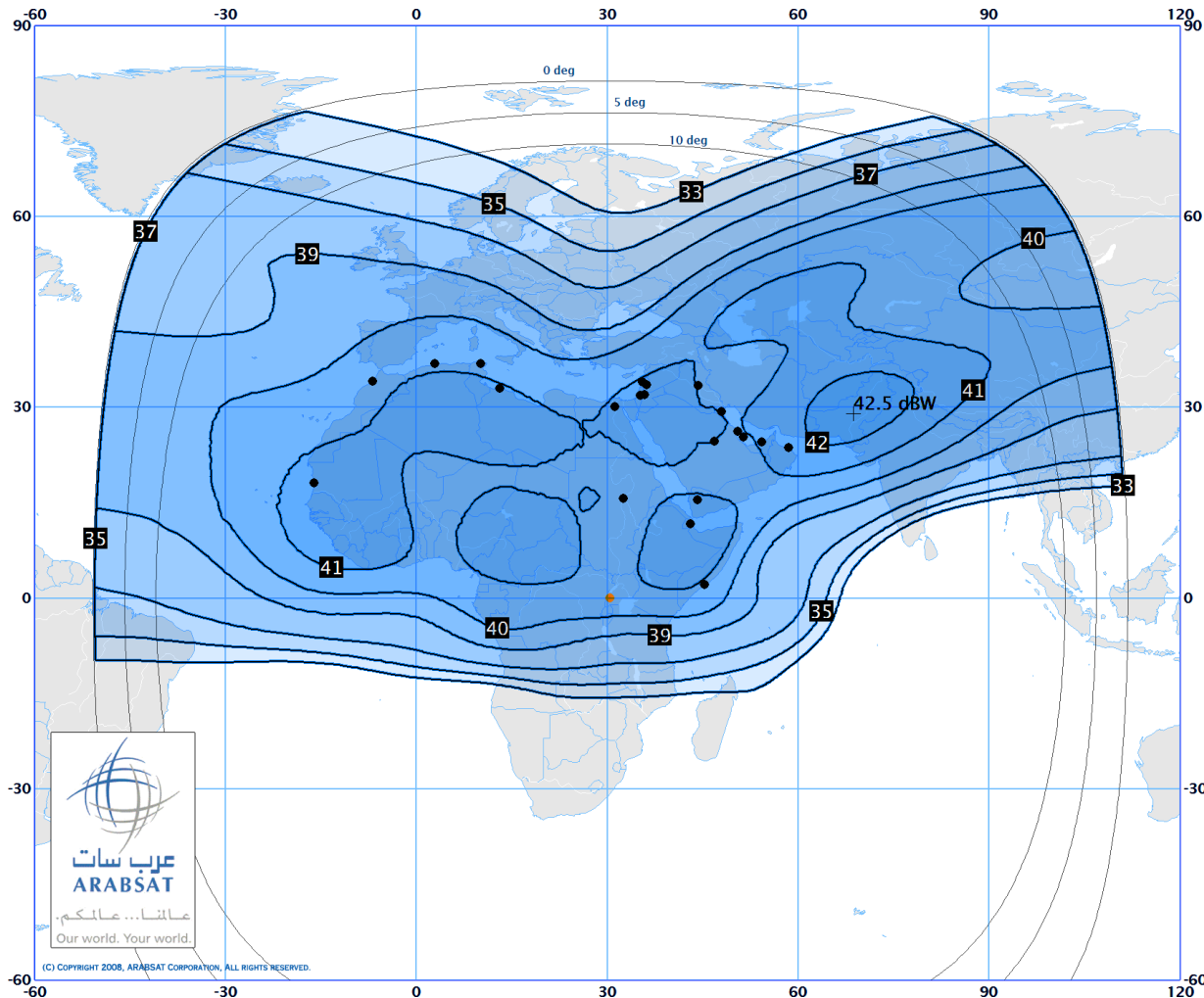
C-Band Normal Typical Downlink EIRP (dBW)



C-Band Planned (Appendix 30B) Typical Uplink G/T (dB/K)



C-Band Planned (Appendix 30B) Typical Downlink EIRP (dBW)

