

France

E=East Longitude W=West Longitude N= North Latitude S= South Latitude Az=Azimuth EI=Elevation Sk=Skew

		Türksat	Hellas	Eutelsat	ASTRA	ASTRA	ASTRA 1	Eutelsat	Hotbird	Eutelsat	Eutelsat	Sirius 4	Intelsat	Amos	Atlantic	Hispasat	
		2A/3A	Sat 2	W4/Sesat	1D/5A	2A-2D Eurobird 1	1E/1G/3A	F/H/KR/ L/M	W2	6/8/9	W1	W3A	Thor 2	10-02 Thor 3/5	2/3	Bird 3	1C,1D
		42.0 East	39.0 East	36.0 East	31.5 East	28.2 East	23.5 East	19.2 East	16.0 East	13.0 East	10.0 East	7.0 East	4.8 East	1.0 West	4.0 West	5.0 West	30.0 West
Amiens N 49.9, E 2.3	Az	132.7	135.7	138.9	143.9	147.6	153.1	158.3	162.3	166.1	170.0	173.9	176.7	184.3	188.2	189.5	219.6
	EI	21.6	23.1	24.5	26.4	27.7	29.3	30.6	31.3	31.9	32.3	32.6	32.7	32.7	32.5	32.4	25.1
	Sk	-28.3	-26.7	-25.0	-15.3	-13.2	-9.9	-6.8	-11.3	-8.9	-6.4	-4.0	-2.1	2.8	5.3	6.1	24.2
Angers N 47.5, W 0.6	Az	128.7	131.7	134.8	139.6	143.3	148.8	154.0	158.0	161.8	165.8	169.7	172.7	180.5	184.6	186.0	217.4
	EI	21.7	23.4	25.0	27.2	28.7	30.6	32.1	33.1	33.8	34.4	34.9	35.2	35.4	35.3	35.3	28.4
	Sk	-31.8	-30.3	-28.7	-19.0	-16.8	-13.5	-10.2	-14.7	-12.2	-9.6	-6.9	-4.9	0.4	3.1	4.0	24.2
Angouleme N 45.7, E 0.2	Az	128.7	131.7	134.8	139.7	143.4	149.0	154.3	158.4	162.4	166.4	170.5	173.6	181.7	185.9	187.3	219.1
	EI	23.4	25.1	26.7	29.0	30.6	32.6	34.1	35.1	35.9	36.5	37.0	37.2	37.4	37.2	37.1	29.6
	Sk	-33.0	-31.4	-29.7	-19.9	-17.6	-14.1	-10.6	-14.9	-12.2	-9.4	-6.6	-4.5	1.2	4.1	5.1	26.2
Arras N 50.3, E 2.8	Az	133.3	136.4	139.6	144.6	148.3	153.8	159.1	163.1	166.8	170.7	174.6	177.4	184.9	188.8	190.1	220.0
	EI	21.6	23.0	24.4	26.3	27.5	29.1	30.3	31.0	31.6	32.0	32.2	32.3	32.2	32.0	31.9	24.6
	Sk	-27.7	-26.1	-24.5	-14.7	-12.6	-9.4	-6.2	-10.7	-8.4	-5.9	-3.5	-1.7	3.2	5.6	6.4	24.2
Bayonne N 43.3, E 1.5	Az	128.8	131.8	134.9	139.9	143.8	149.5	155.1	159.3	163.5	167.7	172.0	175.2	183.6	188.0	189.4	221.8
	EI	25.8	27.6	29.3	31.7	33.3	35.4	37.0	38.0	38.7	39.3	39.7	39.9	40.0	39.7	39.6	30.9
	Sk	-34.6	-32.9	-31.0	-21.0	-18.5	-14.7	-10.9	-14.9	-12.0	-8.9	-5.8	-3.5	2.7	5.8	6.9	29.0
Belfort N 47.6, E 6.8	Az	136.3	139.5	142.9	148.1	152.1	157.9	163.4	167.6	171.6	175.7	179.7	182.7	190.5	194.5	195.8	225.4
