

## 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 El: 22.8	152.3 28.2	<b>163.3</b> <b>30.5</b>	167.3 31.1	<b>171.1</b> <b>31.5</b>	174.9 31.7	178.8 31.8	189.1 31.5	194.2 30.9	223.2 22.7	
Aalen	Az: 140.4 El: 26.2	156.5 31.3	<b>168.0</b> <b>33.3</b>	172.2 33.7	<b>176.2</b> <b>33.9</b>	180.1 34.0	184.1 33.9	194.6 33.0	199.7 32.1	228.2 22.2	
Amberg	Az: 142.6 El: 26.4	158.9 31.2	<b>170.4</b> <b>32.9</b>	174.5 33.2	<b>178.5</b> <b>33.3</b>	182.4 33.3	186.4 33.1	196.7 32.0	201.7 31.0	229.7 20.9	
Aschaffenburg	Az: 139.9 El: 24.8	155.7 29.9	<b>167.0</b> <b>31.9</b>	171.1 32.4	<b>175.0</b> <b>32.6</b>	178.9 32.7	182.8 32.7	193.2 31.9	198.2 31.2	226.8 21.9	
Augsburg	Az: 141.1 El: 26.9	157.4 32.0	<b>169.0</b> <b>33.9</b>	173.2 34.3	<b>177.2</b> <b>34.4</b>	181.2 34.5	185.2 34.4	195.7 33.3	200.9 32.4	229.2 22.1	
Bad Hersfeld	Az: 140.8 El: 24.3	156.7 29.2	<b>167.8</b> <b>31.1</b>	171.9 31.5	<b>175.8</b> <b>31.7</b>	179.6 31.8	183.5 31.7	193.7 30.9	198.7 30.1	227.0 20.9	
Bad Homburg	Az: 139.4 El: 24.4	155.2 29.5	<b>166.3</b> <b>31.6</b>	170.4 32.0	<b>174.3</b> <b>32.3</b>	178.2 32.4	182.1 32.4	192.4 31.7	197.5 31.0	226.1 21.9	
Bad Neuenahr	Az: 137.9 El: 23.5	153.5 28.8	<b>164.5</b> <b>31.0</b>	168.6 31.5	<b>172.4</b> <b>31.8</b>	176.3 32.0	180.2 32.1	190.5 31.6	195.5 31.0	224.4 22.4	
Bad Reichenhall	Az: 143.0 El: 28.3	159.7 33.2	<b>171.5</b> <b>34.8</b>	175.8 35.1	<b>179.8</b> <b>35.2</b>	183.9 35.1	187.9 34.9	198.5 33.5	203.6 32.5	231.5 21.4	
Baden-Baden	Az: 138.4 El: 25.4	154.2 30.8	<b>165.6</b> <b>33.1</b>	169.7 33.5	<b>173.7</b> <b>33.9</b>	177.7 34.0	181.6 34.0	192.2 33.3	197.4 32.6	226.3 23.2	
Bamberg	Az: 141.7 El: 25.6	157.8 30.5	<b>169.2</b> <b>32.3</b>	173.3 32.6	<b>177.2</b> <b>32.8</b>	181.2 32.8	185.1 32.7	195.4 31.7	200.4 30.8	228.5 21.0	
Bayreuth	Az: 142.5 El: 25.9	158.7 30.6	<b>170.1</b> <b>32.3</b>	174.2 32.6	<b>178.1</b> <b>32.7</b>	182.1 32.7	186.0 32.6	196.3 31.5	201.3 30.6	229.2 20.6	
Bergen	Az: 146.2 El: 22.7	162.0 26.5	<b>172.9</b> <b>27.7</b>	176.8 27.9	<b>180.5</b> <b>27.9</b>	184.2 27.8	187.9 27.6	197.6 26.5	202.3 25.7	229.3 16.7	
Berlin	Az: 145.5 El: 24.4	161.6 28.4	<b>172.7</b> <b>29.7</b>	176.7 29.9	<b>180.5</b> <b>30.0</b>	184.3 29.9	188.1 29.7	197.9 28.5	202.8 27.6	230.0 18.0	
Bielefeld	Az: 140.0 El: 22.9	155.6 27.7	<b>166.6</b> <b>29.7</b>	170.6 30.1	<b>174.3</b> <b>30.4</b>	178.1 30.5	181.9 30.5	192.0 29.8	197.0 29.2	225.3 20.7	
Bingen	Az: 139.2 El: 26.4	155.3 31.8	<b>166.8</b> <b>33.9</b>	171.0 34.4	<b>175.0</b> <b>34.6</b>	179.0 34.8	183.0 34.7	193.7 33.9	198.9 33.0	227.7 23.1	
Bonn	Az: 138.0 El: 23.3	153.5 28.6	<b>164.5</b> <b>30.8</b>	168.6 31.3	<b>172.4</b> <b>31.6</b>	176.3 31.8	180.1 31.9	190.4 31.4	195.5 30.8	224.3 22.3	
Braunschweig	Az: 142.3 El: 23.5	158.1 28.0	<b>169.1</b> <b>29.7</b>	173.1 30.0	<b>176.9</b> <b>30.2</b>	180.7 30.2	184.5 30.1	194.5 29.3	199.4 28.5	227.2 19.5	
Bremen	Az: 140.7 El: 22.1	156.2 26.8	<b>167.1</b> <b>28.6</b>	171.0 29.0	<b>174.8</b> <b>29.2</b>	178.5 29.3	182.3 29.3	192.2 28.7	197.1 28.0	225.2 19.7	
Bremerhaven	Az: 140.6 El: 21.7	156.1 26.2	<b>166.9</b> <b>28.1</b>	170.8 28.5	<b>174.5</b> <b>28.7</b>	178.2 28.8	182.0 28.8	191.9 28.2	196.7 27.6	224.8 19.5	
Celle	Az: 141.9 El: 23.0	157.6 27.5	<b>168.6</b> <b>29.2</b>	172.6 29.6	<b>176.3</b> <b>29.8</b>	180.1 29.8	183.9 29.8	193.8 29.0	198.7 28.2	226.6 19.5	
Chemnitz	Az: 144.3 El: 25.7	160.6 30.0	<b>171.9</b> <b>31.5</b>	176.0 31.7	<b>179.9</b> <b>31.8</b>	183.8 31.7	187.6 31.5	197.7 30.3	202.6 29.4	230.2 19.4	
Coburg	Az: 142.0 El: 25.4	158.0 30.1	<b>169.3</b> <b>31.9</b>	173.5 32.2	<b>177.4</b> <b>32.4</b>	181.3 32.4	185.2 32.3	195.4 31.3	200.4 30.4	228.5 20.7	
Cottbus	Az: 146.3 El: 25.4	162.6 29.4	<b>173.8</b> <b>30.6</b>	177.9 30.8	<b>181.7</b> <b>30.8</b>	185.5 30.6	189.3 30.4	199.2 29.1	204.1 28.1	231.2 18.0	
Darmstadt	Az: 139.3 El: 24.7	155.1 29.9	<b>166.3</b> <b>32.0</b>	170.4 32.4	<b>174.3</b> <b>32.7</b>	178.2 32.8	182.2 32.8	192.5 32.1	197.6 31.4	226.3 22.2	
Deggendorf	Az: 143.6 El: 27.4	160.1 32.1	<b>171.7</b> <b>33.7</b>	176.0 33.9	<b>180.0</b> <b>34.0</b>	183.9 33.9	187.9 33.7	198.3 32.4	203.3 31.4	231.1 20.7	
Donaueschingen	Az: 138.3 El: 26.2	154.3 31.7	<b>165.7</b> <b>34.0</b>	169.9 34.5	<b>173.9</b> <b>34.8</b>	178.0 34.9	182.0 34.9	192.7 34.2	197.9 33.4	227.0 23.7	
Donauwörth	Az: 141.1 El: 26.6	157.3 31.6	<b>168.9</b> <b>33.5</b>	173.1 33.9	<b>177.1</b> <b>34.1</b>	181.0 34.1	185.0 34.0	195.5 33.0	200.6 32.1	228.9 21.9	
Dortmund	Az: 138.7 El: 22.8	154.2 27.9	<b>165.1</b> <b>30.0</b>	169.1 30.5	<b>172.9</b> <b>30.8</b>	176.8 31.0	180.6 31.0	190.8 30.5	195.8 29.9	224.4 21.5	
Dresden	Az: 145.3 El: 25.8	161.7 30.0	<b>173.0</b> <b>31.3</b>	177.1 31.5	<b>181.0</b> <b>31.6</b>	184.8 31.5	188.6 31.2	198.7 29.9	203.6 28.9	230.9 18.8	
Duisburg	Az: 137.9 El: 22.6	153.3 27.8	<b>164.3</b> <b>30.0</b>	168.3 30.5	<b>172.0</b> <b>30.8</b>	175.9 31.1	179.7 31.1	189.9 30.7	194.9 30.1	223.7 21.9	
Düsseldorf	Az: 137.8 El: 22.8	153.3 28.0	<b>164.2</b> <b>30.2</b>	168.2 30.7	<b>172.0</b> <b>31.1</b>	175.9 31.3	179.7 31.4	189.9 30.9	195.0 30.3	223.8 22.1	
Elmshorn	Az: 141.9 El: 21.9	157.4 26.3	<b>168.2</b> <b>28.0</b>	172.1 28.4	<b>175.8</b> <b>28.6</b>	179.6 28.6	183.3 28.6	193.1 27.9	198.0 27.2	225.8 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 öL 7.2; B + 53.4	Az: 139.1 El: 21.2	154.4 26.1	<b>165.2</b> <b>28.0</b>	169.1 28.5	<b>172.8</b> <b>28.8</b>	176.5 29.0	180.2 29.0	190.2 28.6	195.1 28.0	223.4 20.2
Erfurt öL 11.0; B + 51.0	Az: 142.3 El: 24.8	158.3 29.4	<b>169.5</b> <b>31.1</b>	173.6 31.4	<b>177.5</b> <b>31.6</b>	181.3 31.6	185.2 31.5	195.3 30.5	200.3 29.7	228.2 20.2