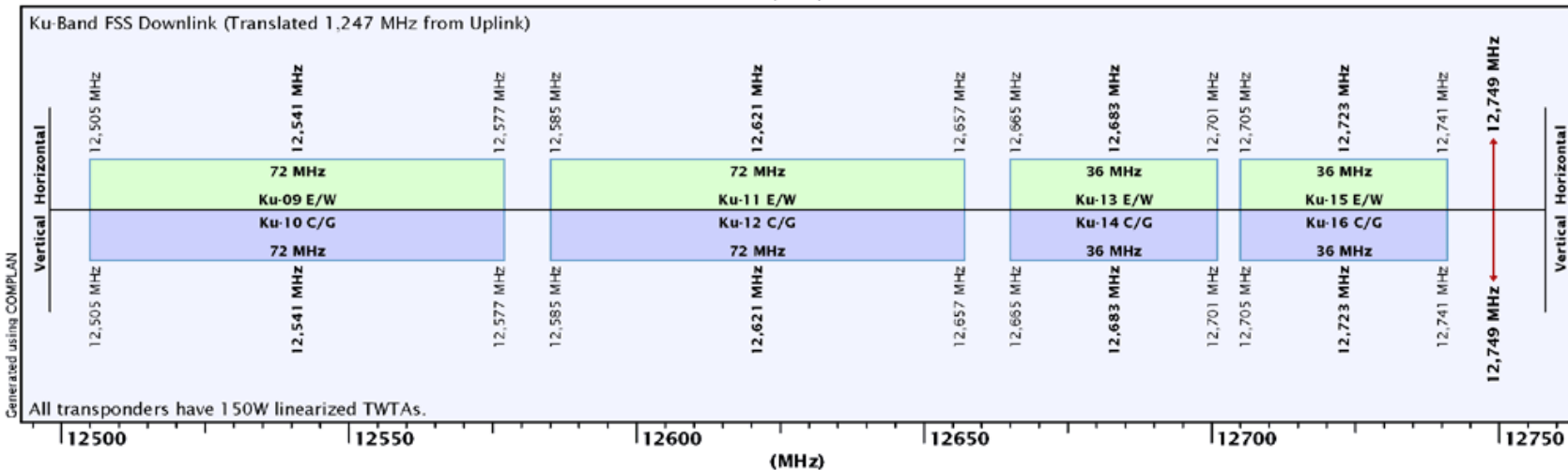
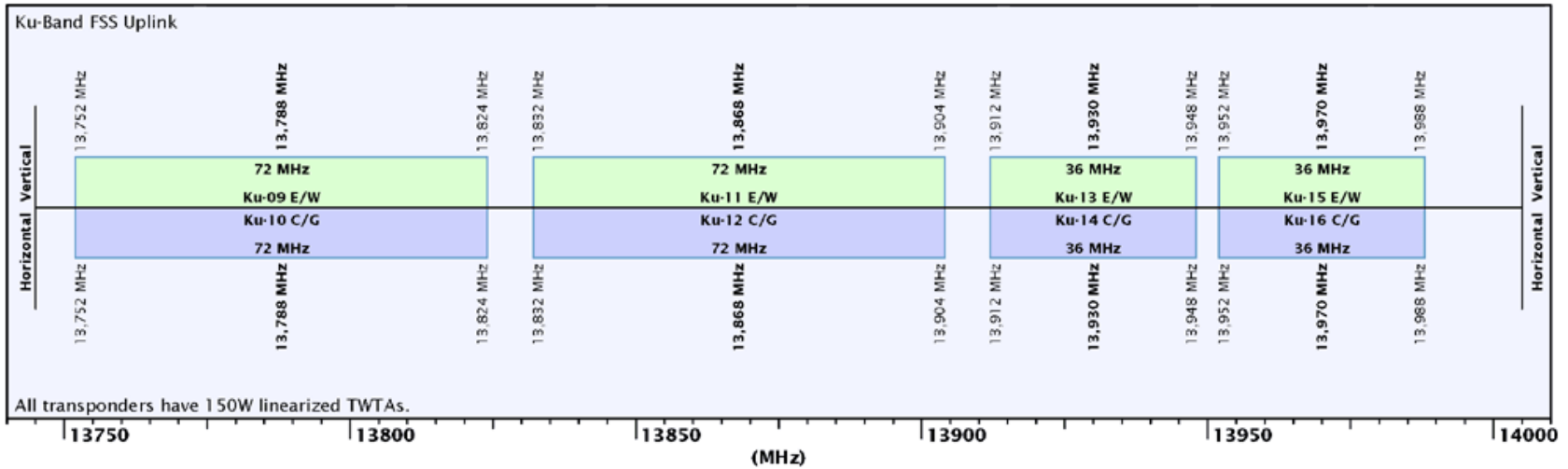


A stylized globe graphic composed of several overlapping, curved lines in shades of blue and grey, creating a sense of motion and global connectivity. The lines are thick and have a slight gradient, giving the globe a three-dimensional appearance.

