

Name	Mag	Sidereal Hour Angle												Declination													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Alrai	3.2	<b>5</b>	03.9	04.6	04.9	04.8	04.3	03.5	02.7	02.0	01.6	01.5	01.8	02.4	<b>77</b>	41.7	41.6	41.5	41.3	41.2	41.2	41.3	41.4	41.6	41.8	41.9	42.0
Lambda Andromeda	3.9	<b>5</b>	29.1	29.2	29.3	29.2	29.0	28.7	28.4	28.2	28.0	27.9	28.0	28.1	<b>46</b>	31.1	31.0	30.9	30.8	30.7	30.7	30.8	30.9	31.1	31.3	31.4	31.4
98 Aquarius	4.0	<b>9</b>	07.4	07.5	07.5	07.4	07.3	07.0	06.8	06.6	06.4	06.4	06.5	06.6	<b>-20</b>	02.8	02.8	02.7	02.7	02.6	02.4	02.3	02.3	02.3	02.3	02.4	02.4
Gamma Tucana	4.0	<b>10</b>	29.8	29.9	30.0	29.9	29.6	29.3	28.9	28.6	28.4	28.4	28.5	28.7	<b>-58</b>	11.0	10.9	10.8	10.6	10.5	10.4	10.3	10.3	10.4	10.5	10.6	10.7
Gamma Pices	3.7	<b>10</b>	34.6	34.7	34.7	34.6	34.4	34.2	34.0	33.8	33.6	33.6	33.7	33.7	<b>3</b>	20.3	20.3	20.3	20.3	20.3	20.4	20.5	20.6	20.7	20.7	20.7	20.7
Iota Grus	3.9	<b>12</b>	16.0	16.1	16.1	16.1	15.9	15.6	15.3	15.0	14.9	14.8	14.9	15.1	<b>-45</b>	11.7	11.6	11.5	11.4	11.2	11.1	11.0	11.0	11.1	11.2	11.3	11.4
88 Aquarius	3.7	<b>12</b>	30.2	30.2	30.2	30.2	30.0	29.8	29.5	29.3	29.2	29.1	29.2	29.3	<b>-21</b>	07.1	07.1	07.1	07.0	06.9	06.8	06.7	06.6	06.6	06.7	06.7	06.8
Markab	2.5	<b>13</b>	41.0	41.1	41.1	41.0	40.8	40.6	40.3	40.1	40.0	40.0	40.1	40.2	<b>15</b>	15.7	15.6	15.6	15.6	15.6	15.7	15.8	15.9	16.0	16.1	16.1	16.1
Scheat	2.5	<b>13</b>	56.0	56.1	56.1	56.0	55.9	55.6	55.3	55.1	55.0	55.0	55.1	55.2	<b>28</b>	08.5	08.4	08.3	08.2	08.2	08.3	08.4	08.5	08.6	08.8	08.8	08.8
Omicron Andromeda	3.6	<b>14</b>	24.3	24.4	24.4	24.3	24.1	23.8	23.5	23.3	23.2	23.1	23.2	23.4	<b>42</b>	23.1	23.0	22.9	22.8	22.7	22.8	22.9	23.0	23.2	23.3	23.4	23.5
Fomalhaut	1.2	<b>15</b>	26.9	26.9	26.9	26.8	26.6	26.4	26.1	25.9	25.8	25.8	25.8	25.9	<b>-29</b>	34.2	34.2	34.1	34.0	33.9	33.8	33.7	33.7	33.7	33.8	33.8	33.9
Skat	3.3	<b>16</b>	12.2	12.2	12.2	12.1	12.0	11.7	11.5	11.3	11.2	11.1	11.2	11.3	<b>-15</b>	46.1	46.1	46.0	46.0	45.9	45.8	45.7	45.6	45.6	45.6	45.7	45.7
Lambda Aquarius	3.8	<b>16</b>	42.9	42.9	42.9	42.8	42.6	42.4	42.2	42.0	41.8	41.8	41.9	42.0	<b>-7</b>	31.5	31.6	31.6	31.5	31.4	31.3	31.2	31.2	31.1	31.1	31.1	31.2