Essen öL 7.0; B + 51.5	Az: 138.2 El: 22.7	153.6 27.8	<b>164.6</b> <b>30.0</b>	168.6 30.5	<b>172.4</b> <b>30.8</b>	176.2 31.0	180.0 31.1	190.2 30.6	195.2 30.0	223.9 21.8
Feuchtwangen öL 10.3; B + 49.2	Az: 140.8 El: 26.0	156.9 31.1	<b>168.3</b> <b>33.0</b>	172.5 33.3	<b>176.5</b> <b>33.5</b>	180.4 33.6	184.4 33.5	194.8 32.6	199.9 31.7	228.3 21.8
Flensburg öL 9.4; B + 54.8	Az: 142.0 El: 21.0	157.4 25.2	<b>168.1</b> <b>26.9</b>	172.0 27.2	<b>175.6</b> <b>27.4</b>	179.3 27.5	183.0 27.5	192.7 26.8	197.5 26.2	225.2 18.2
Frankfurt am Main öL 8.7; B + 50.1	Az: 139.4 El: 24.5	155.2 29.6	<b>166.4</b> <b>31.7</b>	170.5 32.1	<b>174.4</b> <b>32.4</b>	178.3 32.6	182.2 32.5	192.5 31.8	197.6 31.1	226.2 22.0
Frankfurt an der Oder öL 14.5; B + 52.3	Az: 146.7 El: 25.0	162.9 28.8	<b>174.1</b> <b>30.0</b>	178.2 30.1	<b>182.0</b> <b>30.1</b>	185.7 30.0	189.5 29.7	199.4 28.4	204.2 27.5	231.2 17.5
Freiburg im Breisgau öL 7.9; B + 48.0	Az: 137.6 El: 25.8	153.5 31.5	<b>164.9</b> <b>33.8</b>	169.1 34.3	<b>173.1</b> <b>34.7</b>	177.1 34.8	181.1 34.9	191.8 34.2	197.1 33.5	226.3 24.0
Freising öL 11.8; B + 48.4	Az: 142.1 El: 27.3	158.5 32.2	<b>170.1</b> <b>34.0</b>	174.3 34.3	<b>178.3</b> <b>34.4</b>	182.3 34.4	186.3 34.3	196.8 33.1	201.9 32.1	230.0 21.6
Fulda öL 9.7; B + 50.6	Az: 140.7 El: 24.6	156.6 29.5	<b>167.8</b> <b>31.4</b>	171.8 31.8	<b>175.7</b> <b>32.0</b>	179.6 32.1	183.5 32.0	193.7 31.2	198.7 30.4	227.1 21.2
Garmisch-Partenkirchen öL 11.1; B + 47.5	Az: 140.9 El: 27.7	157.4 32.9	<b>169.1</b> <b>34.9</b>	173.4 35.2	<b>177.4</b> <b>35.4</b>	181.5 35.4	185.6 35.3	196.2 34.2	201.4 33.2	229.8 22.6
Gera öL 12.1; B + 50.9	Az: 143.4 El: 25.3	159.6 29.8	<b>170.8</b> <b>31.4</b>	174.9 31.6	<b>178.8</b> <b>31.7</b>	182.7 31.7	186.5 31.5	196.7 30.4	201.6 29.5	229.3 19.8
Görlitz öL 15.0; B + 51.2	Az: 146.8 El: 26.2	163.2 30.1	<b>174.6</b> <b>31.3</b>	178.7 31.4	<b>182.6</b> <b>31.4</b>	186.4 31.3	190.2 31.0	200.2 29.5	205.0 28.5	232.1 18.1
Goslar öL 10.4; B + 51.9	Az: 142.0 El: 23.8	157.8 28.4	<b>168.9</b> <b>30.1</b>	172.9 30.4	<b>176.7</b> <b>30.6</b>	180.6 30.6	184.4 30.5	194.4 29.7	199.3 28.9	227.3 19.8
Göttingen öL 9.9; B + 51.5	Az: 141.3 El: 23.9	157.1 28.6	<b>168.2</b> <b>30.4</b>	172.3 30.8	<b>176.1</b> <b>31.0</b>	179.9 31.0	183.7 31.0	193.9 30.1	198.8 29.4	226.9 20.4
Greifswald öL 13.4; B + 54.1	Az: 146.0 El: 23.0	161.9 26.8	<b>172.8</b> <b>28.0</b>	176.8 28.2	<b>180.5</b> <b>28.3</b>	184.2 28.2	187.9 28.0	197.6 26.9	202.3 26.0	229.4 16.9
Halberstadt öL 11.0; B + 51.9	Az: 142.7 El: 24.0	158.6 28.5	<b>169.7</b> <b>30.1</b>	173.7 30.5	<b>177.5</b> <b>30.6</b>	181.3 30.6	185.1 30.5	195.2 29.6	200.1 28.8	227.9 19.6
Halle öL 9.6; B + 52.0	Az: 141.1 El: 23.3	156.8 28.0	<b>167.8</b> <b>29.8</b>	171.9 30.2	<b>175.6</b> <b>30.4</b>	179.5 30.5	183.3 30.5	193.3 29.7	198.3 29.0	226.4 20.2
Hamburg öL 10.0; B + 53.6	Az: 142.2 El: 22.2	157.8 26.6	<b>168.7</b> <b>28.3</b>	172.6 28.6	<b>176.3</b> <b>28.8</b>	180.0 28.8	183.8 28.8	193.6 28.0	198.5 27.3	226.2 18.8
Hamel öL 9.4; B + 52.1	Az: 140.9 El: 23.2	156.6 27.9	<b>167.6</b> <b>29.7</b>	171.6 30.1	<b>175.4</b> <b>30.3</b>	179.2 30.4	183.0 30.4	193.0 29.6	198.0 28.9	226.1 20.2
Hamm öL 7.8; B + 51.7	Az: 139.1 El: 22.9	154.7 27.9	<b>165.6</b> <b>29.9</b>	169.6 30.4	<b>173.4</b> <b>30.7</b>	177.2 30.8	181.0 30.9	191.2 30.3	196.2 29.7	224.7 21.2
Hannover öL 9.7; B + 52.4	Az: 141.4 El: 23.1	157.1 27.7	<b>168.1</b> <b>29.5</b>	172.1 29.8	<b>175.9</b> <b>30.0</b>	179.7 30.1	183.4 30.1	193.5 29.3	198.4 28.6	226.4 19.8
Heide öL 9.1; B + 54.2	Az: 141.4 El: 21.3	156.9 25.7	<b>167.6</b> <b>27.5</b>	171.5 27.8	<b>175.2</b> <b>28.0</b>	178.9 28.1	182.6 28.1	192.4 27.5	197.2 26.8	225.1 18.8
Heidelberg öL 8.7; B + 49.4	Az: 139.1 El: 25.1	155.0 30.3	<b>166.3</b> <b>32.5</b>	170.4 32.9	<b>174.3</b> <b>33.2</b>	178.3 33.3	182.2 33.3	192.7 32.6	197.8 31.9	226.5 22.5
Heilbronn öL 9.2; B + 49.2	Az: 139.6 El: 25.5	155.5 30.8	<b>166.9</b> <b>32.8</b>	171.1 33.2	<b>175.0</b> <b>33.5</b>	179.0 33.6	182.9 33.6	193.4 32.8	198.5 32.0	227.2 22.4
Hildesheim öL 10.0; B + 52.2	Az: 141.6 El: 23.4	157.3 28.0	<b>168.3</b> <b>29.7</b>	172.4 30.1	<b>176.1</b> <b>30.3</b>	179.9 30.4	183.7 30.3	193.8 29.5	198.7 28.8	226.7 19.9
Hof öL 11.9; B + 50.3	Az: 143.0 El: 25.7	159.2 30.3	<b>170.6</b> <b>31.9</b>	174.7 32.2	<b>178.6</b> <b>32.3</b>	182.5 32.3	186.4 32.2	196.6 31.1	201.6 30.2	229.4 20.2
Ingolstadt öL 11.4; B + 48.8	Az: 141.9 El: 26.8	158.2 31.8	<b>169.7</b> <b>33.5</b>	173.9 33.9	<b>177.9</b> <b>34.0</b>	181.9 34.0	185.9 33.9	196.3 32.8	201.4 31.8	229.6 21.5
Iserlohn öL 7.7; B + 51.4	Az: 138.9 El: 23.0	154.4 28.1	<b>165.4</b> <b>30.2</b>	169.4 30.7	<b>173.2</b> <b>31.0</b>	177.1 31.2	180.9 31.2	191.1 30.6	196.1 30.0	224.7 21.5
Kaiserslautern öL 7.8; B + 49.5	Az: 138.2 El: 24.6	153.9 30.0	<b>165.1</b> <b>32.2</b>	169.2 32.8	<b>173.1</b> <b>33.1</b>	177.1 33.3	181.0 33.3	191.5 32.7	196.6 32.0	225.6 22.9
Karlsruhe öL 8.4; B + 49.0	Az: 138.6 El: 25.3	154.5 30.6	<b>165.8</b> <b>32.8</b>	170.0 33.3	<b>173.9</b> <b>33.6</b>	177.9 33.8	181.9 33.8	192.4 33.0	197.5 32.3	226.4 22.9
Kassel öL 9.5; B + 51.3	Az: 140.8 El: 23.9	156.6 28.7	<b>167.6</b> <b>30.6</b>	171.7 30.9	<b>175.5</b> <b>31.2</b>	179.4 31.3	183.2 31.2	193.4 30.4	198.3 29.7	226.6 20.7
Kempten (Allgäu) öL 10.3; B + 47.7	Az: 140.2 El: 27.2	156.4 32.5	<b>168.1</b> <b>34.5</b>	172.3 34.9	<b>176.4</b> <b>35.1</b>	180.4 35.2	184.5 35.1	195.1 34.1	200.3 33.2	228.9 22.9
Kiefersfelden öL 12.2; B + 47.6	Az: 142.2 El: 28.1	158.8 33.1	<b>170.5</b> <b>34.9</b>	174.8 35.2	<b>178.9</b> <b>35.3</b>	183.0 35.3	187.0 35.1	197.6 33.8	202.7 32.8	230.8 21.9