ARABSAT 5A Ku-Band

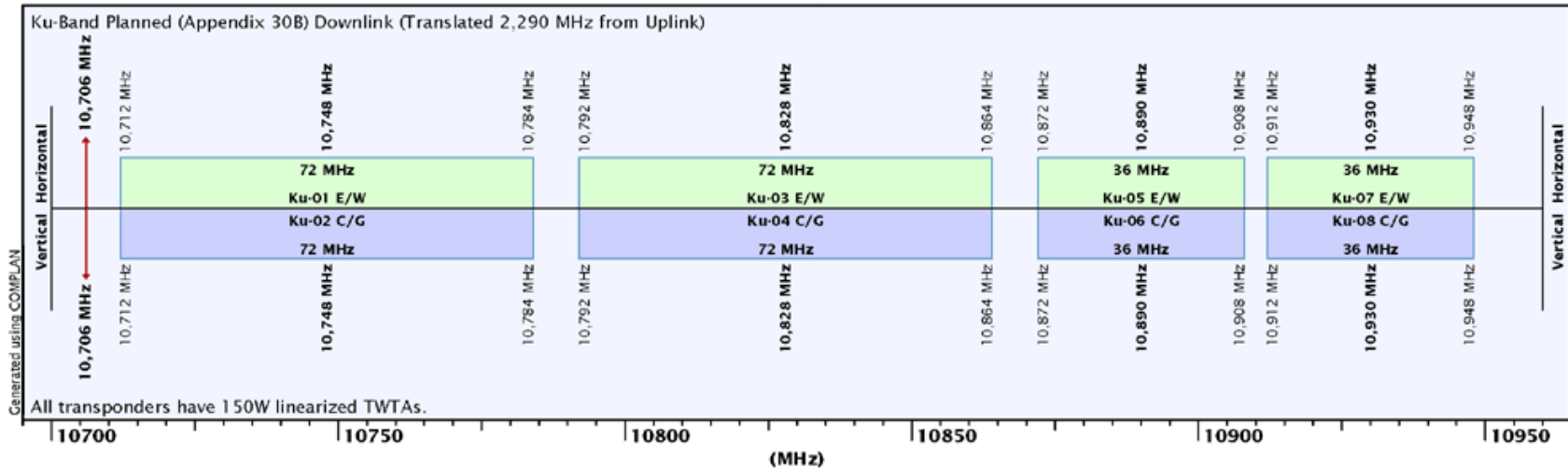
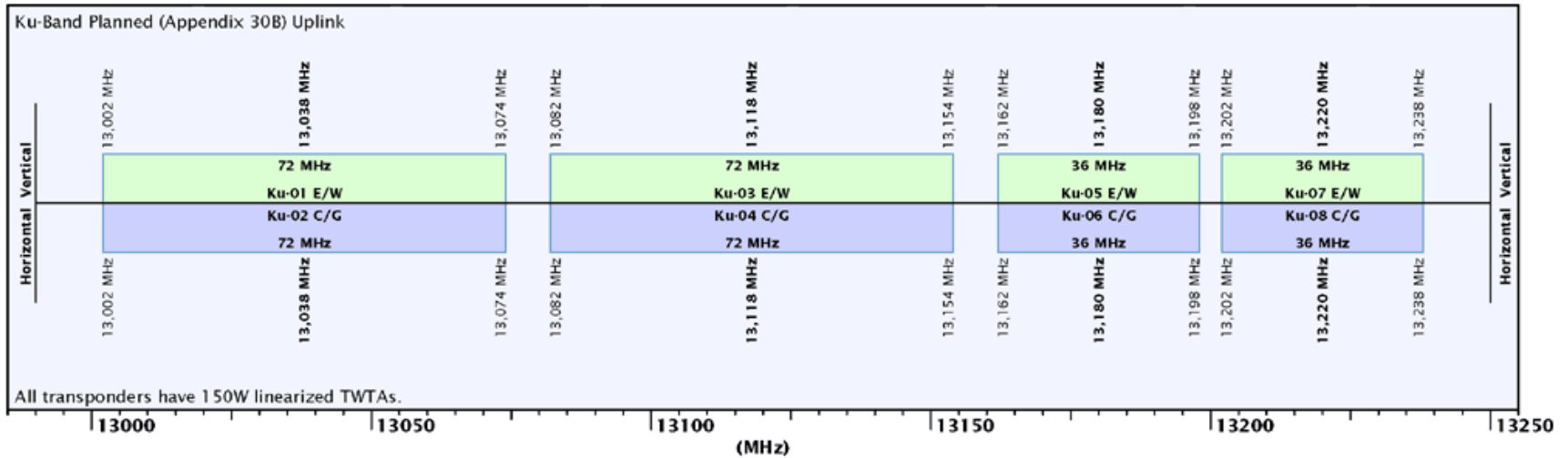
Ku-Band FSS Frequency Plan

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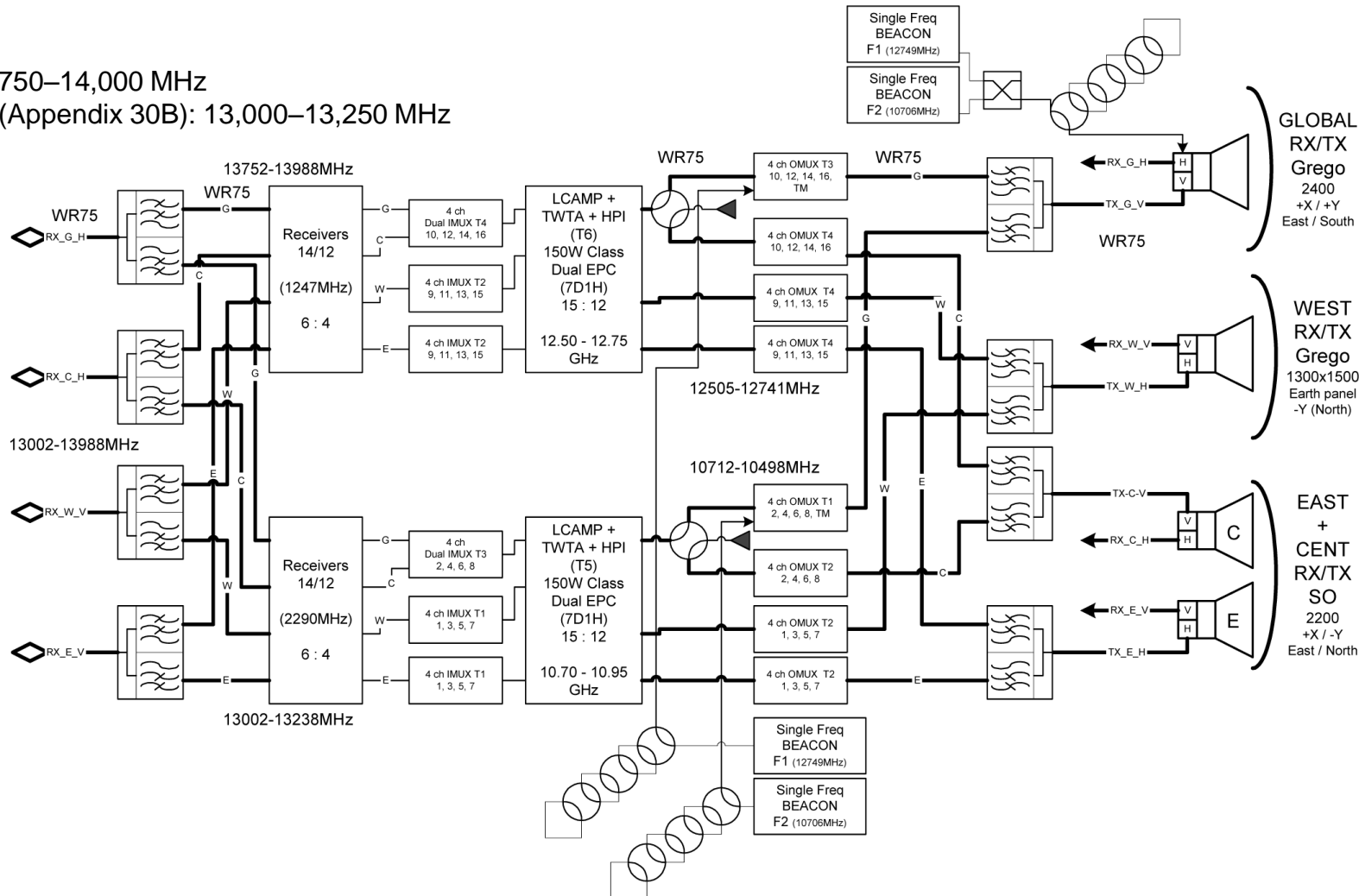
Ku-Band Planned (Appendix 30B) Frequency Plan