Sadalbari	3.5	<b>17</b>	22.7	22.7	22.7	22.6	22.4	22.2	21.9	21.7	21.6	21.6	21.7	21.8	<b>24</b>	39.5	39.4	39.3	39.3	39.3	39.3	39.4	39.6	39.7	39.8	39.8	39.9
Iota Cepheus	3.5	<b>17</b>	29.7	30.0	30.1	29.9	29.6	29.1	28.6	28.3	28.2	28.2	28.4	28.8	<b>66</b>	15.6	15.4	15.3	15.2	15.1	15.1	15.2	15.3	15.5	15.7	15.8	15.9
Epsilon Grus	3.5	<b>17</b>	42.6	42.7	42.7	42.6	42.3	42.0	41.7	41.4	41.2	41.2	41.4	41.6	<b>-51</b>	16.0	15.9	15.8	15.6	15.5	15.4	15.3	15.4	15.4	15.5	15.6	15.7
Lambda Pegasus	4.0	<b>18</b>	14.8	14.8	14.8	14.7	14.5	14.3	14.0	13.8	13.7	13.7	13.8	13.9	<b>23</b>	37.3	37.2	37.1	37.1	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.7
Matar	2.9	<b>19</b>	07.9	08.0	08.0	07.9	07.7	07.4	07.2	07.0	06.9	06.9	06.9	07.1	<b>30</b>	16.6	16.6	16.5	16.4	16.4	16.4	16.6	16.7	16.8	17.0	17.0	17.0
Beta Grus	2.1	<b>19</b>	11.0	11.1	11.0	10.9	10.7	10.4	10.1	09.8	09.7	09.7	09.8	10.0	<b>-46</b>	50.1	50.0	49.9	49.7	49.6	49.5	49.4	49.4	49.5	49.6	49.7	49.8
Homam	3.4	<b>19</b>	30.5	30.6	30.5	30.4	30.3	30.0	29.8	29.6	29.5	29.5	29.6	29.7	<b>10</b>	53.1	53.1	53.0	53.0	53.1	53.1	53.3	53.4	53.5	53.5	53.5	53.5
Alpha Lacerta	3.8	<b>22</b>	04.6	04.7	04.7	04.5	04.3	04.0	03.7	03.4	03.3	03.4	03.5	03.7	<b>50</b>	20.3	20.2	20.1	20.0	19.9	20.0	20.1	20.3	20.4	20.6	20.7	20.7
Delta Grus	4.0	<b>22</b>	32.0	32.0	32.0	31.9	31.6	31.3	31.0	30.8	30.7	30.7	30.8	31.0	<b>-43</b>	26.8	26.7	26.6	26.5	26.3	26.2	26.2	26.2	26.3	26.3	26.4	26.5
Zeta Aquarius	3.7	<b>22</b>	39.7	39.8	39.7	39.6	39.4	39.2	39.0	38.8	38.7	38.7	38.8	38.9	<b>0</b>	01.9	01.9	01.9	01.9	02.0	02.1	02.2	02.3	02.3	02.3	02.3	02.3
Sadachbia	3.9	<b>24</b>	27.4	27.4	27.3	27.2	27.0	26.8	26.6	26.4	26.3	26.3	26.4	26.5	<b>-1</b>	20.2	20.2	20.2	20.2	20.1	20.0	19.9	19.8	19.8	19.8	19.8	19.8
Alpha Tucana	2.9	<b>25</b>	12.3	12.4	12.4	12.2	11.8	11.4	11.0	10.7	10.6	10.7	10.9	11.1	<b>-60</b>	12.7	12.6	12.5	12.3	12.2	12.1	12.1	12.1	12.2	12.3	12.4	12.5
Zeta Cepheus	3.3	<b>27</b>	12.3	12.4	12.4	12.2	11.9	11.5	11.2	10.9	10.9	11.0	11.2	11.4	<b>58</b>	15.3	15.2	15.1	14.9	14.9	14.9	15.1	15.2	15.4	15.6	15.7	15.7
