

# Exercise- Generate Coordination Contours

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Space Services Department  
Radiocommunication Bureau  
International Telecommunication Union

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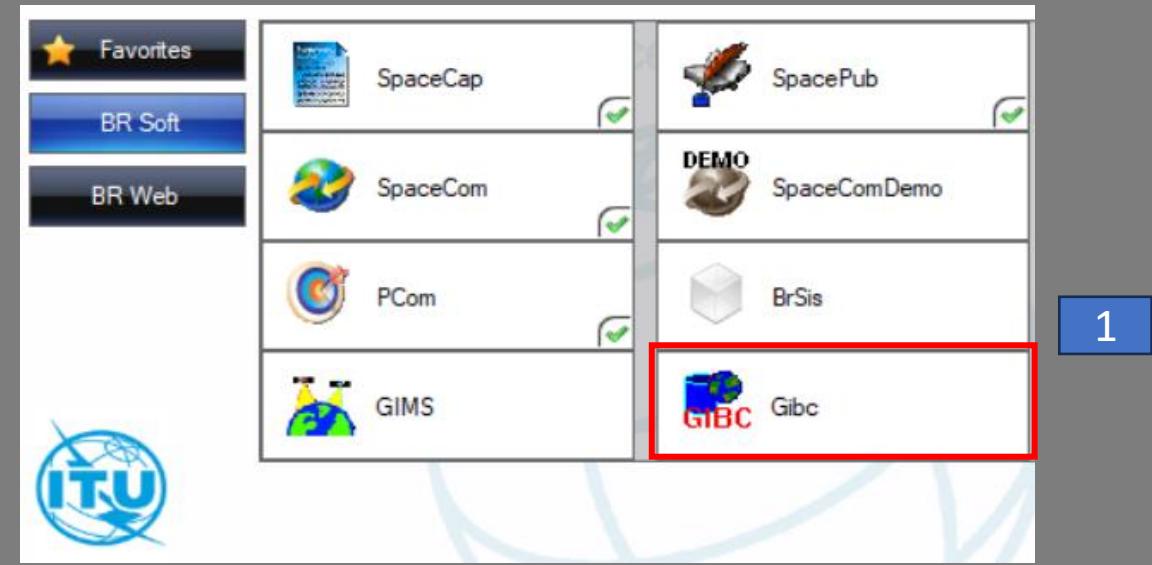
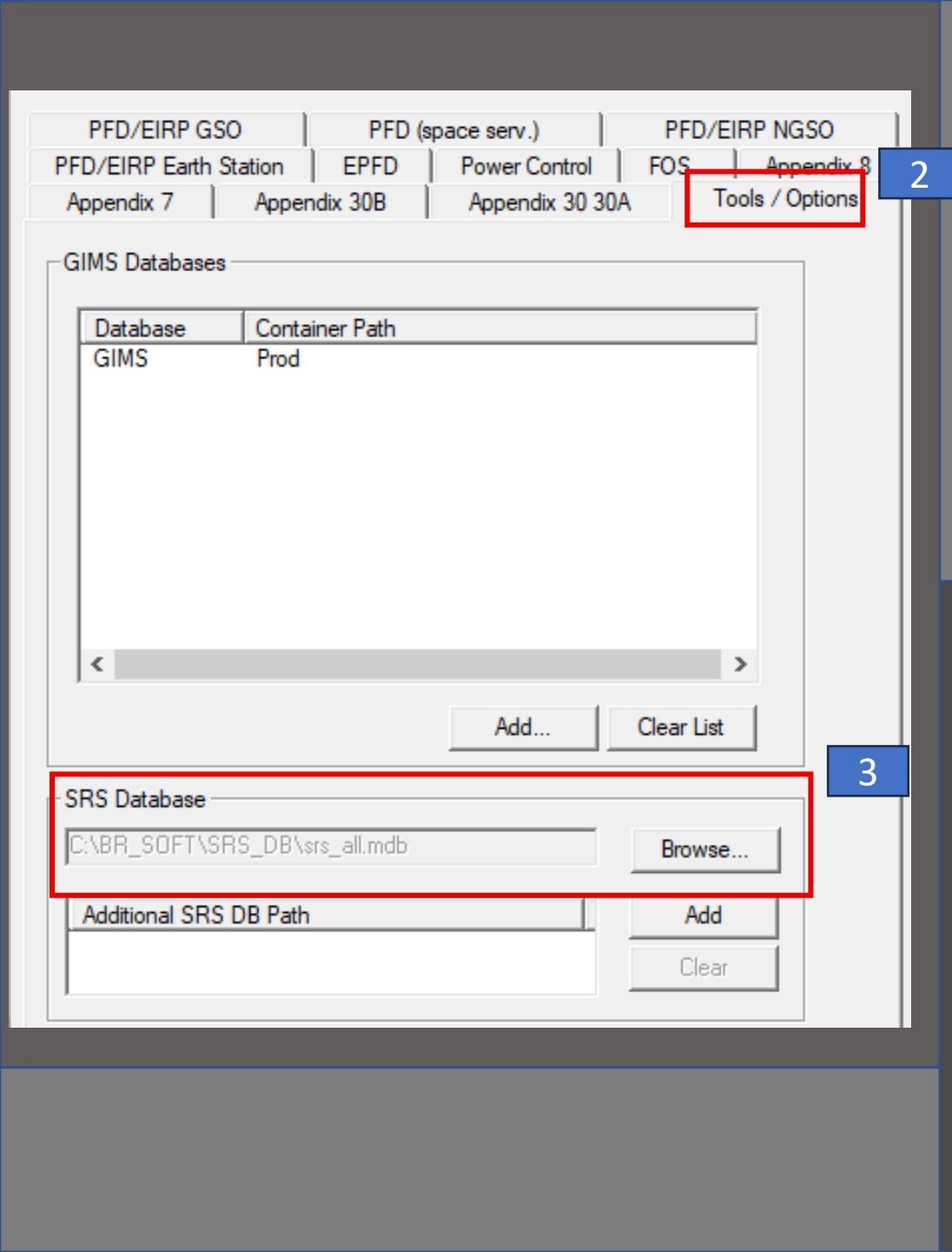




# Exercise

## Generate Coordination Contours

GIBC AP7

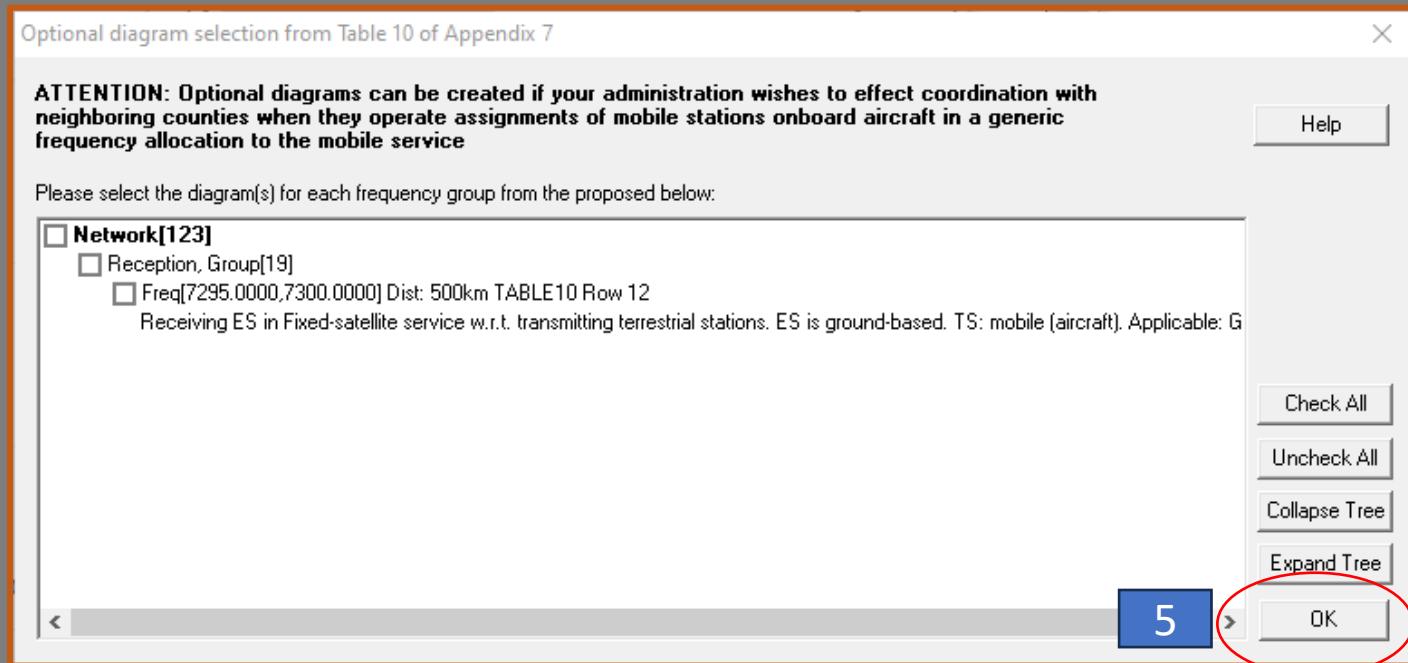
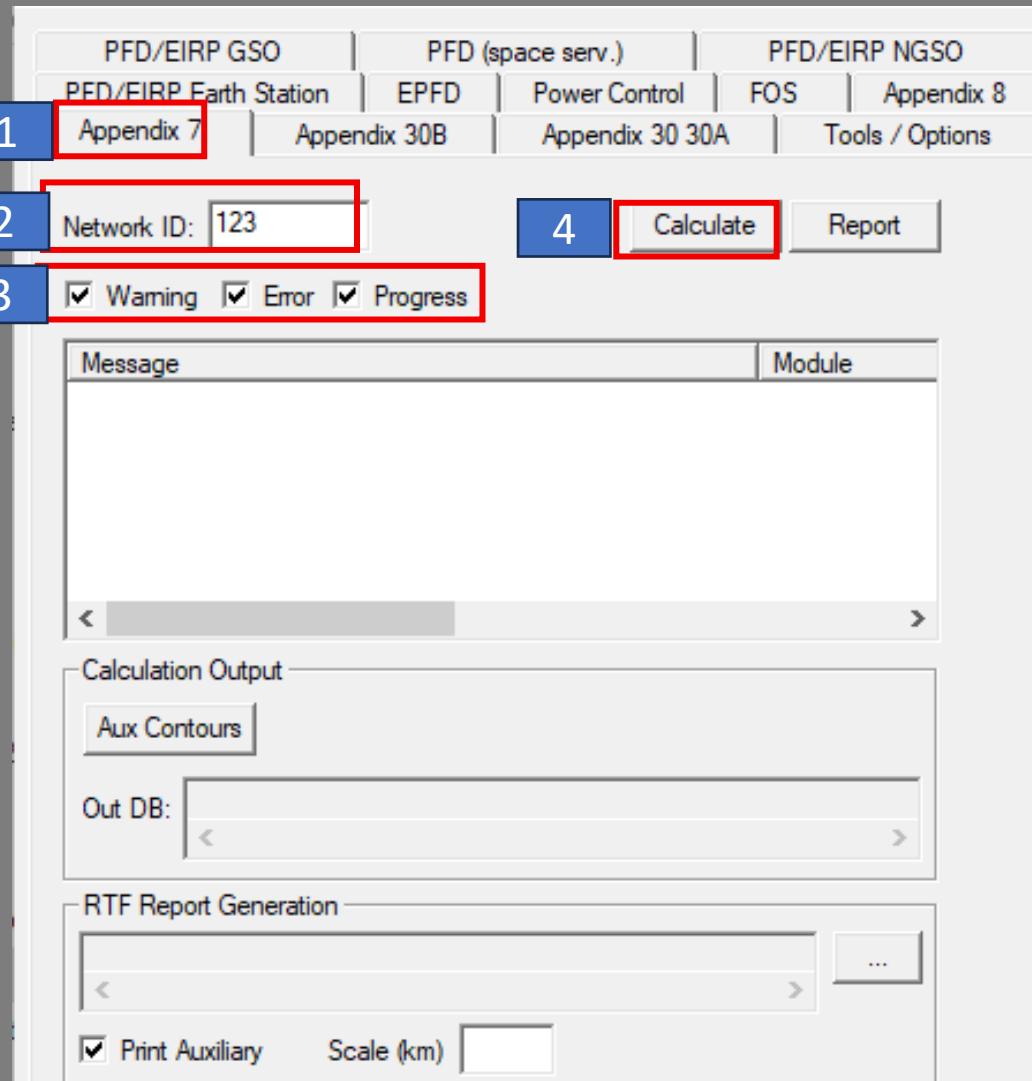


