

Azimut-/Elevations-Tabelle

Deutschland O=Ost W=West öL=östliche Länge B=Breite Az=Azimut El=Elevation

		TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
		42.0° O	28.2° O	19.2° O	16.0° O	13.0° O	10.0° O	7.0° O	1.0° W	5.0° W	30.0° W
Aachen	Az:	136.9	152.3	163.3	167.3	171.1	174.9	178.8	189.1	194.2	223.2
öL 6.1; B + 50.8	El:	22.8	28.2	30.5	31.1	31.5	31.7	31.8	31.5	30.9	22.7
Aalen	Az:	140.4	156.5	168.0	172.2	176.2	180.1	184.1	194.6	199.7	228.2
öL 10.1; B + 48.8	El:	26.2	31.3	33.3	33.7	33.9	34.0	33.9	33.0	32.1	22.2
Amberg	Az:	142.6	158.9	170.4	174.5	178.5	182.4	186.4	196.7	201.7	229.7
öL 11.9; B + 49.5	El:	26.4	31.2	32.9	33.2	33.3	33.3	33.1	32.0	31.0	20.9
Aschaffenburg	Az:	139.9	155.7	167.0	171.1	175.0	178.9	182.8	193.2	198.2	226.8
öL 9.2; B + 50.0	El:	24.8	29.9	31.9	32.4	32.6	32.7	32.7	31.9	31.2	21.9
Augsburg	Az:	141.1	157.4	169.0	173.2	177.2	181.2	185.2	195.7	200.9	229.2
öL 10.9; B + 48.4	El:	26.9	32.0	33.9	34.3	34.4	34.5	34.4	33.3	32.4	22.1
Bad Hersfeld	Az:	140.8	156.7	167.8	171.9	175.8	179.6	183.5	193.7	198.7	227.0
öL 9.7; B + 50.9	El:	24.3	29.2	31.1	31.5	31.7	31.8	31.7	30.9	30.1	20.9
Bad Homburg	Az:	139.4	155.2	166.3	170.4	174.3	178.2	182.1	192.4	197.5	226.1
öL 8.6; B + 50.2	El:	24.4	29.5	31.6	32.0	32.3	32.4	32.4	31.7	31.0	21.9
Bad Neuenahr	Az:	137.9	153.5	164.5	168.6	172.4	176.3	180.2	190.5	195.5	224.4
öL 7.1; B + 50.6	El:	23.5	28.8	31.0	31.5	31.8	32.0	32.1	31.6	31.0	22.4
Bad Reichenhall	Az:	143.0	159.7	171.5	175.8	179.8	183.9	187.9	198.5	203.6	231.5
öL 12.9; B + 47.7	El:	28.3	33.2	34.8	35.1	35.2	35.1	34.9	33.5	32.5	21.4
Baden-Baden	Az:	138.4	154.2	165.6	169.7	173.7	177.7	181.6	192.2	197.4	226.3
öL 8.2; B + 48.8	El:	25.4	30.8	33.1	33.5	33.9	34.0	34.0	33.3	32.6	23.2
Bamberg	Az:	141.7	157.8	169.2	173.3	177.2	181.2	185.1	195.4	200.4	228.5
öL 10.9; B + 49.9	El:	25.6	30.5	32.3	32.6	32.8	32.8	32.7	31.7	30.8	21.0
Bayreuth	Az:	142.5	158.7	170.1	174.2	178.1	182.1	186.0	196.3	201.3	229.2
öL 11.6; B + 50.0	El:	25.9	30.6	32.3	32.6	32.7	32.7	32.6	31.5	30.6	20.6
Bergen	Az:	146.2	162.0	172.9	176.8	180.5	184.2	187.9	197.6	202.3	229.3
öL 13.4; B + 54.4	El:	22.7	26.5	27.7	27.9	27.9	27.8	27.6	26.5	25.7	16.7
Berlin	Az:	145.5	161.6	172.7	176.7	180.5	184.3	188.1	197.9	202.8	230.0
öL 13.4; B + 52.5	El:	24.4	28.4	29.7	29.9	30.0	29.9	29.7	28.5	27.6	18.0
Bielefeld	Az:	140.0	155.6	166.6	170.6	174.3	178.1	181.9	192.0	197.0	225.3
öL 8.5; B + 52.0	El:	22.9	27.7	29.7	30.1	30.4	30.5	30.5	29.8	29.2	20.7
Bingen	Az:	139.2	155.3	166.8	171.0	175.0	179.0	183.0	193.7	198.9	227.7
öL 9.3; B + 48.1	El:	26.4	31.8	33.9	34.4	34.6	34.8	34.7	33.9	33.0	23.1
Bonn	Az:	138.0	153.5	164.5	168.6	172.4	176.3	180.1	190.4	195.5	224.3
öL 7.1; B + 50.7	El:	23.3	28.6	30.8	31.3	31.6	31.8	31.9	31.4	30.8	22.3
Braunschweig	Az:	142.3	158.1	169.1	173.1	176.9	180.7	184.5	194.5	199.4	227.2
öL 10.5; B + 52.3	El:	23.5	28.0	29.7	30.0	30.2	30.2	30.1	29.3	28.5	19.5
Bremen	Az:	140.7	156.2	167.1	171.0	174.8	178.5	182.3	192.2	197.1	225.2
öL 8.8; B + 53.1	El:	22.1	26.8	28.6	29.0	29.2	29.3	29.3	28.7	28.0	19.7
Bremerhaven	Az:	140.6	156.1	166.9	170.8	174.5	178.2	182.0	191.9	196.7	224.8
öL 8.6; B + 53.6	El:	21.7	26.2	28.1	28.5	28.7	28.8	28.8	28.2	27.6	19.5
Celle	Az:	141.9	157.6	168.6	172.6	176.3	180.1	183.9	193.8	198.7	226.6
öL 10.1; B + 52.6	El:	23.0	27.5	29.2	29.6	29.8	29.8	29.8	29.0	28.2	19.5
Chemnitz	Az:	144.3	160.6	171.9	176.0	179.9	183.8	187.6	197.7	202.6	230.2
öL 12.9; B + 50.8	El:	25.7	30.0	31.5	31.7	31.8	31.7	31.5	30.3	29.4	19.4
Coburg	Az:	142.0	158.0	169.3	173.5	177.4	181.3	185.2	195.4	200.4	228.5
öL 11.0; B + 50.3	El:	25.4	30.1	31.9	32.2	32.4	32.4	32.3	31.3	30.4	20.7
Cottbus	Az:	146.3	162.6	173.8	177.9	181.7	185.5	189.3	199.2	204.1	231.2
öL 14.3; B + 51.8	El:	25.4	29.4	30.6	30.8	30.8	30.6	30.4	29.1	28.1	18.0
Darmstadt	Az:	139.3	155.1	166.3	170.4	174.3	178.2	182.2	192.5	197.6	226.3
öL 8.7; B + 49.9	El:	24.7	29.9	32.0	32.4	32.7	32.8	32.8	32.1	31.4	22.2
Deggendorf	Az:	143.6	160.1	171.7	176.0	180.0	183.9	187.9	198.3	203.3	231.1
öL 13.0; B + 48.8	El:	27.4	32.1	33.7	33.9	34.0	33.9	33.7	32.4	31.4	20.7
Donaueschingen	Az:	138.3	154.3	165.7	169.9	173.9	178.0	182.0	192.7	197.9	227.0
öL 8.5; B + 48.0	El:	26.2	31.7	34.0	34.5	34.8	34.9	34.9	34.2	33.4	23.7
Donauwörth	Az:	141.1	157.3	168.9	173.1	177.1	181.0	185.0	195.5	200.6	228.9
öL 10.8; B + 48.7	El:	26.6	31.6	33.5	33.9	34.1	34.1	34.0	33.0	32.1	21.9
Dortmund	Az:	138.7	154.2	165.1	169.1	172.9	176.8	180.6	190.8	195.8	224.4
öL 7.5; B + 51.5	El:	22.8	27.9	30.0	30.5	30.8	31.0	31.0	30.5	29.9	21.5
Dresden	Az:	145.3	161.7	173.0	177.1	181.0	184.8	188.6	198.7	203.6	230.9
öL 13.7; B + 51.1	El:	25.8	30.0	31.3	31.5	31.6	31.5	31.2	29.9	28.9	18.8
Duisburg	Az:	137.9	153.3	164.3	168.3	172.0	175.9	179.7	189.9	194.9	223.7
öL 6.8; B + 51.4	El:	22.6	27.8	30.0	30.5	30.8	31.1	31.1	30.7	30.1	21.9
Düsseldorf	Az:	137.8	153.3	164.2	168.2	172.0	175.9	179.7	189.9	195.0	223.8
öL 6.8; B + 51.2	El:	22.8	28.0	30.2	30.7	31.1	31.3	31.4	30.9	30.3	22.1
Elmshorn	Az:	141.9	157.4	168.2	172.1	175.8	179.6	183.3	193.1	198.0	225.8
öL 9.7; B + 53.8	El:	21.9	26.3	28.0	28.4	28.6	28.6	28.6	27.9	27.2	18.9