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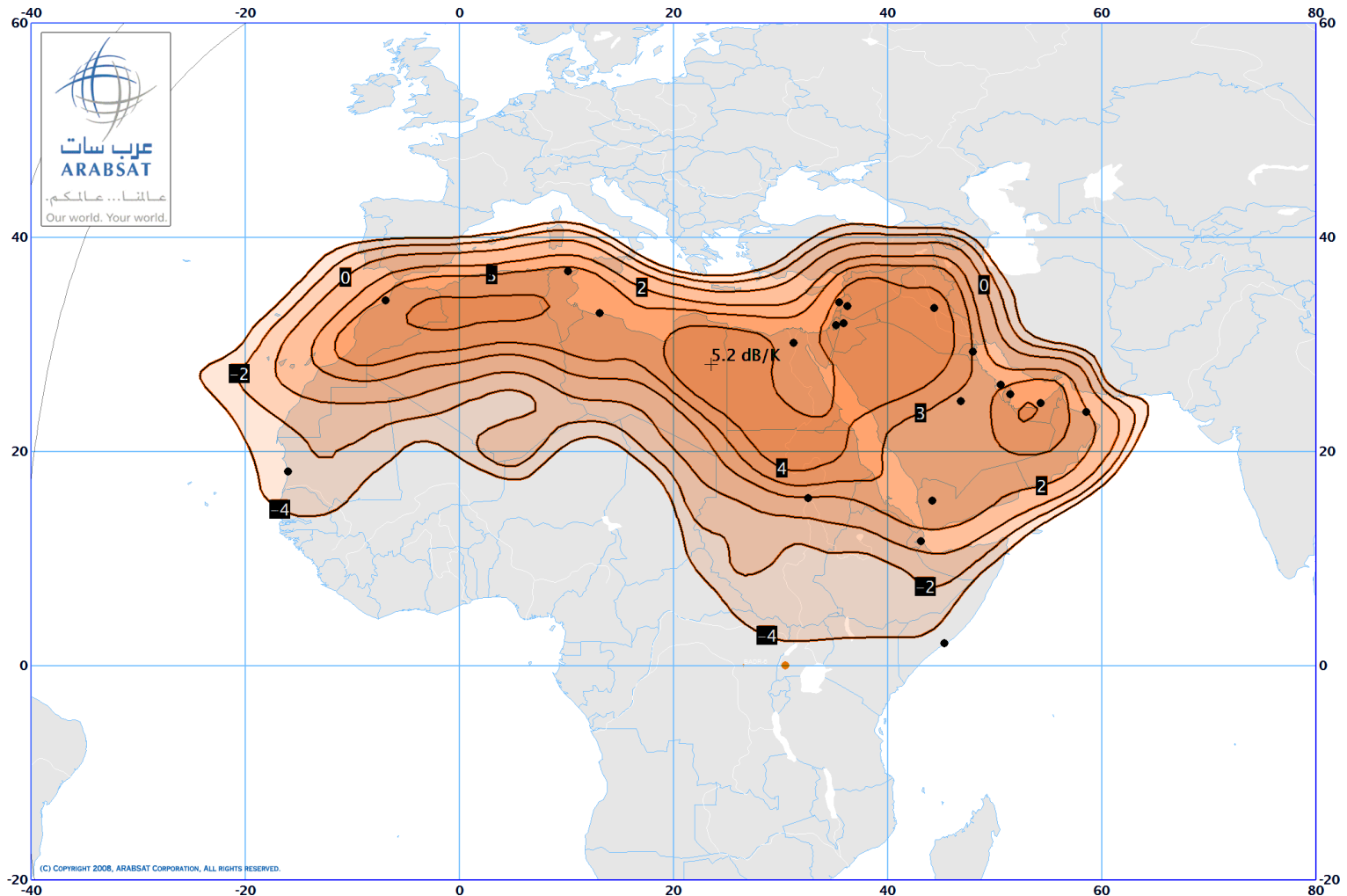
Ku-Band (FSS and Planned) Communications Payload Diagram