01. Start **GIBC** from SAM

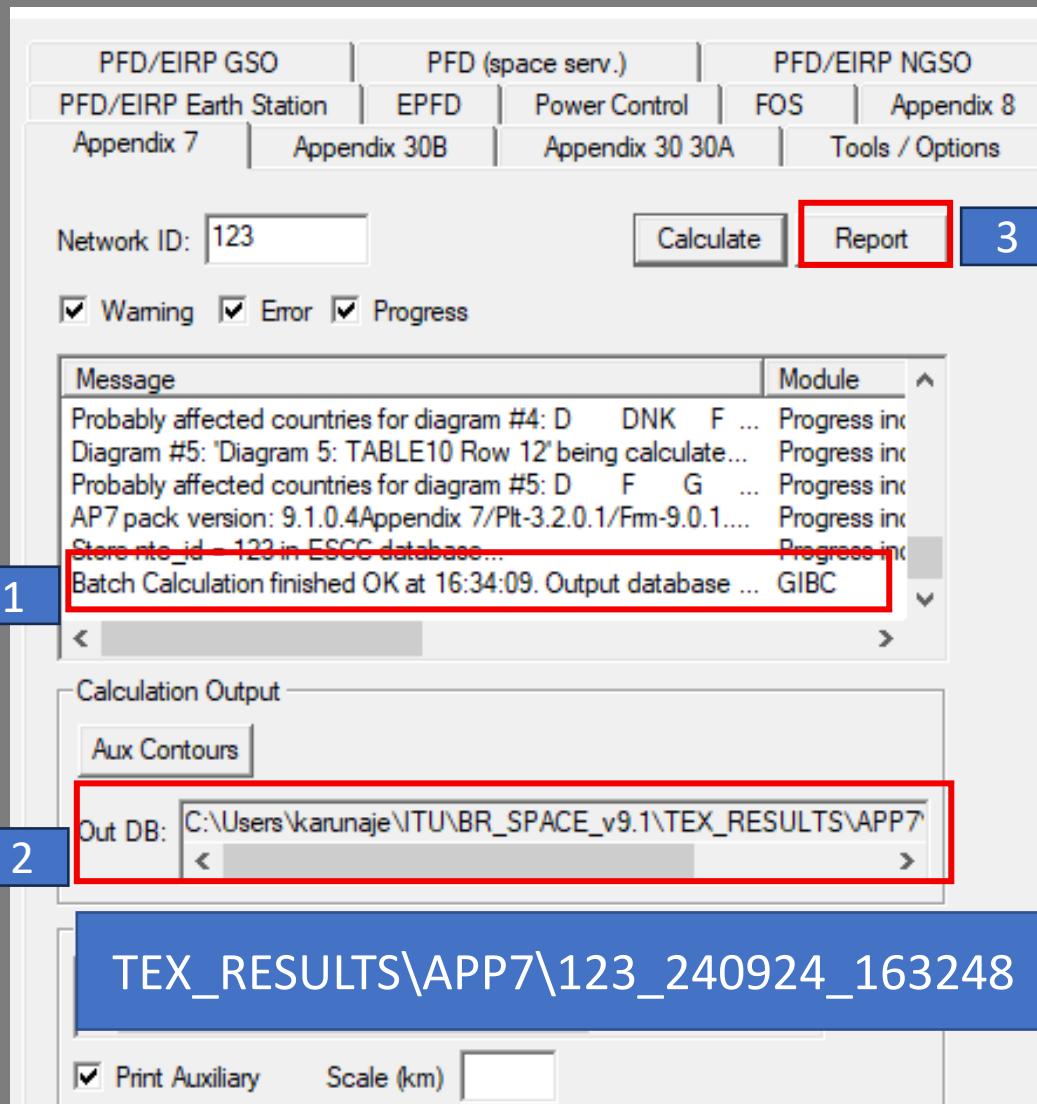
02. Go to **Tools/Options**

03. Browse and select the correct location of your file

ES\_WRS24\_CR.mdb



01. Go to *Appendix 7*
02. Insert *Network ID*
03. Keep the warning msgs selected
04. Calculate
05. Do not select 'Optional Diagrams' –press OK



01. Check the “*Calculations –OK*”

02. Results mdb file will be saved in a specific location  
*ID\_Date\_\_Time*

03. Report

Diagram 1: 2.1 TABLE7. TRANSMITTING GSO ES in FIXED-SATELLITE SERVICE W.R.T. RECEIVING TERRESTRIAL STATIONS. TS: fixed, mobile. Applicable: Global

Notice ID: 123

Administration/Geographical area: BEL/BEL

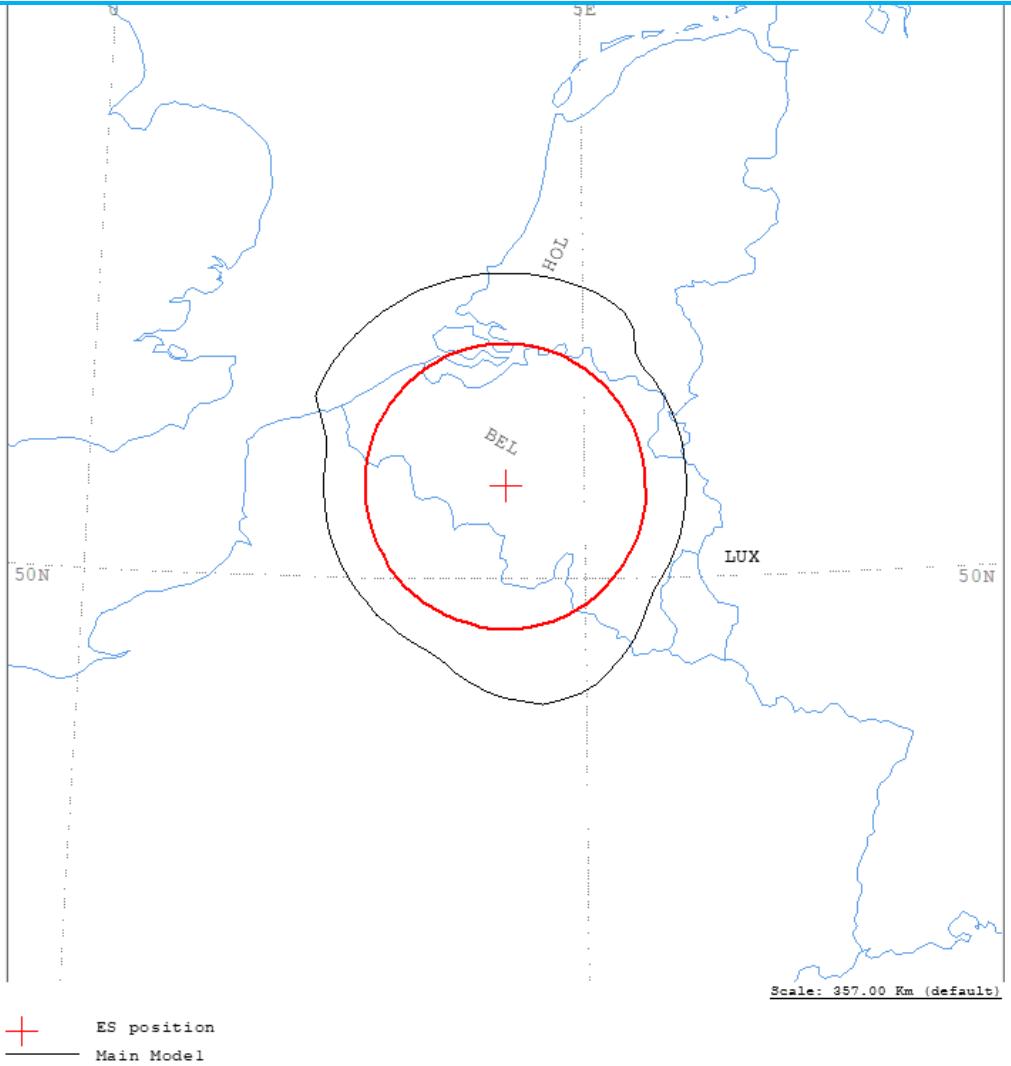
Satellite orbital position: 16.20

Frequency band: 8295.0000-8305.0000 MHz

Earth station name: NEW ES

Earth station position: 004E120050N3600

Satellite name: SICRAL-2A



Transmitting ES wrt Receiving TS  
-Table 7

Coordination Contour Diagram  
Page 1

Diagram 1: 2.1\_TABLE7. TRANSMITTING GSO ES in FIXED-SATELLITE SERVICE W.R.T. RECEIVING TERRESTRIAL STATIONS. TS: fixed, mobile. Applicable: Global

NOTICE ID:	123	EARTH STATION NAME:	NEW ES	EARTH STATION POSITION:	004E120050N3600	PHASE:	D																	
ADM/GEO_AREA:	BEL/BEL	RAIN CLIMATICAL ZONE:	E	SATELLITE ORBITAL POSITION:	16.20 DEG																			
SATELLITE NAME:	SICRAL-2A	ANTENNA AZIMUTH:	164.62 DEG	ANTENNA ELEVATION:	30.93 DEG																			
FREQUENCY BAND:	8295.0000-8305.0000 MHZ	ASSIGNED FREQUENCY:	8300.00 MHZ	PERCENTAGE OF TIME:	0.0050 %																			
MAXIMUM ANTENNA GAIN:	57.70 DBI	MAXIMUM POWER DENSITY:	-52.00 DBW/HZ	NOISE TEMPERATURE:	- K																			
ANTENNA PATTERN:	AFEREC015V01	2.1_TABLE7 Model:	PLM_DUCTING																					
TRANSMISSION LOSS MODE 1:	161.0 DB (DOES NOT INCLUDE HOR. CORR. AND ANT. GAIN)																							
TRANSMISSION LOSS MODE 2:	115.0 DB																							
AZIMUTH	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115
OFF-AXIS	145.8	143.5	140.8	137.7	134.4	130.8	127.0	123.2	119.2	115.1	110.9	106.7	102.5	98.2	94.0	89.7	85.4	81.1	76.9	72.6	68.4	64.3	60.2	56.2
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HOR.CORR.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ANT.GAIN	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0
COORDINATION DISTANCE (KM)																								
MODE 1																								
0.0 DB	150	150	150	150	150	150	149	149	143	131	129	129	129	129	129	129	129	129	129	129	129	129	129	129
MODE 2										100	100	100	100	100	100	100	100	100	100	100	101	101	101	101
0.0 DEG	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	101	101	101	101	101
AZIMUTH	120	125	130	135	140	145	150	155	160											230	235			
OFF-AXIS	52.4	48.6	45.1	41.8	38.8	36.1	33.9	32.3	31.2											69.1	73.3			
HOR.ELEV.	-	-	-	-	-	-	-	-	-											-	-			
HOR.CORR.	-	-	-	-	-	-	-	-	-											-	-			
ANT.GAIN	-10.0	-10.0	-9.4	-8.5	-7.7	-6.9	-6.3	-5.7	-5.4											-10.0	-10.0			
COORDINATION DISTANCE (KM)																								
MODE 1																				129	129			
0.0 DB	129	129	133	138	143	147	151	155	157											129	129			
MODE 2										102	102	102	102	102	102	102	102	102	102	101	101	101	101	101
0.0 DEG	101	101	101	101	102	102	102	102	102	102	102	102	102	102	102	102	102	102	101	101	101	101	101	101
AZIMUTH	240	245	250	255	260	265	270	275	280	285										230	235			
OFF-AXIS	77.5	81.8	86.0	90.3	94.6	98.9	103.1	107.4	111.6	115.7										69.1	73.3			
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-									-	-				
HOR.CORR.	-	-	-	-	-	-	-	-	-	-									-	-				
ANT.GAIN	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0									-	-	-			
COORDINATION DISTANCE (KM)																				129	129			
MODE 1																				129	129			
0.0 DB	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129
MODE 2										100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
0.0 DEG	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
POTENTIALLY AFFECTED COUNTRIES:	D	F	HOL																					

