latitude	51.08889
longitude	4.3676

	satellite	pos	azim	elev	interm	WF
east	Türksat 1C (42.0E)	42.0	135.26	21.75	37.632	-25.2
west	Nilesat (-7.0W)	-7.0	194.49	30.52	11.368	25.2
	middle satellite	17.0	163.93	30.29	12.632	0.0

Wavefrontier satellites

Wavefrontier	original	real	deviate
elevation	30.3		
skew	98.4		
middle WF	29.9		

LNB	satellite	pos	azim	elev	interm	WF	cm out
1	Türksat 1C (42.0E)	42.0	135.26	21.75	37.632	-25.2	1.6
	Express AM 1 (40.0E)	40.0	137.35	22.67	35.632	-23.3	
2	Hellas Sat 2 (39.0E)	39.0	138.41	23.12	34.632	-22.3	
3	Eutelsat Sesat (36.0E)	36.0	141.63	24.41	31.632	-19.4	
	Eurobird 3 (33.0E)	33.0	144.95	25.62	28.632	-16.4	
4	Astra 5A (31.5E)	31.5	146.63	26.18	27.132	-14.9	
	Arabsat 2B (30.5E)	30.5	147.77	26.55	26.132	-13.9	
	Eurobird 1 (28.5E)	28.5	150.07	27.24	24.132	-11.9	
5	Astra 2 (28.2E)	28.2	150.42	27.34	23.832	-11.6	
6	Badr 3/4 (26.0E)	26.0	152.99	28.05	21.632	-9.4	
	Eurobird 2 (25.5E)	25.5	153.58	28.20	21.132	-8.9	
7	Astra 3A (23.5E)	23.5	155.97	28.78	19.132	-6.8	
	Eutelsat W6 (21.5E)	21.5	158.39	29.31	17.132	-4.7	
8	Astra 1 (19.2E)	19.2	161.21	29.85	14.832	-2.3	
9	Eutelsat W2 (16.0E)	16.0	165.18	30.47	11.632	1.0	
10	HotBird (13.0E)	13.0	168.96	30.93	8.632	4.2	
	Eutelsat W1 (10.0E)	10.0	172.78	31.26	5.632	7.4	
11	Eurobird 9 (9.0E)	9.0	174.06	31.34	4.632	8.4	
12	Eutelsat W3A (7.0E)	7.0	176.62	31.45	2.632	10.6	
13	Sirius (4.8E)	4.8	179.44	31.50	0.432	12.9	
	Eurobird 4 (4.0E)	4.0	180.47	31.50	0.368	13.8	
14	Thor (-0.8W)	-0.8	186.63	31.30	5.168	18.8	
	Intelsat 10-02 (-1.0W)	-1.0	186.89	31.28	5.368	19.0	
	Amos (-4.0W)	-4.0	190.70	30.97	8.368	22.1	
15	Atlantic Bird 3 (-5.0W)	-5.0	191.97	30.83	9.368	23.2	
16	Nilesat (-7.0W)	-7.0	194.49	30.52	11.368	25.2	1.6