Baham	3.5	<b>27</b>	19.4	19.4	19.4	19.3	19.1	18.8	18.6	18.4	18.4	18.4	18.5	18.6	<b>6</b>	14.9	14.9	14.8	14.8	14.9	15.0	15.1	15.2	15.3	15.3	15.3	15.3
Alnair	1.8	<b>27</b>	47.1	47.1	47.0	46.9	46.6	46.3	46.0	45.8	45.7	45.7	45.9	46.0	<b>-46</b>	54.9	54.8	54.7	54.5	54.4	54.3	54.3	54.3	54.4	54.5	54.6	54.6
Iota Pegasus	3.8	<b>28</b>	07.9	07.9	07.9	07.7	07.5	07.3	07.0	06.9	06.8	06.8	06.9	07.0	<b>25</b>	23.8	23.7	23.6	23.6	23.6	23.7	23.8	23.9	24.1	24.2	24.2	24.2
Sadal Melik	2.9	<b>28</b>	25.5	25.5	25.5	25.3	25.2	24.9	24.7	24.5	24.4	24.5	24.6	24.7	<b>-0</b>	16.2	16.2	16.3	16.2	16.2	16.1	16.0	15.9	15.8	15.8	15.8	15.9
Al Dhanab	3.0	<b>31</b>	22.0	22.0	21.9	21.8	21.5	21.2	21.0	20.8	20.7	20.7	20.9	21.0	<b>-37</b>	19.2	19.1	19.0	18.9	18.8	18.7	18.6	18.7	18.7	18.8	18.8	18.9
Deneb Algiedi	2.9	<b>33</b>	06.1	06.1	06.0	05.9	05.7	05.4	05.2	05.0	05.0	05.0	05.1	05.2	<b>-16</b>	04.9	04.9	04.9	04.8	04.7	04.7	04.6	04.5	04.5	04.5	04.6	04.6
Enif	2.4	<b>33</b>	49.9	49.9	49.8	49.7	49.5	49.2	49.0	48.8	48.8	48.8	48.9	49.0	<b>9</b>	55.4	55.3	55.2	55.2	55.3	55.4	55.5	55.6	55.7	55.7	55.7	55.7
Nu Octans	3.7	<b>34</b>	22.1	22.2	22.0	21.5	20.8	19.9	19.2	18.6	18.5	18.8	19.4	20.1	<b>-77</b>	20.9	20.7	20.5	20.4	20.3	20.2	20.2	20.3	20.5	20.6	20.7	20.7
Nashira	3.7	<b>34</b>	50.3	50.3	50.2	50.1	49.9	49.6	49.4	49.2	49.2	49.2	49.3	49.4	<b>-16</b>	37.0	37.0	37.0	36.9	36.9	36.8	36.7	36.7	36.6	36.7	36.7	36.7
Rho Cygnus	4.0	<b>36</b>	24.8	24.9	24.8	24.7	24.4	24.1	23.8	23.7	23.6	23.7	23.9	24.1	<b>45</b>	38.4	38.3	38.1	38.0	38.0	38.1	38.2	38.4	38.6	38.7	38.8	38.8
Sadal Suud	2.9	<b>36</b>	58.7	58.7	58.6	58.5	58.3	58.0	57.8	57.7	57.6	57.7	57.8	57.9	<b>-5</b>	31.6	31.6	31.6	31.6	31.5	31.4	31.4	31.3	31.2	31.2	31.2	31.3
Alfirk	3.2	<b>37</b>	49.0	49.2	49.2	48.8	48.3	47.8	47.4	47.2	47.2	47.5	47.9	48.3	<b>70</b>	36.6	36.4	36.2	36.1	36.1	36.1	36.3	36.5	36.7	36.8	36.9	36.9
Zeta Capricornus	3.8	<b>38</b>	11.4	11.4	11.3	11.2	10.9	10.7	10.5	10.3	10.3	10.3	10.4	10.5	<b>-22</b>	22.1	22.1	22.0	22.0	21.9	21.8	21.7	21.7	21.7	21.8	21.8	21.8
Alderamin	2.5	<b>40</b>	18.3	18.4	18.3	18.0	17.6	17.2	16.9	16.8	16.8	17.0	17.3	17.6	<b>62</b>	37.9	37.8	37.6	37.5	37.5	37.6	37.7	37.9	38.1	38.2	38.3	38.3