List of Administrations to forward  
your coordination request

Diagram 4: 2.1 TABLE8. RECEIVING GSO ES in FIXED-SATELLITE SERVICE W.R.T. TRANSMITTING TERRESTRIAL STATIONS. TS: fixed, mobile. Applicable: Global

Notice ID: 123

Administration/Geographical area: BEL/BEL

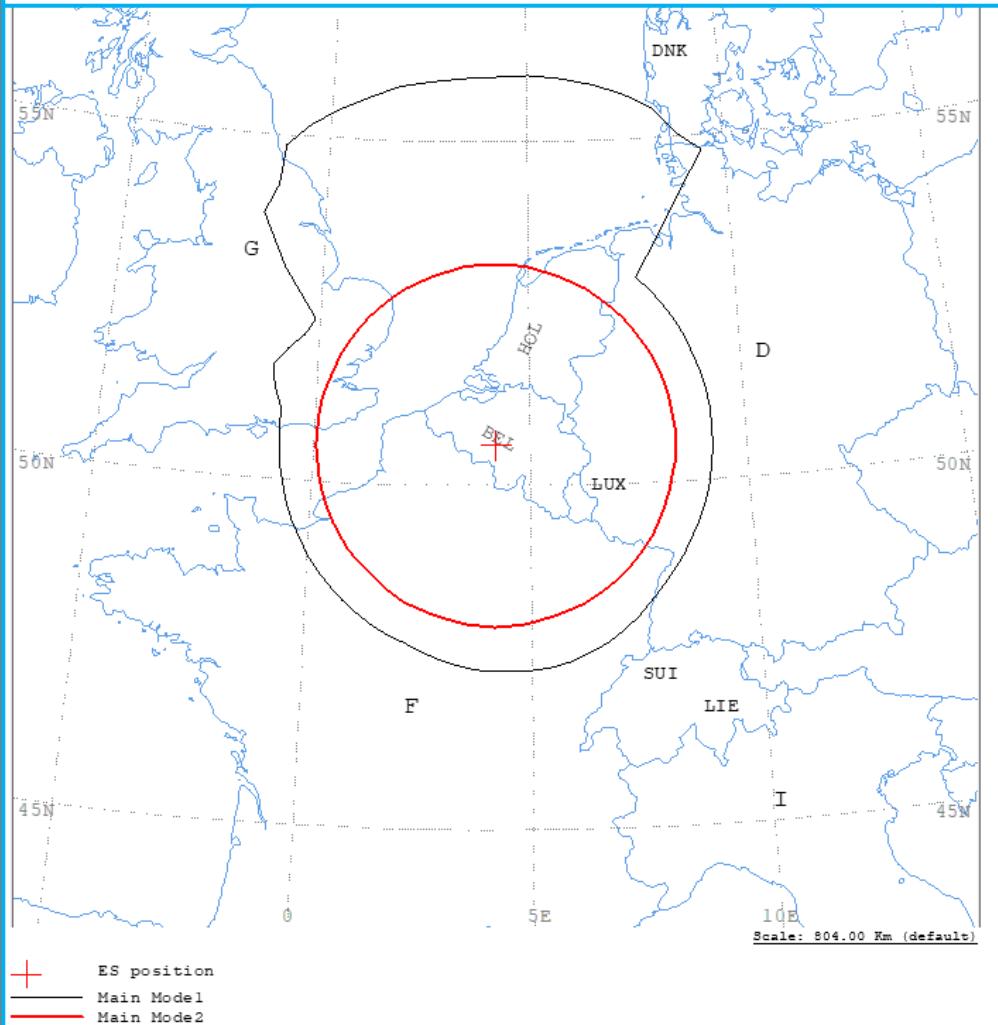
Satellite orbital position: 16.20

Frequency band: 7295.0000-7305.0000 MHz

Earth station name: NEW ES

Earth station position: 004E120050N3600

Satellite name: SICRAL-2A



Receiving ES wrt Transmitting TS  
-Table 8

Coordination Contour Diagram  
Page 1

Diagram 4: 2.1\_TABLE8. RECEIVING GSO ES in FIXED-SATELLITE SERVICE W.R.T. TRANSMITTING TERRESTRIAL STATIONS. TS: fixed, mobile. Applicable: Global

NOTICE ID:	123	EARTH STATION NAME:	NEW ES	EARTH STATION POSITION:	004E120050N3600	PHASE: C																			
ADM/GEO AREA:	BEL/BEL	RAIN CLIMATICAL ZONE:	E	SATELLITE NAME:	SICRAL-2A	SATELLITE ORBITAL POSITION: 16.20 DEG																			
ANTENNA AZIMUTH:	164.62 DEG	ANTENNA ELEVATION:	30.93 DEG	FREQUENCY BAND:	7295.0000-7305.0000 MHZ	ASSIGNED FREQUENCY: 7300.00 MHZ																			
MAXIMUM ANTENNA GAIN:	55.00 DBI	PERCENTAGE OF TIME:	0.0017 %	MAXIMUM POWER DENSITY:	- DBW/HZ	NOISE TEMPERATURE: 70.0 K																			
ANTENNA PATTERN:	APEREC01SV01																								
2.1_TABLE8 Model:	PLM_DUCTING																								
TRANSMISSION LOSS MODE 1:	206.5 DB (DOES NOT INCLUDE HOR. CORR. AND ANT. GAIN)																								
TRANSMISSION LOSS MODE 2:	164.5 DB																								
AZIMUTH	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	
OFF-AXIS	145.8	143.5	140.8	137.7	134.4	130.8	127.0	123.2	119.2	115.1	110.9	106.7	102.5	98.2	94.0	89.7	85.4	81.1	76.9	72.6	68.4	64.3	60.2	56.2	
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
HOR.CORR.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ANT.GAIN	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	
COORDINATION DISTANCE (KM)																									
MODE 1																									
0.0 DB	595	599	600	603	604	601	584	585	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	
MODE 2																									
0.0 DEG	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291	
AZIMUTH	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	
OFF-AXIS	52.4	48.6	45.1	41.8	38.8	36.1	33.9	32.3	31.2	30.9	30.6	30.3	30.0	29.7	29.4	29.1	28.8	28.5	28.2	27.9	27.6	27.3	27.0	26.7	
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
HOR.CORR.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ANT.GAIN	-10.0	-10.0	-9.4	-8.5	-7.7	-6.9	-6.3	-5.7	-5.4	-5.3	-5.2	-5.1	-5.0	-4.9	-4.8	-4.7	-4.6	-4.5	-4.4	-4.3	-4.2	-4.1	-4.0	-3.9	-3.8
COORDINATION DISTANCE (KM)																									
MODE 1																									
0.0 DB	354	354	356	359	362	365	368	370	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371
MODE 2																									
0.0 DEG	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294	294
AZIMUTH	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360
OFF-AXIS	77.5	81.8	86.0	90.3	94.6	98.9	103.1	107.4	111.6	115.7	119.8	123.9	128.0	131.4	134.9	138.2	141.2	143.9	146.1	147.7	148.8	149.1	148.6	147.5	146.4
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
HOR.CORR.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ANT.GAIN	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	
COORDINATION DISTANCE (KM)																									
MODE 1																									
0.0 DB	354	354	354	353	353	353	353	353	353	353	353	353	353	353	353	353	353	353	353	353	353	353	353	353	353
MODE 2																									
0.0 DEG	293	293	293	292	292	292	292	292	292	292	292	292	292	292	292	292	292	292	292	292	292	292	292	292	292

List of Administrations to forward  
your coordination request

PROBABLY AFFECTED COUNTRIES: D DNK F G HOL LUX

Coordination Contour Diagram  
Page 2

Diagram 2: 3.2.1\_TABLE9. TRANSMITTING GSO ES in FIXED-SATELLITE SERVICE W.R.T. RECEIVING NGSO ES in EARTH EXPLORATION SATELLITE SERVICE. Applicable: Global

Notice ID: 123

Administration/Geographical area: BEL/BEL

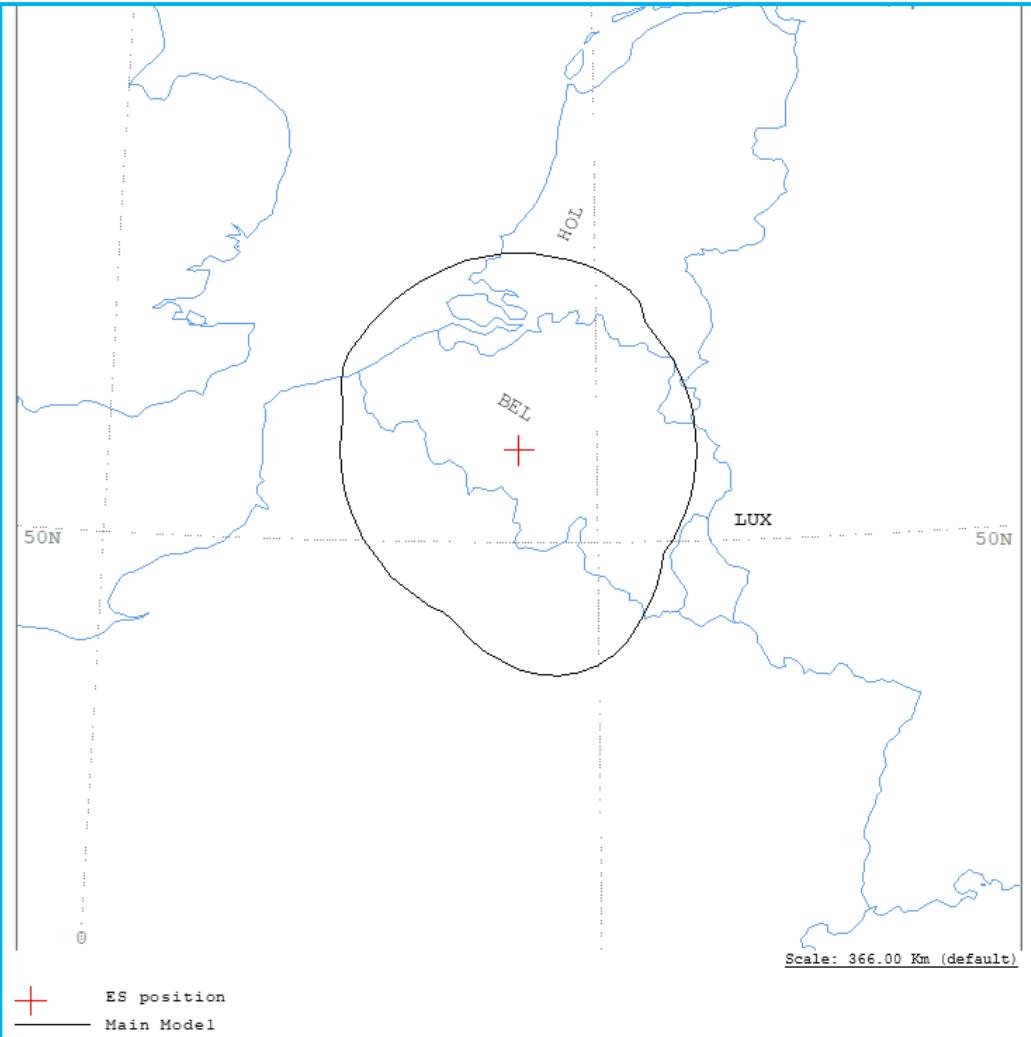
Satellite orbital position: 16.20

Frequency band: 8295.0000-8305.0000 MHz

Earth station name: NEW ES

Earth station position: 004E120050N3600

Satellite name: SICRAL-2A



Transmitting ES wrt Receiving ES (NGSO)  
-Table 9

Coordination Contour Diagram  
Page 1

Diagram 2: 3.2.1\_TABLE9. TRANSMITTING GSO ES in FIXED-SATELLITE SERVICE W.R.T. RECEIVING NGSO ES in EARTH EXPLORATION SATELLITE SERVICE. Applicable: Global