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

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

## Österreich

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

## Belgium

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

Antwerpen	Az: 135.4	150.5	<b>161.3</b>	165.3	<b>169.0</b>	172.9	176.7	186.9	192.0	221.3
de 4.4; la + 51.2	EI: 21.7	27.3	<b>29.7</b>	30.4	<b>30.8</b>	31.1	31.3	31.2	30.7	23.1
Arlon	Az: 136.2	151.6	<b>162.7</b>	166.7	<b>170.6</b>	174.5	178.4	188.9	194.0	223.4
de 5.8; la + 49.7	EI: 23.5	29.1	<b>31.6</b>	32.2	<b>32.6</b>	32.9	33.0	32.7	32.1	23.7
Bastogne	Az: 136.2	151.6	<b>162.6</b>	166.7	<b>170.5</b>	174.4	178.3	188.7	193.9	223.2
de 5.7; la + 50.0	EI: 23.2	28.8	<b>31.3</b>	31.9	<b>32.3</b>	32.6	32.7	32.3	31.8	23.5
Brüssel	Az: 135.1	150.3	<b>161.1</b>	165.1	<b>168.9</b>	172.7	176.6	186.9	192.0	221.4
de 4.4; la + 50.8	EI: 22.0	27.6	<b>30.1</b>	30.8	<b>31.2</b>	31.5	31.7	31.6	31.1	23.5
Charleroi	Az: 135.1	150.3	<b>161.1</b>	165.1	<b>169.0</b>	172.8	176.7	187.1	192.2	221.7
de 4.5; la + 50.4	EI: 22.3	28.0	<b>30.6</b>	31.2	<b>31.7</b>	32.0	32.2	32.0	31.5	23.8
Eupen	Az: 136.8	152.2	<b>163.1</b>	167.1	<b>171.0</b>	174.8	178.7	189.0	194.1	223.2
de 6.0; la + 50.6	EI: 22.9	28.4	<b>30.7</b>	31.3	<b>31.7</b>	31.9	32.0	31.7	31.1	22.9
Hasselt	Az: 136.2	151.4	<b>162.3</b>	166.3	<b>170.1</b>	174.0	177.8	188.1	193.2	222.4
de 5.3; la + 50.9	EI: 22.3	27.8	<b>30.3</b>	30.8	<b>31.3</b>	31.6	31.7	31.4	30.9	23.0
Leuven	Az: 135.5	150.7	<b>161.6</b>	165.6	<b>169.4</b>	173.2	177.0	187.3	192.4	221.7
de 4.7; la + 50.9	EI: 22.1	27.6	<b>30.1</b>	30.7	<b>31.2</b>	31.5	31.7	31.5	31.0	23.3
Lüttich	Az: 136.3	151.7	<b>162.6</b>	166.6	<b>170.4</b>	174.3	178.2	188.5	193.6	222.8
de 5.6; la + 50.6	EI: 22.7	28.2	<b>30.6</b>	31.2	<b>31.6</b>	31.9	32.0	31.7	31.1	23.1
Malmedy	Az: 136.7	152.1	<b>163.1</b>	167.1	<b>170.9</b>	174.8	178.7	189.1	194.2	223.3
de 6.0; la + 50.4	EI: 23.1	28.5	<b>30.9</b>	31.5	<b>31.9</b>	32.1	32.3	31.9	31.3	23.1
Namur	Az: 135.5	150.8	<b>161.7</b>	165.7	<b>169.5</b>	173.4	177.2	187.6	192.7	222.1
de 4.9; la + 50.5	EI: 22.5	28.1	<b>30.6</b>	31.2	<b>31.7</b>	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	<b>162.0</b>	165.9	<b>169.6</b>	173.3	177.1	187.2	192.1	221.0
de 4.7; la + 52.7	El:	20.7	26.0	<b>28.3</b>	28.9	<b>29.3</b>	29.6	29.7	29.5	29.1	21.8
Almelo	Az:	138.2	153.5	<b>164.3</b>	168.3	<b>172.1</b>	175.8	179.6	189.7	194.7	223.3
de 6.7; la + 52.3	El:	21.9	26.9	<b>29.1</b>	29.6	<b>29.9</b>	30.1	30.2	29.8	29.2	21.3
Amsterdam	Az:	136.3	151.5	<b>162.2</b>	166.1	<b>169.8</b>	173.6	177.3	187.4	192.4	221.4
de 4.9; la + 52.4	El:	21.1	26.3	<b>28.7</b>	29.3	<b>29.7</b>	30.0	30.1	29.9	29.4	22.0
Apeldoorn	Az:	137.4	152.6	<b>163.4</b>	167.4	<b>171.1</b>	174.9	178.7	188.8	193.8	222.5
de 6.0; la + 52.2	El:	21.6	26.8	<b>29.0</b>	29.6	<b>29.9</b>	30.2	30.3	29.9	29.4	21.7
Arnhem	Az:	137.2	152.5	<b>163.3</b>	167.3	<b>171.0</b>	174.8	178.6	188.7	193.7	222.6
de 5.9; la + 52.0	El:	21.8	27.0	<b>29.2</b>	29.8	<b>30.2</b>	30.4	30.5	30.2	29.7	21.9
Breda	Az:	135.8	151.0	<b>161.7</b>	165.7	<b>169.5</b>	173.2	177.1	187.3	192.3	221.5
de 4.7; la + 51.6	El:	21.5	27.0	<b>29.4</b>	30.0	<b>30.4</b>	30.7	30.9	30.7	30.3	22.7
Den Haag	Az:	135.6	150.7	<b>161.3</b>	165.3	<b>169.0</b>	172.8	176.6	186.7	191.7	220.8
de 4.3; la + 52.1	El:	21.0	26.4	<b>28.8</b>	29.4	<b>29.8</b>	30.2	30.3	30.2	29.8	22.5
Den Haag	Az:	135.4	150.5	<b>161.1</b>	165.1	<b>168.8</b>	172.5	176.3	186.4	191.5	220.6
de 4.1; la + 52.2	El:	20.8	26.2	<b>28.7</b>	29.3	<b>29.7</b>	30.1	30.2	30.1	29.7	22.5
Eindhoven	Az:	136.6	151.9	<b>162.7</b>	166.7	<b>170.4</b>	174.3	178.1	188.3	193.3	222.4
de 5.5; la + 51.4	El:	22.0	27.4	<b>29.7</b>	30.3	<b>30.7</b>	31.0	31.1	30.8	30.3	22.5
Emmen	Az:	138.6	153.9	<b>164.7</b>	168.6	<b>172.4</b>	176.1	179.9	189.9	194.8	223.3
de 6.9; la + 52.8	El:	21.6	26.5	<b>28.6</b>	29.1	<b>29.4</b>	29.6	29.7	29.2	28.7	20.8
Enschede	Az:	138.4	153.8	<b>164.6</b>	168.6	<b>172.3</b>	176.1	179.9	190.0	195.0	223.5
de 6.9; la + 52.2	El:	22.0	27.1	<b>29.2</b>	29.7	<b>30.0</b>	30.2	30.3	29.8	29.3	21.2
Groningen	Az:	138.4	153.7	<b>164.4</b>	168.3	<b>172.0</b>	175.7	179.5	189.4	194.4	222.8
de 6.6; la + 53.2	El:	21.1	26.0	<b>28.1</b>	28.6	<b>28.9</b>	29.1	29.2	28.8	28.3	20.6
Harlem	Az:	136.0	151.2	<b>161.8</b>	165.8	<b>169.5</b>	173.2	177.0	187.1	192.1	221.1
de 4.6; la + 52.4	El:	20.9	26.2	<b>28.6</b>	29.2	<b>29.6</b>	29.9	30.1	29.9	29.4	22.1
Hoogeveen	Az:	138.1	153.4	<b>164.2</b>	168.1	<b>171.8</b>	175.6	179.4	189.4	194.3	222.9
de 6.5; la + 52.7	El:	21.5	26.5	<b>28.6</b>	29.1	<b>29.5</b>	29.7	29.8	29.4	28.8	21.1
Leeuwarden	Az:	137.6	152.8	<b>163.4</b>	167.3	<b>171.0</b>	174.8	178.5	188.5	193.4	222.0
de 5.8; la + 53.2	El:	20.8	25.8	<b>28.0</b>	28.5	<b>28.9</b>	29.1	29.2	28.9	28.4	21.0
Maastricht	Az:	136.5	151.9	<b>162.8</b>	166.8	<b>170.6</b>	174.5	178.3	188.6	193.7	222.8
de 5.7; la + 50.8	El:	22.6	28.1	<b>30.4</b>	31.0	<b>31.4</b>	31.7	31.8	31.5	31.0	22.9
Nijmegen	Az:	137.1	152.4	<b>163.2</b>	167.2	<b>171.0</b>	174.7	178.6	188.7	193.7	222.6
de 5.9; la + 51.8	El:	21.9	27.1	<b>29.4</b>	30.0	<b>30.3</b>	30.6	30.7	30.4	29.8	22.0
Roermond	Az:	137.0	152.4	<b>163.3</b>	167.3	<b>171.0</b>	174.9	178.7	189.0	194.0	223.0
de 6.0; la + 51.2	El:	22.4	27.8	<b>30.1</b>	30.6	<b>31.0</b>	31.3	31.4	31.0	30.5	22.4
Utrecht	Az:	136.4	151.6	<b>162.4</b>	166.3	<b>170.0</b>	173.8	177.6	187.7	192.7	221.7
de 5.1; la + 52.1	El:	21.3	26.7	<b>29.0</b>	29.6	<b>30.0</b>	30.2	30.4	30.1	29.7	22.1
Venlo	Az:	137.3	152.6	<b>163.5</b>	167.5	<b>171.3</b>	175.1	179.0	189.2	194.2	223.2
de 6.2; la + 51.3	El:	22.4	27.8	<b>30.0</b>	30.6	<b>30.9</b>	31.2	31.3	30.9	30.3	22.3
Warden	Az:	137.5	152.7	<b>163.4</b>	167.3	<b>171.0</b>	174.8	178.5	188.5	193.4	222.0
de 5.8; la + 53.1	El:	20.9	25.9	<b>28.1</b>	28.6	<b>29.0</b>	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	<b>163.1</b>	167.1	<b>171.0</b>	174.9	178.8	189.3	194.4	223.7
de 6.1; la + 49.8	El:	23.6	29.2	<b>31.6</b>	32.1	<b>32.5</b>	32.8	32.9	32.5	31.9	23.5
Luxembourg	Az:	136.5	152.0	<b>163.1</b>	167.2	<b>171.0</b>	175.0	178.9	189.4	194.5	223.8