Kitalpha	3.9	<b>40</b>	55.2	55.2	55.1	54.9	54.7	54.5	54.3	54.1	54.1	54.1	54.3	54.4	<b>5</b>	17.4	17.4	17.3	17.3	17.4	17.5	17.6	17.7	17.7	17.8	17.8	17.8
Tau Cygnus	3.7	<b>41</b>	12.3	12.3	12.2	12.1	11.8	11.5	11.3	11.2	11.2	11.2	11.4	11.6	<b>38</b>	05.5	05.3	05.2	05.1	05.2	05.2	05.4	05.5	05.7	05.8	05.9	05.8
Zeta Cygnus	3.2	<b>41</b>	39.7	39.7	39.6	39.4	39.2	38.9	38.7	38.6	38.6	38.7	38.8	38.9	<b>30</b>	16.2	16.1	16.0	16.0	16.0	16.1	16.2	16.4	16.5	16.6	16.6	16.6
Xi Cygnus	3.7	<b>43</b>	40.8	40.8	40.7	40.5	40.3	40.0	39.8	39.6	39.6	39.7	39.9	40.1	<b>43</b>	58.3	58.1	58.0	57.9	57.9	58.0	58.1	58.3	58.5	58.6	58.7	58.6
Nu Cygnus	3.9	<b>45</b>	37.0	37.0	36.9	36.7	36.5	36.2	36.0	35.9	35.9	36.0	36.2	36.3	<b>41</b>	12.5	12.4	12.2	12.2	12.2	12.3	12.4	12.6	12.8	12.9	12.9	12.9
Beta Indus	3.7	<b>46</b>	06.3	06.3	06.1	05.8	05.5	05.0	04.7	04.5	04.5	04.6	04.9	05.1	<b>-58</b>	25.1	25.0	24.8	24.7	24.6	24.6	24.6	24.7	24.8	24.9	24.9	24.9
Albali	3.8	<b>47</b>	56.8	56.7	56.6	56.4	56.2	56.0	55.8	55.7	55.6	55.7	55.8	55.9	<b>-9</b>	27.5											

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		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Ancha	3.3	57	02.8	02.7	02.6	02.4	02.1	01.9	01.7	01.6	01.7	01.7	01.9	02.0	-0	47.5	47.5	47.6	47.5	47.5	47.4	47.3	47.2	47.2	47.2	47.2	
Delta Pavonis	3.6	57	34.8	34.7	34.4	33.9	33.4	32.9	32.5	32.3	32.4	32.6	33.0	33.3	-66	09.4	09.3	09.2	09.1	09.0	09.0	09.1	09.2	09.3	09.4	09.4	
Epsilon Pavonis	4.0	59	34.5	34.3	33.9	33.3	32.6	31.9	31.5	31.3	31.4	31.8	32.3	32.7	-72	53.1	52.9	52.8	52.7	52.6	52.6	52.7	52.8	53.0	53.1	53.1	53.0
Gamma Sagitta	3.5	60	12.1	12.0	11.9	11.7	11.5	11.2	11.1	11.0	11.0	11.1	11.3	11.4	19	31.2	31.1	31.0	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.6	31.5
Eta Cygnus	3.9	60	50.0	50.0	49.8	49.6	49.3	49.1	48.9	48.9	48.9	49.1	49.2	49.4	35	06.7	06.5	06.4	06.4	06.4	06.5	06.7	06.9	07.0	07.1	07.1	07.0
Aishain	3.7	61	03.0	02.9	02.8	02.6	02.4	02.2	02.0	01.9	01.9	02.0	02.2	02.3	6	25.9	25.9	25.8	25.8	25.9	26.0	26.1	26.2	26.2	26.2	26.2	26.2
Eta Aquila	3.9	61	45.4	45.3	45.1	44.9	44.7	44.5	44.3	44.2	44.3	44.4	44.5	44.6	1	01.9	01.8	01.8	01.8	01.9	02.0	02.0	02.1	02.2	02.2	02.2	02.2