NOTICE ID:	123	EARTH STATION NAME:	NEW ES	EARTH STATION POSITION:	004E120050N3600	PHASE:	C																		
AIM/GEO AREA:	BEL/BEL	RAIN CLIMATICAL ZONE:	E	SATELLITE NAME:	SICRAL-2A	SATELLITE ORBITAL POSITION:	16.20 DEG																		
ANTENNA AZIMUTH:	164.62 DEG	ANTENNA ELEVATION:	30.93 DEG	FREQUENCY BAND:	8295.0000-8305.0000 MHZ	ASSIGNED FREQUENCY:	8300.00 MHZ																		
MAXIMUM ANTENNA GAIN:	57.70 DBI	MAXIMUM POWER DENSITY:	-52.00 DBW/HZ	PERCENTAGE OF TIME:	0.0055 %	NOISE TEMPERATURE:	- K																		
ANTENNA PATTERN:	APEREC015V01																								
3.2.1_TABLE9 Model:	PLM_DUCTING																								
TRANSMISSION LOSS MODE 1:	150.0 DB (DOES NOT INCLUDE HOR. CORR. AND ANT. GAIN)																								
TRANSMISSION LOSS MODE 2:																									
AZIMUTH	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	
OFF-AXIS	145.8	143.5	140.8	137.7	134.4	130.8	127.0	123.2	119.2	115.1	110.9	106.7	102.5	98.2	94.0	89.7	85.4	81.1	76.9	72.6	68.4	64.3	60.2	56.2	
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
HOR.CORR.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ANT.GAIN	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	
COORDINATION DISTANCE (KM)																									
MODE 1																									
0.0 DB	141	141	141	141	141	141	140	140																	
AZIMUTH	120	125	130	135	140	145	150	155																	
OFF-AXIS	52.4	48.6	45.1	41.8	38.8	36.1	33.9	32.3																	
HOR.ELEV.	-	-	-	-	-	-	-	-																	
HOR.CORR.	-	-	-	-	-	-	-	-																	
ANT.GAIN	-10.0	-10.0	-9.4	-8.5	-7.7	-6.9	-6.3	-5.7	-5.4	-5.3															
COORDINATION DISTANCE (KM)																									
MODE 1																									
0.0 DB	129	129	134	141	147	153	159	163	166																
AZIMUTH	240	245	250	255	260	265	270	275																	
OFF-AXIS	77.5	81.8	86.0	90.3	94.6	98.9	103.1	107.4																	
HOR.ELEV.	-	-	-	-	-	-	-	-																	
HOR.CORR.	-	-	-	-	-	-	-	-																	
ANT.GAIN	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	
COORDINATION DISTANCE (KM)																									
MODE 1																									
0.0 DB	129	129	129	129	129	129	129	129	129	131	136	140	141	140	140	140	140	140	140	140	141	141	141	141	

List of Administrations to forward  
your coordination request

PROBABLY AFFECTED COUNTRIES: D F HOL

Diagram 3: 3.1 TABLE9. TRANSMITTING GSO ES in FIXED-SATELLITE SERVICE W.R.T. RECEIVING GSO ES in EARTH EXPLORATION SATELLITE SERVICE. Applicable: Global

Notice ID: 123

Administration/Geographical area: BEL/BEL

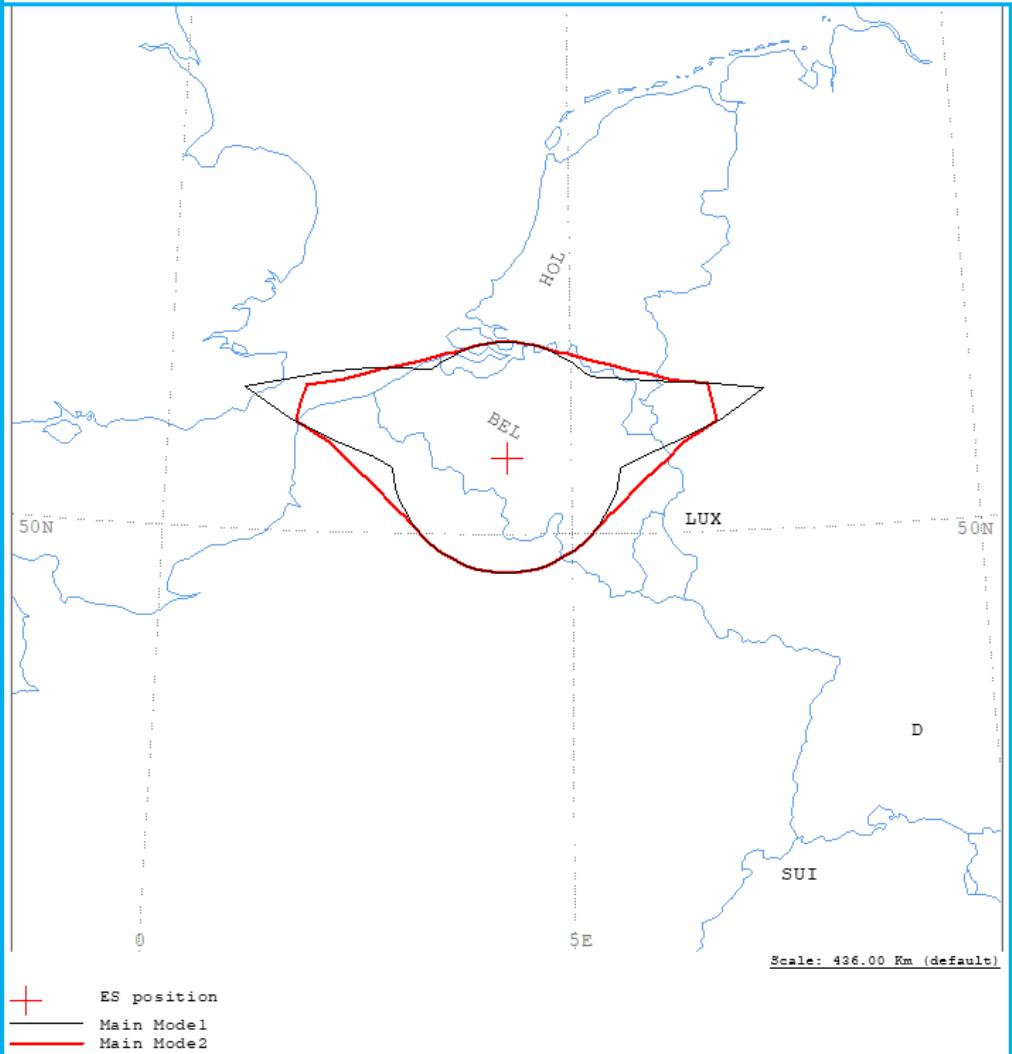
Satellite orbital position: 16.20

Frequency band: 8295.0000-8305.0000 MHz

Earth station name: NEW ES

Earth station position: 004E120050N3600

Satellite name: SICRAL-2A



Transmitting ES wrt Receiving ES (GSO)  
-Table 9

Coordination Contour Diagram  
Page 1

Diagram 3: 3.1\_TABLE9. TRANSMITTING GSO ES in FIXED-SATELLITE SERVICE W.R.T. RECEIVING GSO ES in EARTH EXPLORATION SATELLITE SERVICE. Applicable: Global

NOTICE ID:	123	EARTH STATION NAME:	NEW ES	EARTH STATION POSITION:	004E120050N3600	PHASE:	C																	
AIM/GEO AREA:	BEL/BEL	RAIN CLIMATICAL ZONE:	E	SATELLITE NAME:	SICRAL-2A	SATELLITE ORBITAL POSITION:	16.20 DEG																	
ANTENNA AZIMUTH:	164.62 DEG	ANTENNA ELEVATION:	30.93 DEG	FREQUENCY BAND:	8295.0000-8305.0000 MHZ	ASSIGNED FREQUENCY:	8300.00 MHZ																	
MAXIMUM ANTENNA GAIN:	57.70 DBI	MAXIMUM POWER DENSITY:	-52.00 DBW/HZ	PERCENTAGE OF TIME:	0.0415 %	NOISE TEMPERATURE:	- K																	
ANTENNA PATTERN:	APERE015V01	3.1_TABLE9 Model:	PIM_DUCTING																					
TRANSMISSION LOSS MODE 1:	162.0 DB (DOES NOT INCLUDE HOR. CORR. AND ANT. GAIN)																							
TRANSMISSION LOSS MODE 2:																								
AZIMUTH	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115
OFF-AXIS	145.8	143.5	140.8	137.7	134.4	130.8	127.0	123.2	119.2	115.1	110.9	106.7	102.6	98.2	94.0	89.7	85.4	81.1	76.9	72.6	68.4	64.3	60.2	56.2
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HOR.CORR.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ANT.GAIN	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0
COORDINATION DISTANCE (KM)																								
MODE 1																								
0.0 DB	100	100	100	100	100	100	100	100	100	101	107	119	135	157	188	232	191	146	116	100	100	100	100	100
MODE 2																								
0.0 DEG	100	100	100	100	100	101	104	107	111	116														
AZIMUTH	120	125	130	135	140	145	150	155	160	165														
OFF-AXIS	52.4	48.6	45.1	41.8	38.8	36.1	33.9	32.3	31.2	30.9														
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-														
HOR.CORR.	-	-	-	-	-	-	-	-	-	-														
ANT.GAIN	-10.0	-10.0	-9.4	-8.5	-7.7	-6.9	-6.3	-5.7	-5.4	-5.3														
COORDINATION DISTANCE (KM)																								
MODE 1																								
0.0 DB	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
MODE 2																								
0.0 DEG	103	101	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	101
AZIMUTH	240	245	250	255	260	265	270	275	280	285														
OFF-AXIS	77.5	81.8	86.0	90.3	94.6	98.9	103.1	107.4	111.6	115.7														
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-														
HOR.CORR.	-	-	-	-	-	-	-	-	-	-														
ANT.GAIN	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0														
COORDINATION DISTANCE (KM)																								
MODE 1																								
0.0 DB	100	100	100	100	100	100	116	146	181	236	201	176	153	135	121	109	100	100	100	100	100	100	100	100
MODE 2																								
0.0 DEG	103	106	110	115	121	130	141	185	186	186	186	159	144	133	123	116	111	107	104	101	100	100	100	100
PROBABLY AFFECTED COUNTRIES:	D	F	G	HOL																				

List of Administrations to forward  
your coordination request

Coordination Contour Diagram  
Page 2

Diagram 5: TABLE10 Row 12. TRANSMITTING ES in FIXED-SATELLITE SERVICE W.R.T. RECEIVING TERRESTRIAL STATIONS. ES is ground-based. TS: mobile (aircraft). Applicable: Global