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	TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
	42.0° O	28.2° O	19.2° O	16.0° O	13.0° O	10.0° O	7.0° O	1.0° W	5.0° W	30.0° W
Emden	Az: 139.1	154.4	165.2	169.1	172.8	176.5	180.2	190.2	195.1	223.4
öL 7.2; B + 53.4	El: 21.2	26.1	28.0	28.5	28.8	29.0	29.0	28.6	28.0	20.2
Erfurt	Az: 142.3	158.3	169.5	173.6	177.5	181.3	185.2	195.3	200.3	228.2
öL 11.0; B + 51.0	El: 24.8	29.4	31.1	31.4	31.6	31.6	31.5	30.5	29.7	20.2
Essen	Az: 138.2	153.6	164.6	168.6	172.4	176.2	180.0	190.2	195.2	223.9
öL 7.0; B + 51.5	El: 22.7	27.8	30.0	30.5	30.8	31.0	31.1	30.6	30.0	21.8
Feuchtwangen	Az: 140.8	156.9	168.3	172.5	176.5	180.4	184.4	194.8	199.9	228.3
öL 10.3; B + 49.2	El: 26.0	31.1	33.0	33.3	33.5	33.6	33.5	32.6	31.7	21.8
Flensburg	Az: 142.0	157.4	168.1	172.0	175.6	179.3	183.0	192.7	197.5	225.2
öL 9.4; B + 54.8	El: 21.0	25.2	26.9	27.2	27.4	27.5	27.5	26.8	26.2	18.2
Frankfurt am Main	Az: 139.4	155.2	166.4	170.5	174.4	178.3	182.2	192.5	197.6	226.2
öL 8.7; B + 50.1	El: 24.5	29.6	31.7	32.1	32.4	32.6	32.5	31.8	31.1	22.0
Frankfurt an der Oder	Az: 146.7	162.9	174.1	178.2	182.0	185.7	189.5	199.4	204.2	231.2
öL 14.5; B + 52.3	El: 25.0	28.8	30.0	30.1	30.1	30.0	29.7	28.4	27.5	17.5
Freiburg im Breisgau	Az: 137.6	153.5	164.9	169.1	173.1	177.1	181.1	191.8	197.1	226.3
öL 7.9; B + 48.0	El: 25.8	31.5	33.8	34.3	34.7	34.8	34.9	34.2	33.5	24.0
Freising	Az: 142.1	158.5	170.1	174.3	178.3	182.3	186.3	196.8	201.9	230.0
öL 11.8; B + 48.4	El: 27.3	32.2	34.0	34.3	34.4	34.4	34.3	33.1	32.1	21.6
Fulda	Az: 140.7	156.6	167.8	171.8	175.7	179.6	183.5	193.7	198.7	227.1
öL 9.7; B + 50.6	El: 24.6	29.5	31.4	31.8	32.0	32.1	32.0	31.2	30.4	21.2
Garmisch-Partenkirchen	Az: 140.9	157.4	169.1	173.4	177.4	181.5	185.6	196.2	201.4	229.8
öL 11.1; B + 47.5	El: 27.7	32.9	34.9	35.2	35.4	35.4	35.3	34.2	33.2	22.6
Gera	Az: 143.4	159.6	170.8	174.9	178.8	182.7	186.5	196.7	201.6	229.3
öL 12.1; B + 50.9	El: 25.3	29.8	31.4	31.6	31.7	31.7	31.5	30.4	29.5	19.8
Görlitz	Az: 146.8	163.2	174.6	178.7	182.6	186.4	190.2	200.2	205.0	232.1
öL 15.0; B + 51.2	El: 26.2	30.1	31.3	31.4	31.4	31.3	31.0	29.5	28.5	18.1
Goslar	Az: 142.0	157.8	168.9	172.9	176.7	180.6	184.4	194.4	199.3	227.3
öL 10.4; B + 51.9	El: 23.8	28.4	30.1	30.4	30.6	30.6	30.5	29.7	28.9	19.8
Göttingen	Az: 141.3	157.1	168.2	172.3	176.1	179.9	183.7	193.9	198.8	226.9
öL 9.9; B + 51.5	El: 23.9	28.6	30.4	30.8	31.0	31.0	31.0	30.1	29.4	20.4
Greifswald	Az: 146.0	161.9	172.8	176.8	180.5	184.2	187.9	197.6	202.3	229.4
öL 13.4; B + 54.1	El: 23.0	26.8	28.0	28.2	28.3	28.2	28.0	26.9	26.0	16.9
Halberstadt	Az: 142.7	158.6	169.7	173.7	177.5	181.3	185.1	195.2	200.1	227.9
öL 11.0; B + 51.9	El: 24.0	28.5	30.1	30.5	30.6	30.6	30.5	29.6	28.8	19.6
Halle	Az: 141.1	156.8	167.8	171.9	175.6	179.5	183.3	193.3	198.3	226.4
öL 9.6; B + 52.0	El: 23.3	28.0	29.8	30.2	30.4	30.5	30.5	29.7	29.0	20.2
Hamburg	Az: 142.2	157.8	168.7	172.6	176.3	180.0	183.8	193.6	198.5	226.2
öL 10.0; B + 53.6	El: 22.2	26.6	28.3	28.6	28.8	28.8	28.8	28.0	27.3	18.8
Hamel	Az: 140.9	156.6	167.6	171.6	175.4	179.2	183.0	193.0	198.0	226.1
öL 9.4; B + 52.1	El: 23.2	27.9	29.7	30.1	30.3	30.4	30.4	29.6	28.9	20.2
Hamm	Az: 139.1	154.7	165.6	169.6	173.4	177.2	181.0	191.2	196.2	224.7
öL 7.8; B + 51.7	El: 22.9	27.9	29.9	30.4	30.7	30.8	30.9	30.3	29.7	21.2
Hannover	Az: 141.4	157.1	168.1	172.1	175.9	179.7	183.4	193.5	198.4	226.4
öL 9.7; B + 52.4	El: 23.1	27.7	29.5	29.8	30.0	30.1	30.1	29.3	28.6	19.8
Heide	Az: 141.4	156.9	167.6	171.5	175.2	178.9	182.6	192.4	197.2	225.1
öL 9.1; B + 54.2	El: 21.3	25.7	27.5	27.8	28.0	28.1	28.1	27.5	26.8	18.8
Heidelberg	Az: 139.1	155.0	166.3	170.4	174.3	178.3	182.2	192.7	197.8	226.5
öL 8.7; B + 49.4	El: 25.1	30.3	32.5	32.9	33.2	33.3	33.3	32.6	31.9	22.5
Heilbronn	Az: 139.6	155.5	166.9	171.1	175.0	179.0	182.9	193.4	198.5	227.2
öL 9.2; B + 49.2	El: 25.5	30.8	32.8	33.2	33.5	33.6	33.6	32.8	32.0	22.4
Hildesheim	Az: 141.6	157.3	168.3	172.4	176.1	179.9	183.7	193.8	198.7	226.7
öL 10.0; B + 52.2	El: 23.4	28.0	29.7	30.1	30.3	30.4	30.3	29.5	28.8	19.9
Hof	Az: 143.0	159.2	170.6	174.7	178.6	182.5	186.4	196.6	201.6	229.4
öL 11.9; B + 50.3	El: 25.7	30.3	31.9	32.2	32.3	32.3	32.2	31.1	30.2	20.2
Ingolstadt	Az: 141.9	158.2	169.7	173.9	177.9	181.9	185.9	196.3	201.4	229.6
öL 11.4; B + 48.8	El: 26.8	31.8	33.5	33.9	34.0	34.0	33.9	32.8	31.8	21.5
Iserlohn	Az: 138.9	154.4	165.4	169.4	173.2	177.1	180.9	191.1	196.1	224.7
öL 7.7; B + 51.4	El: 23.0	28.1	30.2	30.7	31.0	31.2	31.2	30.6	30.0	21.5
Kaiserslautern	Az: 138.2	153.9	165.1	169.2	173.1	177.1	181.0	191.5	196.6	225.6
öL 7.8; B + 49.5	El: 24.6	30.0	32.2	32.8	33.1	33.3	33.3	32.7	32.0	22.9
Karlsruhe	Az: 138.6	154.5	165.8	170.0	173.9	177.9	181.9	192.4	197.5	226.4
öL 8.4; B + 49.0	El: 25.3	30.6	32.8	33.3	33.6	33.8	33.8	33.0	32.3	22.9
Kassel	Az: 140.8	156.6	167.6	171.7	175.5	179.4	183.2	193.4	198.3	226.6
öL 9.5; B + 51.3	El: 23.9	28.7	30.6	30.9	31.2	31.3	31.2	30.4	29.7	20.7
Kempten (Allgäu)	Az: 140.2	156.4	168.1	172.3	176.4	180.4	184.5	195.1	200.3	228.9
öL 10.3; B + 47.7	El: 27.2	32.5	34.5	34.9	35.1	35.2	35.1	34.1	33.2	22.9
Kiefersfelden	Az: 142.2	158.8	170.5	174.8	178.9	183.0	187.0	197.6	202.7	230.8
öL 12.2; B + 47.6	El: 28.1	33.1	34.9	35.2	35.3	35.3	35.1	33.8	32.8	21.9

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		TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
		42.0° O	28.2° O	19.2° O	16.0° O	13.0° O	10.0° O	7.0° O	1.0° W	5.0° W	30.0° W
Kiel	Az:	142.6	158.1	168.9	172.8	176.5	180.2	183.9	193.6	198.4	226.1
öL 10.1; B + 54.3	El:	21.6	25.9	27.5	27.8	28.0	28.0	27.9	27.2	26.5	18.2
Koblenz	Az:	138.4	154.0	165.1	169.1	173.0	176.9	180.8	191.1	196.2	225.0
öL 7.6; B + 50.4	El:	23.8	29.1	31.3	31.8	32.1	32.3	32.3	31.7	31.1	22.3
Köln	Az:	137.9	153.4	164.4	168.4	172.2	176.1	179.9	190.2	195.2	224.1
öL 7.0; B + 51.0	El:	23.1	28.3	30.5	31.0	31.4	31.6	31.7	31.2	30.6	22.2
Konstanz	Az:	138.9	155.0	166.6	170.8	174.8	178.9	183.0	193.7	198.9	227.8
öL 9.2; B + 47.7	El:	26.7	32.2	34.4	34.8	35.1	35.2	35.2	34.4	33.5	23.5
Krefeld	Az:	137.7	153.1	164.0	168.0	171.8	175.6	179.4	189.7	194.7	223.5
öL 6.6; B + 51.3	El:	22.6	27.8	30.1	30.6	30.9	31.2	31.2	30.8	30.2	22.1
Kulmbach	Az:	142.4	158.6	169.9	174.1	178.0	181.9	185.8	196.1	201.0	229.0
öL 11.5; B + 50.1	El:	25.7	30.4	32.1	32.4	32.6	32.6	32.4	31.4	30.5	20.6
Landau in der Pfalz	Az:	138.4	154.2	165.5	169.6	173.6	177.5	181.5	192.0	197.1	226.0
öL 8.1; B + 49.2	El:	25.0	30.4	32.6	33.1	33.4	33.5	33.6	32.9	32.2	22.9
Landsberg am Lech	Az:	140.9	157.3	168.9	173.1	177.2	181.2	185.2	195.8	200.9	229.3
öL 10.9; B + 48.1	El:	27.2	32.3	34.2	34.6	34.8	34.8	34.7	33.6	32.7	22.3
Landshut	Az:	142.6	159.0	170.6	174.9	178.9	182.9	186.9	197.3	202.4	230.4
öL 12.2; B + 48.5	El:	27.3	32.2	33.9	34.2	34.3	34.3	34.1	32.9	31.9	21.3
Leipzig	Az:	143.9	160.1	171.3	175.4	179.2	183.0	186.9	196.9	201.8	229.4
öL 12.4; B + 51.3	El:	25.0	29.4	30.9	31.1	31.2	31.2	31.0	29.9	29.0	19.3
Lindau	Az:	142.3	157.9	168.6	172.5	176.2	179.9	183.6	193.3	198.1	225.8
öL 9.9; B + 54.4	El:	21.5	25.8	27.4	27.7	27.9	28.0	27.9	27.2	26.5	18.3
Lingen (Ems)	Az:	138.9	154.3	165.1	169.1	172.9	176.6	180.4	190.4	195.4	223.8
öL 7.3; B + 52.5	El:	22.0	26.9	29.0	29.4	29.7	29.9	30.0	29.5	28.9	20.8
Lübeck	Az:	143.0	158.7	169.5	173.4	177.1	180.8	184.6	194.4	199.2	226.8
öL 10.7; B + 53.9	El:	22.2	26.4	28.0	28.3	28.5	28.5	28.4	27.6	26.8	18.3
Lüneburg	Az:	142.5	158.2	169.1	173.0	176.8	180.5	184.3	194.1	199.0	226.7
öL 10.4; B + 53.3	El:	22.6	27.0	28.6	29.0	29.1	29.2	29.1	28.3	27.5	18.9
Magdeburg	Az:	143.4	159.3	170.4	174.5	178.3	182.1	185.8	195.8	200.7	228.4
öL 11.6; B + 52.1	El:	24.1	28.4	30.0	30.3	30.4	30.4	30.2	29.2	28.4	19.1
Mainz	Az:	138.9	154.7	165.8	169.9	173.8	177.7	181.7	192.0	197.1	225.8
öL 8.3; B + 50.0	El:	24.4	29.6	31.8	32.2	32.5	32.7	32.7	32.0	31.3	22.3
Mannheim	Az:	138.9	154.7	166.0	170.1	174.0	178.0	181.9	192.4	197.5	226.3
öL 8.5; B + 49.5	El:	24.9	30.2	32.3	32.8	33.1	33.2	33.2	32.5	31.8	22.6
Marburg	Az:	139.8	155.5	166.6	170.7	174.5	178.4	182.3	192.5	197.5	226.0
öL 8.8; B + 50.8	El:	24.0	29.0	31.0	31.4	31.7	31.8	31.8	31.1	30.4	21.4
Memmingen	Az:	140.1	156.4	167.9	172.2	176.2	180.2	184.3	194.9	200.1	228.7
öL 10.2; B + 48.0	El:	26.9	32.2	34.2	34.6	34.8	34.9	34.8	33.8	33.0	22.8
Meschede	Az:	139.5	155.1	166.1	170.2	174.0	177.8	181.6	191.8	196.8	225.3
öL 8.3; B + 51.4	El:	23.3	28.3	30.3	30.8	31.1	31.2	31.2	30.6	29.9	21.3
Minden	Az:	140.5	156.1	167.1	171.1	174.8	178.6	182.4	192.5	197.4	225.6
öL 8.9; B + 52.3	El:	22.8	27.6	29.4	29.8	30.1	30.2	30.2	29.5	28.8	20.3
Mönchengladbach	Az:	137.5	152.9	163.8	167.8	171.6	175.4	179.3	189.5	194.5	223.4
öL 6.4; B + 51.2	El:	22.6	27.9	30.2	30.7	31.1	31.3	31.4	31.0	30.4	22.2
Mühdorf am Inn	Az:	142.9	159.4	171.1	175.4	179.4	183.4	187.4	197.9	203.0	230.9
öL 12.5; B + 48.2	El:	27.8	32.6	34.3	34.5	34.6	34.6	34.4	33.1	32.1	21.3
Mühlhausen	Az:	139.1	155.0	166.3	170.4	174.4	178.3	182.3	192.8	197.9	226.6
öL 8.7; B + 49.3	El:	25.2	30.5	32.6	33.1	33.4	33.5	33.5	32.7	32.0	22.6
München	Az:	141.7	158.1	169.8	174.1	178.1	182.1	186.1	196.7	201.8	230.0
öL 11.6; B + 48.1	El:	27.4	32.4	34.2	34.6	34.7	34.7	34.6	33.4	32.4	21.9
Münster	Az:	139.5	155.4	166.6	170.7	174.6	178.5	182.4	192.8	197.9	226.5
öL 8.9; B + 49.9	El:	24.7	29.9	31.9	32.4	32.6	32.8	32.7	32.0	31.3	22.0
Neubrandenburg	Az:	145.7	161.7	172.6	176.6	180.3	184.1	187.8	197.5	202.3	229.5
öL 13.3; B + 53.6	El:	23.4	27.3	28.6	28.8	28.8	28.8	28.6	27.5	26.6	17.3
Nienburg	Az:	143.5	159.4	170.6	174.6	178.4	182.2	186.1	196.1	201.0	228.6
öL 11.8; B + 51.8	El:	24.4	28.7	30.3	30.6	30.7	30.7	30.5	29.5	28.7	19.2
Nordhausen	Az:	142.2	158.2	169.3	173.3	177.2	181.0	184.8	194.9	199.9	227.8
öL 10.8; B + 51.5	El:	24.3	28.8	30.5	30.9	31.0	31.1	31.0	30.0	29.2	20.0
Nürnberg	Az:	141.8	157.9	169.4	173.5	177.5	181.4	185.4	195.7	200.8	228.9
öL 11.1; B + 49.5	El:	26.1	31.0	32.8	33.1	33.3	33.3	33.2	32.1	31.2	21.3
Offenburg	Az:	137.9	153.8	165.1	169.3	173.3	177.3	181.3	191.9	197.1	226.2
öL 8.0; B + 48.5	El:	25.5	31.0	33.3	33.8	34.2	34.3	34.4	33.7	33.0	23.6
Oldenburg	Az:	140.1	155.6	166.4	170.3	174.0	177.8	181.5	191.5	196.4	224.5
öL 8.2; B + 53.2	El:	21.8	26.5	28.4	28.9	29.1	29.3	29.3	28.7	28.1	20.0
Osnabrück	Az:	139.6	155.1	166.0	170.0	173.8	177.5	181.3	191.4	196.3	224.7
öL 8.1; B + 52.3	El:	22.5	27.3	29.3	29.8	30.0	30.2	30.2	29.6	29.0	20.7
Paderborn	Az:	140.1	155.8	166.8	170.8	174.6	178.4	182.2	192.3	197.3	225.6
öL 8.8; B + 51.7	El:	23.2	28.1	30.0	30.4	30.7	30.8	30.8	30.1	29.4	20.8