	EI	25.6	27.1	28.4	30.3	31.5	32.9	34.0	34.6	35.0	35.2	35.3	35.3	34.8	34.3	34.1	24.8
	Sk	-27.8	-26.0	-24.0	-13.9	-11.4	-7.7	-4.1	-8.3	-5.6	-2.9	-0.2	1.8	7.1	9.7	10.6	28.7
Bordeaux N 44.8, W 0.6	Az	127.5	130.4	133.5	138.3	142.0	147.6	152.9	157.1	161.1	165.1	169.3	172.4	180.6	184.8	186.2	218.7
	EI	23.5	25.3	27.0	29.4	31.0	33.1	34.7	35.8	36.6	37.3	37.8	38.1	38.4	38.3	38.2	30.7
	Sk	-34.3	-32.7	-31.0	-21.2	-18.9	-15.4	-11.8	-16.1	-13.3	-10.5	-7.6	-5.4	0.4	3.4	4.4	26.3
Boulogne N 47.2, W 1.8	Az	127.4	130.4	133.4	138.2	141.8	147.2	152.4	156.4	160.2	164.1	168.1	171.0	178.9	183.0	184.4	216.2
	EI	21.3	23.0	24.6	26.9	28.4	30.4	32.0	33.0	33.9	34.5	35.1	35.4	35.7	35.7	35.7	29.2
	Sk	-32.7	-31.2	-29.6	-20.0	-17.8	-14.6	-11.4	-15.8	-13.3	-10.7	-8.1	-6.1	-0.7	2.0	3.0	23.6
Brest N 48.4, W 4.5	Az	125.4	128.2	131.2	135.8	139.4	144.6	149.6	153.4	157.1	160.9	164.8	167.7	175.3	179.3	180.7	212.5
	EI	19.0	20.7	22.3	24.6	26.2	28.2	29.9	31.0	31.9	32.7	33.3	33.7	34.3	34.4	34.4	29.2
	Sk	-32.8	-31.4	-30.0	-20.6	-18.6	-15.6	-12.6	-17.3	-15.0	-12.5	-10.0	-8.2	-3.1	-0.4	0.4	20.9
Caen N 49.2, W 0.4	Az	129.7	132.7	135.8	140.6	144.2	149.7	154.8	158.8	162.5	166.4	170.3	173.1	180.8	184.8	186.1	216.9
	EI	20.7	22.3	23.8	25.9	27.3	29.1	30.5	31.4	32.1	32.7	33.1	33.3	33.6	33.5	33.4	26.9
	Sk	-30.2	-28.7	-27.1	-17.5	-15.5	-12.3	-9.2	-13.7	-11.3	-8.9	-6.3	-4.5	0.5	3.1	4.0	23.1
Calais N 51.0, E 1.9	Az	132.7	135.8	138.9	143.8	147.6	153.0	158.2	162.1	165.8	169.6	173.5	176.3	183.7	187.6	188.9	218.7
	EI	20.6	22.1	23.4	25.3	26.6	28.2	29.4	30.1	30.7	31.1	31.4	31.5	31.5	31.3	31.2	24.4
	Sk	-27.6	-26.0	-24.4	-14.8	-12.7	-9.6	-6.5	-11.2	-8.9	-6.5	-4.1	-2.4	2.4	4.8	5.6	23.2

Chalons-sur-Marne N 49.0, E 4.3	Az	134.3	137.5	140.7	145.8	149.6	155.2	160.6	164.7	168.5	172.5	176.4	179.3	187.0	190.9	192.2	222.1
	EI	23.3	24.7	26.1	28.0	29.3	30.8	32.0	32.7	33.2	33.5	33.7	33.8	33.5	33.2	33.1	24.9
	Sk	-28.0	-26.3	-24.6	-14.7	-12.4	-9.0	-5.6	-10.0	-7.5	-4.9	-2.3	-0.4	4.6	7.2	8.0	26.1