Notice ID: 123

Administration/Geographical area: BEL/BEL

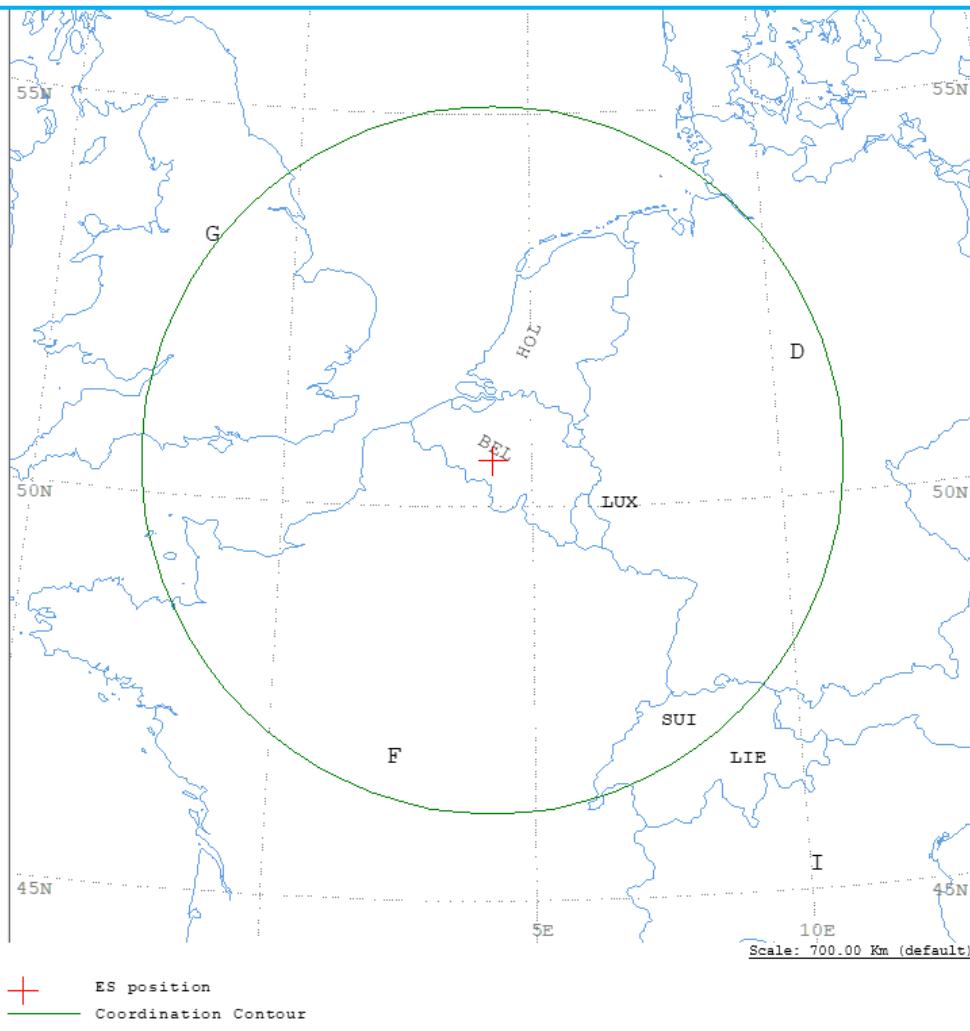
Satellite orbital position: 16.20

Frequency band: 8295.0000-8305.0000 MHz

Earth station name: NEW ES

Earth station position: 004E120050N3600

Satellite name: SICRAL-2A



Transmitting ES wrt Receiving TS  
-Table 10

Coordination Contour Diagram  
Page 1

NOTICE ID: 123 EARTH STATION NAME: NEW ES EARTH STATION POSITION: 004E120050N3600 PHASE: C  
 AIM/GEO AREA: BEL/BEL RAIN CLIMATICAL ZONE: E  
 SATELLITE NAME: SICRAL-2A SATELLITE ORBITAL POSITION: 16.20 DEG  
 ANTENNA AZIMUTH: - DEG ANTENNA ELEVATION: - DEG  
 FREQUENCY BAND: 8295.0000-8305.0000 MHZ ASSIGNED FREQUENCY: 8300.00 MHZ PERCENTAGE OF TIME:  
 MAXIMUM ANTENNA GAIN: - DBI MAXIMUM POWER DENSITY: - DBW/HZ NOISE TEMPERATURE: - K  
 ANTENNA PATTERN: -  
 TABLE10 Row 12: PDD 500 KM

TRANSMISSION LOSS MODE 1:  
TRANSMISSION LOSS MODE 2:

AZIMUTH	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115
OFF-AXIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HOR.CORR.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ANT.GAIN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

COORDINATION DISTANCE (KM)

PREDETERMINED  
FIXED DISTANCE 500

AZIMUTH	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235
OFF-AXIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HOR.CORR.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ANT.GAIN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

COORDINATION DISTANCE (KM)

PREDETERMINED  
FIXED DISTANCE 500

AZIMUTH	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355
OFF-AXIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HOR.ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HOR.CORR.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ANT.GAIN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

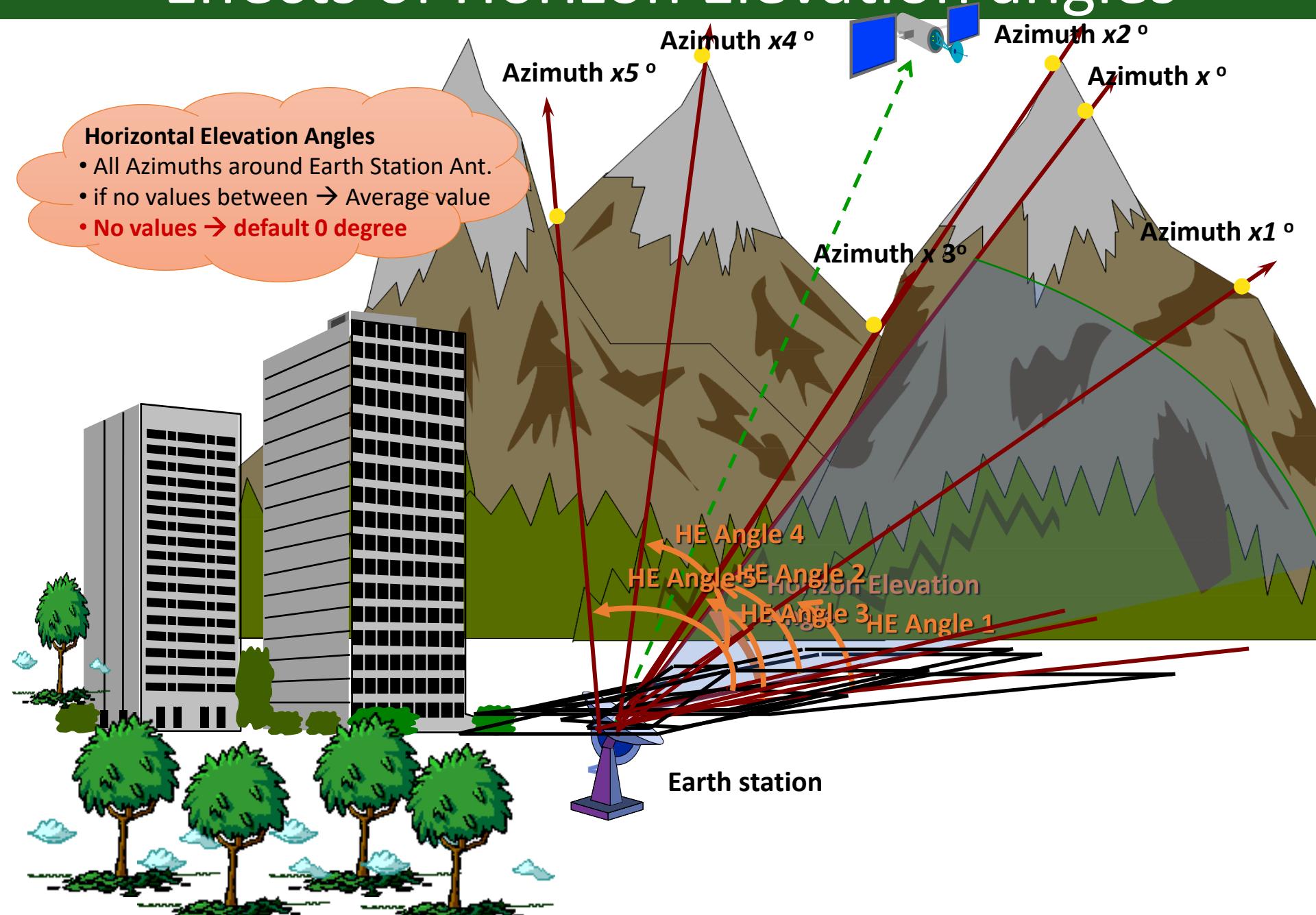
COORDINATION DISTANCE (KM)

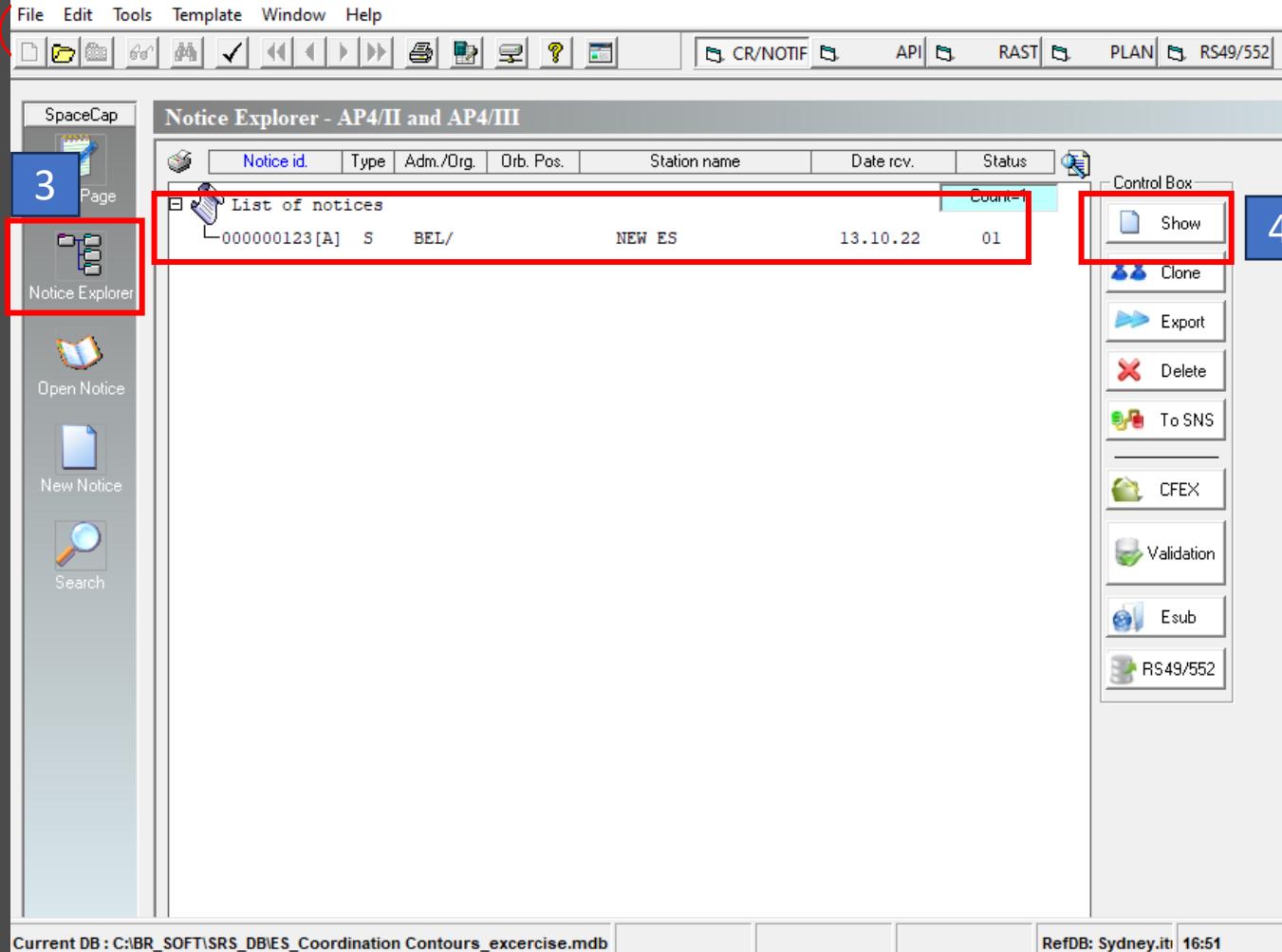
PREDETERMINED  
FIXED DISTANCE 500

PROBABLY AFFECTED COUNTRIES: D F G HOL LUX SUI

List of Administrations to forward  
your coordination request

# Effects of Horizon Elevation angles





01. Start **SpaceCap** from SAM
02. Go to File->Open database
03. Go to-> **Notice Explorer**
04. Select the **Notice ID 123 & Show**