FSS: 13,750–14,000 MHz
Planned (Appendix 30B): 13,000–13,250 MHz

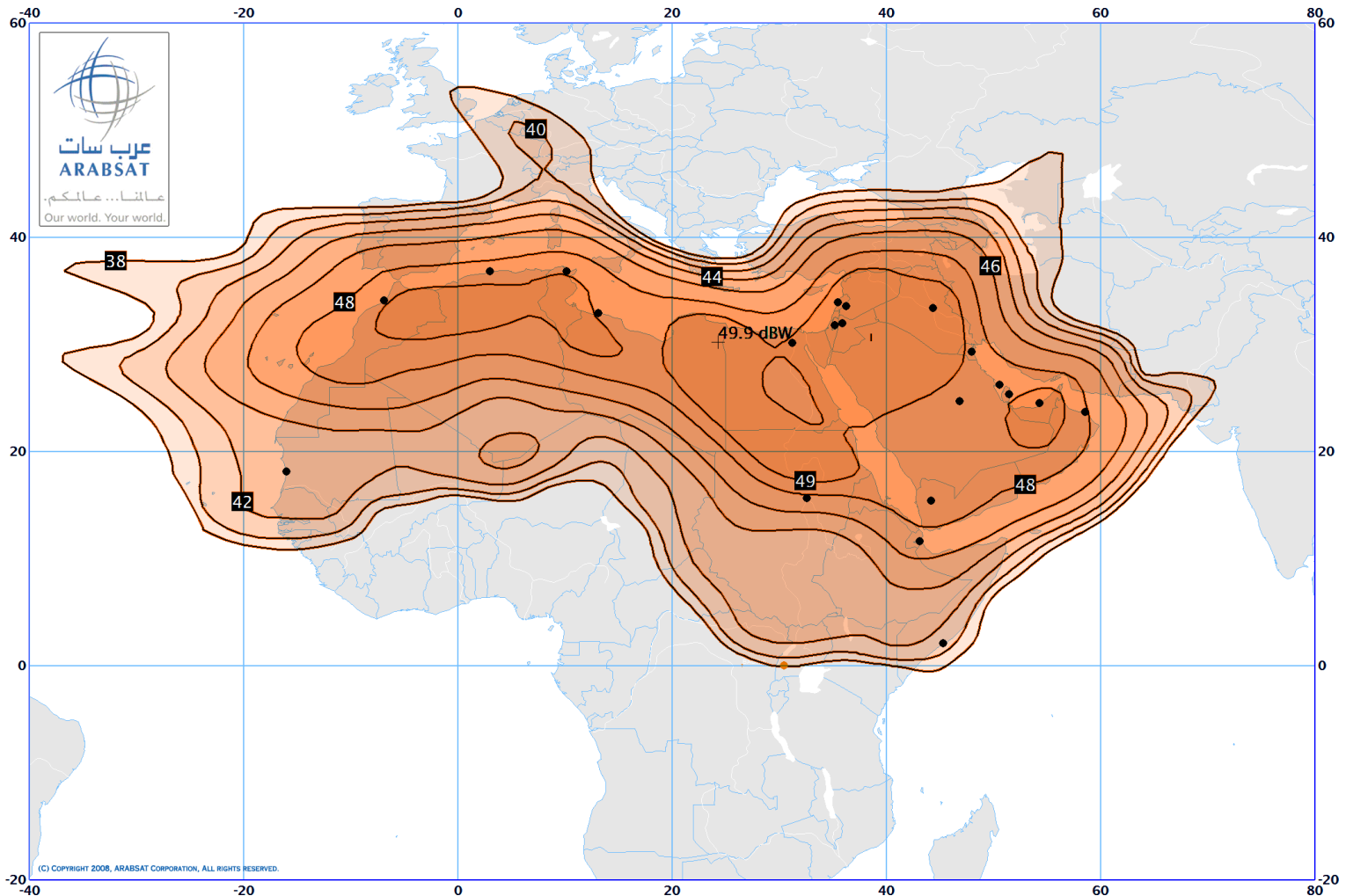


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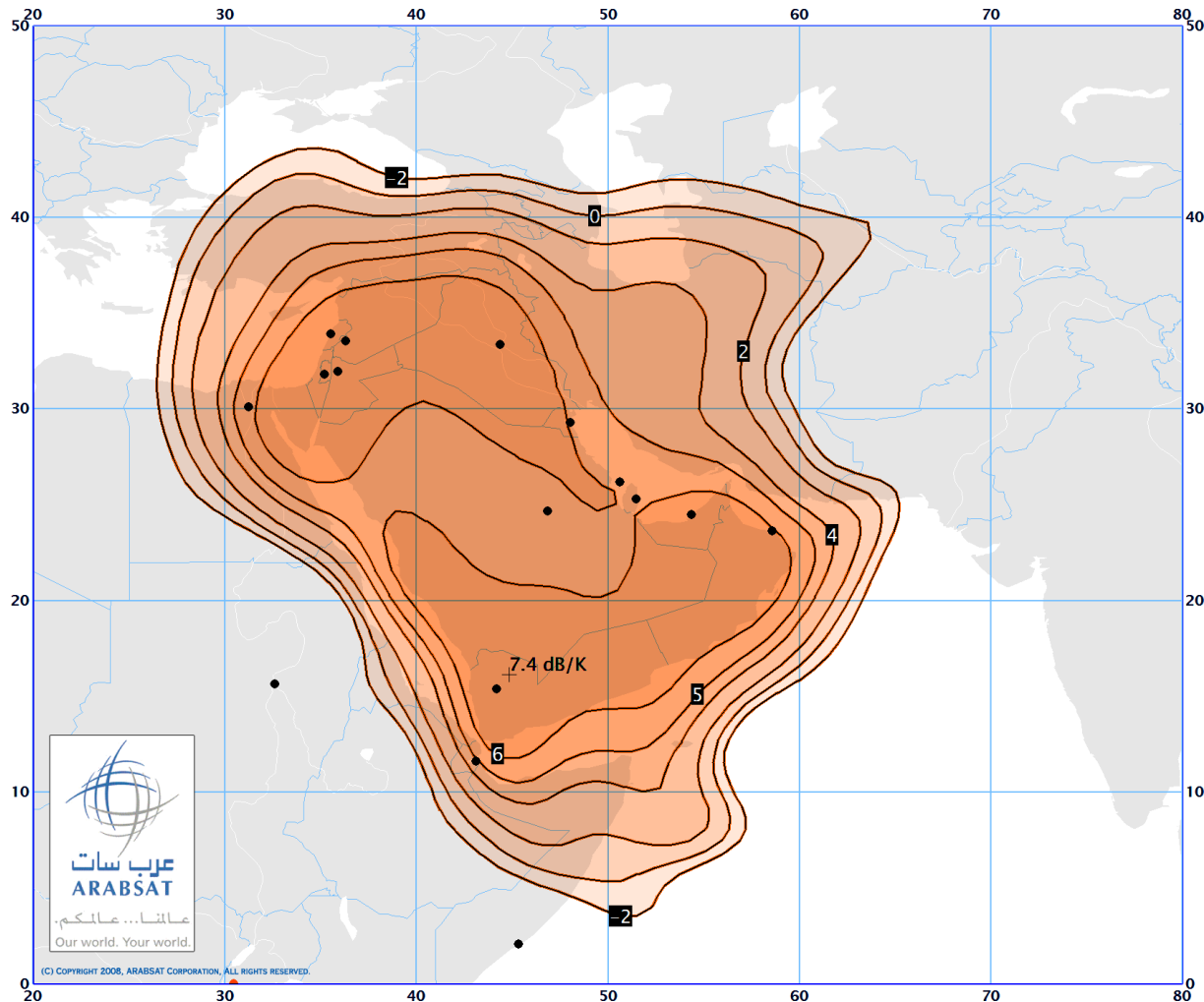
Ku-Band Global Beam Typical Uplink G/T (dB/K)