Charleville-Mezieres N 49.7, E 4.7	Az	135.0	138.2	141.4	146.5	150.3	156.0	161.3	165.3	169.2	173.1	177.0	179.9	187.5	191.4	192.6	222.2
	EI	23.0	24.4	25.7	27.6	28.8	30.3	31.4	32.0	32.5	32.8	33.0	33.0	32.8	32.4	32.3	24.2
	Sk	-27.2	-25.5	-23.8	-13.9	-11.7	-8.3	-5.0	-9.4	-7.0	-4.5	-2.0	-0.1	4.8	7.3	8.1	25.8
Clermont-Ferrand N 45.8, E 3.1	Az	131.6	134.7	137.9	143.0	146.8	152.6	158.1	162.3	166.3	170.4	174.6	177.6	185.7	189.9	191.2	222.3
	EI	25.0	26.6	28.2	30.3	31.8	33.6	34.9	35.8	36.4	36.8	37.2	37.3	37.1	36.8	36.7	28.1
	Sk	-31.4	-29.7	-27.8	-17.8	-15.4	-11.7	-8.1	-12.3	-9.5	-6.7	-3.8	-1.7	4.0	6.9	7.8	28.0
Colmar N 48.1, E 7.3	Az	137.1	140.3	143.7	148.9	152.8	158.7	164.2	168.4	172.4	176.4	180.4	183.4	191.1	195.0	196.3	225.7
	EI	25.5	26.9	28.2	30.0	31.2	32.6	33.6	34.1	34.5	34.7	34.8	34.7	34.2	33.7	33.5	24.2
	Sk	-27.1	-25.2	-23.3	-13.2	-10.8	-7.1	-3.5	-7.7	-5.1	-2.4	0.3	2.2	7.4	10.0	10.8	28.5
Epinal N 48.2, E 6.5	Az	136.3	139.5	142.8	148.0	151.9	157.7	163.2	167.4	171.3	175.3	179.3	182.3	190.0	194.0	195.3	224.8
	EI	25.0	26.4	27.8	29.6	30.8	32.3	33.3	33.9	34.3	34.6	34.7	34.6	34.2	33.7	33.5	24.5
	Sk	-27.4	-25.7	-23.8	-13.7	-11.3	-7.7	-4.1	-8.4	-5.8	-3.1	-0.5	1.5	6.7	9.3	10.1	28.0
Le Havre N 49.5, E 0.1	Az	130.3	133.3	136.4	141.2	144.9	150.4	155.5	159.5	163.2	167.1	171.0	173.8	181.5	185.4	186.7	217.3
	EI	20.8	22.3	23.8	25.8	27.2	29.0	30.4	31.2	31.9	32.4	32.9	33.1	33.2	33.1	33.0	26.4
	Sk	-29.7	-28.2	-26.6	-17.0	-14.9	-11.7	-8.6	-13.2	-10.8	-8.4	-5.9	-4.0	0.9	3.5	4.3	23.2
Limoges N 45.8, E 1.3	Az	129.8	132.9	136.0	140.9	144.7	150.4	155.8	159.9	163.9	168.0	172.1	175.1	183.2	187.4	188.8	220.3
	EI	24.0	25.6	27.2	29.5	31.0	32.9	34.4	35.3	36.0	36.6	37.0	37.2	37.2	37.0	36.9	29.0
	Sk	-32.4	-30.7	-29.0	-19.1	-16.8	-13.2	-9.6	-13.9	-11.2	-8.4	-5.5	-3.4	2.2	5.1	6.1	26.8
Lorient N 47.8, W 3.4	Az	126.2	129.1	132.1	136.7	140.3	145.6	150.7	154.6	158.3	162.2	166.1	169.0	176.8	180.8	182.2	214.1
	EI	20.0	21.7	23.3	25.6	27.2	29.2	30.9	31.9	32.8	33.6	34.2	34.5	35.0	35.1	35.1	29.3
	Sk	-32.9	-31.4	-29.9	-20.4	-18.4	-15.3	-12.2	-16.8	-14.4	-11.9	-9.3	-7.4	-2.2	0.5	1.5	22.1
