

E_TSUM Requested by: CAPELLA-		Date: 26.04.2018 2:45:53 PM	DB: SPACECAP_V8.MDB		Plan Id.:	Notice type: NONGEO
A	A1a Sat. Network	CAPELLA	A1f1 Notif. adm.	USA	A1f3 Inter. sat. org.	
BR6a/BR6b Id. no.		1	BR3a Provision reference		9.1/IA	BR1 Date of receipt
						26.04.2018
						BR20 BR IFIC no.
						BR2 Adm. serial no.

Résumé / Summary / Resumen

Article 9, sous-section IA / Article 9, sub-section IA / Artículo 9, sub-sección IA
 第9条第1A分节 / Статья 9, подраздел IA / المادة 9، القسم الفرعي IA

B1a Beam designation	B2 Emi-Rcp	BR8 Action code	BR7a Group id.	BR9 Action code	BR47 Frequency band (MHz)	C4a Class of station
RXRADAR	R		1		9400 - 9900	EW
RXTTNC	R		2		2035.5 - 2036.5	EW
TXPAY	E		3		8025 - 8400	EW
TXRADAR	E		4		9400 - 9900	EW
TXTTNC	E		5		8026.5 - 8027.5	EW

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A 1a Sat. Network CAPELLA A1f1 Notif. adm. USA A1f3 Inter. sat. org. BR1 Date of receipt 26.04.2018 BR20 BR IFIC no.

BR6a/BR6b Id. no. 1 BR3a Provision reference 9.1/IA BR2 Adm. serial no. RXRADAR R

A1f2 Submitted on behalf

A4b1 No. of orbital planes 2 A4b2 Ref. body T BR43 Orbital configuration 0

A4b3a No. of space stations simult. trans. on Northern Hemisphere A4b3b No. of space stations simult. trans. on Southern Hemisphere

Orbital plane id. no.	A4b4a Inclination angle	A4b4b No. of satellites in this plane	A4b4c Period	A4b4d Apogee	A4b4e Perigee	A4b4f Min. altitude
1	97.6	1	0-01:36	575e0	550e0	550e0
2	97.6	1	0-01:37	630e0	600e0	600e0

B1a/BR17 Beam designation RXRADAR B1b Steerable B2 Emi-Rcp R B3a1 Max. co-polar gain 42.5

B2bis.a Transmit only when visible from notified service area B2bis.b Min. Elev. Angle

B3c1 Co-polar antenna pattern					
Co-polar ref. pattern	Coef. A	Coef. B			Co-polar rad. diag.
					1

List of orbital planes
ALL

B4a3a1 Angle alpha B4a3a2 Angle beta

BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id. 1 BR1 Date of receipt 26.04.2018 C2c RR No. 4.4

BR14 Special Section

C4a Class of station EW C3a Assigned freq. band C5a Noise temperature 1884

C4b Nature of service CV C6a Polarization type L C6b Polarization angle 0

C11a2 Service area C11a3 Service area diagram

A2b Period of valid. 3 A3a Op. agency 999 A3b Adm. resp. A BR16 Value of type C8b

BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range	
C1a Lower limit	C1b Upper limit
9400 MHz	9900 MHz

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.	C10c2 Ctry	C10d1/C10d2 Cts. / Nat.	C10d3 Max. iso. gain	C10d4 Bmwdth						
	T											

13C Remarks

B1a/BR17 Beam designation RXTTNC B1b Steerable B2 Emi-Rcp R B3a1 Max. co-polar gain 4.2

B2bis.a Transmit only when visible from notified service area B2bis.b Min. Elev. Angle

B3c1 Co-polar antenna pattern					
Co-polar ref. pattern	Coef. A	Coef. B			Co-polar rad. diag.