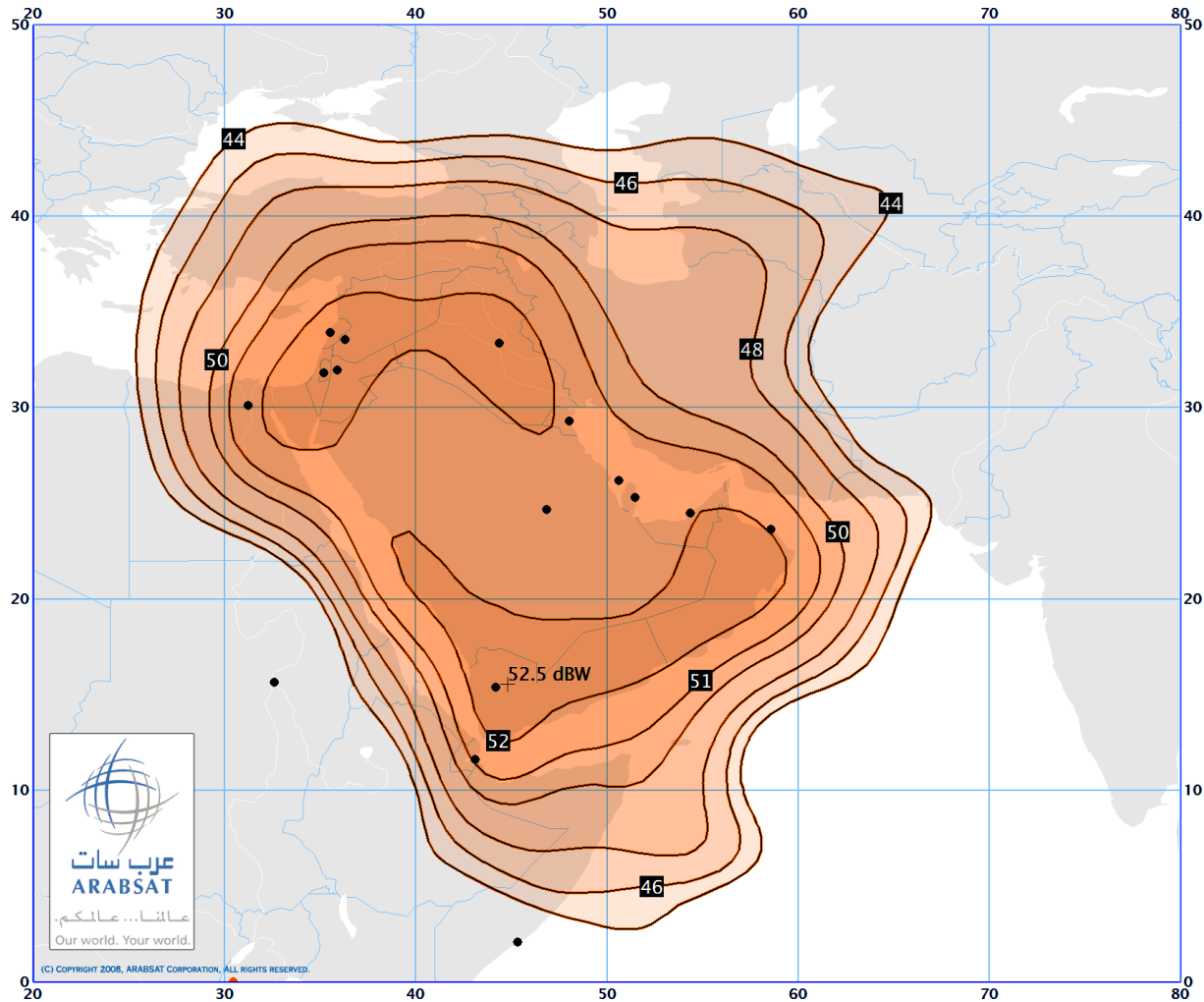
Ku-Band Global Beam Typical Downlink EIRP (dBW)