de 6.2; la + 49.6	El:	23.7	29.3	<b>31.8</b>	32.3	<b>32.7</b>	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 de 2.3; la + 49.9	Az: 132.6 El: 21.6	147.6 27.7	<b>158.3</b> <b>30.6</b>	162.3 31.3	<b>166.1</b> <b>31.9</b>	169.9 32.3	173.8 32.6	184.3 32.7	189.5 32.4	219.5 25.1
Angers dw 0.6; la + 47.5	Az: 128.7 El: 21.8	143.3 28.7	<b>154.0</b> <b>32.1</b>	158.0 33.1	<b>161.9</b> <b>33.8</b>	165.8 34.5	169.8 34.9	180.6 35.4	186.0 35.3	217.4 28.4
Angouleme de 0.2; la + 45.7	Az: 128.6 El: 23.4	143.3 30.6	<b>154.2</b> <b>34.2</b>	158.4 35.2	<b>162.3</b> <b>35.9</b>	166.4 36.6	170.5 37.0	181.6 37.5	187.2 37.2	219.1 29.6
Arras de 2.8; la + 50.3	Az: 133.3 El: 21.6	148.3 27.6	<b>159.0</b> <b>30.3</b>	163.0 31.0	<b>166.8</b> <b>31.6</b>	170.6 32.0	174.5 32.3	184.9 32.3	190.1 31.9	219.9 24.6
Bayonne de 1.5; la + 43.3	Az: 128.8 El: 25.8	143.7 33.3	<b>155.0</b> <b>37.0</b>	159.3 38.0	<b>163.5</b> <b>38.7</b>	167.7 39.3	172.0 39.8	183.6 40.0	189.4 39.6	221.8 30.9
Belfort de 6.8; la + 47.6	Az: 136.4 El: 25.6	152.1 31.5	<b>163.5</b> <b>34.0</b>	167.7 34.6	<b>171.7</b> <b>35.0</b>	175.7 35.2	179.8 35.3	190.5 34.8	195.8 34.1	225.4 24.8
Bordeaux dw 0.6; la + 44.8	Az: 127.5 El: 23.5	142.1 31.0	<b>153.0</b> <b>34.7</b>	157.1 35.8	<b>161.1</b> <b>36.6</b>	165.2 37.3	169.3 37.8	180.6 38.4	186.3 38.2	218.7 30.7
Boulogne dw 1.8; la + 47.2	Az: 127.4 El: 21.3	141.8 28.4	<b>152.4</b> <b>32.0</b>	156.4 33.0	<b>160.2</b> <b>33.9</b>	164.1 34.5	168.1 35.1	178.9 35.8	184.4 35.7	216.2 29.2
Brest dw 4.5; la + 48.4	Az: 125.3 El: 19.0	139.3 26.2	<b>149.6</b> <b>29.9</b>	153.4 31.0	<b>157.1</b> <b>31.9</b>	160.9 32.7	164.8 33.3	175.3 34.3	180.6 34.4	212.5 29.3
Caen dw 0.4; la + 49.2	Az: 129.7 El: 20.8	144.3 27.3	<b>154.8</b> <b>30.6</b>	158.8 31.5	<b>162.6</b> <b>32.2</b>	166.4 32.7	170.3 33.2	180.8 33.6	186.1 33.4	216.9 26.9
Calais de 1.9; la + 51.0	Az: 132.7 El: 20.7	147.6 26.6	<b>158.2</b> <b>29.4</b>	162.1 30.2	<b>165.9</b> <b>30.7</b>	169.7 31.2	173.5 31.5	183.8 31.6	188.9 31.3	218.7 24.4
Chalons-sur-Marne de 4.3; la + 49.0	Az: 134.3 El: 23.3	149.6 29.3	<b>160.6</b> <b>32.0</b>	164.7 32.7	<b>168.6</b> <b>33.2</b>	172.5 33.6	176.5 33.8	187.1 33.6	192.3 33.1	222.2 25.0
Charleville-Mezieres de 4.7; la + 49.7	Az: 135.0 El: 22.9	150.3 28.7	<b>161.2</b> <b>31.3</b>	165.3 32.0	<b>169.1</b> <b>32.4</b>	173.0 32.8	176.9 32.9	187.4 32.7	192.6 32.2	222.2 24.2
Clermont-Ferrand de 3.1; la + 45.8	Az: 131.6 El: 25.0	146.8 31.8	<b>158.0</b> <b>35.0</b>	162.2 35.8	<b>166.3</b> <b>36.4</b>	170.4 36.9	174.5 37.2	185.7 37.2	191.2 36.7	222.3 28.1
Colmar de 7.3; la + 48.1	Az: 137.1 El: 25.5	152.9 31.2	<b>164.2</b> <b>33.6</b>	168.4 34.2	<b>172.4</b> <b>34.5</b>	176.4 34.7	180.4 34.8	191.1 34.2	196.4 33.5	225.7 24.2
Epinal de 6.5; la + 48.2	Az: 136.2 El: 25.0	151.8 30.8	<b>163.1</b> <b>33.3</b>	167.3 33.9	<b>171.2</b> <b>34.3</b>	175.2 34.6	179.3 34.7	190.0 34.2	195.2 33.6	224.7 24.6
Le Havre de 0.1; la + 49.5	Az: 130.3 El: 20.8	144.9 27.2	<b>155.5</b> <b>30.4</b>	159.5 31.2	<b>163.2</b> <b>31.9</b>	167.1 32.5	171.0 32.9	181.4 33.2	186.7 33.0	217.3 26.4
Limoges de 1.3; la + 45.8	Az: 129.8 El: 23.9	144.7 31.0	<b>155.7</b> <b>34.4</b>	159.8 35.3	<b>163.8</b> <b>36.0</b>	167.9 36.6	172.0 37.0	183.1 37.2	188.7 36.9	220.2 29.0
Lorient dw 3.4; la + 47.8	Az: 126.1 El: 20.0	140.3 27.2	<b>150.7</b> <b>30.9</b>	154.6 32.0	<b>158.3</b> <b>32.9</b>	162.2 33.6	166.1 34.2	176.8 35.1	182.2 35.1	214.1 29.4
Marseille de 5.4; la + 43.3	Az: 132.7 El: 28.1	148.5 35.0	<b>160.2</b> <b>38.1</b>	164.7 38.9	<b>168.9</b> <b>39.5</b>	173.3 39.8	177.6 40.0	189.2 39.6	194.9 39.0	226.0 28.8
Metz de 6.2; la + 49.1	Az: 136.3 El: 24.1	151.8 29.8	<b>163.0</b> <b>32.3</b>	167.1 32.9	<b>171.0</b> <b>33.3</b>	174.9 33.5	178.9 33.6	189.4 33.2	194.6 32.6	224.0 24.0
Mulhouse de 7.3; la + 47.7	Az: 136.9 El: 25.8	152.7 31.6	<b>164.1</b> <b>34.0</b>	168.3 34.6	<b>172.4</b> <b>35.0</b>	176.4 35.2	180.5 35.2	191.2 34.6	196.5 33.9	225.9 24.5
Nancy de 6.2; la + 48.7	Az: 136.2 El: 24.5	151.7 30.2	<b>162.9</b> <b>32.7</b>	167.1 33.3	<b>171.0</b> <b>33.7</b>	174.9 34.0	178.9 34.1	189.5 33.7	194.8 33.1	224.3 24.3
Nantes dw 1.6; la + 47.2	Az: 127.6 El: 21.4	142.1 28.5	<b>152.7</b> <b>32.1</b>	156.7 33.1	<b>160.5</b> <b>33.9</b>	164.4 34.6	168.4 35.1	179.2 35.7	184.6 35.6	216.4 29.1
Orleans de 1.9; la + 47.9	Az: 131.4 El: 22.8	146.3 29.4	<b>157.2</b> <b>32.5</b>	161.3 33.3	<b>165.1</b> <b>33.9</b>	169.1 34.4	173.1 34.8	183.9 34.9	189.2 34.6	220.0 27.0
Paris de 2.3; la + 48.9	Az: 132.2 El: 22.4	147.2 28.7	<b>158.1</b> <b>31.6</b>	162.1 32.4	<b>166.0</b> <b>33.0</b>	169.9 33.4	173.8 33.8	184.4 33.8	189.7 33.5	220.0 26.0
Quimper dw 4.2; la + 48.0	Az: 125.5 El: 19.4	139.6 26.7	<b>149.8</b> <b>30.4</b>	153.7 31.5	<b>157.4</b> <b>32.4</b>	161.3 33.2	165.1 33.8	175.8 34.8	181.1 34.9	213.1 29.5
Reims de 4.0; la + 49.3	Az: 134.1 El: 23.0	149.3 29.0	<b>160.3</b> <b>31.7</b>	164.3 32.4	<b>168.2</b> <b>32.9</b>	172.1 33.2	176.1 33.4	186.6 33.3	191.8 32.9	221.7 24.9
Rennes dw 1.7; la + 48.1	Az: 127.9 El: 20.8	142.3 27.7	<b>152.9</b> <b>31.2</b>	156.8 32.2	<b>160.6</b> <b>32.9</b>	164.5 33.6	168.4 34.1	179.1 34.8	184.5 34.7	215.9 28.4
Rouen de 1.1; la + 49.5	Az: 131.2 El: 21.3	146.0 27.7	<b>156.7</b> <b>30.7</b>	160.7 31.5	<b>164.5</b> <b>32.2</b>	168.3 32.7	172.2 33.0	182.7 33.3	188.0 33.0	218.4 26.0
St.-Nazaire dw 2.2; la + 47.3	Az: 127.1 El: 21.0	141.4 28.2	<b>151.9</b> <b>31.8</b>	155.9 32.8	<b>159.7</b> <b>33.7</b>	163.6 34.4	167.6 34.9	178.4 35.7	183.8 35.6	215.7 29.3
St.-Quentin de 3.3; la + 49.8	Az: 133.6 El: 22.2	148.7 28.1	<b>159.5</b> <b>30.9</b>	163.5 31.6	<b>167.3</b> <b>32.1</b>	171.2 32.5	175.1 32.8	185.6 32.7	190.8 32.3	220.6 24.8
Straßburg de 7.8; la + 48.6	Az: 137.8 El: 25.3	153.6 30.9	<b>164.9</b> <b>33.2</b>	169.1 33.7	<b>173.0</b> <b>34.0</b>	177.0 34.2	181.0 34.2	191.6 33.6	196.8 32.9	225.9 23.6
Toulouse de 1.5; la + 43.6	Az: 128.9 El: 25.5	143.8 33.0	<b>155.1</b> <b>36.6</b>	159.4 37.6	<b>163.5</b> <b>38.4</b>	167.7 39.0	172.0 39.4	183.5 39.7	189.3 39.3	221.6 30.7