Deutschland O=Ost W=West öL=östliche Länge B=Breite Az=Azimut El=Elevation

		TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
		42.0° O	28.2° O	19.2° O	16.0° O	13.0° O	10.0° O	7.0° O	1.0° W	5.0° W	30.0° W
Passau	Az: 144.1	160.7	172.4	176.6	180.6	184.6	188.6	199.0	204.0	231.7	
öL 13.5; B + 48.6	El: 27.9	32.5	34.0	34.2	34.3	34.2	33.9	32.5	31.5	20.6	
Pforzheim	Az: 138.9	154.8	166.2	170.3	174.3	178.3	182.3	192.8	197.9	226.8	
öL 8.7; B + 48.9	El: 25.5	30.9	33.0	33.5	33.8	33.9	33.9	33.1	32.4	22.9	
Plauen	Az: 143.3	159.5	170.9	175.0	178.9	182.8	186.6	196.8	201.8	229.5	
öL 12.1; B + 50.5	El: 25.7	30.2	31.8	32.1	32.2	32.1	32.0	30.8	29.9	20.0	
Ravensburg	Az: 139.4	155.6	167.2	171.4	175.4	179.5	183.5	194.2	199.4	228.2	
öL 9.6; B + 47.8	El: 26.8	32.2	34.3	34.8	35.0	35.1	35.1	34.2	33.3	23.2	
Recklinghausen	Az: 138.4	153.9	164.8	168.8	172.6	176.4	180.3	190.4	195.4	224.1	
öL 7.2; B + 51.6	El: 22.6	27.7	29.9	30.4	30.7	30.9	30.9	30.4	29.8	21.6	
Regensburg	Az: 142.7	159.1	170.6	174.8	178.8	182.8	186.7	197.1	202.2	230.1	
öL 12.1; B + 49.0	El: 26.9	31.7	33.4	33.6	33.8	33.7	33.6	32.4	31.4	21.0	
Reutlingen	Az: 139.3	155.3	166.8	171.0	175.0	179.0	183.0	193.5	198.7	227.5	
öL 9.2; B + 48.5	El: 26.1	31.4	33.5	34.0	34.2	34.3	34.3	33.5	32.7	22.9	
Rosenheim	Az: 142.2	158.8	170.5	174.8	178.8	182.9	186.9	197.5	202.6	230.7	
öL 12.1; B + 47.9	El: 27.9	32.9	34.6	34.9	35.0	35.0	34.8	33.6	32.6	21.8	
Rostock	Az: 144.7	160.4	171.3	175.2	178.9	182.6	186.3	196.1	200.8	228.2	
öL 12.1; B + 54.1	El: 22.6	26.5	27.9	28.2	28.3	28.2	28.1	27.1	26.3	17.5	
Saarbrücken	Az: 137.2	152.9	164.1	168.2	172.1	176.0	180.0	190.5	195.7	224.9	
öL 7.0; B + 49.2	El: 24.4	30.0	32.3	32.9	33.2	33.5	33.5	33.0	32.4	23.5	
Salzgitter	Az: 142.1	157.9	168.9	172.9	176.7	180.5	184.3	194.4	199.3	227.2	
öL 10.4; B + 52.1	El: 23.6	28.1	29.8	30.2	30.4	30.4	30.3	29.5	28.7	19.7	
Schweinfurt	Az: 141.1	157.1	168.4	172.5	176.4	180.3	184.2	194.5	199.6	227.8	
öL 10.2; B + 50.1	El: 25.2	30.1	32.0	32.4	32.6	32.6	32.6	31.7	30.8	21.3	
Schwerin	Az: 143.7	159.5	170.4	174.3	178.0	181.8	185.5	195.3	200.1	227.6	
öL 11.4; B + 53.6	El: 22.7	26.9	28.3	28.6	28.7	28.8	28.6	27.7	26.9	18.2	
Siegen	Az: 139.0	154.7	165.7	169.8	173.6	177.5	181.3	191.6	196.6	225.2	
öL 8.0; B + 50.9	El: 23.6	28.7	30.8	31.3	31.5	31.7	31.7	31.1	30.4	21.7	
Singen (Hohentwiel)	Az: 138.6	154.6	166.1	170.4	174.4	178.4	182.5	193.2	198.4	227.4	
öL 8.8; B + 47.8	El: 26.5	32.0	34.2	34.7	35.0	35.1	35.1	34.3	33.5	23.6	
Speyer	Az: 138.8	154.6	165.9	170.1	174.0	177.9	181.9	192.4	197.5	226.3	
öL 8.4; B + 49.3	El: 25.0	30.4	32.5	33.0	33.3	33.4	33.4	32.7	32.0	22.7	
Starnberg	Az: 141.4	157.8	169.5	173.7	177.8	181.8	185.8	196.4	201.5	229.8	
öL 11.3; B + 48.0	El: 27.4	32.5	34.4	34.7	34.9	34.9	34.7	33.6	32.6	22.1	
Stuttgart	Az: 139.4	155.4	166.8	171.0	174.9	178.9	182.9	193.4	198.6	227.3	
öL 9.2; B + 48.8	El: 25.8	31.1	33.2	33.6	33.9	34.0	34.0	33.2	32.4	22.7	
Traunstein	Az: 142.8	159.4	171.2	175.5	179.5	183.6	187.6	198.1	203.2	231.2	
öL 12.7; B + 47.9	El: 28.1	33.0	34.7	34.9	35.0	35.0	34.8	33.4	32.4	21.5	
Trier	Az: 137.1	152.6	163.7	167.8	171.7	175.6	179.5	190.0	195.1	224.3	
öL 6.7; B + 49.8	El: 23.9	29.4	31.7	32.3	32.6	32.9	33.0	32.5	31.9	23.2	
Tübingen	Az: 139.2	155.2	166.6	170.8	174.8	178.8	182.8	193.3	198.5	227.3	
öL 9.1; B + 48.5	El: 26.0	31.3	33.5	33.9	34.2	34.3	34.3	33.5	32.7	23.0	
Ulm	Az: 140.1	156.2	167.8	172.0	176.0	180.0	184.0	194.5	199.7	228.3	
öL 10.0; B + 48.4	El: 26.5	31.7	33.7	34.1	34.4	34.4	34.4	33.4	32.6	22.6	
Walsrode	Az: 141.5	157.1	168.0	172.0	175.7	179.5	183.3	193.2	198.1	226.1	
öL 9.6; B + 52.9	El: 22.6	27.2	28.9	29.3	29.5	29.6	29.5	28.8	28.1	19.5	
Wesel	Az: 137.8	153.2	164.1	168.1	171.9	175.7	179.5	189.7	194.7	223.5	
öL 6.6; B + 51.7	El: 22.3	27.5	29.7	30.2	30.6	30.8	30.9	30.5	29.9	21.8	
Wetzlar	Az: 139.4	155.1	166.2	170.3	174.2	178.1	181.9	192.2	197.3	225.8	
öL 8.5; B + 50.6	El: 24.1	29.2	31.2	31.7	31.9	32.1	32.1	31.4	30.7	21.8	
Wiesbaden	Az: 138.9	154.7	165.8	169.9	173.8	177.7	181.6	192.0	197.0	225.8	
öL 8.2; B + 50.1	El: 24.3	29.5	31.6	32.1	32.4	32.6	32.6	31.9	31.2	22.2	
Wilhelmshaven	Az: 140.1	155.5	166.3	170.2	173.9	177.7	181.4	191.3	196.2	224.3	
öL 8.1; B + 53.5	El: 21.5	26.2	28.0	28.5	28.7	28.9	28.9	28.3	27.7	19.7	
Wismar	Az: 143.9	159.6	170.5	174.4	178.1	181.8	185.5	195.3	200.1	227.6	
öL 11.5; B + 53.9	El: 22.5	26.6	28.1	28.3	28.5	28.5	28.3	27.4	26.7	17.9	
Wolfsburg	Az: 142.6	158.4	169.4	173.4	177.2	181.0	184.8	194.7	199.6	227.4	
öL 10.8; B + 52.4	El: 23.5	27.9	29.6	29.9	30.0	30.1	30.0	29.1	28.3	19.3	
Worms	Az: 138.9	154.7	165.9	170.0	173.9	177.9	181.8	192.2	197.3	226.1	
öL 8.4; B + 49.6	El: 24.8	30.0	32.2	32.6	32.9	33.1	33.1	32.4	31.7	22.5	
Wuppertal	Az: 138.3	153.8	164.8	168.8	172.6	176.4	180.3	190.5	195.5	224.2	
öL 7.2; B + 51.3	El: 22.9	28.1	30.2	30.7	31.1	31.3	31.3	30.8	30.2	21.8	
Würzburg	Az: 140.6	156.6	167.9	172.1	176.0	179.9	183.8	194.2	199.2	227.6	
öL 9.9; B + 49.8	El: 25.3	30.3	32.2	32.6	32.8	32.9	32.8	32.0	31.2	21.6	
Zweibrücken	Az: 137.6	153.3	164.5	168.7	172.6	176.5	180.5	191.0	196.1	225.2	
öL 7.4; B + 49.3	El: 24.6	30.1	32.4	32.9	33.3	33.5	33.5	32.9	32.3	23.3	
Zwickau	Az: 143.8	160.0	171.4	175.5	179.4	183.2	187.1	197.2	202.2	229.8	
öL 12.5; B + 50.7	El: 25.6	30.0	31.6	31.8	31.9	31.9	31.7	30.5	29.6	19.6	