File Edit Tools View Window Help

CR/NOTIF API RAST PLAN RS49/552

SpaceCap

Specific Earth Station Notice:123

Notice 1 Station Beam Attachments

Notice Id: 123 Administration: BEL Status: 01 Date: 09.11.2020

A1e1. Type of Station:  Typical  Specific A1e2. Earth Station Name: NEW ES

A1e3a. County: BEL A1e3b. Geographical Coordinates: Longitude Degrees: 4 E/W E Min: 12 Sec: 0 Latitude Degrees: 50 N/S N Min: 36 Sec: 0

A4c1. Associated Space Station: SICRAL-2A A4c2. Nominal Orbital Longitude (if geostationary): 16.20 E E/W A7b1. Min Elevation Angle (GSO1): 30.9 ° A7e. Table of Minimum Antenna Elevation Angles (NGSO1)

A16b Commitment to meet PFD limits (applicable bands 13.75-14 GHz):  Yes  No  N/A A18a Commitment of aircraft earth station (applicable bands 14-14.5 GHz):  Yes  No  N/A

A7d. Altitude: 91 Metre A7a. Table of Horizon Elevation/ Distance: 1. From: 163 ° 2. To: 165 ° A/a. Horizon Elevation Diagram attached. See Attachment No.

3 A7a. Table of Horizon Elevation Angles

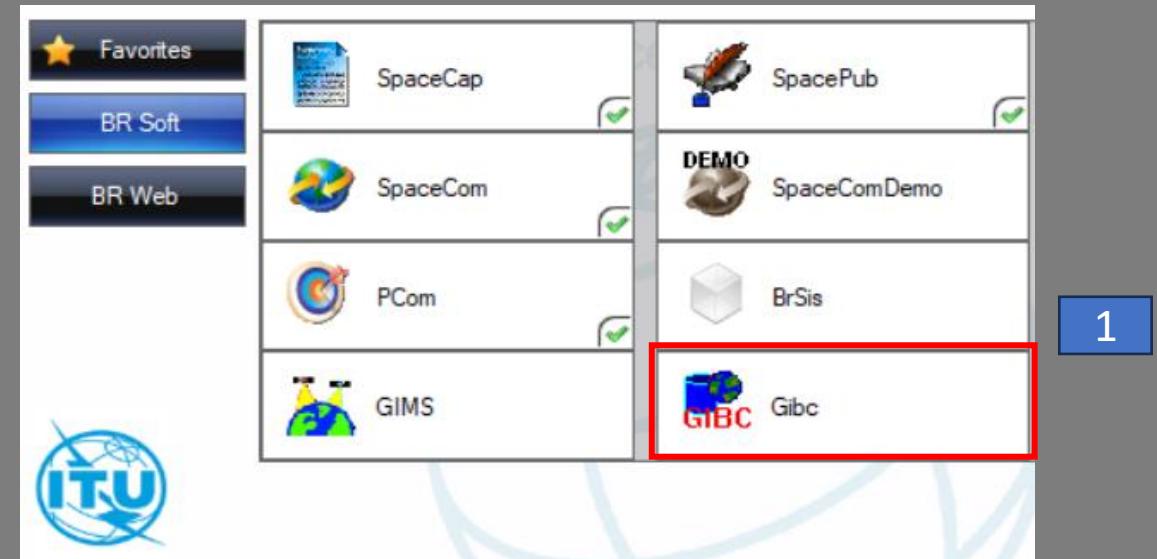
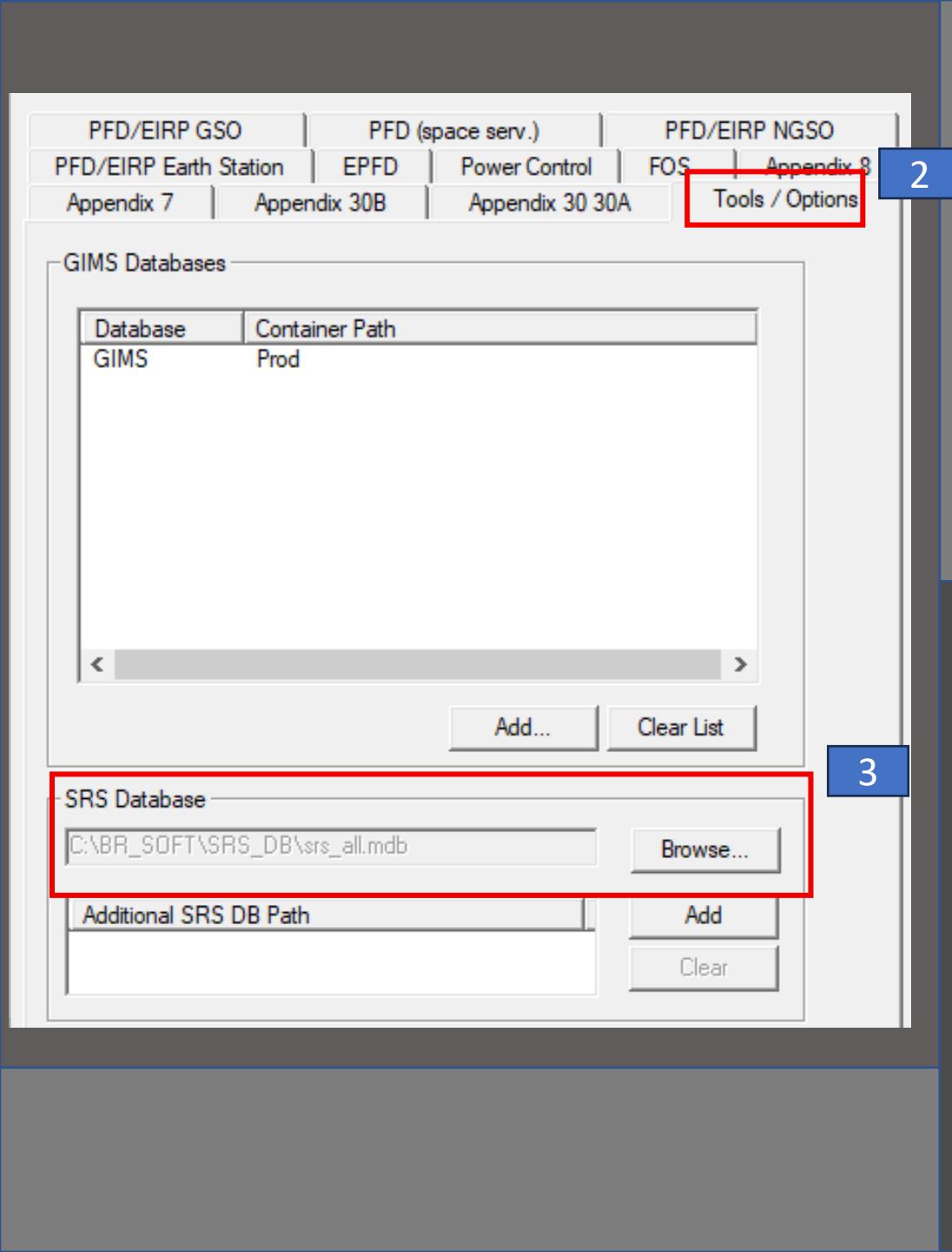
Azimuth	A7a1 Elevation Angle °	A7a2 Distance km (optional)
0	2.0	
90	3.0	
180	.0	
270	.0	

Copy Rows Paste Rows Close

01. Go to *Station* page

02. Open *A7a Table of Horizon Elevation*

03. Fill the table with the values

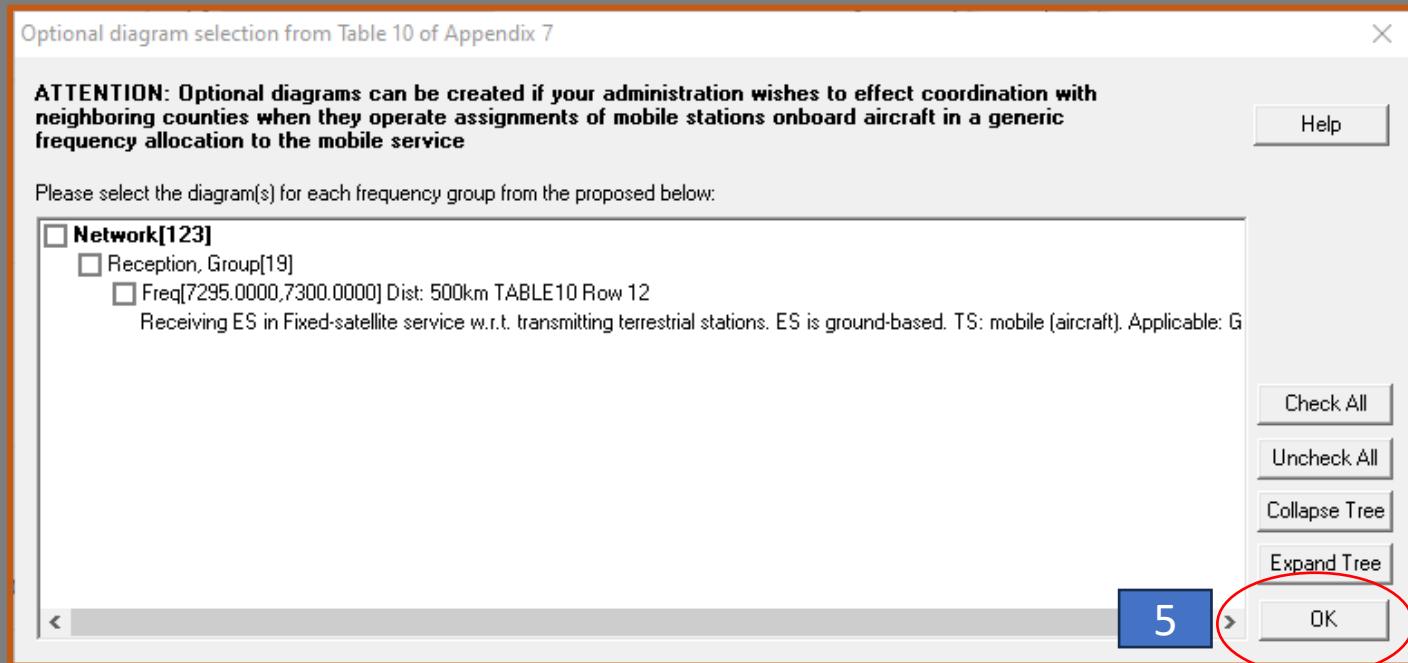
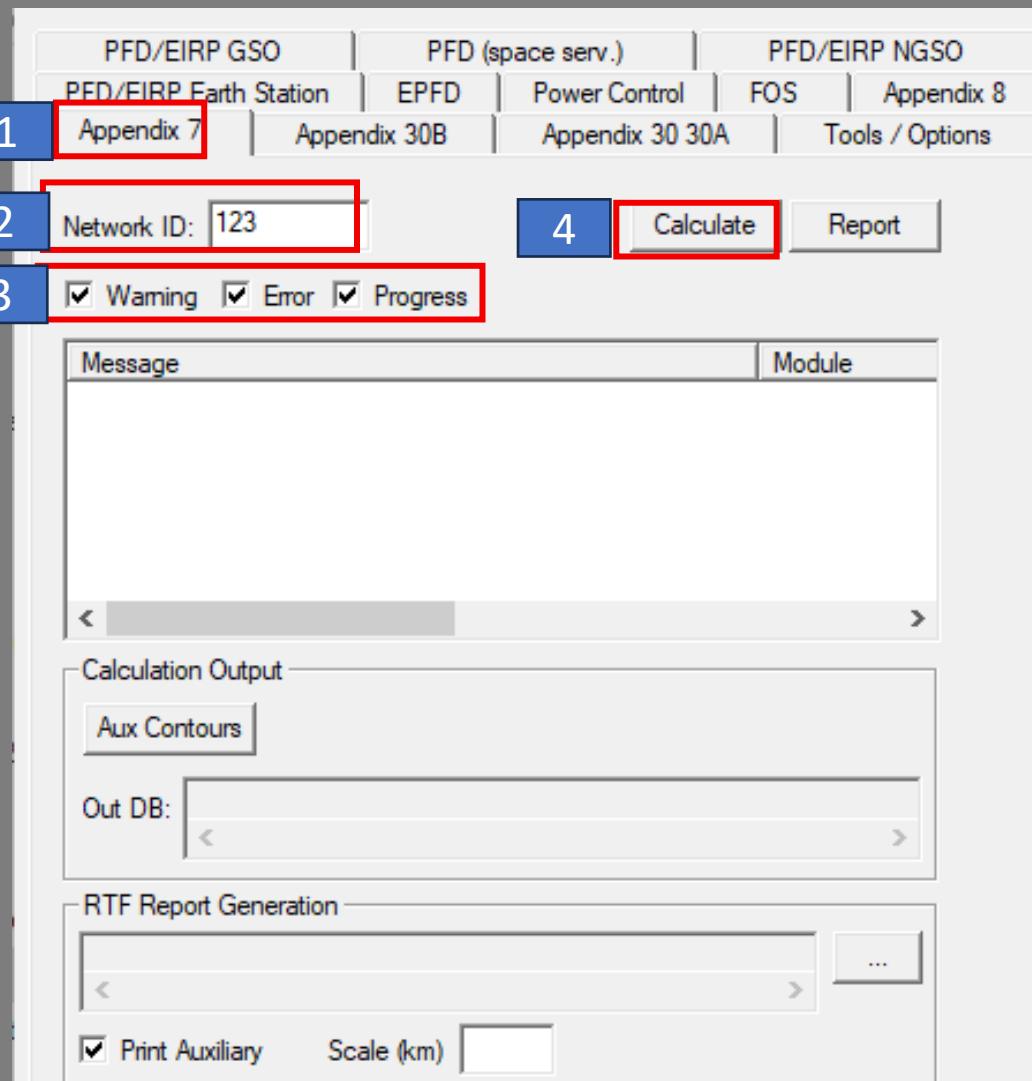