Altair	0.9	62	11.0	11.0	10.8	10.6	10.4	10.2	10.0	09.9	10.0	10.1	10.2	10.3	8	53.7	53.6	53.6	53.6	53.6	53.7	53.8	53.9	54.0	54.0	54.0	54.0
Tyl	3.8	62	59.0	59.0	58.8	58.3	57.8	57.4	57.1	57.1	57.4	57.8	58.3	58.8	70	17.7	17.5	17.4	17.3	17.3	17.5	17.6	17.8	18.0	18.1	18.1	18.0
Kaus Media	3.8	63	02.6	02.6	02.4	02.2	02.0	01.8	01.6	01.5	01.6	01.7	01.8	01.9	18	33.6	33.5	33.4	33.4	33.4	33.5	33.7	33.8	33.9	33.9	33.9	33.9
Tarazed	2.7	63	19.1	19.0	18.9	18.7	18.4	18.2	18.1	18.0	18.0	18.1	18.3	18.3	10	38.3	38.2	38.1	38.1	38.2	38.3	38.4	38.5	38.6	38.6	38.6	38.6
Delta Cygnus	2.9	63	41.0	41.0	40.8	40.6	40.3	40.0	39.9	39.8	39.9	40.1	40.3	40.5	45	09.4	09.2	09.1	09.1	09.1	09.2	09.4	09.6	09.7	09.8	09.8	09.7
Albireo	3.1	67	13.3	13.2	13.1	12.9	12.6	12.4	12.3	12.2	12.3	12.4	12.6	12.7	27	58.9	58.8	58.7	58.6	58.7	58.8	58.9	59.1	59.2	59.2	59.2	59.2
Iota Cygnus	3.8	67	31.1	31.0	30.8	30.5	30.2	30.0	29.8	29.8	29.9	30.1	30.4	30.6	51	45.1	45.0	44.8	44.8	44.8	45.0	45.1	45.3	45.4	45.5	45.5	45.4
Delta Aquila	3.4	68	30.1	30.0	29.8	29.6	29.4	29.1	29.0	28.9	29.0	29.1	29.2	29.3	3	08.1	08.0	08.0	08.0	08.0	08.1	08.2	08.3	08.4	08.4	08.4	08.3
Rukbat	4.0	68	51.4	51.3	51.1	50.8	50.5	50.2	50.0	49.9	50.0	50.1	50.3	50.4	-40	35.8	35.8	35.7	35.7	35.6	35.6	35.6	35.7	35.7	35.8	35.8	35.7
Arkab	4.0	69	09.8	09.6	09.4	09.1	08.8	08.5	08.3	08.2	08.3	08.4	08.6	08.7	-44	26.4	26.3	26.3	26.2	26.2	26.2	26.2	26.3	26.3	26.4	26.4	26.3
Rho Sagittarius	3.9	69	26.3	26.2	26.0	25.8	25.5	25.3	25.1	25.1	25.1	25.2	25.4	25.4	-17	49.7	49.7	49.7	49.7	49.6	49.6	49.5	49.5	49.5	49.5	49.5	49.5
Kappa Cygnus	3.8	70	40.5	40.4	40.2	39.9	39.6	39.3	39.2	39.2	39.3	39.6	39.8	40.0	53	23.3	23.1	23.0	22.9	23.0	23.1	23.3	23.4	23.6	23.7	23.6	23.6
Nodus Secundus	3.1	71	52.6	52.5	52.2	51.8	51.3	51.0	50.8	50.9	51.2	51.6	52.1	52.4	67	40.8	40.6	40.5	40.4	40.5	40.6	40.8	41.0	41.1	41.2	41.2	41.1
Albaldah	2.9	72	24.7	24.6	24.4	24.2	23.9	23.7	23.5	23.5	23.5	23.6	23.8	23.8	-21	00.5	00.5	00.5	00.4	00.4	00.3	00.3	00.3	00.3	00.3	00.3	00.3
Tau Sagittarius	3.3	73	06.6	06.5	06.3	06.0	05.8	05.5	05.4	05.3	05.4	05.5	05.6	05.7	-27	39.4	39.3	39.3	39.3	39.2	39.2	39.2	39.2	39.2	39.3	39.3	39.2