Österreich

O=Ost W=West öL=östliche Länge B=Breite Az=Azimut El=Elevation

		TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
		42.0° O	28.2° O	19.2° O	16.0° O	13.0° O	10.0° O	7.0° O	1.0° W	5.0° W	30.0° W
Amstetten	Az: 145.4	162.3	174.2	178.5	182.5	186.5	190.5	200.9	205.9	233.2	
öL 14.9; B + 48.1	El: 28.8	33.3	34.6	34.7	34.7	34.6	34.2	32.7	31.5	20.1	
Bad Ischl	Az: 143.9	160.7	172.5	176.8	180.9	184.9	188.9	199.4	204.5	232.2	
öL 13.6; B + 47.7	El: 28.7	33.4	34.9	35.1	35.2	35.1	34.8	33.4	32.3	21.0	
Bregenz	Az: 139.4	155.6	167.2	171.5	175.5	179.6	183.7	194.4	199.6	228.4	
öL 9.7; B + 47.5	El: 27.1	32.5	34.6	35.1	35.3	35.4	35.4	34.4	33.6	23.3	
Eisenstadt	Az: 147.1	164.3	176.3	180.7	184.7	188.8	192.8	203.2	208.1	235.0	
öL 16.5; B + 47.5	El: 30.1	34.2	35.4	35.4	35.3	35.1	34.6	32.8	31.6	19.5	
Graz	Az: 145.6	162.7	174.8	179.1	183.2	187.3	191.4	201.9	206.9	234.1	
öL 15.4; B + 47.1	El: 30.0	34.4	35.8	35.9	35.8	35.6	35.3	33.6	32.3	20.4	
Innsbruck	Az: 141.2	157.7	169.5	173.8	177.8	181.9	186.0	196.7	201.9	230.2	
öL 11.4; B + 47.3	El: 28.1	33.2	35.1	35.5	35.6	35.7	35.5	34.3	33.3	22.6	
Kitzbühel	Az: 142.4	159.0	170.8	175.1	179.2	183.3	187.3	197.9	203.0	231.1	
öL 12.4; B + 47.5	El: 28.4	33.3	35.1	35.4	35.5	35.4	35.2	33.9	32.9	21.9	
Klagenfurt	Az: 143.9	161.0	173.1	177.5	181.7	185.8	189.9	200.6	205.7	233.3	
öL 14.2; B + 46.4	El: 30.1	34.9	36.4	36.6	36.6	36.5	36.2	34.6	33.4	21.6	
Knittelfeld	Az: 145.1	162.1	174.1	178.4	182.5	186.6	190.6	201.1	206.2	233.6	
öL 14.9; B + 47.2	El: 29.6	34.2	35.6	35.7	35.7	35.5	35.2	33.6	32.4	20.7	
Krems	Az: 146.4	163.4	175.2	179.5	183.5	187.5	191.4	201.7	206.7	233.8	
öL 15.6; B + 48.4	El: 28.9	33.1	34.3	34.4	34.4	34.2	33.8	32.2	31.0	19.5	
Krimml	Az: 142.0	158.6	170.5	174.8	178.9	183.0	187.1	197.8	202.9	231.1	
öL 12.2; B + 47.1	El: 28.6	33.6	35.4	35.7	35.9	35.8	35.6	34.3	33.3	22.2	
Kufstein	Az: 142.2	158.8	170.5	174.8	178.9	183.0	187.0	197.6	202.7	230.8	
öL 12.2; B + 47.6	El: 28.2	33.2	34.9	35.2	35.3	35.3	35.1	33.8	32.8	21.9	
Linz	Az: 144.9	161.7	173.5	177.7	181.7	185.7	189.7	200.1	205.1	232.6	
öL 14.3; B + 48.3	El: 28.4	32.9	34.3	34.5	34.5	34.4	34.1	32.6	31.5	20.3	
Loeben	Az: 145.4	162.4	174.4	178.8	182.8	186.9	190.9	201.4	206.4	233.7	
öL 15.1; B + 47.4	El: 29.6	34.1	35.4	35.6	35.5	35.4	35.0	33.4	32.2	20.4	
Salzburg	Az: 143.3	159.9	171.7	176.0	180.1	184.1	188.1	198.7	203.7	231.6	
öL 13.1; B + 47.8	El: 28.4	33.2	34.8	35.0	35.1	35.0	34.8	33.4	32.4	21.3	
Sankt Pölten	Az: 146.4	163.3	175.2	179.5	183.5	187.5	191.5	201.8	206.8	233.9	
öL 15.6; B + 48.2	El: 29.1	33.3	34.5	34.6	34.6	34.4	34.0	32.4	31.2	19.6	
Scheifling	Az: 144.4	161.3	173.3	177.7	181.8	185.9	189.9	200.5	205.6	233.1	
öL 14.3; B + 47.1	El: 29.5	34.2	35.7	35.8	35.9	35.7	35.4	33.8	32.7	21.1	
Spittal	Az: 143.3	160.2	172.2	176.6	180.7	184.8	188.9	199.6	204.7	232.5	
öL 13.5; B + 46.8	El: 29.4	34.3	35.9	36.1	36.2	36.1	35.8	34.3	33.2	21.7	
Stockerau	Az: 147.2	164.2	176.1	180.4	184.4	188.4	192.4	202.6	207.6	234.5	
öL 16.3; B + 48.3	El: 29.3	33.4	34.5	34.6	34.5	34.2	33.8	32.1	30.9	19.2	
Villach	Az: 143.6	160.6	172.7	177.0	181.2	185.3	189.4	200.0	205.2	232.9	
öL 13.9; B + 46.6	El: 29.7	34.6	36.1	36.4	36.4	36.3	36.0	34.4	33.3	21.6	
Wien	Az: 147.2	164.3	176.2	180.5	184.5	188.5	192.5	202.8	207.7	234.6	
öL 16.4; B + 48.2	El: 29.4	33.5	34.6	34.6	34.6	34.3	33.9	32.1	30.9	19.2	

Belgium

de=degree east la=latitude Az=Azimuth El=Elevation

Antwerpen	Az: 135.4	150.5	161.3	165.3	169.0	172.9	176.7	186.9	192.0	221.3	
de 4.4; la + 51.2	El: 21.7	27.3	29.7	30.4	30.8	31.1	31.3	31.2	30.7	23.1	
Arlon	Az: 136.2	151.6	162.7	166.7	170.6	174.5	178.4	188.9	194.0	223.4	
de 5.8; la + 49.7	El: 23.5	29.1	31.6	32.2	32.6	32.9	33.0	32.7	32.1	23.7	
Bastogne	Az: 136.2	151.6	162.6	166.7	170.5	174.4	178.3	188.7	193.9	223.2	
de 5.7; la + 50.0	El: 23.2	28.8	31.3	31.9	32.3	32.6	32.7	32.3	31.8	23.5	
Brüssel	Az: 135.1	150.3	161.1	165.1	168.9	172.7	176.6	186.9	192.0	221.4	
de 4.4; la + 50.8	El: 22.0	27.6	30.1	30.8	31.2	31.5	31.7	31.6	31.1	23.5	
Charleroi	Az: 135.1	150.3	161.1	165.1	169.0	172.8	176.7	187.1	192.2	221.7	
de 4.5; la + 50.4	El: 22.3	28.0	30.6	31.2	31.7	32.0	32.2	32.0	31.5	23.8	
Eupen	Az: 136.8	152.2	163.1	167.1	171.0	174.8	178.7	189.0	194.1	223.2	
de 6.0; la + 50.6	El: 22.9	28.4	30.7	31.3	31.7	31.9	32.0	31.7	31.1	22.9	
Hasselt	Az: 136.2	151.4	162.3	166.3	170.1	174.0	177.8	188.1	193.2	222.4	
de 5.3; la + 50.9	El: 22.3	27.8	30.3	30.8	31.3	31.6	31.7	31.4	30.9	23.0	
Leuven	Az: 135.5	150.7	161.6	165.6	169.4	173.2	177.0	187.3	192.4	221.7	
de 4.7; la + 50.9	El: 22.1	27.6	30.1	30.7	31.2	31.5	31.7	31.5	31.0	23.3	
Lüttich	Az: 136.3	151.7	162.6	166.6	170.4	174.3	178.2	188.5	193.6	222.8	
de 5.6; la + 50.6	El: 22.7	28.2	30.6	31.2	31.6	31.9	32.0	31.7	31.1	23.1	
Malmedy	Az: 136.7	152.1	163.1	167.1	170.9	174.8	178.7	189.1	194.2	223.3	
de 6.0; la + 50.4	El: 23.1	28.5	30.9	31.5	31.9	32.1	32.3	31.9	31.3	23.1	
Namur	Az: 135.5	150.8	161.7	165.7	169.5	173.4	177.2	187.6	192.7	222.1	
de 4.9; la + 50.5	El: 22.5	28.1	30.6	31.2	31.7	32.0	32.2	31.9	31.4	23.5	

Netherlands E=East W=West de=degree east la=latitude Az=Azimuth El=Elevation

		TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
		42.0° E	28.2° E	19.2° E	16.0° E	13.0° E	10.0° E	7.0° E	1.0° W	5.0° W	30.0° W
Alkmar	Az:	136.2	151.3	162.0	165.9	169.6	173.3	177.1	187.2	192.1	221.0
de 4.7; la + 52.7	El:	20.7	26.0	28.3	28.9	29.3	29.6	29.7	29.5	29.1	21.8
Almelo	Az:	138.2	153.5	164.3	168.3	172.1	175.8	179.6	189.7	194.7	223.3
de 6.7; la + 52.3	El:	21.9	26.9	29.1	29.6	29.9	30.1	30.2	29.8	29.2	21.3
Amsterdam	Az:	136.3	151.5	162.2	166.1	169.8	173.6	177.3	187.4	192.4	221.4
de 4.9; la + 52.4	El:	21.1	26.3	28.7	29.3	29.7	30.0	30.1	29.9	29.4	22.0
Apeldoorn	Az:	137.4	152.6	163.4	167.4	171.1	174.9	178.7	188.8	193.8	222.5
de 6.0; la + 52.2	El:	21.6	26.8	29.0	29.6	29.9	30.2	30.3	29.9	29.4	21.7
Arnhem	Az:	137.2	152.5	163.3	167.3	171.0	174.8	178.6	188.7	193.7	222.6
de 5.9; la + 52.0	El:	21.8	27.0	29.2	29.8	30.2	30.4	30.5	30.2	29.7	21.9
Breda	Az:	135.8	151.0	161.7	165.7	169.5	173.2	177.1	187.3	192.3	221.5
de 4.7; la + 51.6	El:	21.5	27.0	29.4	30.0	30.4	30.7	30.9	30.7	30.3	22.7
Den Haag	Az:	135.6	150.7	161.3	165.3	169.0	172.8	176.6	186.7	191.7	220.8
de 4.3; la + 52.1	El:	21.0	26.4	28.8	29.4	29.8	30.2	30.3	30.2	29.8	22.5
Den Haag	Az:	135.4	150.5	161.1	165.1	168.8	172.5	176.3	186.4	191.5	220.6
de 4.1; la + 52.2	El:	20.8	26.2	28.7	29.3	29.7	30.1	30.2	30.1	29.7	22.5
Eindhoven	Az:	136.6	151.9	162.7	166.7	170.4	174.3	178.1	188.3	193.3	222.4
de 5.5; la + 51.4	El:	22.0	27.4	29.7	30.3	30.7	31.0	31.1	30.8	30.3	22.5
Emmen	Az:	138.6	153.9	164.7	168.6	172.4	176.1	179.9	189.9	194.8	223.3
de 6.9; la + 52.8	El:	21.6	26.5	28.6	29.1	29.4	29.6	29.7	29.2	28.7	20.8
Enschede	Az:	138.4	153.8	164.6	168.6	172.3	176.1	179.9	190.0	195.0	223.5
de 6.9; la + 52.2	El:	22.0	27.1	29.2	29.7	30.0	30.2	30.3	29.8	29.3	21.2
Groningen	Az:	138.4	153.7	164.4	168.3	172.0	175.7	179.5	189.4	194.4	222.8
de 6.6; la + 53.2	El:	21.1	26.0	28.1	28.6	28.9	29.1	29.2	28.8	28.3	20.6
Harlem	Az:	136.0	151.2	161.8	165.8	169.5	173.2	177.0	187.1	192.1	221.1
de 4.6; la + 52.4	El:	20.9	26.2	28.6	29.2	29.6	29.9	30.1	29.9	29.4	22.1
Hoogeveen	Az:	138.1	153.4	164.2	168.1	171.8	175.6	179.4	189.4	194.3	222.9
de 6.5; la + 52.7	El:	21.5	26.5	28.6	29.1	29.5	29.7	29.8	29.4	28.8	21.1
Leeuwarden	Az:	137.6	152.8	163.4	167.3	171.0	174.8	178.5	188.5	193.4	222.0
de 5.8; la + 53.2	El:	20.8	25.8	28.0	28.5	28.9	29.1	29.2	28.9	28.4	21.0
Maastricht	Az:	136.5	151.9	162.8	166.8	170.6	174.5	178.3	188.6	193.7	222.8
de 5.7; la + 50.8	El:	22.6	28.1	30.4	31.0	31.4	31.7	31.8	31.5	31.0	22.9
Nijmegen	Az:	137.1	152.4	163.2	167.2	171.0	174.7	178.6	188.7	193.7	222.6
de 5.9; la + 51.8	El:	21.9	27.1	29.4	30.0	30.3	30.6	30.7	30.4	29.8	22.0
Roermond	Az:	137.0	152.4	163.3	167.3	171.0	174.9	178.7	189.0	194.0	223.0
de 6.0; la + 51.2	El:	22.4	27.8	30.1	30.6	31.0	31.3	31.4	31.0	30.5	22.4
Utrecht	Az:	136.4	151.6	162.4	166.3	170.0	173.8	177.6	187.7	192.7	221.7
de 5.1; la + 52.1	El:	21.3	26.7	29.0	29.6	30.0	30.2	30.4	30.1	29.7	22.1
Venlo	Az:	137.3	152.6	163.5	167.5	171.3	175.1	179.0	189.2	194.2	223.2
de 6.2; la + 51.3	El:	22.4	27.8	30.0	30.6	30.9	31.2	31.3	30.9	30.3	22.3
Warden	Az:	137.5	152.7	163.4	167.3	171.0	174.8	178.5	188.5	193.4	222.0
de 5.8; la + 53.1	El:	20.9	25.9	28.1	28.6	29.0	29.2	29.3	29.0	28.5	21.0