**France** E=East W=West de=degree east la=latitude Az=Azimuth EI=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 de 0.7; la + 47.4	Az: 129.9 El: 22.6	144.7 29.3	<b>155.5</b> <b>32.6</b>	159.6 33.6	<b>163.4</b> <b>34.3</b>	167.4 34.8	171.4 35.2	182.3 35.6	187.7 35.3	218.9 28.0
Verdun de 5.4; la + 49.2	Az: 135.5 El: 23.7	150.9 29.5	<b>162.0</b> <b>32.1</b>	166.1 32.7	<b>170.0</b> <b>33.2</b>	173.9 33.5	177.9 33.6	188.4 33.3	193.6 32.7	223.2 24.3

**Switzerland** de=degree east la=latitude Az=Azimuth EI=Elevation

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

**Italy** de=degree east la=latitude Az=Azimuth EI=Elevation

Ancona de 13.5; la + 43.6	Az: 141.8 El: 32.2	159.2 37.6	<b>171.8</b> <b>39.4</b>	176.4 39.6	<b>180.7</b> <b>39.7</b>	185.1 39.6	189.4 39.3	200.6 37.6	205.9 36.4	234.0 23.7
Bari de 16.9; la + 41.1	Az: 144.5 El: 36.0	163.1 41.1	<b>176.5</b> <b>42.4</b>	181.3 42.5	<b>185.9</b> <b>42.3</b>	190.4 42.0	194.8 41.4	206.1 39.1	211.4 37.5	238.4 23.0
Bergamo de 9.7; la + 45.7	Az: 138.5 El: 28.5	154.9 34.3	<b>166.8</b> <b>36.6</b>	171.2 37.0	<b>175.3</b> <b>37.3</b>	179.5 37.4	183.7 37.3	194.7 36.4	200.1 35.4	229.2 24.6
Bologna de 11.3; la + 44.5	Az: 139.8 El: 30.4	156.6 36.0	<b>168.8</b> <b>38.1</b>	173.4 38.5	<b>177.6</b> <b>38.7</b>	181.9 38.7	186.2 38.6	197.3 37.3	202.7 36.2	231.4 24.5
Bolzano (Bozen) de 11.3; la + 46.5	Az: 140.7 El: 28.7	157.3 34.0	<b>169.2</b> <b>36.0</b>	173.6 36.3	<b>177.7</b> <b>36.5</b>	181.8 36.5	186.0 36.4	196.8 35.2	202.0 34.2	230.5 23.1
Brescia de 10.3; la + 45.5	Az: 139.1 El: 29.0	155.6 34.7	<b>167.6</b> <b>36.9</b>	172.0 37.3	<b>176.2</b> <b>37.6</b>	180.4 37.6	184.6 37.5	195.7 36.4	201.0 35.5	229.9 24.4
Cagliari de 9.1; la + 39.3	Az: 134.4 El: 33.3	151.3 40.4	<b>164.3</b> <b>43.4</b>	169.2 44.0	<b>173.9</b> <b>44.4</b>	178.6 44.6	183.3 44.5	195.7 43.4	201.7 42.3	232.1 29.4
Catania de 15.1; la + 37.5	Az: 140.2 El: 38.2	159.0 44.4	<b>173.2</b> <b>46.3</b>	178.5 46.5	<b>183.4</b> <b>46.5</b>	188.3 46.2	193.1 45.7	205.3 43.4	211.0 41.7	238.7 26.3
Cosenza de 16.2; la + 39.3	Az: 142.7 El: 37.3	161.5 42.9	<b>175.3</b> <b>44.4</b>	180.4 44.5	<b>185.1</b> <b>44.4</b>	189.8 44.1	194.4 43.5	206.1 41.1	211.5 39.5	238.8 24.5
Firenze (Florenz) de 11.3; la + 43.8	Az: 139.3 El: 30.9	156.2 36.7	<b>168.6</b> <b>38.9</b>	173.2 39.3	<b>177.5</b> <b>39.5</b>	181.8 39.5	186.1 39.3	197.4 38.0	202.8 36.9	231.7 25.0
Genova (Genua) de 8.9; la + 44.4	Az: 137.1 El: 29.2	153.5 35.3	<b>165.5</b> <b>37.8</b>	170.0 38.4	<b>174.2</b> <b>38.7</b>	178.5 38.8	182.8 38.8	194.1 37.9	199.5 37.0	229.1 26.0
La Spezia de 9.8; la + 44.1	Az: 137.9 El: 29.9	154.5 35.9	<b>166.7</b> <b>38.3</b>	171.2 38.8	<b>175.5</b> <b>39.0</b>	179.8 39.1	184.1 39.1	195.4 38.0	200.8 37.0	230.1 25.6
Lecce de 18.2; la + 40.3	Az: 145.7 El: 37.3	164.7 42.2	<b>178.4</b> <b>43.4</b>	183.3 43.3	<b>188.0</b> <b>43.1</b>	192.5 42.6	197.0 42.0	208.2 39.4	213.5 37.6	239.9 22.5
Livorno de 10.3; la + 43.5	Az: 138.1 El: 30.6	154.9 36.7	<b>167.2</b> <b>39.0</b>	171.7 39.5	<b>176.1</b> <b>39.8</b>	180.4 39.8	184.8 39.7	196.2 38.6	201.7 37.5	230.9 25.8
Milano (Mailand) de 9.2; la + 45.5	Az: 137.9 El: 28.5	154.2 34.4	<b>166.1</b> <b>36.7</b>	170.5 37.2	<b>174.7</b> <b>37.5</b>	178.9 37.7	183.1 37.6	194.2 36.7	199.5 35.8	228.8 25.1
Napoli (Neapel) de 14.3; la + 40.8	Az: 141.2 El: 34.9	159.2 40.7	<b>172.5</b> <b>42.5</b>	177.3 42.8	<b>181.9</b> <b>42.8</b>	186.5 42.6	191.0 42.2	202.6 40.3	208.1 38.8	236.1 24.9
Padova de 11.6; la + 45.3	Az: 140.5 El: 29.8	157.2 35.3	<b>169.4</b> <b>37.3</b>	173.8 37.7	<b>178.0</b> <b>37.8</b>	182.3 37.8	186.5 37.7	197.5 36.4	202.8 35.3	231.3 23.8
Palermo de 13.4; la + 38.1	Az: 138.5 El: 36.7	156.8 43.2	<b>170.6</b> <b>45.4</b>	175.8 45.7	<b>180.6</b> <b>45.8</b>	185.5 45.7	190.3 45.3	202.6 43.3	208.3 41.8	236.8 27.1
Parma de 10.3; la + 44.8	Az: 138.8 El: 29.6	155.4 35.4	<b>167.5</b> <b>37.6</b>	172.0 38.1	<b>176.2</b> <b>38.3</b>	180.5 38.4	184.7 38.3	195.9 37.1	201.3 36.1	230.3 24.8
Pescara de 14.2; la + 42.5	Az: 142.0 El: 33.5	159.8 39.0	<b>172.6</b> <b>40.7</b>	177.4 41.0	<b>181.8</b> <b>41.0</b>	186.2 40.8	190.6 40.4	201.9 38.6	207.3 37.2	235.2 24.0
Roma (Rom) de 12.5; la + 41.9	Az: 139.7 El: 33.1	157.2 39.1	<b>170.0</b> <b>41.2</b>	174.8 41.5	<b>179.3</b> <b>41.6</b>	183.7 41.6	188.2 41.3	199.8 39.7	205.3 38.4	233.9 25.5
Torino (Turin) de 7.7; la + 45.1	Az: 136.0 El: 28.0	152.1 34.2	<b>163.9</b> <b>36.9</b>	168.3 37.4	<b>172.5</b> <b>37.8</b>	176.7 38.1	180.9 38.1	192.2 37.4	197.6 36.6	227.5 26.2
Trieste de 13.7; la + 45.6	Az: 143.0 El: 30.6	160.1 35.6	<b>172.3</b> <b>37.2</b>	176.8 37.5	<b>181.0</b> <b>37.5</b>	185.2 37.4	189.3 37.1	200.2 35.5	205.3 34.3	233.2 22.4
Venezia (Venedig) de 12.3; la + 45.4	Az: 141.4 El: 30.1	158.2 35.4	<b>170.4</b> <b>37.3</b>	174.9 37.6	<b>179.1</b> <b>37.7</b>	183.3 37.7	187.5 37.4	198.4 36.1	203.7 34.9	232.0 23.3
Verona de 11.0; la + 45.3	Az: 139.8 El: 29.5	156.5 35.1	<b>168.5</b> <b>37.2</b>	173.0 37.6	<b>177.2</b> <b>37.8</b>	181.4 37.8	185.6 37.7	196.6 36.5	202.0 35.5	230.7 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	<b>148.6</b>	152.9	<b>157.2</b>	161.6	166.1	178.7	185.0	220.4