01. Start **GIBC** from SAM

02. Go to **Tools/Options**

03. Browse and select the correct location of your file

ES\_WRS24\_CR.mdb



01. Go to *Appendix 7*
02. Insert *Network ID*
03. Keep the warning msgs selected
04. Calculate
05. Do not select 'Optional Diagrams' –press OK

PFD/EIRP GSO	PFD (space serv.)	PFD/EIRP NGSO
PFD/EIRP Earth Station	EPFD	Power Control
Appendix 7	Appendix 30B	Appendix 30 30A
Tools / Options		

Network ID: 123

Warning  Error  Progress

**Message**

```
Probably affected countries for diagram #4: D F G ... Progress inc
Diagram #5: 'Diagram 5: TABLE10 Row 12' being calculate... Progress inc
Probably affected countries for diagram #5: D F G ... Progress inc
AP7 pack version: 9.1.0.4Appendix 7/Plt-3.2.0.1/Frm-9.0.1.... Progress inc
Store ntc_id = 123 in ESCC database... Progress inc
Batch Calculation finished OK at 17:14:53. Output database ... GIBC
```

**Calculation Output**

Out DB: C:\Users\karunaje\ITU\BR\_SPACE\_v9.1\TEX\_RESULTS\APP7

**RTF Report Generation**

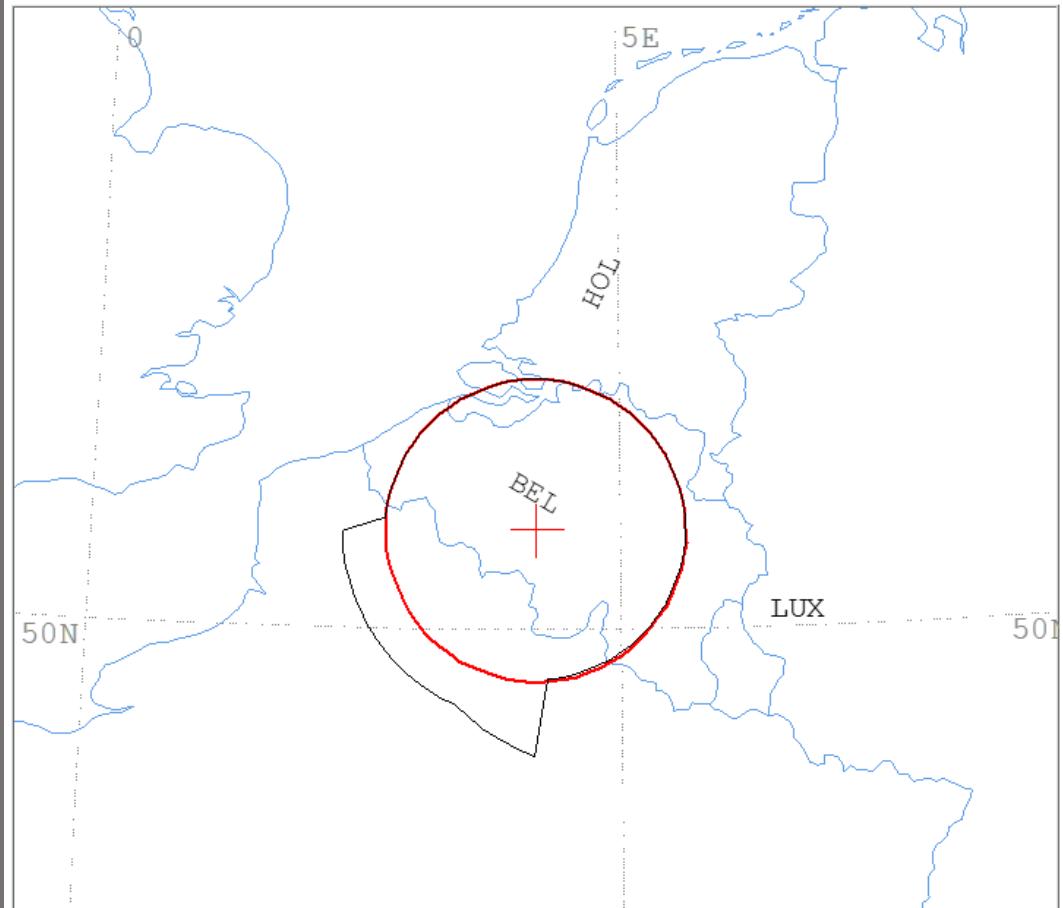
C:\Users\karunaje\ITU\BR\_SPACE\_v9.1\TEX\_RESULTS\APP7

Print Auxiliary Scale (km)

Diagram 1: 2.1\_TABLE7. TRANSMITTING GSO ES in FIXED-SATELLITE SERVICE W.R.T. RECEIVING TERRESTRIAL STATIONS. TS: fixed, mobile. Applicable: Global

Notice ID: 123  
 Administration/Geographical area: BEL/BEL  
 Satellite orbital position: 16.20  
 Frequency band: 8295.0000-8305.0000 MHz

Earth station name: NEW ES  
 Earth station position: 004E120050N3600  
 Satellite name: SICRAL-2A



Create the new Contour Diagram  
 Horizon Elevation angles Included

Diagram 1: 2.1 TABLE7. TRANSMITTING GSO ES in FIXED-SATELLITE SERVICE W.R.T. RECEIVING TERRESTRIAL STATIONS. TS: fixed, mobile. Applicable: Global

NOTICE ID:	123	EARTH STATION NAME:	NEW ES	EARTH STATION POSITION:	004E120050N3600	PHASE: C																			
ADM/GEO AREA:	BEL/BEL	RAIN CLIMATICAL ZONE:	E	SATELLITE NAME:	SICRAL-2A	SATELLITE ORBITAL POSITION: 16.20 DEG																			
ANTENNA AZIMUTH:	164.62 DEG	ANTENNA ELEVATION:	30.93 DEG	FREQUENCY BAND:	8295.0000-8305.0000 MHZ	ASSIGNED FREQUENCY: 8300.00 MHZ																			
MAXIMUM ANTENNA GAIN:	57.70 DBI	MAXIMUM POWER DENSITY:	-52.00 DBW/HZ	PERCENTAGE OF TIME:	0.0050 %	NOISE TEMPERATURE: - K																			
ANTENNA PATTERN:	APEREC015V01	2.1_TABLE7 Model:	PLM_DUCTING																						
TRANSMISSION LOSS MODE 1:	161.0 DB (DOES NOT INCLUDE HOR. CORR. AND ANT. GAIN)																								
TRANSMISSION LOSS MODE 2:	115.0 DB																								
AZIMUTH	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	
OFF-AXIS	144.0	141.7	139.1	136.1	132.8	129.2	125.5	121.7	117.7	113.6	109.5	105.3	101.1	96.8	92.5	88.2	83.9	79.6	75.3	71.1	67.0	62.9	58.9	54.9	
HOR.ELEV.	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.9	2.9	3.0	2.8	2.7	2.5	2.3	2.2	
HOR.CORR.	32.0	32.1	32.1	32.2	32.2	32.3	32.3	32.4	32.4	32.5	32.6	32.6	32.7	32.7	32.8	32.8	32.9	32.9	33.0	32.8	32.7	32.5	32.3	32.2	
ANT.GAIN	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0		
COORDINATION DISTANCE (KM)																									
MODE 1																									
0.0 DB	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
MODE 2																									
0.0 DEG	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	101	101	101	101	101	101	
AZIMUTH	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	
OFF-AXIS	51.1	47.4	43.9	40.6	37.7	35.1	33.0	31.5	30.6	30.4	31.0	32.3	34.2	36.5	39.2	42.3	45.6	49.2	53.0	56.8	60.8	64.9	69.1	73.3	
HOR.ELEV.	2.0	1.8	1.7	1.5	1.3	1.2	1.0	0.8	0.7	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
HOR.CORR.	32.0	31.6	30.5	29.2	27.9	26.5	24.9	23.1	21.0	18.5	15.2	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
ANT.GAIN	-10.0	-9.9	-9.1	-8.2	-7.4	-6.6	-6.0	-5.4	-5.1	-5.3	-5.7	-6.4	-7.1	-7.8	-8.7	-9.5	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	
COORDINATION DISTANCE (KM)																									
MODE 1																									
0.0 DB	100	100	100	100	100	100	100	100	100	100	100	100	151	147	142	137	132	129	129	129	129	129	129	129	
MODE 2																									
0.0 DEG	101	101	101	101	102	102	102	102	102	102	102	102	102	102	101	101	101	101	101	101	101	101	101	101	
AZIMUTH	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	
OFF-AXIS	77.5	81.8	86.0	90.3	94.6	98.9	103.1	107.3	111.4	115.5	119.5	123.4	127.2	130.8	134.3	137.4	140.3	142.8	144.9	146.4	147.2	147.4	146.9	145.7	
HOR.ELEV.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.6	1.7	1.8	1.9	
HOR.CORR.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	12.2	15.2	17.5	19.4	21.0	22.5	23.8	24.9	26.0	27.0	27.9	28.8	29.7	30.5	31.2	31.9	
ANT.GAIN	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0		
COORDINATION DISTANCE (KM)																									
MODE 1																									
0.0 DB	129	129	129	129	129	129	129	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
MODE 2																									
0.0 DEG	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
POTENTIAL AFFECTED COUNTRIES:	F	HOL																							