Luxembourg de=degree east la=latitude Az=Azimuth El=Elevation

Ettelbruck	Az:	136.5	152.0	163.1	167.1	171.0	174.9	178.8	189.3	194.4	223.7
de 6.1; la + 49.8	El:	23.6	29.2	31.6	32.1	32.5	32.8	32.9	32.5	31.9	23.5
Luxembourg	Az:	136.5	152.0	163.1	167.2	171.0	175.0	178.9	189.4	194.5	223.8
de 6.2; la + 49.6	El:	23.7	29.3	31.8	32.3	32.7	33.0	33.1	32.7	32.1	23.6

France E=East W=West de=degree east dw=degree west la=latitude Az=Azimuth El=Elevation

		TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
		42.0° E	28.2° E	19.2° E	16.0° E	13.0° E	10.0° E	7.0° E	1.0° W	5.0° W	30.0° W
Amiens	Az:	132.6	147.6	158.3	162.3	166.1	169.9	173.8	184.3	189.5	219.5
de 2.3; la + 49.9	El:	21.6	27.7	30.6	31.3	31.9	32.3	32.6	32.7	32.4	25.1
Angers	Az:	128.7	143.3	154.0	158.0	161.9	165.8	169.8	180.6	186.0	217.4
dw 0.6; la + 47.5	El:	21.8	28.7	32.1	33.1	33.8	34.5	34.9	35.4	35.3	28.4
Angouleme	Az:	128.6	143.3	154.2	158.4	162.3	166.4	170.5	181.6	187.2	219.1
de 0.2; la + 45.7	El:	23.4	30.6	34.2	35.2	35.9	36.6	37.0	37.5	37.2	29.6
Arras	Az:	133.3	148.3	159.0	163.0	166.8	170.6	174.5	184.9	190.1	219.9
de 2.8; la + 50.3	El:	21.6	27.6	30.3	31.0	31.6	32.0	32.3	32.3	31.9	24.6
Bayonne	Az:	128.8	143.7	155.0	159.3	163.5	167.7	172.0	183.6	189.4	221.8
de 1.5; la + 43.3	El:	25.8	33.3	37.0	38.0	38.7	39.3	39.8	40.0	39.6	30.9
Belfort	Az:	136.4	152.1	163.5	167.7	171.7	175.7	179.8	190.5	195.8	225.4
de 6.8; la + 47.6	El:	25.6	31.5	34.0	34.6	35.0	35.2	35.3	34.8	34.1	24.8
Bordeaux	Az:	127.5	142.1	153.0	157.1	161.1	165.2	169.3	180.6	186.3	218.7
dw 0.6; la + 44.8	El:	23.5	31.0	34.7	35.8	36.6	37.3	37.8	38.4	38.2	30.7
Boulogne	Az:	127.4	141.8	152.4	156.4	160.2	164.1	168.1	178.9	184.4	216.2
dw 1.8; la + 47.2	El:	21.3	28.4	32.0	33.0	33.9	34.5	35.1	35.8	35.7	29.2
Brest	Az:	125.3	139.3	149.6	153.4	157.1	160.9	164.8	175.3	180.6	212.5
dw 4.5; la + 48.4	El:	19.0	26.2	29.9	31.0	31.9	32.7	33.3	34.3	34.4	29.3
Caen	Az:	129.7	144.3	154.8	158.8	162.6	166.4	170.3	180.8	186.1	216.9
dw 0.4; la + 49.2	El:	20.8	27.3	30.6	31.5	32.2	32.7	33.2	33.6	33.4	26.9
Calais	Az:	132.7	147.6	158.2	162.1	165.9	169.7	173.5	183.8	188.9	218.7
de 1.9; la + 51.0	El:	20.7	26.6	29.4	30.2	30.7	31.2	31.5	31.6	31.3	24.4
Chalons-sur-Marne	Az:	134.3	149.6	160.6	164.7	168.6	172.5	176.5	187.1	192.3	222.2
de 4.3; la + 49.0	El:	23.3	29.3	32.0	32.7	33.2	33.6	33.8	33.6	33.1	25.0
Charleville-Mezieres	Az:	135.0	150.3	161.2	165.3	169.1	173.0	176.9	187.4	192.6	222.2
de 4.7; la + 49.7	El:	22.9	28.7	31.3	32.0	32.4	32.8	32.9	32.7	32.2	24.2
Clermont-Ferrand	Az:	131.6	146.8	158.0	162.2	166.3	170.4	174.5	185.7	191.2	222.3
de 3.1; la + 45.8	El:	25.0	31.8	35.0	35.8	36.4	36.9	37.2	37.2	36.7	28.1
Colmar	Az:	137.1	152.9	164.2	168.4	172.4	176.4	180.4	191.1	196.4	225.7
de 7.3; la + 48.1	El:	25.5	31.2	33.6	34.2	34.5	34.7	34.8	34.2	33.5	24.2
Epinal	Az:	136.2	151.8	163.1	167.3	171.2	175.2	179.3	190.0	195.2	224.7
de 6.5; la + 48.2	El:	25.0	30.8	33.3	33.9	34.3	34.6	34.7	34.2	33.6	24.6
Le Havre	Az:	130.3	144.9	155.5	159.5	163.2	167.1	171.0	181.4	186.7	217.3
de 0.1; la + 49.5	El:	20.8	27.2	30.4	31.2	31.9	32.5	32.9	33.2	33.0	26.4
Limoges	Az:	129.8	144.7	155.7	159.8	163.8	167.9	172.0	183.1	188.7	220.2
de 1.3; la + 45.8	El:	23.9	31.0	34.4	35.3	36.0	36.6	37.0	37.2	36.9	29.0
Lorient	Az:	126.1	140.3	150.7	154.6	158.3	162.2	166.1	176.8	182.2	214.1
dw 3.4; la + 47.8	El:	20.0	27.2	30.9	32.0	32.9	33.6	34.2	35.1	35.1	29.4
Marseille	Az:	132.7	148.5	160.2	164.7	168.9	173.3	177.6	189.2	194.9	226.0
de 5.4; la + 43.3	El:	28.1	35.0	38.1	38.9	39.5	39.8	40.0	39.6	39.0	28.8
Metz	Az:	136.3	151.8	163.0	167.1	171.0	174.9	178.9	189.4	194.6	224.0
de 6.2; la + 49.1	El:	24.1	29.8	32.3	32.9	33.3	33.5	33.6	33.2	32.6	24.0
Mulhouse	Az:	136.9	152.7	164.1	168.3	172.4	176.4	180.5	191.2	196.5	225.9
de 7.3; la + 47.7	El:	25.8	31.6	34.0	34.6	35.0	35.2	35.2	34.6	33.9	24.5
Nancy	Az:	136.2	151.7	162.9	167.1	171.0	174.9	178.9	189.5	194.8	224.3
de 6.2; la + 48.7	El:	24.5	30.2	32.7	33.3	33.7	34.0	34.1	33.7	33.1	24.3
Nantes	Az:	127.6	142.1	152.7	156.7	160.5	164.4	168.4	179.2	184.6	216.4
dw 1.6; la + 47.2	El:	21.4	28.5	32.1	33.1	33.9	34.6	35.1	35.7	35.6	29.1
Orleans	Az:	131.4	146.3	157.2	161.3	165.1	169.1	173.1	183.9	189.2	220.0
de 1.9; la + 47.9	El:	22.8	29.4	32.5	33.3	33.9	34.4	34.8	34.9	34.6	27.0
Paris	Az:	132.2	147.2	158.1	162.1	166.0	169.9	173.8	184.4	189.7	220.0
de 2.3; la + 48.9	El:	22.4	28.7	31.6	32.4	33.0	33.4	33.8	33.8	33.5	26.0
Quimper	Az:	125.5	139.6	149.8	153.7	157.4	161.3	165.1	175.8	181.1	213.1
dw 4.2; la + 48.0	El:	19.4	26.7	30.4	31.5	32.4	33.2	33.8	34.8	34.9	29.5
Reims	Az:	134.1	149.3	160.3	164.3	168.2	172.1	176.1	186.6	191.8	221.7
de 4.0; la + 49.3	El:	23.0	29.0	31.7	32.4	32.9	33.2	33.4	33.3	32.9	24.9
Rennes	Az:	127.9	142.3	152.9	156.8	160.6	164.5	168.4	179.1	184.5	215.9
dw 1.7; la + 48.1	El:	20.8	27.7	31.2	32.2	32.9	33.6	34.1	34.8	34.7	28.4
Rouen	Az:	131.2	146.0	156.7	160.7	164.5	168.3	172.2	182.7	188.0	218.4
de 1.1; la + 49.5	El:	21.3	27.7	30.7	31.5	32.2	32.7	33.0	33.3	33.0	26.0
St.-Nazaire	Az:	127.1	141.4	151.9	155.9	159.7	163.6	167.6	178.4	183.8	215.7
dw 2.2; la + 47.3	El:	21.0	28.2	31.8	32.8	33.7	34.4	34.9	35.7	35.6	29.3
St.-Quentin	Az:	133.6	148.7	159.5	163.5	167.3	171.2	175.1	185.6	190.8	220.6
de 3.3; la + 49.8	El:	22.2	28.1	30.9	31.6	32.1	32.5	32.8	32.7	32.3	24.8
Straßburg	Az:	137.8	153.6	164.9	169.1	173.0	177.0	181.0	191.6	196.8	225.9
de 7.8; la + 48.6	El:	25.3	30.9	33.2	33.7	34.0	34.2	34.2	33.6	32.9	23.6
Toulouse	Az:	128.9	143.8	155.1	159.4	163.5	167.7	172.0	183.5	189.3	221.6
de 1.5; la + 43.6	El:	25.5	33.0	36.6	37.6	38.4	39.0	39.4	39.7	39.3	30.7

France E=East W=West de=degree east la=latitude Az=Azimuth El=Elevation

		TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
		42.0° E	28.2° E	19.2° E	16.0° E	13.0° E	10.0° E	7.0° E	1.0° W	5.0° W	30.0° W
Tours	Az:	129.9	144.7	155.5	159.6	163.4	167.4	171.4	182.3	187.7	218.9
de 0.7; la + 47.4	El:	22.6	29.3	32.6	33.6	34.3	34.8	35.2	35.6	35.3	28.0
Verdun	Az:	135.5	150.9	162.0	166.1	170.0	173.9	177.9	188.4	193.6	223.2
de 5.4; la + 49.2	El:	23.7	29.5	32.1	32.7	33.2	33.5	33.6	33.3	32.7	24.3

Switzerland de=degree east la=latitude Az=Azimuth El=Elevation

Basel	Az:	137.1	153.0	164.5	168.7	172.7	176.7	180.8	191.6	196.9	226.2
de 7.6; la + 47.6	El:	26.0	31.8	34.2	34.8	35.1	35.3	35.4	34.7	34.0	24.4
Bern	Az:	136.7	152.6	164.1	168.4	172.4	176.5	180.6	191.5	196.8	226.3
de 7.4; la + 47.0	El:	26.4	32.3	34.8	35.4	35.8	36.0	36.0	35.4	34.7	25.0
Genf	Az:	135.0	150.7	162.2	166.5	170.6	174.7	178.8	189.9	195.3	225.3
de 6.2; la + 46.2	El:	26.3	32.6	35.3	36.0	36.4	36.7	36.8	36.4	35.7	26.2
Locarno	Az:	137.8	154.0	165.7	170.0	174.2	178.3	182.5	193.4	198.8	228.1
de 8.8; la + 46.2	El:	27.7	33.6	35.9	36.4	36.7	36.9	36.9	36.0	35.2	24.8
Zürich	Az:	138.1	154.1	165.7	169.9	174.0	178.0	182.1	192.9	198.1	227.3
de 8.6; la + 47.4	El:	26.6	32.3	34.6	35.1	35.4	35.5	35.5	34.8	34.0	24.0