dw 1.8; la + 39.0	El: 26.3	35.2	<b>39.8</b>	41.2	<b>42.3</b>	43.2	43.9	44.8	44.7	36.3
Algeciras	Az: 118.4	131.5	<b>142.1</b>	146.3	<b>150.5</b>	154.9	159.5	172.5	179.2	217.7
dw 5.5; la + 36.2	El: 25.2	35.1	<b>40.6</b>	42.3	<b>43.7</b>	45.0	46.0	47.8	48.1	40.7
Alicante	Az: 124.1	138.6	<b>150.0</b>	154.5	<b>158.9</b>	163.4	168.0	180.8	187.2	222.3
dw 0.5; la + 38.4	El: 27.6	36.5	<b>41.0</b>	42.3	<b>43.4</b>	44.2	44.9	45.5	45.3	36.0
Almeria	Az: 121.4	135.4	<b>146.5</b>	150.9	<b>155.3</b>	159.8	164.5	177.6	184.2	221.0
dw 2.5; la + 36.9	El: 27.1	36.5	<b>41.6</b>	43.0	<b>44.2</b>	45.3	46.1	47.2	47.2	38.4
Avila	Az: 121.5	135.2	<b>145.8</b>	149.9	<b>153.9</b>	158.0	162.3	174.3	180.4	215.9
dw 4.7; la + 40.7	El: 23.4	32.2	<b>37.0</b>	38.4	<b>39.6</b>	40.6	41.5	42.9	43.0	36.3
Badajoz	Az: 118.6	131.7	<b>141.9</b>	145.9	<b>149.9</b>	154.0	158.3	170.5	176.8	214.1
dw 7.0; la + 38.8	El: 22.7	32.2	<b>37.5</b>	39.1	<b>40.5</b>	41.7	42.7	44.6	45.0	39.1
Barcelona	Az: 128.4	143.6	<b>155.2</b>	159.6	<b>163.9</b>	168.3	172.7	184.8	190.8	223.6
de 2.2; la + 41.4	El: 27.5	35.3	<b>39.1</b>	40.1	<b>40.9</b>	41.5	41.9	42.0	41.6	32.1
Burgos	Az: 123.3	137.3	<b>147.9</b>	152.0	<b>156.0</b>	160.1	164.4	176.0	182.0	216.3
dw 3.7; la + 42.4	El: 23.1	31.5	<b>35.9</b>	37.2	<b>38.3</b>	39.2	39.9	41.0	41.1	34.3
Cadiz	Az: 117.9	130.8	<b>141.2</b>	145.4	<b>149.5</b>	153.8	158.3	171.1	177.8	216.4
dw 6.3; la + 36.5	El: 24.4	34.3	<b>39.8</b>	41.5	<b>43.0</b>	44.3	45.4	47.3	47.6	40.9
Cartagena	Az: 123.2	137.6	<b>149.0</b>	153.4	<b>157.8</b>	162.4	167.1	180.0	186.6	222.3
dw 1.0; la + 37.6	El: 27.7	36.8	<b>41.5</b>	42.9	<b>44.0</b>	44.9	45.6	46.4	46.2	36.9
Cordoba	Az: 119.9	133.3	<b>144.0</b>	148.2	<b>152.3</b>	156.6	161.1	173.8	180.3	217.5
dw 4.8; la + 37.8	El: 24.8	34.3	<b>39.5</b>	41.0	<b>42.3</b>	43.5	44.4	46.0	46.2	38.9
Gijon	Az: 122.1	135.7	<b>146.0</b>	150.0	<b>153.8</b>	157.8	161.9	173.2	179.0	213.2
dw 5.7; la + 43.5	El: 21.1	29.4	<b>33.9</b>	35.3	<b>36.4</b>	37.4	38.2	39.6	39.8	34.2
Granada	Az: 120.6	134.3	<b>145.2</b>	149.5	<b>153.8</b>	158.2	162.8	175.7	182.3	219.4
dw 3.6; la + 37.2	El: 26.1	35.6	<b>40.7</b>	42.2	<b>43.5</b>	44.6	45.5	46.8	46.9	38.8
Ibiza	Az: 126.3	141.2	<b>153.0</b>	157.5	<b>161.9</b>	166.5	171.2	183.9	190.2	224.2
de 1.4; la + 38.9	El: 28.6	37.1	<b>41.3</b>	42.5	<b>43.4</b>	44.1	44.6	44.9	44.5	34.5
La Coruna	Az: 119.6	132.7	<b>142.7</b>	146.5	<b>150.3</b>	154.1	158.1	169.3	175.0	210.0
dw 8.4; la + 43.3	El: 19.5	28.1	<b>32.9</b>	34.4	<b>35.6</b>	36.7	37.7	39.5	39.9	35.5
Madrid	Az: 122.3	136.1	<b>146.9</b>	151.1	<b>155.1</b>	159.4	163.7	175.8	182.0	217.3
dw 3.7; la + 40.4	El: 24.2	33.0	<b>37.7</b>	39.0	<b>40.2</b>	41.2	42.0	43.2	43.3	36.0
Malaga	Az: 119.6	133.1	<b>143.8</b>	148.1	<b>152.3</b>	156.7	161.3	174.3	181.0	218.7
dw 4.4; la + 36.7	El: 25.7	35.4	<b>40.7</b>	42.3	<b>43.6</b>	44.8	45.7	47.3	47.4	39.6
Palma de Mallorca	Az: 127.9	143.1	<b>155.0</b>	159.6	<b>164.0</b>	168.6	173.2	185.7	191.9	225.2
de 2.7; la + 39.6	El: 29.0	37.1	<b>41.1</b>	42.2	<b>43.0</b>	43.6	44.0	44.0	43.5	33.2
Salamanca	Az: 120.9	134.3	<b>144.8</b>	148.8	<b>152.8</b>	156.9	161.1	172.9	179.0	214.6
dw 5.7; la + 41.0	El: 22.6	31.4	<b>36.3</b>	37.7	<b>38.9</b>	40.0	40.9	42.4	42.7	36.5
San Sebastian	Az: 125.4	139.7	<b>150.5</b>	154.7	<b>158.7</b>	162.8	167.0	178.6	184.4	217.8
dw 2.0; la + 43.3	El: 23.6	31.6	<b>35.7</b>	36.9	<b>37.8</b>	38.6	39.3	40.1	40.0	32.7
Santander	Az: 123.7	137.7	<b>148.3</b>	152.3	<b>156.2</b>	160.3	164.4	175.9	181.7	215.5
dw 3.9; la + 43.5	El: 22.3	30.5	<b>34.8</b>	36.1	<b>37.1</b>	38.0	38.7	39.8	39.9	33.4
Sevilla	Az: 118.7	131.8	<b>142.2</b>	146.4	<b>150.4</b>	154.7	159.2	171.8	178.4	216.3
dw 6.0; la + 37.4	El: 24.2	33.9	<b>39.3</b>	40.9	<b>42.3</b>	43.5	44.6	46.3	46.7	39.9
Valencia	Az: 124.5	139.0	<b>150.3</b>	154.7	<b>159.0</b>	163.4	168.0	180.5	186.8	221.6
dw 0.7; la + 39.3	El: 26.9	35.6	<b>40.0</b>	41.3	<b>42.3</b>	43.1	43.8	44.5	44.3	35.3
Valladolid	Az: 122.0	135.7	<b>146.3</b>	150.3	<b>154.3</b>	158.4	162.7	174.4	180.4	215.4
dw 4.7; la + 41.6	El: 22.8	31.5	<b>36.1</b>	37.5	<b>38.6</b>	39.6	40.4	41.8	41.9	35.5
Vigo	Az: 118.8	131.8	<b>141.8</b>	145.6	<b>149.4</b>	153.3	157.3	168.6	174.5	210.2
dw 8.7; la + 42.2	El: 19.8	28.7	<b>33.7</b>	35.2	<b>36.5</b>	37.7	38.7	40.7	41.1	36.7
Zaragoza	Az: 125.4	139.9	<b>151.0</b>	155.3	<b>159.4</b>	163.7	168.0	180.0	186.0	219.9
dw 1.0; la + 41.6	El: 25.3	33.5	<b>37.7</b>	38.9	<b>39.9</b>	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	<b>139.8</b>	143.8	<b>147.7</b>	151.9	156.2	168.5	175.0	213.5
dw 8.0; la + 37.5	El: 22.6	32.5	<b>38.0</b>	39.8	<b>41.2</b>	42.6	43.7	45.9	46.4	40.8
Beja	Az: 117.4	130.2	<b>140.3</b>	144.3	<b>148.2</b>	152.4	156.7	168.9	175.3	213.4
dw 7.9; la + 38.0	El: 22.5	32.2	<b>37.7</b>	39.4	<b>40.8</b>	42.1	43.3	45.4	45.8	40.2
Coimbra	Az: 118.1	131.0	<b>141.0</b>	144.9	<b>148.7</b>	152.7	156.9	168.6	174.7	211.5
dw 8.4; la + 40.2	El: 21.0	30.3	<b>35.5</b>	37.2	<b>38.5</b>	39.8	40.9	42.9	43.4	38.5
Faro	Az: 116.9	129.5	<b>139.6</b>	143.6	<b>147.6</b>	151.8	156.1	168.6	175.2	214.0
dw 7.9; la + 37.0	El: 22.9	32.9	<b>38.5</b>	40.2	<b>41.7</b>	43.1	44.3	46.4	47.0	41.2
Figueira da Foz	Az: 117.6	130.4	<b>140.4</b>	144.2	<b>148.0</b>	152.0	156.2	167.8	174.0	210.9