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 BR6a/BR6b Id. no. 1 BR3a Provision reference 9.1/IA BR2 Adm. serial no. RXTTNC R

List of orbital planes
 ALL

B4a3a1 Angle alpha B4a3a2 Angle beta
 BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id. 2 BR1 Date of receipt 26.04.2018 C2c RR No. 4.4

BR14 Special Section
 C4a Class of station EW C3a Assigned freq. band C5a Noise temperature 577
 C4b Nature of service CV C6a Polarization type CR C6b Polarization angle
 C11a2 Service area ATA CHL NOR C11a3 Service area diagram
 A2b Period of valid. 3 A3a Op. agency 999 A3b Adm. resp. A BR16 Value of type C8b
 BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range	
C1a Lower limit	C1b Upper limit
2035.5 MHz	2036.5 MHz

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.		C10c2 Ctry	C10d1/C10d2 Cls. / Nat.			C10d3 Max. iso. gain	C10d4 Bmwth				
SVALSAT	S	015E24 00	78N14 00	NOR	1	TW	CV	36.8	2.1				
TROLLSAT	S	002E32 00	72S00 00	ATA	1	TW	CV	36.8	2.1				
PA	S	070W55 12	53S09 00	CHL	1	TW	CV	36.8	2.1				

C10d5a Co-polar antenna pattern							
C10b1 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
SVALSAT							6
TROLLSAT							7
PA							8

13C Remarks

B1a/BR17 Beam designation TXPAY B1b Steerable B2 Emi-Rcp E B3a1 Max. co-polar gain 20.5
 B2bis.a Transmit only when visible from notified service area Y B2bis.b Min. Elev. Angle 5

B3c1 Co-polar antenna pattern				
Co-polar ref. pattern	Coef. A	Coef. B		Co-polar rad. diag.
				3

List of orbital planes
 ALL

B4a3a1 Angle alpha B4a3a2 Angle beta
 BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id. 3 BR1 Date of receipt 26.04.2018 C2c RR No. 4.4

BR14 Special Section

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 A A1a Sat. Network CAPELLA A1f1 Notif. adm. USA A1f3 Inter. sat. org. BR1 Date of receipt 26.04.2018 BR20 BR IFIC no.
 BR6a/BR6b Id. no. 1 BR3a Provision reference 9.1/IA BR2 Adm. serial no. TXPAY E

C4a Class of station EW C3a Assigned freq. band
 C4b Nature of service CV C6a Polarization type CR C6b Polarization angle
 C8d1 Max. tot. peak pwr. C8d2 Contiguous bandwidth
 C11a2 Service area ATA CHL NOR C11a3 Service area diagram
 A2b Period of valid. 3 A3a Op. agency 999 A3b Adm. resp. A BR16 Value of type C8b
 BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range	
C1a Lower limit	C1b Upper limit
8025 MHz	8400 MHz

C7a	C8a1/C8b1	C8a2/C8b2	C8c1	C8c2	C8c3	C8c4	C8e1	C8e2	C8f1
Design. of emission	Max. peak pwr	Max. pwr dens.	Min. peak pwr	Attch.	Min. pwr dens.	Attch.	C/N ratio	Attch.	E.i.r.p. on the beam axis
1 375MG1DXN	10	-75.7	0		-85.7		6.5		29.8
2 375MG1DXN	10	-75.7	0		-85.7		13.5		29.8

C7b Carrier frequency of the emissions (375MG1DXN)									
8212.5	MHz								

C7b Carrier frequency of the emissions (375MG1DXN)									
8212.5	MHz								

C10b1	C10b2	C10c1		C10c2	C10d1/C10d2		C10d3	C10d4	C10d6
Assoc. earth station id.	Type	Geographical coord.		Ctry	Cls. / Nat.		Max. iso. gain	Bmwdth	Noise temp.
SVALSAT	S	015E24 00	78N14 00	NOR	1	TW CV	36.8	2.1	140
TROLLSAT	S	002E32 00	72S00 00	ATA	1	TW CV	36.8	2.1	140
PA	S	070W55 12	53S09 00	CHL	1	TW CV	36.8	2.1	140