Italy de=degree east la=latitude Az=Azimuth El=Elevation

Ancona	Az:	141.8	159.2	171.8	176.4	180.7	185.1	189.4	200.6	205.9	234.0
de 13.5; la + 43.6	El:	32.2	37.6	39.4	39.6	39.7	39.6	39.3	37.6	36.4	23.7
Bari	Az:	144.5	163.1	176.5	181.3	185.9	190.4	194.8	206.1	211.4	238.4
de 16.9; la + 41.1	El:	36.0	41.1	42.4	42.5	42.3	42.0	41.4	39.1	37.5	23.0
Bergamo	Az:	138.5	154.9	166.8	171.2	175.3	179.5	183.7	194.7	200.1	229.2
de 9.7; la + 45.7	El:	28.5	34.3	36.6	37.0	37.3	37.4	37.3	36.4	35.4	24.6
Bologna	Az:	139.8	156.6	168.8	173.4	177.6	181.9	186.2	197.3	202.7	231.4
de 11.3; la + 44.5	El:	30.4	36.0	38.1	38.5	38.7	38.7	38.6	37.3	36.2	24.5
Bolzano (Bozen)	Az:	140.7	157.3	169.2	173.6	177.7	181.8	186.0	196.8	202.0	230.5
de 11.3; la + 46.5	El:	28.7	34.0	36.0	36.3	36.5	36.5	36.4	35.2	34.2	23.1
Brescia	Az:	139.1	155.6	167.6	172.0	176.2	180.4	184.6	195.7	201.0	229.9
de 10.3; la + 45.5	El:	29.0	34.7	36.9	37.3	37.6	37.6	37.5	36.4	35.5	24.4
Cagliari	Az:	134.4	151.3	164.3	169.2	173.9	178.6	183.3	195.7	201.7	232.1
de 9.1; la + 39.3	El:	33.3	40.4	43.4	44.0	44.4	44.6	44.5	43.4	42.3	29.4
Catania	Az:	140.2	159.0	173.2	178.5	183.4	188.3	193.1	205.3	211.0	238.7
de 15.1; la + 37.5	El:	38.2	44.4	46.3	46.5	46.5	46.2	45.7	43.4	41.7	26.3
Cosenza	Az:	142.7	161.5	175.3	180.4	185.1	189.8	194.4	206.1	211.5	238.8
de 16.2; la + 39.3	El:	37.3	42.9	44.4	44.5	44.4	44.1	43.5	41.1	39.5	24.5
Firenze (Florenz)	Az:	139.3	156.2	168.6	173.2	177.5	181.8	186.1	197.4	202.8	231.7
de 11.3; la + 43.8	El:	30.9	36.7	38.9	39.3	39.5	39.5	39.3	38.0	36.9	25.0
Genova (Genua)	Az:	137.1	153.5	165.5	170.0	174.2	178.5	182.8	194.1	199.5	229.1
de 8.9; la + 44.4	El:	29.2	35.3	37.8	38.4	38.7	38.8	38.8	37.9	37.0	26.0
La Spezia	Az:	137.9	154.5	166.7	171.2	175.5	179.8	184.1	195.4	200.8	230.1
de 9.8; la + 44.1	El:	29.9	35.9	38.3	38.8	39.0	39.1	39.1	38.0	37.0	25.6
Lecce	Az:	145.7	164.7	178.4	183.3	188.0	192.5	197.0	208.2	213.5	239.9
de 18.2; la + 40.3	El:	37.3	42.2	43.4	43.3	43.1	42.6	42.0	39.4	37.6	22.5
Livorno	Az:	138.1	154.9	167.2	171.7	176.1	180.4	184.8	196.2	201.7	230.9
de 10.3; la + 43.5	El:	30.6	36.7	39.0	39.5	39.8	39.8	39.7	38.6	37.5	25.8
Milano (Mailand)	Az:	137.9	154.2	166.1	170.5	174.7	178.9	183.1	194.2	199.5	228.8
de 9.2; la + 45.5	El:	28.5	34.4	36.7	37.2	37.5	37.7	37.6	36.7	35.8	25.1
Napoli (Neapel)	Az:	141.2	159.2	172.5	177.3	181.9	186.5	191.0	202.6	208.1	236.1
de 14.3; la + 40.8	El:	34.9	40.7	42.5	42.8	42.8	42.6	42.2	40.3	38.8	24.9
Padova	Az:	140.5	157.2	169.4	173.8	178.0	182.3	186.5	197.5	202.8	231.3
de 11.6; la + 45.3	El:	29.8	35.3	37.3	37.7	37.8	37.8	37.7	36.4	35.3	23.8
Palermo	Az:	138.5	156.8	170.6	175.8	180.6	185.5	190.3	202.6	208.3	236.8
de 13.4; la + 38.1	El:	36.7	43.2	45.4	45.7	45.8	45.7	45.3	43.3	41.8	27.1
Parma	Az:	138.8	155.4	167.5	172.0	176.2	180.5	184.7	195.9	201.3	230.3
de 10.3; la + 44.8	El:	29.6	35.4	37.6	38.1	38.3	38.4	38.3	37.1	36.1	24.8
Pescara	Az:	142.0	159.8	172.6	177.4	181.8	186.2	190.6	201.9	207.3	235.2
de 14.2; la + 42.5	El:	33.5	39.0	40.7	41.0	41.0	40.8	40.4	38.6	37.2	24.0
Roma (Rom)	Az:	139.7	157.2	170.0	174.8	179.3	183.7	188.2	199.8	205.3	233.9
de 12.5; la + 41.9	El:	33.1	39.1	41.2	41.5	41.6	41.6	41.3	39.7	38.4	25.5
Torino (Turin)	Az:	136.0	152.1	163.9	168.3	172.5	176.7	180.9	192.2	197.6	227.5
de 7.7; la + 45.1	El:	28.0	34.2	36.9	37.4	37.8	38.1	38.1	37.4	36.6	26.2
Trieste	Az:	143.0	160.1	172.3	176.8	181.0	185.2	189.3	200.2	205.3	233.2
de 13.7; la + 45.6	El:	30.6	35.6	37.2	37.5	37.5	37.4	37.1	35.5	34.3	22.4
Venezia (Venedig)	Az:	141.4	158.2	170.4	174.9	179.1	183.3	187.5	198.4	203.7	232.0
de 12.3; la + 45.4	El:	30.1	35.4	37.3	37.6	37.7	37.7	37.4	36.1	34.9	23.3
Verona	Az:	139.8	156.5	168.5	173.0	177.2	181.4	185.6	196.6	202.0	230.7
de 11.0; la + 45.3	El:	29.5	35.1	37.2	37.6	37.8	37.8	37.7	36.5	35.5	24.1

Spain E=East W=West dw=degree west de=degree east la=latitude Az=Azimuth El=Elevation

		TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
		42.0° E	28.2° E	19.2° E	16.0° E	13.0° E	10.0° E	7.0° E	1.0° W	5.0° W	30.0° W
Albacete	Az:	123.2	137.4	148.6	152.9	157.2	161.6	166.1	178.7	185.0	220.4
dw 1.8; la + 39.0	El:	26.3	35.2	39.8	41.2	42.3	43.2	43.9	44.8	44.7	36.3
Algeciras	Az:	118.4	131.5	142.1	146.3	150.5	154.9	159.5	172.5	179.2	217.7
dw 5.5; la + 36.2	El:	25.2	35.1	40.6	42.3	43.7	45.0	46.0	47.8	48.1	40.7
Alicante	Az:	124.1	138.6	150.0	154.5	158.9	163.4	168.0	180.8	187.2	222.3
dw 0.5; la + 38.4	El:	27.6	36.5	41.0	42.3	43.4	44.2	44.9	45.5	45.3	36.0
Almeria	Az:	121.4	135.4	146.5	150.9	155.3	159.8	164.5	177.6	184.2	221.0
dw 2.5; la + 36.9	El:	27.1	36.5	41.6	43.0	44.2	45.3	46.1	47.2	47.2	38.4
Avila	Az:	121.5	135.2	145.8	149.9	153.9	158.0	162.3	174.3	180.4	215.9
dw 4.7; la + 40.7	El:	23.4	32.2	37.0	38.4	39.6	40.6	41.5	42.9	43.0	36.3
Badajoz	Az:	118.6	131.7	141.9	145.9	149.9	154.0	158.3	170.5	176.8	214.1
dw 7.0; la + 38.8	El:	22.7	32.2	37.5	39.1	40.5	41.7	42.7	44.6	45.0	39.1
Barcelona	Az:	128.4	143.6	155.2	159.6	163.9	168.3	172.7	184.8	190.8	223.6
de 2.2; la + 41.4	El:	27.5	35.3	39.1	40.1	40.9	41.5	41.9	42.0	41.6	32.1
Burgos	Az:	123.3	137.3	147.9	152.0	156.0	160.1	164.4	176.0	182.0	216.3
dw 3.7; la + 42.4	El:	23.1	31.5	35.9	37.2	38.3	39.2	39.9	41.0	41.1	34.3
Cadiz	Az:	117.9	130.8	141.2	145.4	149.5	153.8	158.3	171.1	177.8	216.4
dw 6.3; la + 36.5	El:	24.4	34.3	39.8	41.5	43.0	44.3	45.4	47.3	47.6	40.9
Cartagena	Az:	123.2	137.6	149.0	153.4	157.8	162.4	167.1	180.0	186.6	222.3
dw 1.0; la + 37.6	El:	27.7	36.8	41.5	42.9	44.0	44.9	45.6	46.4	46.2	36.9
Cordoba	Az:	119.9	133.3	144.0	148.2	152.3	156.6	161.1	173.8	180.3	217.5
dw 4.8; la + 37.8	El:	24.8	34.3	39.5	41.0	42.3	43.5	44.4	46.0	46.2	38.9
Gijon	Az:	122.1	135.7	146.0	150.0	153.8	157.8	161.9	173.2	179.0	213.2
dw 5.7; la + 43.5	El:	21.1	29.4	33.9	35.3	36.4	37.4	38.2	39.6	39.8	34.2
Granada	Az:	120.6	134.3	145.2	149.5	153.8	158.2	162.8	175.7	182.3	219.4
dw 3.6; la + 37.2	El:	26.1	35.6	40.7	42.2	43.5	44.6	45.5	46.8	46.9	38.8
Ibiza	Az:	126.3	141.2	153.0	157.5	161.9	166.5	171.2	183.9	190.2	224.2
de 1.4; la + 38.9	El:	28.6	37.1	41.3	42.5	43.4	44.1	44.6	44.9	44.5	34.5
La Coruna	Az:	119.6	132.7	142.7	146.5	150.3	154.1	158.1	169.3	175.0	210.0
dw 8.4; la + 43.3	El:	19.5	28.1	32.9	34.4	35.6	36.7	37.7	39.5	39.9	35.5
Madrid	Az:	122.3	136.1	146.9	151.1	155.1	159.4	163.7	175.8	182.0	217.3
dw 3.7; la + 40.4	El:	24.2	33.0	37.7	39.0	40.2	41.2	42.0	43.2	43.3	36.0
Malaga	Az:	119.6	133.1	143.8	148.1	152.3	156.7	161.3	174.3	181.0	218.7
dw 4.4; la + 36.7	El:	25.7	35.4	40.7	42.3	43.6	44.8	45.7	47.3	47.4	39.6
Palma de Mallorca	Az:	127.9	143.1	155.0	159.6	164.0	168.6	173.2	185.7	191.9	225.2
de 2.7; la + 39.6	El:	29.0	37.1	41.1	42.2	43.0	43.6	44.0	44.0	43.5	33.2
Salamanca	Az:	120.9	134.3	144.8	148.8	152.8	156.9	161.1	172.9	179.0	214.6
dw 5.7; la + 41.0	El:	22.6	31.4	36.3	37.7	38.9	40.0	40.9	42.4	42.7	36.5
San Sebastian	Az:	125.4	139.7	150.5	154.7	158.7	162.8	167.0	178.6	184.4	217.8
dw 2.0; la + 43.3	El:	23.6	31.6	35.7	36.9	37.8	38.6	39.3	40.1	40.0	32.7
Santander	Az:	123.7	137.7	148.3	152.3	156.2	160.3	164.4	175.9	181.7	215.5
dw 3.9; la + 43.5	El:	22.3	30.5	34.8	36.1	37.1	38.0	38.7	39.8	39.9	33.4
Sevilla	Az:	118.7	131.8	142.2	146.4	150.4	154.7	159.2	171.8	178.4	216.3
dw 6.0; la + 37.4	El:	24.2	33.9	39.3	40.9	42.3	43.5	44.6	46.3	46.7	39.9
Valencia	Az:	124.5	139.0	150.3	154.7	159.0	163.4	168.0	180.5	186.8	221.6
dw 0.7; la + 39.3	El:	26.9	35.6	40.0	41.3	42.3	43.1	43.8	44.5	44.3	35.3
Valladolid	Az:	122.0	135.7	146.3	150.3	154.3	158.4	162.7	174.4	180.4	215.4
dw 4.7; la + 41.6	El:	22.8	31.5	36.1	37.5	38.6	39.6	40.4	41.8	41.9	35.5
Vigo	Az:	118.8	131.8	141.8	145.6	149.4	153.3	157.3	168.6	174.5	210.2
dw 8.7; la + 42.2	El:	19.8	28.7	33.7	35.2	36.5	37.7	38.7	40.7	41.1	36.7
Zaragoza	Az:	125.4	139.9	151.0	155.3	159.4	163.7	168.0	180.0	186.0	219.9
dw 1.0; la + 41.6	El:	25.3	33.5	37.7	38.9	39.9	40.7	41.3	42.0	41.8	33.6