dw 8.9; la + 40.1	El: 20.7	30.1	<b>35.3</b>	37.0	<b>38.4</b>	39.7	40.8	42.9	43.4	38.8
Lagos	Az: 116.3	128.8	<b>138.7</b>	142.7	<b>146.6</b>	150.7	155.0	167.4	173.9	212.9
dw 8.7; la + 37.1	El: 22.3	32.3	<b>38.0</b>	39.8	<b>41.3</b>	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	<b>139.2</b>	143.1	<b>146.9</b>	150.9	155.1	167.1	173.4	211.3	
dw 9.2; la + 38.7	El: 21.2	30.9	<b>36.4</b>	38.1	<b>39.6</b>	40.9	42.1	44.4	45.0	40.2	
Mertola	Az: 117.4	130.2	<b>140.3</b>	144.4	<b>148.3</b>	152.5	156.8	169.2	175.6	213.9	
dw 7.7; la + 37.7	El: 22.8	32.6	<b>38.1</b>	39.8	<b>41.3</b>	42.6	43.7	45.8	46.3	40.5	
Odemira	Az: 116.6	129.1	<b>139.1</b>	143.0	<b>146.9</b>	151.0	155.3	167.6	174.0	212.6	
dw 8.7; la + 37.6	El: 22.1	32.0	<b>37.6</b>	39.4	<b>40.9</b>	42.2	43.4	45.7	46.3	41.0	
Portimao	Az: 116.4	129.0	<b>138.9</b>	142.9	<b>146.8</b>	151.0	155.3	167.6	174.2	213.1	
dw 8.5; la + 37.1	El: 22.4	32.4	<b>38.1</b>	39.8	<b>41.4</b>	42.7	43.9	46.2	46.8	41.4	
Porto	Az: 118.4	131.3	<b>141.3</b>	145.2	<b>148.9</b>	152.9	157.0	168.5	174.5	210.8	
dw 8.6; la + 41.2	El: 20.4	29.5	<b>34.6</b>	36.2	<b>37.6</b>	38.8	39.8	41.8	42.3	37.7	
Setubal	Az: 116.8	129.5	<b>139.4</b>	143.3	<b>147.2</b>	151.2	155.4	167.4	173.8	211.8	
dw 8.9; la + 38.5	El: 21.5	31.2	<b>36.7</b>	38.4	<b>39.9</b>	41.2	42.4	44.6	45.2	40.3	
Torres Vedras	Az: 116.8	129.5	<b>139.3</b>	143.2	<b>147.0</b>	151.0	155.2	167.0	173.3	211.0	
dw 9.3; la + 39.1	El: 21.0	30.6	<b>36.0</b>	37.7	<b>39.2</b>	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	<b>155.1</b>	158.7	<b>162.2</b>	165.7	169.2	178.7	183.5	212.2
dw 2.1; la + 57.1	El: 14.6	19.8	<b>22.4</b>	23.1	<b>23.7</b>	24.2	24.5	25.0	25.0	20.6
Belfast	Az: 126.3	140.2	<b>150.1</b>	153.7	<b>157.2</b>	160.7	164.3	174.0	178.9	208.7
dw 5.9; la + 54.6	El: 14.4	20.5	<b>23.7</b>	24.6	<b>25.4</b>	26.1	26.6	27.6	27.7	24.0
Birmingham	Az: 129.6	143.9	<b>154.1</b>	157.9	<b>161.5</b>	165.2	168.9	179.0	184.0	214.0
dw 1.8; la + 52.5	El: 17.8	23.9	<b>26.9</b>	27.7	<b>28.4</b>	29.0	29.4	30.0	29.9	24.6
Bristol	Az: 128.4	142.7	<b>152.9</b>	156.7	<b>160.4</b>	164.1	167.8	178.0	183.1	213.6
dw 2.6; la + 51.5	El: 18.1	24.5	<b>27.7</b>	28.6	<b>29.3</b>	29.9	30.4	31.1	31.1	25.8
Dover	Az: 132.1	146.9	<b>157.5</b>	161.4	<b>165.1</b>	168.9	172.7	183.0	188.1	218.0
de 1.3; la + 51.1	El: 20.3	26.3	<b>29.1</b>	29.9	<b>30.5</b>	30.9	31.3	31.5	31.2	24.6
Edinburgh	Az: 129.4	143.6	<b>153.6</b>	157.2	<b>160.7</b>	164.2	167.7	177.3	182.2	211.4
dw 3.2; la + 56.0	El: 14.8	20.4	<b>23.2</b>	24.0	<b>24.6</b>	25.2	25.6	26.2	26.2	21.9
Glasgow	Az: 128.4	142.5	<b>152.4</b>	156.0	<b>159.5</b>	163.0	166.5	176.1	180.9	210.2
dw 4.2; la + 55.9	El: 14.4	20.1	<b>23.0</b>	23.8	<b>24.5</b>	25.1	25.6	26.3	26.4	22.3
Iverness	Az: 129.0	143.0	<b>152.8</b>	156.4	<b>159.8</b>	163.3	166.8	176.2	180.9	209.8
dw 4.2; la + 57.5	El: 13.4	18.8	<b>21.5</b>	22.2	<b>22.9</b>	23.4	23.9	24.5	24.6	20.8
Leeds	Az: 130.3	144.7	<b>154.8</b>	158.6	<b>162.1</b>	165.8	169.4	179.3	184.2	213.8
dw 1.6; la + 53.8	El: 17.0	22.8	<b>25.7</b>	26.5	<b>27.1</b>	27.6	28.0	28.5	28.5	23.3
Liverpool	Az: 128.8	143.1	<b>153.2</b>	156.9	<b>160.4</b>	164.1	167.7	177.6	182.6	212.5
dw 2.9; la + 53.4	El: 16.6	22.7	<b>25.7</b>	26.6	<b>27.3</b>	27.8	28.3	29.0	29.0	24.1
London	Az: 130.8	145.4	<b>155.8</b>	159.7	<b>163.4</b>	167.1	170.9	181.1	186.2	216.2
dw 0.2; la + 51.5	El: 19.3	25.4	<b>28.3</b>	29.1	<b>29.8</b>	30.3	30.7	31.1	30.9	24.8
Manchester	Az: 129.5	143.8	<b>154.0</b>	157.7	<b>161.3</b>	164.9	168.5	178.4	183.4	213.2
dw 2.3; la + 53.5	El: 16.9	22.9	<b>25.8</b>	26.6	<b>27.3</b>	27.9	28.3	28.9	28.9	23.8
Newcastle upon Tyne	Az: 130.7	145.0	<b>155.1</b>	158.8	<b>162.4</b>	165.9	169.5	179.3	184.1	213.4
dw 1.6; la + 55.0	El: 16.2	21.8	<b>24.5</b>	25.3	<b>25.9</b>	26.4	26.8	27.3	27.2	22.3
Norwich	Az: 132.7	147.4	<b>157.9</b>	161.7	<b>165.4</b>	169.1	172.8	182.9	187.9	217.4
de 1.3; la + 52.6	El: 19.2	24.9	<b>27.6</b>	28.3	<b>28.9</b>	29.3	29.6	29.8	29.6	23.3
Nottingham	Az: 130.2	144.6	<b>154.9</b>	158.7	<b>162.3</b>	165.9	169.6	179.6	184.6	214.5
dw 1.3; la + 52.9	El: 17.8	23.7	<b>26.9</b>	27.5	<b>28.1</b>	28.6	29.1	29.6	29.5	24.0
Playmouth	Az: 126.5	140.5	<b>150.7</b>	154.5	<b>158.1</b>	161.8	165.6	175.8	181.0	212.1
dw 4.2; la + 50.4	El: 17.9	24.7	<b>28.2</b>	29.2	<b>30.0</b>	30.7	31.3	32.2	32.3	27.3
Portsmouth	Az: 129.6	144.1	<b>154.5</b>	158.3	<b>162.0</b>	165.8	169.6	179.9	185.0	215.5
dw 1.1; la + 50.8	El: 19.3	25.6	<b>28.7</b>	29.6	<b>30.3</b>	30.9	31.3	31.8	31.7	25.8
Sheffield	Az: 130.2	144.6	<b>154.8</b>	158.6	<b>162.1</b>	165.8	169.5	179.4	184.4	214.1
dw 1.5; la + 53.4	El: 17.3	23.2	<b>26.1</b>	26.9	<b>27.6</b>	28.1	28.5	29.0	28.9	23.7
Swansea	Az: 127.1	141.2	<b>151.3</b>	155.1	<b>158.7</b>	162.4	166.1	176.2	181.3	211.9
dw 4.0; la + 51.6	El: 17.3	23.8	<b>27.1</b>	28.1	<b>28.8</b>	29.5	30.1	30.9	31.0	26.1
Wolverhampton	Az: 129.2	143.6	<b>153.7</b>	157.5	<b>161.1</b>	164.8	168.5	178.5	183.5	213.6
dw 2.2; la + 52.6	El: 17.5	23.6	<b>26.7</b>	27.5	<b>28.2</b>	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	<b>169.0</b>	172.8	<b>176.3</b>	179.9	183.5	193.0	197.6	224.9
de 9.9; b + 57.1	El: 19.3	23.1	<b>24.6</b>	24.9	<b>25.0</b>	25.1	25.0	24.4	23.8	16.3