C10d5a Co-polar antenna pattern							
C10b1	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
SVALSAT							6
TROLLSAT							7
PA							8

13C Remarks

B1a/BR17 Beam designation TYRADAR B1b Steerable B2 Emi-Rcp E B3a1 Max. co-polar gain 45.2

B2bis.a Transmit only when visible from notified service area B2bis.b Min. Elev. Angle

B3c1 Co-polar antenna pattern						
Co-polar ref. pattern	Coef. A	Coef. B				Co-polar rad. diag.
						4

List of orbital planes
 ALL

B4a3a1 Angle alpha B4a3a2 Angle beta

BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id. 4 BR1 Date of receipt 26.04.2018 C2c RR No. 4.4

BR14 Special Section

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 A A1a Sat. Network CAPELLA A1f1 Notif. adm. USA A1f3 Inter. sat. org. BR1 Date of receipt 26.04.2018 BR20 BR IFIC no.
 BR6a/BR6b Id. no. 1 BR3a Provision reference 9.1/IA BR2 Adm. serial no. TXRADAR E

C4a Class of station EW C3a Assigned freq. band
 C4b Nature of service CV C6a Polarization type L C6b Polarization angle
 C8d1 Max. tot. peak pwr. C8d2 Contiguous bandwidth
 C11a2 Service area C11a3 Service area diagram
 A2b Period of valid. 3 A3a Op. agency 999 A3b Adm. resp. A BR16 Value of type C8b X
 BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range	
C1a Lower limit	C1b Upper limit
9400 MHz	9900 MHz

C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attch.	C8c3 Min. pwr dens.	C8c4 Attch.	C8e1 C/N ratio	C8e2 Attch.	C8f1 E.i.r.p. on the beam axis
1 520MQ3NXN	56.1	-31.1	56.1		-31.1				71.1

13C Remarks

B1a/BR17 Beam designation TXTTNC B1b Steerable B2 Emi-Rcp E B3a1 Max. co-polar gain 5.6

B2bis.a Transmit only when visible from notified service area Y B2bis.b Min. Elev. Angle 5

B3c1 Co-polar antenna pattern					
Co-polar ref. pattern	Coef. A	Coef. B			Co-polar rad. diag.
					5

List of orbital planes
 ALL

B4a3a1 Angle alpha B4a3a2 Angle beta
 BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id. 5 BR1 Date of receipt 26.04.2018 C2c RR No. 4.4

BR14 Special Section
 C4a Class of station EW C3a Assigned freq. band
 C4b Nature of service CV C6a Polarization type CR C6b Polarization angle
 C8d1 Max. tot. peak pwr. C8d2 Contiguous bandwidth
 C11a2 Service area ATA CHL NOR C11a3 Service area diagram
 A2b Period of valid. 3 A3a Op. agency 999 A3b Adm. resp. A BR16 Value of type C8b
 BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range	
C1a Lower limit	C1b Upper limit
8026.5 MHz	8027.5 MHz

C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attch.	C8c3 Min. pwr dens.	C8c4 Attch.	C8e1 C/N ratio	C8e2 Attch.	C8f1 E.i.r.p. on the beam axis
1 1M40F1DXN	3	-58.5	0		-61.5		10.5		6

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BR6a/BR6b Id. no.		1	BR3a Provision reference		9.1/IA	BR2 Adm. serial no.		TXTTNC E

C7b Carrier frequency of the emissions (1M40F1DXN)										
8027	MHz									

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.		C10c2 Ctry	C10d1/C10d2 Cls. / Nat.			C10d3 Max. iso. gain	C10d4 Bmwidth	C10d6 Noise temp.
SVALSAT	S	015E24 00	78N14 00	NOR	1	TW	CV	36.8	2.1	140
TROLLSAT	S	002E32 00	72S00 00	ATA	1	TW	CV	36.8	2.1	140
PA	S	070W55 12	53S09 00	CHL				36.8	2.1	140