Portugal dw=degree west la=latitude Az=Azimuth El=Elevation

Almodovar	Az:	117.0	129.7	139.8	143.8	147.7	151.9	156.2	168.5	175.0	213.5
dw 8.0; la + 37.5	El:	22.6	32.5	38.0	39.8	41.2	42.6	43.7	45.9	46.4	40.8
Beja	Az:	117.4	130.2	140.3	144.3	148.2	152.4	156.7	168.9	175.3	213.4
dw 7.9; la + 38.0	El:	22.5	32.2	37.7	39.4	40.8	42.1	43.3	45.4	45.8	40.2
Coimbra	Az:	118.1	131.0	141.0	144.9	148.7	152.7	156.9	168.6	174.7	211.5
dw 8.4; la + 40.2	El:	21.0	30.3	35.5	37.2	38.5	39.8	40.9	42.9	43.4	38.5
Faro	Az:	116.9	129.5	139.6	143.6	147.6	151.8	156.1	168.6	175.2	214.0
dw 7.9; la + 37.0	El:	22.9	32.9	38.5	40.2	41.7	43.1	44.3	46.4	47.0	41.2
Figueira da Foz	Az:	117.6	130.4	140.4	144.2	148.0	152.0	156.2	167.8	174.0	210.9
dw 8.9; la + 40.1	El:	20.7	30.1	35.3	37.0	38.4	39.7	40.8	42.9	43.4	38.8
Lagos	Az:	116.3	128.8	138.7	142.7	146.6	150.7	155.0	167.4	173.9	212.9
dw 8.7; la + 37.1	El:	22.3	32.3	38.0	39.8	41.3	42.7	43.9	46.2	46.8	41.5

Portugal

E=East W=West dw=degree west la=latitude Az=Azimuth El=Elevation

		TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
		42.0° E	28.2° E	19.2° E	16.0° E	13.0° E	10.0° E	7.0° E	1.0° W	5.0° W	30.0° W
Lisboa (Lissabon)	Az:	116.7	129.3	139.2	143.1	146.9	150.9	155.1	167.1	173.4	211.3
dw 9.2; la + 38.7	El:	21.2	30.9	36.4	38.1	39.6	40.9	42.1	44.4	45.0	40.2
Mertola	Az:	117.4	130.2	140.3	144.4	148.3	152.5	156.8	169.2	175.6	213.9
dw 7.7; la + 37.7	El:	22.8	32.6	38.1	39.8	41.3	42.6	43.7	45.8	46.3	40.5
Odemira	Az:	116.6	129.1	139.1	143.0	146.9	151.0	155.3	167.6	174.0	212.6
dw 8.7; la + 37.6	El:	22.1	32.0	37.6	39.4	40.9	42.2	43.4	45.7	46.3	41.0
Portimao	Az:	116.4	129.0	138.9	142.9	146.8	151.0	155.3	167.6	174.2	213.1
dw 8.5; la + 37.1	El:	22.4	32.4	38.1	39.8	41.4	42.7	43.9	46.2	46.8	41.4
Porto	Az:	118.4	131.3	141.3	145.2	148.9	152.9	157.0	168.5	174.5	210.8
dw 8.6; la + 41.2	El:	20.4	29.5	34.6	36.2	37.6	38.8	39.8	41.8	42.3	37.7
Setubal	Az:	116.8	129.5	139.4	143.3	147.2	151.2	155.4	167.4	173.8	211.8
dw 8.9; la + 38.5	El:	21.5	31.2	36.7	38.4	39.9	41.2	42.4	44.6	45.2	40.3
Torres Vedras	Az:	116.8	129.5	139.3	143.2	147.0	151.0	155.2	167.0	173.3	211.0
dw 9.3; la + 39.1	El:	21.0	30.6	36.0	37.7	39.2	40.5	41.7	44.0	44.5	39.9

Great Britain

dw=degree west de=degree east la=latitude Az=Azimuth El=Elevation

Aberdeen	Az:	130.9	145.2	155.1	158.7	162.2	165.7	169.2	178.7	183.5	212.2
dw 2.1; la + 57.1	El:	14.6	19.8	22.4	23.1	23.7	24.2	24.5	25.0	25.0	20.6
Belfast	Az:	126.3	140.2	150.1	153.7	157.2	160.7	164.3	174.0	178.9	208.7
dw 5.9; la + 54.6	El:	14.4	20.5	23.7	24.6	25.4	26.1	26.6	27.6	27.7	24.0
Birmingham	Az:	129.6	143.9	154.1	157.9	161.5	165.2	168.9	179.0	184.0	214.0
dw 1.8; la + 52.5	El:	17.8	23.9	26.9	27.7	28.4	29.0	29.4	30.0	29.9	24.6
Bristol	Az:	128.4	142.7	152.9	156.7	160.4	164.1	167.8	178.0	183.1	213.6
dw 2.6; la + 51.5	El:	18.1	24.5	27.7	28.6	29.3	29.9	30.4	31.1	31.1	25.8
Dover	Az:	132.1	146.9	157.5	161.4	165.1	168.9	172.7	183.0	188.1	218.0
de 1.3; la + 51.1	El:	20.3	26.3	29.1	29.9	30.5	30.9	31.3	31.5	31.2	24.6
Edinburgh	Az:	129.4	143.6	153.6	157.2	160.7	164.2	167.7	177.3	182.2	211.4
dw 3.2; la + 56.0	El:	14.8	20.4	23.2	24.0	24.6	25.2	25.6	26.2	26.2	21.9
Glasgow	Az:	128.4	142.5	152.4	156.0	159.5	163.0	166.5	176.1	180.9	210.2
dw 4.2; la + 55.9	El:	14.4	20.1	23.0	23.8	24.5	25.1	25.6	26.3	26.4	22.3
Iverness	Az:	129.0	143.0	152.8	156.4	159.8	163.3	166.8	176.2	180.9	209.8
dw 4.2; la + 57.5	El:	13.4	18.8	21.5	22.2	22.9	23.4	23.9	24.5	24.6	20.8
Leeds	Az:	130.3	144.7	154.8	158.6	162.1	165.8	169.4	179.3	184.2	213.8
dw 1.6; la + 53.8	El:	17.0	22.8	25.7	26.5	27.1	27.6	28.0	28.5	28.5	23.3
Liverpool	Az:	128.8	143.1	153.2	156.9	160.4	164.1	167.7	177.6	182.6	212.5
dw 2.9; la + 53.4	El:	16.6	22.7	25.7	26.6	27.3	27.8	28.3	29.0	29.0	24.1
London	Az:	130.8	145.4	155.8	159.7	163.4	167.1	170.9	181.1	186.2	216.2
dw 0.2; la + 51.5	El:	19.3	25.4	28.3	29.1	29.8	30.3	30.7	31.1	30.9	24.8
Manchester	Az:	129.5	143.8	154.0	157.7	161.3	164.9	168.5	178.4	183.4	213.2
dw 2.3; la + 53.5	El:	16.9	22.9	25.8	26.6	27.3	27.9	28.3	28.9	28.9	23.8
Newcastle upon Tyne	Az:	130.7	145.0	155.1	158.8	162.4	165.9	169.5	179.3	184.1	213.4
dw 1.6; la + 55.0	El:	16.2	21.8	24.5	25.3	25.9	26.4	26.8	27.3	27.2	22.3
Norwich	Az:	132.7	147.4	157.9	161.7	165.4	169.1	172.8	182.9	187.9	217.4
de 1.3; la + 52.6	El:	19.2	24.9	27.6	28.3	28.9	29.3	29.6	29.8	29.6	23.3
Nottingham	Az:	130.2	144.6	154.9	158.7	162.3	165.9	169.6	179.6	184.6	214.5
dw 1.3; la + 52.9	El:	17.8	23.7	26.6	27.5	28.1	28.6	29.1	29.6	29.5	24.0
Playmouth	Az:	126.5	140.5	150.7	154.5	158.1	161.8	165.6	175.8	181.0	212.1
dw 4.2; la + 50.4	El:	17.9	24.7	28.2	29.2	30.0	30.7	31.3	32.2	32.3	27.3
Portsmouth	Az:	129.6	144.1	154.5	158.3	162.0	165.8	169.6	179.9	185.0	215.5
dw 1.1; la + 50.8	El:	19.3	25.6	28.7	29.6	30.3	30.9	31.3	31.8	31.7	25.8
Sheffield	Az:	130.2	144.6	154.8	158.6	162.1	165.8	169.5	179.4	184.4	214.1
dw 1.5; la + 53.4	El:	17.3	23.2	26.1	26.9	27.6	28.1	28.5	29.0	28.9	23.7
Swansea	Az:	127.1	141.2	151.3	155.1	158.7	162.4	166.1	176.2	181.3	211.9
dw 4.0; la + 51.6	El:	17.3	23.8	27.1	28.1	28.8	29.5	30.1	30.9	31.0	26.1
Wolverhampton	Az:	129.2	143.6	153.7	157.5	161.1	164.8	168.5	178.5	183.5	213.6
dw 2.2; la + 52.6	El:	17.5	23.6	26.7	27.5	28.2	28.8	29.3	29.9	29.8	24.6

Denmark E=East W=West de=degree east la=latitude Az=Azimuth El=Elevation

	TürkSat	ASTRA 2	ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
	42.0° E	28.2° E	19.2° E	16.0° E	13.0° E	10.0° E	7.0° E	1.0° W	5.0° W	30.0° W
Alborg	Az: 143.3	158.5	169.0	172.8	176.3	179.9	183.5	193.0	197.6	224.9
de 9.9; b + 57.1	El: 19.3	23.1	24.6	24.9	25.0	25.1	25.0	24.4	23.8	16.3
Arhus	Az: 143.3	158.7	169.2	173.0	176.7	180.3	183.9	193.4	198.1	225.5
de 10.2; b + 56.2	El: 20.1	24.1	25.5	25.8	26.0	26.0	26.0	25.3	24.6	16.9
Esbjerg	Az: 141.2	156.5	167.0	170.9	174.5	178.1	181.8	191.4	196.2	224.0
de 8.5; b + 55.5	El: 20.0	24.3	26.0	26.4	26.7	26.8	26.8	26.2	25.6	18.1
Kobenhavn (Kopenhagen)	Az: 145.7	161.3	172.0	175.8	179.5	183.1	186.7	196.3	201.0	228.0
de 12.6; b + 55.7	El: 21.3	25.0	26.3	26.5	26.6	26.5	26.4	25.4	24.6	16.2