Lyon N 45.8, E 4.8	Az	133.4	136.5	139.8	145.0	148.9	154.7	160.3	164.6	168.6	172.8	176.9	180.0	188.1	192.2	193.6	224.1
	EI	25.9	27.5	29.0	31.1	32.4	34.1	35.4	36.1	36.7	37.0	37.2	37.3	37.0	36.6	36.4	27.2
	Sk	-30.5	-28.7	-26.7	-16.6	-14.1	-10.3	-6.6	-10.7	-7.9	-5.0	-2.1	0.0	5.6	8.5	9.4	29.0
Marseille N 43.3, E 5.4	Az	132.7	135.9	139.2	144.5	148.5	154.5	160.3	164.7	169.0	173.3	177.7	180.9	189.3	193.6	195.0	226.0
	EI	28.1	29.8	31.4	33.6	35.0	36.8	38.1	38.9	39.5	39.8	40.0	40.1	39.6	39.2	39.0	28.8
	Sk	-32.3	-30.4	-28.4	-18.0	-15.4	-11.3	-7.2	-11.1	-8.0	-4.9	-1.7	0.6	6.8	9.8	10.8	31.6
Metz N 49.1, E 6.2	Az	136.3	139.6	142.9	148.0	151.9	157.6	163.0	167.1	171.0	175.0	178.9	181.9	189.5	193.4	194.7	224.1
	EI	24.1	25.6	26.9	28.7	29.8	31.3	32.3	32.9	33.3	33.6	33.7	33.7	33.2	32.8	32.6	24.0
	Sk	-26.9	-25.1	-23.3	-13.3	-11.0	-7.5	-4.0	-8.4	-5.9	-3.3	-0.7	1.2	6.2	8.7	9.6	27.1
Montpellier N 43.6, E 3.9	Az	131.3	134.5	137.7	142.8	146.8	152.7	158.4	162.7	166.9	171.2	175.5	178.7	187.1	191.4	192.8	224.3
	EI	27.0	28.7	30.3	32.6	34.1	36.0	37.4	38.3	38.9	39.3	39.6	39.7	39.5	39.1	38.9	29.4
	Sk	-32.9	-31.1	-29.2	-18.9	-16.4	-12.4	-8.5	-12.4	-9.4	-6.4	-3.3	-0.9	5.1	8.2	9.2	30.4
Mulhouse N 47.7, E 7.3	Az	136.9	140.1	143.5	148.7	152.7	158.6	164.1	168.3	172.3	176.4	180.4	183.4	191.2	195.1	196.4	225.9
	EI	25.8	27.2	28.5	30.4	31.6	33.0	34.0	34.6	34.9	35.1	35.2	35.2	34.6	34.1	33.9	24.5
	Sk	-27.4	-25.6	-23.6	-13.5	-11.0	-7.2	-3.6	-7.8	-5.2	-2.5	0.3	2.3	7.5	10.1	11.0	28.9

Nancy N 48.7, E 6.2	Az	136.2	139.4	142.7	147.8	151.7	157.5	162.9	167.1	171.0	175.0	178.9	181.9	189.6	193.5	194.8	224.3
	EI	24.5	25.9	27.2	29.0	30.2	31.7	32.7	33.3	33.7	34.0	34.1	34.1	33.7	33.2	33.1	24.3
	Sk	-27.2	-25.5	-23.6	-13.6	-11.2	-7.6	-4.2	-8.5	-5.9	-3.3	-0.7	1.2	6.3	8.8	9.7	27.4
Nantes N 47.2, W 1.6	Az	127.6	130.6	133.6	138.4	142.0	147.4	152.6	156.6	160.5	164.4	168.4	171.3	179.2	183.3	184.6	216.4
	EI	21.4	23.1	24.7	26.9	28.5	30.5	32.1	33.1	33.9	34.6	35.1	35.4	35.7	35.7	35.7	29.1
	Sk	-32.6	-31.1	-29.5	-19.8	-17.7	-14.5	-11.2	-15.6	-13.1	-10.6	-7.9	-5.9	-0.6	2.2	3.1	23.8