Affected Administrations  
Horizon elev angle included

# Effects of Horizon Elevation angles

0 Elevation angle

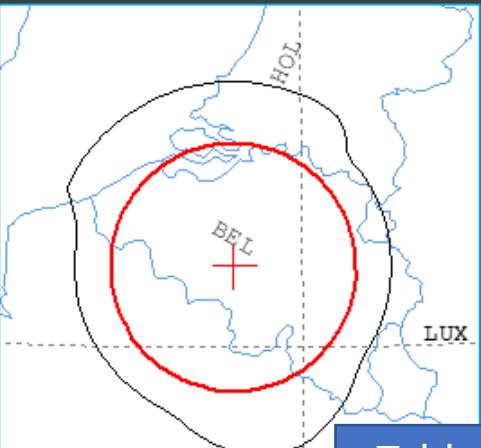


Table 7

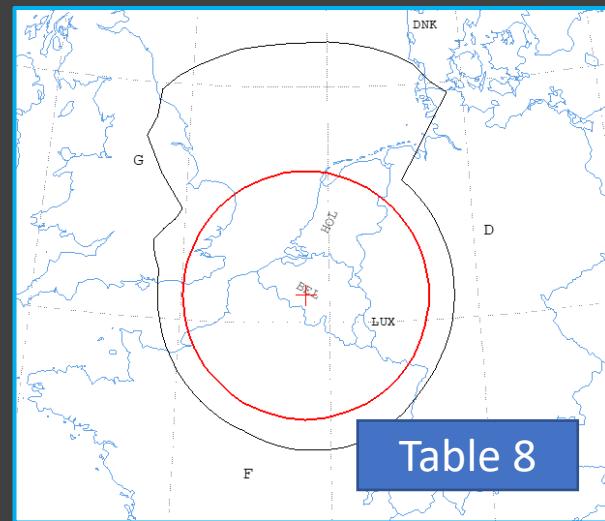


Table 8

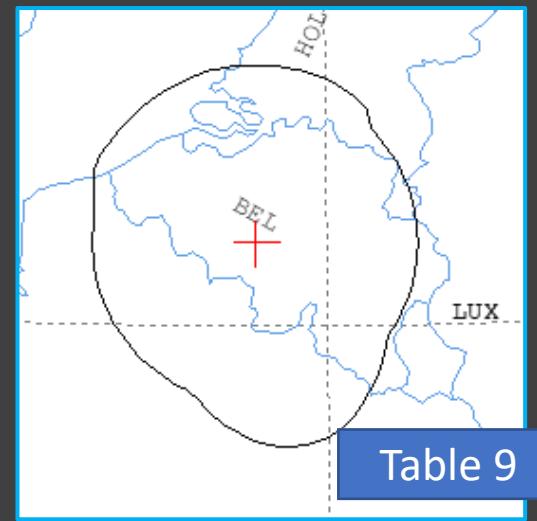


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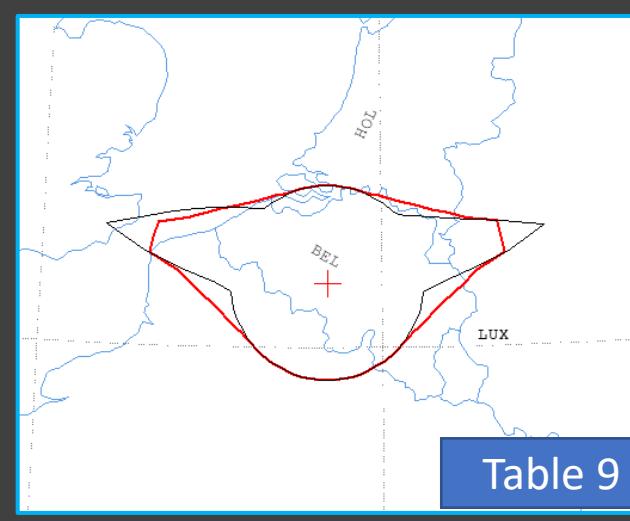


Table 9

Non 0 Elevation angle- Reduced coordination areas

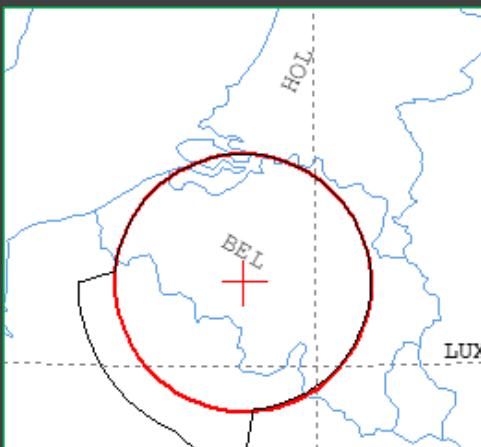


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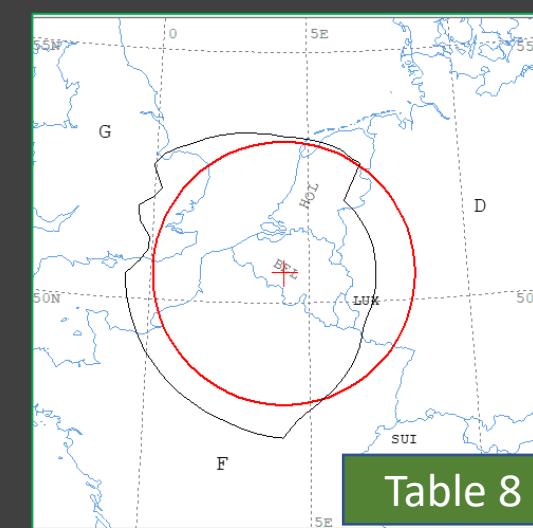


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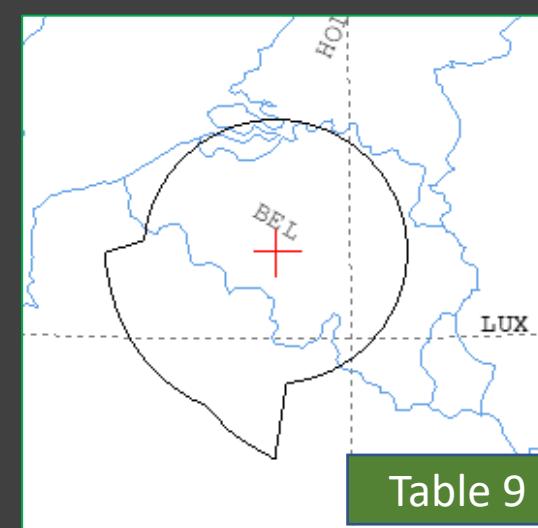


Table 9

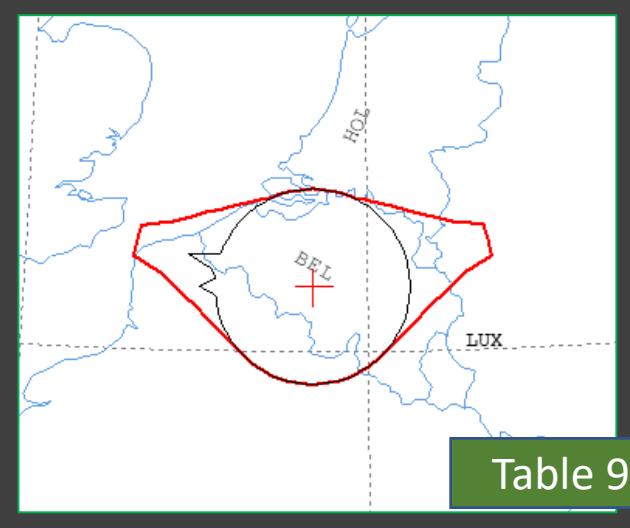
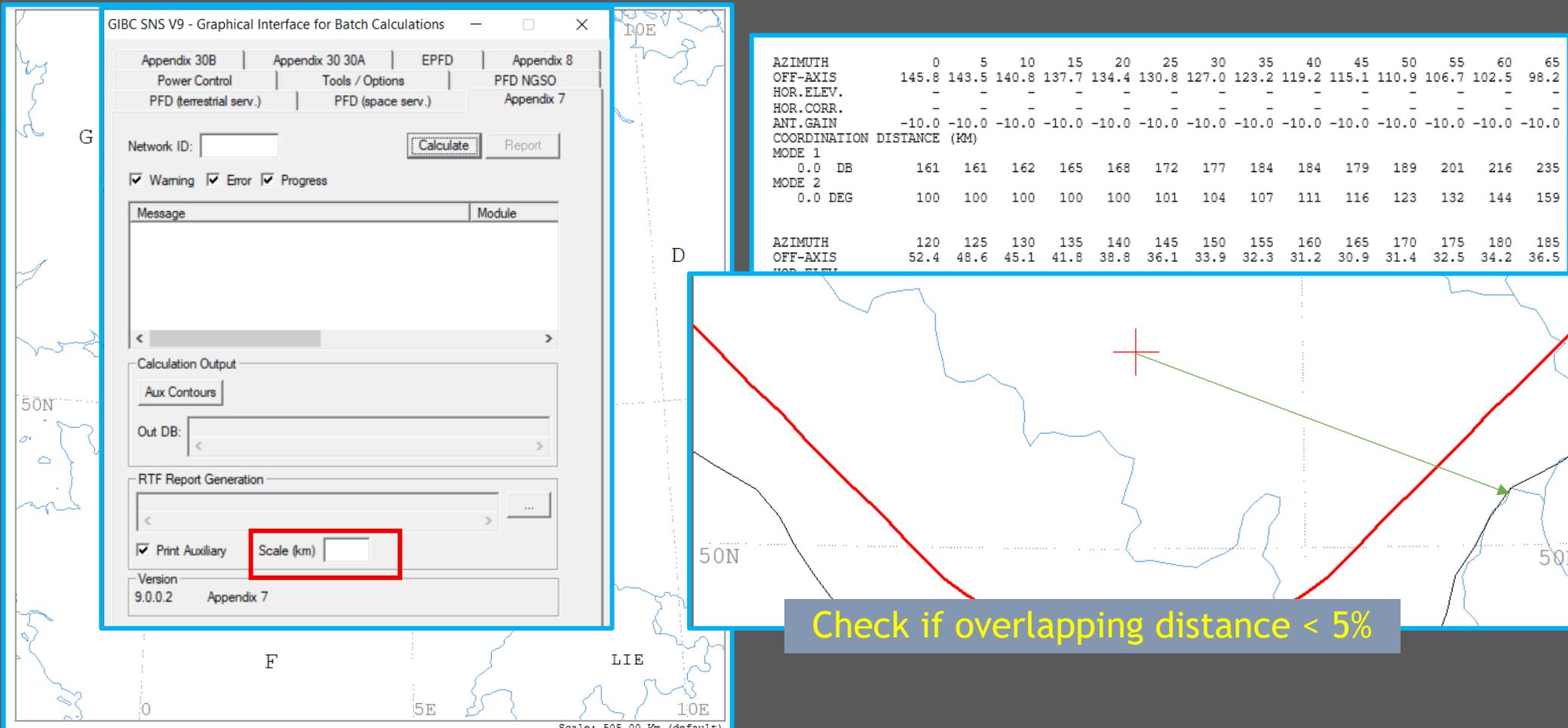


Table 9

# Rules of Procedure (Appendix 7)

## Rules of Procedure (Appendix 7 §1):

No coordination is required when the overlapping distance is less than 5% of the coordination distance.



# Coordination request to Affected Administrations



- **Cover Letter**
- **e-Communications or e-mail :**
  - ESName.mdb (the file we captured)
  - Coordination contour diagrams generated using GIBC AP7 software
  - Any other attachments or notes in Word or PDF format

Next...

## Submission of Notification to the Bureau