Sweden de=degree east la=latitude Az=Azimuth El=Elevation

Arvidsjaur	Az: 155.1	170.0	179.9	183.4	186.7	190.0	193.2	201.9	206.2	231.7
de 19.1; la + 65.6	El: 13.9	15.7	16.1	16.0	15.9	15.7	15.5	14.4	13.7	7.1
Borlänge	Az: 150.1	165.4	175.6	179.3	182.8	186.2	189.6	198.7	203.1	229.4
de 15.4; la + 60.5	El: 17.9	20.6	21.3	21.4	21.4	21.3	21.1	20.0	19.3	11.7
Falkenberg	Az: 146.0	161.5	172.0	175.8	179.4	183.0	186.6	196.0	200.6	227.6
de 12.5; la + 56.9	El: 20.2	23.8	25.0	25.2	25.2	25.2	25.1	24.2	23.4	15.4
Gävle	Az: 152.0	167.3	177.6	181.3	184.7	188.1	191.5	200.5	205.0	231.0
de 17.1; la + 60.7	El: 18.1	20.6	21.2	21.2	21.1	20.9	20.7	19.5	18.7	10.9
Göteborg	Az: 145.7	161.0	171.5	175.3	178.8	182.4	185.9	195.3	199.9	226.8
de 12.0; la + 57.8	El: 19.3	22.8	24.0	24.2	24.3	24.3	24.2	23.4	22.7	15.0
Helsingborg	Az: 146.0	161.6	172.2	176.1	179.7	183.3	186.9	196.4	201.1	228.1
de 12.8; la + 56.1	El: 21.0	24.6	25.9	26.1	26.1	26.1	25.9	25.0	24.2	15.8
Jönköping	Az: 148.0	163.5	174.1	177.8	181.4	184.9	188.5	197.8	202.3	229.0
de 14.2; la + 57.8	El: 20.0	23.2	24.2	24.3	24.3	24.2	24.0	23.0	22.2	14.1
Kalmar	Az: 150.1	165.8	176.5	180.4	183.9	187.5	191.1	200.4	205.0	231.4
de 16.3; la + 56.7	El: 21.6	24.6	25.4	25.5	25.4	25.2	24.9	23.7	22.8	13.9
Karlstad	Az: 147.8	163.0	173.4	177.1	180.6	184.1	187.5	196.7	201.2	227.8
de 13.5; la + 59.4	El: 18.3	21.4	22.4	22.6	22.6	22.5	22.4	21.4	20.7	13.2
Kiruna	Az: 156.6	171.4	181.1	184.5	187.8	191.0	194.2	202.7	206.9	232.4
de 20.2; la + 67.8	El: 12.0	13.5	13.8	13.7	13.6	13.4	13.1	12.1	11.5	5.3
Kristianstad	Az: 147.5	163.3	174.0	177.8	181.4	185.1	188.7	198.1	202.8	229.6
de 14.2; la + 56.0	El: 21.6	25.0	26.1	26.2	26.2	26.1	25.9	24.8	23.9	15.3
Lidköping	Az: 147.2	162.6	173.0	176.8	180.3	183.8	187.3	196.6	201.1	227.8
de 13.2; la + 58.5	El: 19.0	22.3	23.3	23.5	23.5	23.5	23.3	22.4	21.7	13.9
Linköping	Az: 149.8	165.3	175.8	179.5	183.0	186.5	190.0	199.3	203.8	230.1
de 15.6; la + 58.4	El: 19.8	22.7	23.6	23.6	23.6	23.5	23.2	22.1	21.3	13.0
Lulea	Az: 158.3	173.3	183.2	186.7	190.0	193.2	196.5	205.1	209.3	234.7
de 22.1; la + 65.6	El: 14.4	15.9	16.0	15.9	15.7	15.5	15.1	13.9	13.1	6.1
Malmö	Az: 146.1	161.8	172.5	176.4	180.0	183.6	187.3	196.8	201.5	228.5
de 13.0; la + 55.6	El: 21.6	25.2	26.4	26.6	26.7	26.6	26.4	25.4	24.6	16.1
Norrköping	Az: 150.4	166.0	176.4	180.2	183.7	187.2	190.7	199.9	204.4	230.7
de 16.2; la + 58.6	El: 19.8	22.6	23.4	23.5	23.4	23.2	23.0	21.8	21.0	12.7
Örebro	Az: 149.4	164.8	175.2	178.9	182.4	185.9	189.4	198.5	203.0	229.4
de 15.1; la + 59.3	El: 18.9	21.8	22.6	22.7	22.7	22.5	22.3	21.3	20.5	12.7
Östersund	Az: 150.0	165.0	175.0	178.5	181.9	185.2	188.6	197.4	201.8	227.9
de 14.7; la + 63.6	El: 14.9	17.3	18.1	18.1	18.1	18.0	17.9	17.0	16.4	9.9
Stockholm	Az: 152.7	168.3	178.7	182.4	185.9	189.4	192.8	201.9	206.4	232.3
de 18.1; la + 59.3	El: 19.6	22.1	22.7	22.6	22.5	22.3	22.0	20.7	19.8	11.4
Sundsväl	Az: 152.5	167.6	177.7	181.4	184.7	188.1	191.5	200.4	204.7	230.6
de 17.2; la + 62.4	El: 16.5	18.8	19.4	19.4	19.3	19.2	18.9	17.8	17.1	9.8
Umea	Az: 157.1	172.2	182.2	185.8	189.1	192.4	195.7	204.5	208.7	234.2
de 21.2; la + 63.8	El: 16.0	17.7	17.9	17.8	17.6	17.4	17.0	15.8	14.9	7.4
Uppsala	Az: 152.4	167.8	178.2	181.9	185.4	188.8	192.2	201.3	205.7	231.7
de 17.6; la + 59.9	El: 19.0	21.4	22.0	22.0	21.9	21.7	21.4	20.2	19.4	11.2
Västervik	Az: 150.7	166.4	176.9	180.7	184.3	187.8	191.3	200.6	205.1	231.4
de 16.6; la + 57.7	El: 20.7	23.6	24.4	24.4	24.3	24.1	23.9	22.6	21.7	13.1
Växjö	Az: 148.3	163.9	174.5	178.3	181.9	185.5	189.0	198.4	203.0	229.7
de 14.6; la + 56.9	El: 20.9	24.1	25.1	25.2	25.2	25.1	24.9	23.8	23.0	14.5
Visby (Gotland)	Az: 152.5	168.3	178.9	182.7	186.3	189.8	193.3	202.5	207.0	233.0
de 18.3; la + 57.6	El: 21.3	23.9	24.5	24.5	24.3	24.1	23.8	22.4	21.4	12.4

Serbia, Bosnia-Herzegovina, Macedonia, Slovenia, Croatia

E=East W=West de=degree east la=latitude Az=Azimuth El=Elevation

		TürkSat ASTRA 2		ASTRA 1	EUTELSAT W2	EUTELSAT Hotbird	EUTELSAT W1	EUTELSAT W3	Thor	Telecom	HISPA-Sat
		42.0° E	28.2° E	19.2° E	16.0° E	13.0° E	10.0° E	7.0° E	1.0° W	5.0° W	30.0° W
Beograd (Belgrad)	Az: 150.8	169.1	181.8	186.4	190.6	194.7	198.8	209.2	214.1	239.8	
de 20.5; la + 44.8	El: 34.1	37.8	38.4	38.2	37.8	37.3	36.6	34.1	32.5	18.6	
Bled	Az: 143.8	160.9	173.0	177.4	181.5	185.7	189.8	200.4	205.6	233.2	
de 14.1; la + 46.4	El: 30.0	34.9	36.4	36.6	36.6	36.5	36.2	34.6	33.4	21.6	
Dubrovnik	Az: 146.8	165.3	178.4	183.1	187.5	191.9	196.2	207.1	212.2	238.7	
de 18.1; la + 42.6	El: 35.2	39.8	40.8	40.8	40.6	40.2	39.6	37.2	35.6	21.4	
Koper	Az: 143.0	160.1	172.3	176.8	181.0	185.2	189.4	200.2	205.4	233.3	
de 13.7; la + 45.5	El: 30.6	35.7	37.3	37.6	37.6	37.5	37.2	35.6	34.4	22.4	
Ljubljana	Az: 144.1	161.3	173.5	177.9	182.1	186.2	190.4	201.1	206.2	233.8	
de 14.5; la + 46.1	El: 30.5	35.3	36.8	37.0	37.0	36.8	36.5	34.8	33.6	21.6	
Maribor	Az: 145.7	162.9	175.1	179.4	183.6	187.7	191.8	202.3	207.4	234.6	
de 15.6; la + 46.6	El: 30.5	35.0	36.3	36.4	36.4	36.1	35.8	34.0	32.7	20.6	
Novi Sad	Az: 150.2	168.3	180.9	185.4	189.6	193.7	197.8	208.2	213.1	239.1	
de 19.9; la + 45.3	El: 33.5	37.2	37.9	37.8	37.5	37.0	36.4	33.9	32.4	18.8	
Osijek	Az: 148.9	166.8	179.3	183.8	187.9	192.1	196.2	206.6	211.6	237.9	
de 18.7; la + 45.6	El: 32.7	36.7	37.6	37.5	37.3	36.9	36.3	34.1	32.6	19.3	
Pula	Az: 142.7	160.0	172.4	176.9	181.1	185.4	189.6	200.6	205.8	233.7	
de 13.8; la + 44.8	El: 31.3	36.4	38.1	38.4	38.4	38.3	38.0	36.3	35.1	22.8	
Rijeka	Az: 143.7	161.0	173.3	177.8	182.0	186.2	190.4	201.2	206.4	234.1	
de 14.5; la + 45.3	El: 31.1	36.1	37.6	37.8	37.8	37.6	37.3	35.6	34.4	22.1	
Sarajevo	Az: 147.8	166.1	178.9	183.5	187.8	192.1	196.3	207.0	212.0	238.4	
de 18.4; la + 43.9	El: 34.2	38.5	39.4	39.4	39.1	38.7	38.1	35.8	34.2	20.4	
Skopje	Az: 150.8	170.0	183.4	188.1	192.5	196.9	201.1	211.7	216.7	241.9	
de 21.5; la + 42.0	El: 37.2	41.0	41.5	41.2	40.7	40.1	39.3	36.4	34.6	19.4	
Split	Az: 145.2	163.2	176.0	180.7	185.0	189.3	193.6	204.6	209.7	236.8	
de 16.5; la + 43.5	El: 33.6	38.4	39.7	39.8	39.7	39.4	38.9	36.8	35.4	21.9	
Titograd	Az: 148.2	166.9	180.1	184.9	189.3	193.7	197.9	208.7	213.8	239.9	
de 19.3; la + 42.4	El: 35.9	40.2	41.1	40.9	40.6	40.2	39.5	36.9	35.2	20.7	
Zadar	Az: 144.0	161.6	174.3	178.9	183.2	187.5	191.7	202.7	207.9	235.4	
de 15.2; la + 44.1	El: 32.6	37.5	39.0	39.2	39.1	38.9	38.5	36.6	35.3	22.4	
Zagreb	Az: 145.7	163.2	175.5	180.0	184.1	188.3	192.4	203.1	208.1	235.3	
de 16.0; la + 45.8	El: 31.4	35.9	37.2	37.3	37.2	37.0	36.6	34.7	33.4	20.9	

Hungary de=degree east la=latitude Az=Azimuth El=Elevation

Budapest	Az: 150.1	167.7	179.8	184.1	188.2	192.2	196.1	206.3	211.2	237.4	
de 19.1; s + 47.5	El: 31.0	34.7	35.4	35.4	35.1	34.7	34.2	32.0	30.6	18.0	
Debrecen	Az: 153.3	171.1	183.3	187.6	191.6	195.6	199.5	209.5	214.2	239.7	
de 21.6; s + 47.5	El: 31.9	35.1	35.4	35.2	34.8	34.3	33.6	31.2	29.6	16.5	
Pecs	Az: 148.6	166.3	178.7	183.1	187.3	191.4	195.4	205.9	210.8	237.3	
de 18.3; s + 46.1	El: 32.1	36.1	37.0	37.0	36.8	36.4	35.9	33.7	32.3	19.3	
Raab	Az: 148.5	165.8	177.8	182.2	186.2	190.2	194.2	204.5	209.4	236.0	
de 17.6; s + 47.7	El: 30.3	34.2	35.2	35.2	35.0	34.7	34.2	32.3	31.0	18.8	
Szeged	Az: 151.0	168.9	181.3	185.7	189.9	193.9	197.9	208.2	213.0	238.9	
de 20.2; s + 46.3	El: 32.6	36.2	36.8	36.6	36.3	35.9	35.2	32.9	31.3	18.0	
Szekesfehervar	Az: 149.2	166.7	178.9	183.2	187.3	191.3	195.3	205.6	210.5	236.9	
de 18.4; s + 47.2	El: 31.1	34.9	35.8	35.7	35.5	35.2	34.6	32.6	31.2	18.6	

Czech. Republic, Slovakia de=degree east la=latitude Az=Azimuth El=Elevation

Bratislava (Preßburg)	Az: 148.2	165.3	177.3	181.6	185.6	189.6	193.5	203.8	208.7	235.4	
de 17.2; la + 48.2	El: 29.7	33.7	34.7	34.7	34.6	34.3	33.8	32.0	30.7	18.7	
Brno (Brünn)	Az: 148.0	164.9	176.7	180.9	184.8	188.8	192.7	202.8	207.7	234.5	
de 16.7; la + 49.2	El: 28.6	32.5	33.5	33.5	33.4	33.2	32.8	31.1	29.8	18.4	
Ceske Budejovice (Budweis)	Az: 145.3	162.0	173.7	177.9	181.9	185.9	189.8	200.1	205.1	232.4	
de 14.4; la + 48.9	El: 28.0	32.3	33.7	33.9	33.9	33.7	33.4	31.9	30.9	19.8	
Karlovy Vary (Karlsbad)	Az: 144.0	160.3	171.8	175.9	179.8	183.7	187.6	197.8	202.7	230.4	
de 12.9; la + 50.2	El: 26.2	30.6	32.1	32.4	32.5	32.4	32.2	31.0	30.0	19.8	
Kosice (Kaschau)	Az: 153.2	170.8	182.7	187.0	190.9	194.8	198.7	208.6	213.3	238.9	
de 21.3; la + 48.7	El: 30.6	33.7	34.0	33.9	33.5	33.0	32.4	30.1	28.7	16.0	
Ostrava (Ostrau)	Az: 150.1	167.1	178.8	182.9	186.9	190.7	194.6	204.6	209.3	235.7	
de 18.3; la + 49.8	El: 28.6	32.1	32.9	32.8	32.7	32.3	31.9	30.0	28.7	17.1	
Plzen (Pilsen)	Az: 144.5	160.9	172.4	176.6	180.5	184.5	188.4	198.6	203.6	231.1	
de 13.4; la + 49.8	El: 26.8	31.2	32.7	32.9	33.0	32.9	32.6	31.3	30.3	19.8	
Praha (Prag)	Az: 145.8	162.3	173.8	178.0	181.9	185.8	189.7	199.8	204.7	232.0	
de 14.4; la + 50.1	El: 26.9	31.1	32.4	32.6	32.6	32.4	32.2	30.7	29.7	19.1	