Arhus	Az: 143.3	158.7	<b>169.2</b>	173.0	<b>176.7</b>	180.3	183.9	193.4	198.1	225.5
de 10.2; b + 56.2	El: 20.1	24.1	<b>25.5</b>	25.8	<b>26.0</b>	26.0	26.0	25.3	24.6	16.9
Esbjerg	Az: 141.2	156.5	<b>167.0</b>	170.9	<b>174.5</b>	178.1	181.8	191.4	196.2	224.0
de 8.5; b + 55.5	El: 20.0	24.3	<b>26.0</b>	26.4	<b>26.7</b>	26.8	26.8	26.2	25.6	18.1
Kobenhavn (Kopenhagen)	Az: 145.7	161.3	<b>172.0</b>	175.8	<b>179.5</b>	183.1	186.7	196.3	201.0	228.0
de 12.6; b + 55.7	El: 21.3	25.0	<b>26.3</b>	26.5	<b>26.6</b>	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	<b>179.9</b>	183.4	<b>186.7</b>	190.0	193.2	201.9	206.2	231.7
de 19.1; la + 65.6	El: 13.9	15.7	<b>16.1</b>	16.0	<b>15.9</b>	15.7	15.5	14.4	13.7	7.1
Borlänge	Az: 150.1	165.4	<b>175.6</b>	179.3	<b>182.8</b>	186.2	189.6	198.7	203.1	229.4
de 15.4; la + 60.5	El: 17.9	20.6	<b>21.3</b>	21.4	<b>21.4</b>	21.3	21.1	20.0	19.3	11.7
Falkenberg	Az: 146.0	161.5	<b>172.0</b>	175.8	<b>179.4</b>	183.0	186.6	196.0	200.6	227.6
de 12.5; la + 56.9	El: 20.2	23.8	<b>25.0</b>	25.2	<b>25.2</b>	25.2	25.1	24.2	23.4	15.4
Gävle	Az: 152.0	167.3	<b>177.6</b>	181.3	<b>184.7</b>	188.1	191.5	200.5	205.0	231.0
de 17.1; la + 60.7	El: 18.1	20.6	<b>21.2</b>	21.2	<b>21.1</b>	20.9	20.7	19.5	18.7	10.9
Göteborg	Az: 145.7	161.0	<b>171.5</b>	175.3	<b>178.8</b>	182.4	185.9	195.3	199.9	226.8
de 12.0; la + 57.8	El: 19.3	22.8	<b>24.0</b>	24.2	<b>24.3</b>	24.3	24.2	23.4	22.7	15.0
Helsingborg	Az: 146.0	161.6	<b>172.2</b>	176.1	<b>179.7</b>	183.3	186.9	196.4	201.1	228.1
de 12.8; la + 56.1	El: 21.0	24.6	<b>25.9</b>	26.1	<b>26.1</b>	26.1	25.9	25.0	24.2	15.8
Jönköping	Az: 148.0	163.5	<b>174.1</b>	177.8	<b>181.4</b>	184.9	188.5	197.8	202.3	229.0
de 14.2; la + 57.8	El: 20.0	23.2	<b>24.2</b>	24.3	<b>24.3</b>	24.2	24.0	23.0	22.2	14.1
Kalmar	Az: 150.1	165.8	<b>176.5</b>	180.4	<b>183.9</b>	187.5	191.1	200.4	205.0	231.4
de 16.3; la + 56.7	El: 21.6	24.6	<b>25.4</b>	25.5	<b>25.4</b>	25.2	24.9	23.7	22.8	13.9
Karlstad	Az: 147.8	163.0	<b>173.4</b>	177.1	<b>180.6</b>	184.1	187.5	196.7	201.2	227.8
de 13.5; la + 59.4	El: 18.3	21.4	<b>22.4</b>	22.6	<b>22.6</b>	22.5	22.4	21.4	20.7	13.2
Kiruna	Az: 156.6	171.4	<b>181.1</b>	184.5	<b>187.8</b>	191.0	194.2	202.7	206.9	232.4
de 20.2; la + 67.8	El: 12.0	13.5	<b>13.8</b>	13.7	<b>13.6</b>	13.4	13.1	12.1	11.5	5.3
Kristianstad	Az: 147.5	163.3	<b>174.0</b>	177.8	<b>181.4</b>	185.1	188.7	198.1	202.8	229.6
de 14.2; la + 56.0	El: 21.6	25.0	<b>26.1</b>	26.2	<b>26.2</b>	26.1	25.9	24.8	23.9	15.3
Lidköping	Az: 147.2	162.6	<b>173.0</b>	176.8	<b>180.3</b>	183.8	187.3	196.6	201.1	227.8
de 13.2; la + 58.5	El: 19.0	22.3	<b>23.3</b>	23.5	<b>23.5</b>	23.5	23.3	22.4	21.7	13.9
Linköping	Az: 149.8	165.3	<b>175.8</b>	179.5	<b>183.0</b>	186.5	190.0	199.3	203.8	230.1
de 15.6; la + 58.4	El: 19.8	22.7	<b>23.6</b>	23.6	<b>23.6</b>	23.5	23.2	22.1	21.3	13.0
Lulea	Az: 158.3	173.3	<b>183.2</b>	186.7	<b>190.0</b>	193.2	196.5	205.1	209.3	234.7
de 22.1; la + 65.6	El: 14.4	15.9	<b>16.0</b>	15.9	<b>15.7</b>	15.5	15.1	13.9	13.1	6.1
Malmö	Az: 146.1	161.8	<b>172.5</b>	176.4	<b>180.0</b>	183.6	187.3	196.8	201.5	228.5
de 13.0; la + 55.6	El: 21.6	25.2	<b>26.4</b>	26.6	<b>26.7</b>	26.6	26.4	25.4	24.6	16.1
Norrköping	Az: 150.4	166.0	<b>176.4</b>	180.2	<b>183.7</b>	187.2	190.7	199.9	204.4	230.7
de 16.2; la + 58.6	El: 19.8	22.6	<b>23.4</b>	23.5	<b>23.4</b>	23.2	23.0	21.8	21.0	12.7
Örebro	Az: 149.4	164.8	<b>175.2</b>	178.9	<b>182.4</b>	185.9	189.4	198.5	203.0	229.4
de 15.1; la + 59.3	El: 18.9	21.8	<b>22.6</b>	22.7	<b>22.7</b>	22.5	22.3	21.3	20.5	12.7
Östersund	Az: 150.0	165.0	<b>175.0</b>	178.5	<b>181.9</b>	185.2	188.6	197.4	201.8	227.9
de 14.7; la + 63.6	El: 14.9	17.3	<b>18.1</b>	18.1	<b>18.1</b>	18.0	17.9	17.0	16.4	9.9
Stockholm	Az: 152.7	168.3	<b>178.7</b>	182.4	<b>185.9</b>	189.4	192.8	201.9	206.4	232.3
de 18.1; la + 59.3	El: 19.6	22.1	<b>22.7</b>	22.6	<b>22.5</b>	22.3	22.0	20.7	19.8	11.4
Sundsväl	Az: 152.5	167.6	<b>177.7</b>	181.4	<b>184.7</b>	188.1	191.5	200.4	204.7	230.6
de 17.2; la + 62.4	El: 16.5	18.8	<b>19.4</b>	19.4	<b>19.3</b>	19.2	18.9	17.8	17.1	9.8
Umea	Az: 157.1	172.2	<b>182.2</b>	185.8	<b>189.1</b>	192.4	195.7	204.5	208.7	234.2
de 21.2; la + 63.8	El: 16.0	17.7	<b>17.9</b>	17.8	<b>17.6</b>	17.4	17.0	15.8	14.9	7.4
Uppsala	Az: 152.4	167.8	<b>178.2</b>	181.9	<b>185.4</b>	188.8	192.2	201.3	205.7	231.7
de 17.6; la + 59.9	El: 19.0	21.4	<b>22.0</b>	22.0	<b>21.9</b>	21.7	21.4	20.2	19.4	11.2
Västervik	Az: 150.7	166.4	<b>176.9</b>	180.7	<b>184.3</b>	187.8	191.3	200.6	205.1	231.4
de 16.6; la + 57.7	El: 20.7	23.6	<b>24.4</b>	24.4	<b>24.3</b>	24.1	23.9	22.6	21.7	13.1
Växjö	Az: 148.3	163.9	<b>174.5</b>	178.3	<b>181.9</b>	185.5	189.0	198.4	203.0	229.7
de 14.6; la + 56.9	El: 20.9	24.1	<b>25.1</b>	25.2	<b>25.2</b>	25.1	24.9	23.8	23.0	14.5
Visby (Gotland)	Az: 152.5	168.3	<b>178.9</b>	182.7	<b>186.3</b>	189.8	193.3	202.5	207.0	233.0
de 18.3; la + 57.6	El: 21.3	23.9	<b>24.5</b>	24.5	<b>24.3</b>	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 EI=Elevation

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

## Hungary de=degree east la=latitude Az=Azimuth EI=Elevation

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

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

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