Nizza N 43.7, E 7.3	Az	134.9	138.2	141.6	147.0	151.1	157.2	163.0	167.5	171.8	176.1	180.4	183.6	191.9	196.1	197.5	227.8
	EI	28.9	30.5	32.0	34.1	35.4	37.0	38.2	38.9	39.3	39.5	39.6	39.5	38.9	38.3	38.1	27.4
	Sk	-30.8	-28.8	-26.7	-16.2	-13.5	-9.3	-5.2	-9.0	-5.9	-2.8	0.3	2.6	8.6	11.6	12.6	32.4
Orleans N 47.9, E 1.9	Az	131.4	134.5	137.6	142.6	146.3	151.9	157.2	161.3	165.2	169.1	173.1	176.1	183.9	187.9	189.3	220.0
	EI	22.8	24.4	25.9	28.0	29.4	31.1	32.5	33.3	33.9	34.4	34.8	34.9	34.9	34.7	34.6	26.9
	Sk	-30.2	-28.6	-26.9	-17.1	-14.8	-11.4	-8.0	-12.4	-9.9	-7.3	-4.6	-2.6	2.6	5.3	6.2	25.5
Paris N 48.9, E 2.3	Az	132.2	135.3	138.5	143.4	147.2	152.8	158.0	162.1	165.9	169.8	173.8	176.7	184.4	188.3	189.7	220.0
	EI	22.3	23.9	25.3	27.3	28.6	30.3	31.6	32.4	32.9	33.4	33.7	33.8	33.8	33.6	33.4	25.9
	Sk	-29.1	-27.5	-25.8	-16.1	-13.9	-10.5	-7.2	-11.7	-9.2	-6.7	-4.1	-2.2	2.9	5.5	6.3	25.0
Quimper N 48.0, W 4.2	Az	125.5	128.4	131.3	136.0	139.5	144.8	149.8	153.7	157.4	161.2	165.1	168.0	175.7	179.7	181.1	213.0
	EI	19.4	21.1	22.7	25.0	26.6	28.7	30.4	31.5	32.4	33.2	33.8	34.2	34.8	34.9	34.9	29.5
	Sk	-33.0	-31.7	-30.2	-20.7	-18.8	-15.7	-12.7	-17.3	-14.9	-12.5	-9.9	-8.0	-2.9	-0.2	0.7	21.4
Reims N 49.3, E 4.0	Az	134.1	137.3	140.5	145.5	149.3	155.0	160.3	164.3	168.2	172.1	176.1	178.9	186.6	190.5	191.8	221.7
	EI	22.9	24.4	25.7	27.6	28.9	30.4	31.6	32.3	32.8	33.2	33.4	33.4	33.2	32.9	32.8	24.8
	Sk	-27.9	-26.3	-24.5	-14.7	-12.4	-9.0	-5.7	-10.1	-7.7	-5.1	-2.6	-0.7	4.3	6.8	7.7	25.7
Rennes N 48.1, W 1.7	Az	127.9	130.9	133.9	138.7	142.3	147.7	152.8	156.8	160.6	164.5	168.4	171.3	179.1	183.1	184.4	215.9
	EI	20.7	22.4	24.0	26.2	27.7	29.6	31.2	32.2	33.0	33.6	34.1	34.4	34.8	34.7	34.7	28.4
	Sk	-31.8	-30.3	-28.8	-19.2	-17.1	-13.9	-10.8	-15.3	-12.8	-10.3	-7.7	-5.8	-0.6	2.1	3.0	23.0
Rouen N 49.5, E 1.1	Az	131.3	134.3	137.5	142.4	146.1	151.5	156.7	160.7	164.5	168.4	172.3	175.1	182.8	186.7	188.0	218.4
	EI	21.3	22.8	24.3	26.3	27.6	29.3	30.6	31.5	32.1	32.6	33.0	33.1	33.2	33.0	32.9	26.0
	Sk	-29.2	-27.7	-26.0	-16.4	-14.3	-11.0	-7.9	-12.4	-10.0	-7.5	-5.0	-3.2	1.8	4.3	5.2	23.8