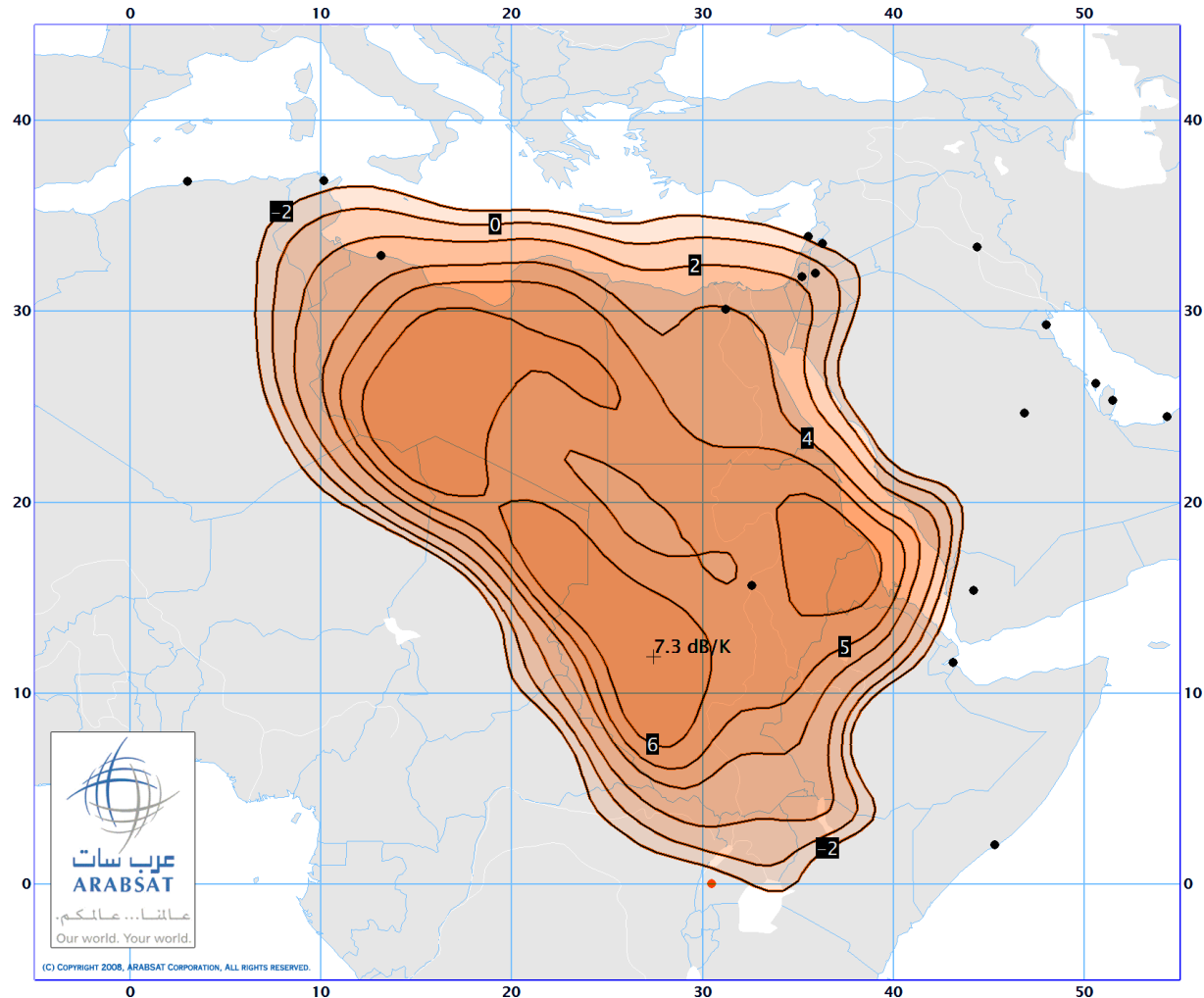
Ku-Band East Beam Typical Uplink G/T (dB/K)



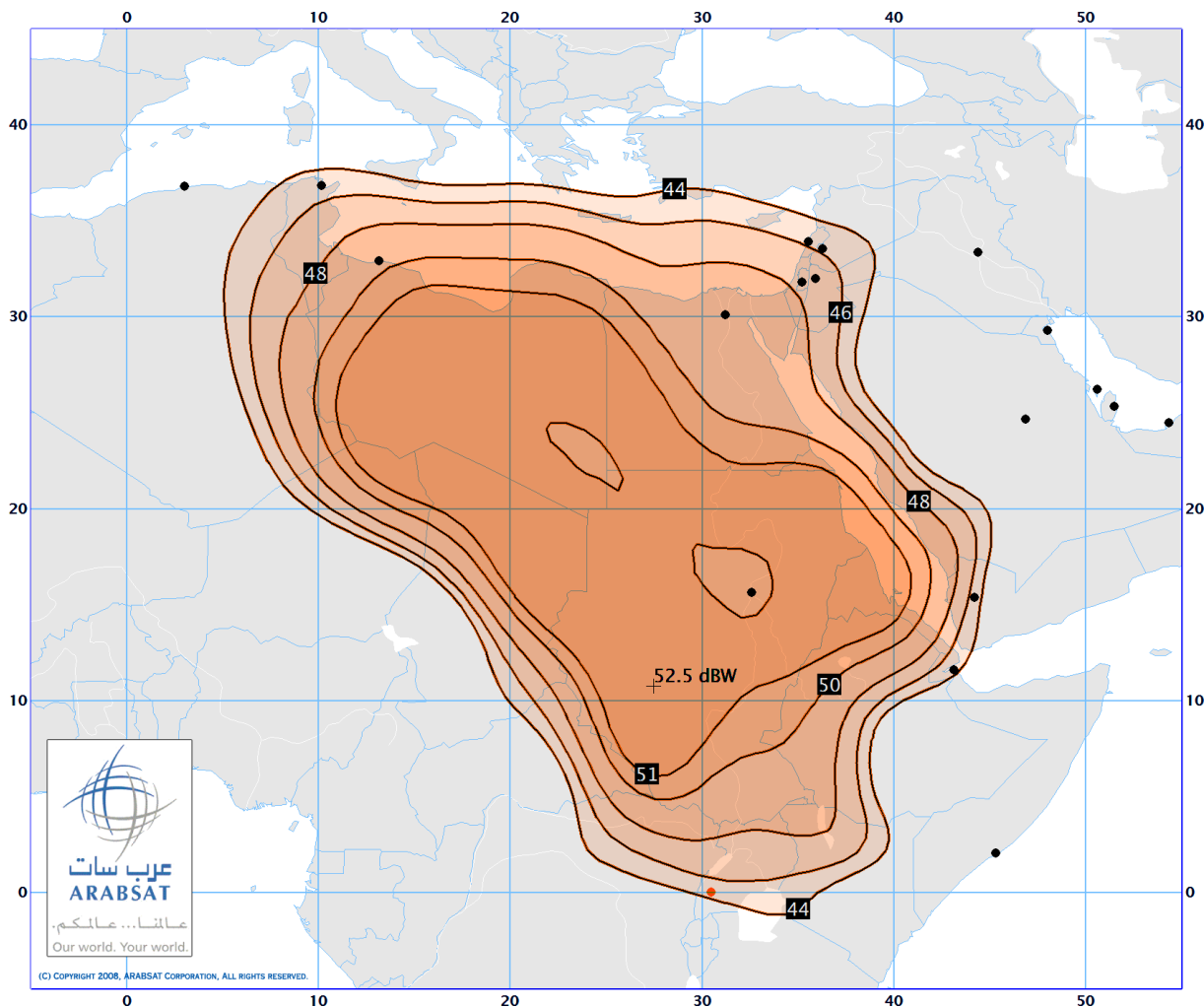
Ku-Band East Beam Typical Downlink EIRP (dBW)