C10d5a Co-polar antenna pattern							
C10b1 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
SVALSAT							6
TROLLSAT							7
PA							8

13C Remarks

C9 Modulation characteristics	C7a Designation of emission 1M40F1DXN
C9a1 Type of modulation	Frequency Modulation
C9a2a Lowest frequency	8026.5
C9a2b Highest frequency	8027.5
C9a2c Frequency deviation	
C9a3a Freq. deviation of the pre-emphasized signal	
C9a3b Pre-emphasis characteristics	
C9a3c Type of multiplexing	
C9a4a Bit rate	
C9a4b Number of phases	
C9a5a Modulating signal attached (see attch. no.)	
C9a5b Amplitude modulation	
C9a6a Peak-to-peak freq. dev.	
C9a6b Sweep frequency	
C9a6c Energy dispersal waveform	
C9a7 Type of energy dispersal	
C9a8 Other types of modulation (see attch. no.)	
C9a9 TV standard	
BR7a Group id.	5

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BR6a/BR6b Id. no. 1		BR3a Provision reference 9.1/IA	BR2 Adm. serial no.		TXTTNC E

C9 Modulation characteristics	C7a Designation of emission 375MG1DXN
C9a1 Type of modulation	PSK
C9a2a Lowest frequency	8025
C9a2b Highest frequency	8400
C9a2c Frequency deviation	
C9a3a Freq. deviation of the pre-emphasized signal	
C9a3b Pre-emphasis characteristics	
C9a3c Type of multiplexing	DVB-S
C9a4a Bit rate	900
C9a4b Number of phases	8
C9a5a Modulating signal attached (see attch. no.)	
C9a5b Amplitude modulation	
C9a6a Peak-to-peak freq. dev.	
C9a6b Sweep frequency	
C9a6c Energy dispersal waveform	
C9a7 Type of energy dispersal	Coding of baseband signal by Pseudo-Random Binary Sequence as defined by DVB specifications
C9a8 Other types of modulation (see attch. no.)	
C9a9 TV standard	
BR7a Group id.	3

C9 Modulation characteristics	C7a Designation of emission 375MG1DXN
C9a1 Type of modulation	QPSK
C9a2a Lowest frequency	8025
C9a2b Highest frequency	8400
C9a2c Frequency deviation	
C9a3a Freq. deviation of the pre-emphasized signal	
C9a3b Pre-emphasis characteristics	
C9a3c Type of multiplexing	DVB-S
C9a4a Bit rate	600
C9a4b Number of phases	4
C9a5a Modulating signal attached (see attch. no.)	
C9a5b Amplitude modulation	
C9a6a Peak-to-peak freq. dev.	
C9a6b Sweep frequency	
C9a6c Energy dispersal waveform	
C9a7 Type of energy dispersal	Coding of baseband signal by Pseudo-Random Binary Sequence as defined by DVB specifications
C9a8 Other types of modulation (see attch. no.)	
C9a9 TV standard	
BR7a Group id.	3

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BR6a/BR6b Id. no. 1		BR3a Provision reference 9.1/IA		BR2 Adm. serial no.	TXTTNC E

C9 Modulation characteristics	C7a Designation of emission 520MQ3NXN
C9a1 Type of modulation	
C9a2a Lowest frequency	
C9a2b Highest frequency	
C9a2c Frequency deviation	
C9a3a Freq. deviation of the pre-emphasized signal	
C9a3b Pre-emphasis characteristics	
C9a3c Type of multiplexing	
C9a4a Bit rate	
C9a4b Number of phases	
C9a5a Modulating signal attached (see attch. no.)	
C9a5b Amplitude modulation	
C9a6a Peak-to-peak freq. dev.	
C9a6b Sweep frequency	
C9a6c Energy dispersal waveform	
C9a7 Type of energy dispersal	
C9a8 Other types of modulation (see attch. no.)	
C9a9 TV standard	
BR7a Group id.	4

BR22 Administration remarks	
BR23 Radiocommunication Bureau comments	