St.-Etienne N 45.4, E 4.4	Az	132.8	135.9	139.2	144.3	148.2	154.1	159.6	163.9	168.0	172.2	176.4	179.4	187.6	191.7	193.1	223.9
	EI	26.0	27.6	29.1	31.3	32.7	34.4	35.7	36.5	37.0	37.4	37.7	37.7	37.5	37.1	36.9	27.7
	Sk	-31.0	-29.3	-27.3	-17.2	-14.7	-10.9	-7.1	-11.2	-8.4	-5.5	-2.6	-0.4	5.3	8.2	9.2	29.1
St.-Nazaire N 47.3, W 2.2	Az	127.1	130.0	133.0	137.8	141.4	146.8	151.9	155.9	159.7	163.6	167.6	170.5	178.4	182.5	183.8	215.7
	EI	21.0	22.7	24.3	26.6	28.1	30.2	31.8	32.8	33.6	34.3	34.9	35.2	35.6	35.6	35.6	29.3
	Sk	-32.8	-31.3	-29.7	-20.1	-18.0	-14.8	-11.6	-16.1	-13.6	-11.0	-8.4	-6.4	-1.1	1.7	2.6	23.3
St.-Quentin N 49.8, E 3.3	Az	133.6	136.8	140.0	144.9	148.7	154.3	159.6	163.6	167.4	171.3	175.2	178.0	185.6	189.5	190.8	220.7
	EI	22.2	23.7	25.0	26.9	28.2	29.7	30.9	31.6	32.2	32.5	32.8	32.9	32.8	32.5	32.4	24.8
	Sk	-27.9	-26.3	-24.5	-14.8	-12.6	-9.3	-6.0	-10.5	-8.1	-5.6	-3.1	-1.3	3.6	6.1	7.0	24.9
Straßburg N 48.6, E 7.8	Az	137.8	141.1	144.4	149.7	153.6	159.5	165.0	169.1	173.1	177.1	181.1	184.0	191.7	195.6	196.9	226.0
	EI	25.3	26.7	28.0	29.7	30.8	32.2	33.1	33.7	34.0	34.2	34.2	34.1	33.6	33.1	32.9	23.5
	Sk	-26.4	-24.6	-22.6	-12.5	-10.1	-6.4	-2.9	-7.2	-4.6	-1.9	0.7	2.6	7.7	10.2	11.1	28.4

Toulouse N 43.6, E 1.5	Az	128.9	132.0	135.1	140.1	143.9	149.6	155.2	159.4	163.6	167.8	172.1	175.2	183.6	188.0	189.4	221.6
	EI	25.6	27.3	29.0	31.4	33.0	35.1	36.7	37.6	38.4	39.0	39.4	39.6	39.7	39.4	39.3	30.7
	Sk	-34.3	-32.6	-30.7	-20.7	-18.3	-14.5	-10.7	-14.7	-11.8	-8.8	-5.8	-3.5	2.6	5.8	6.8	28.8
Tours N 47.4, E 0.7	Az	130.0	133.0	136.1	141.0	144.7	150.3	155.6	159.6	163.5	167.5	171.5	174.4	182.3	186.4	187.7	218.9
	EI	22.5	24.2	25.7	27.9	29.3	31.2	32.6	33.5	34.2	34.8	35.2	35.4	35.5	35.3	35.2	27.9
	Sk	-31.3	-29.7	-28.0	-18.2	-16.0	-12.6	-9.3	-13.6	-11.1	-8.5	-5.8	-3.8	1.6	4.3	5.2	25.2
Verdun N 49.2, E 5.4	Az	135.6	138.7	142.0	147.1	151.0	156.7	162.0	166.1	170.0	173.9	177.9	180.8	188.4	192.3	193.6	223.2
	EI	23.7	25.1	26.4	28.3	29.5	30.9	32.0	32.6	33.1	33.4	33.5	33.6	33.2	32.8	32.7	24.3
	Sk	-27.2	-25.5	-23.7	-13.8	-11.5	-8.0	-4.6	-9.0	-6.5	-4.0	-1.4	0.5	5.5	8.0	8.9	26.6