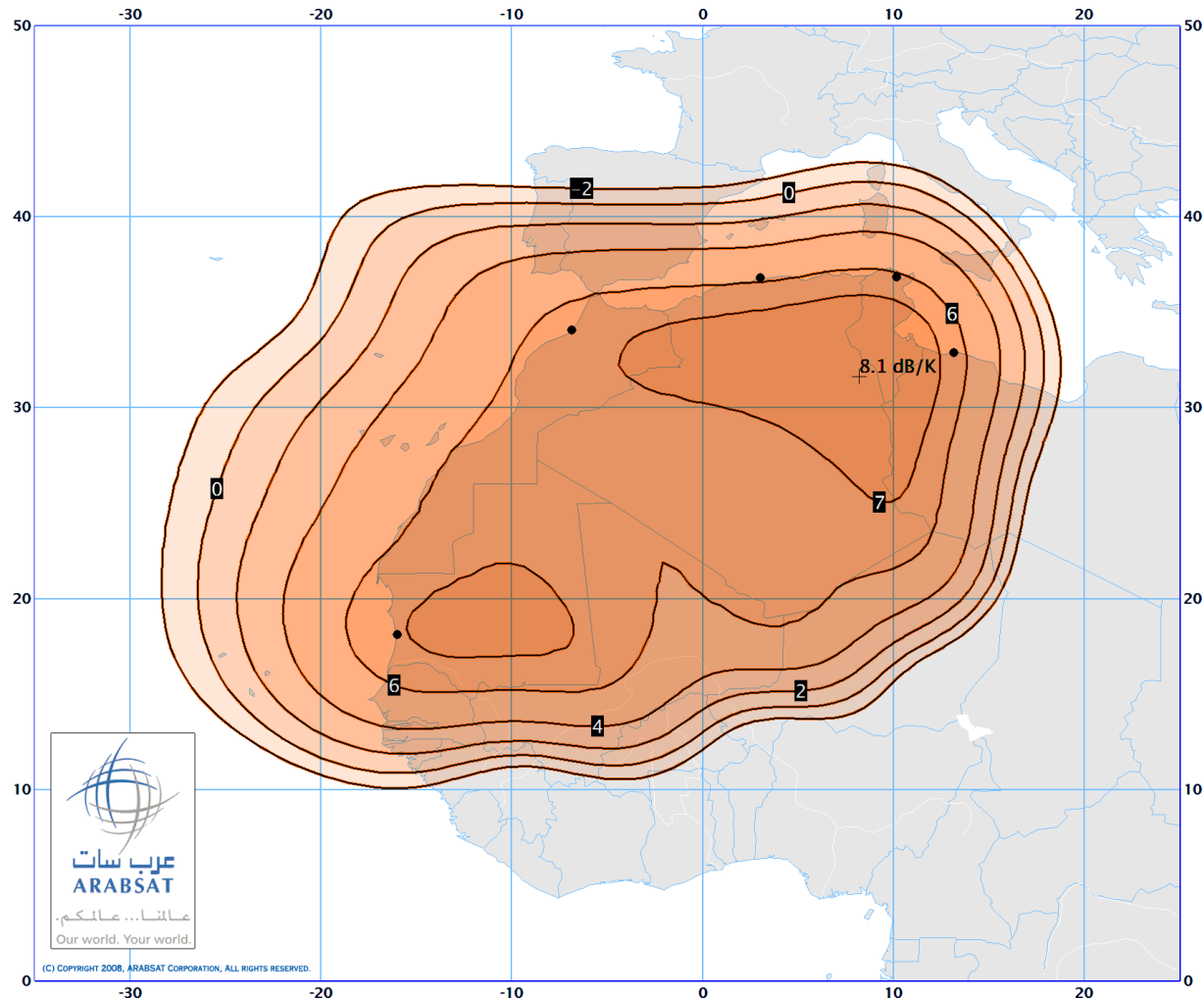
Ku-Band Central Beam Typical Uplink G/T (dB/K)



Ku-Band Central Beam Typical Downlink EIRP (dBW)



Ku-Band West Beam Typical Uplink G/T (dB/K)



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Ku-Band West Beam Typical Downlink EIRP (dBW)