Al Thalimain	3.4	73	18.4	18.3	18.1	17.9	17.7	17.4	17.3	17.3	17.3	17.4	17.5	17.6	-4	52.1	52.1	52.1	52.1	52.1	52.0	51.9	51.9	51.8	51.8	51.8	51.9
Deneb el Okab	3.0	73	32.1	32.0	31.8	31.6	31.4	31.2	31.0	31.0	31.1	31.2	31.3	31.4	13	52.7	52.6	52.5	52.5	52.6	52.7	52.8	52.9	53.0	53.0	53.0	52.9
Omicron Sagittarius	3.8	73	40.8	40.7	40.5	40.3	40.0	39.8	39.7	39.6	39.7	39.8	39.9	40.0	-21	43.6	43.6	43.6	43.6	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5
Ascella	2.6	74	11.4	11.2	11.0	10.8	10.5	10.3	10.1	10.0	10.1	10.2	10.4	10.4	-29	52.0	51.9	51.9	51.9	51.8	51.8	51.8	51.8	51.9	51.9	51.9	51.8
Sulafat	3.3	75	10.5	10.4	10.2	09.9	09.7	09.5	09.4	09.4	09.4	09.6	09.8	09.9	32	42.2	42.1	42.0	41.9	42.0	42.1	42.3	42.4	42.5	42.6	42.5	42.5
Xi Sagittarius	3.5	75	25.2	25.0	24.8	24.6	24.4	24.1	24.0	23.9	24.0	24.1	24.2	24.3	-21	05.6	05.6	05.6	05.6	05.5	05.5	05.5	05.5	05.5	05.5	05.5	05.5
Nunki	2.1	76	01.8	01.7	01.5	01.2	01.0	00.7	00.6	00.5	00.6	00.7	00.8	00.9	-26	17.1	17.0	17.0	17.0	17.0	16.9	16.9	16.9	17.0	17.0	17.0	17.0
Sheliak	3.5	77	23.5	23.4	23.2	23.0	22.7	22.5	22.4	22.4	22.5	22.7	22.8	22.9	33	22.5	22.3	22.2	22.2	22.3	22.4	22.5	22.7	22.8	22.8	22.8	22.7
Phi Sagittarius	3.2	78	25.9	25.7	25.5	25.3	25.0	24.8	24.6	24.6	24.6	24.8	24.9	25.0	-26	58.8	58.8	58.8	58.8	58.7	58.7	58.7	58.7	58.7	58.8	58.8	58.7
Vega	0.0	80	41.1	41.0	40.8	40.5	40.3	40.1	40.0	40.0	40.1	40.3	40.5	40.6	38	47.6	47.4	47.3	47.3	47.4	47.5	47.7	47.8	47.9	47.9	47.9	47.8
Alpha Scutum	3.9	81	03.8	03.7	03.5	03.3	03.0	02.8	02.7	02.7	02.7	02.9	03.0	03.0	-8	14.2	14.3	14.3	14.3	14.3	14.2	14.1	14.1	14.1	14.1	14.1	14.1
Kaus Borealis	2.8	82	51.3	51.1	50.9	50.6	50.4	50.2	50.0	50.0	50.1	50.2	50.3	50.4	-25	25.0	25.0	25.0	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9
Alpha Telescopium	3.5	83	04.4	04.2	03.9	03.6	03.3	03.0	02.9	02.8	02.9	03.1	03.3	03.4	-45	57.8	57.7	57.6	57.6	57.6	57.6	57.7	57.8	57.8	57.8	57.8	57.7
Kaus Australis	1.8	83	47.6	47.4	47.1	46.9	46.6	46.4	46.2	46.2	46.3	46.4	46.6	46.6	-34	22.8	22.8	22.7	22.7	22.7	22.7	22.7	22.8	22.8	22.8	22.7	22.7
109 Hercules	3.9	83	58.3	58.2	58.0	57.7	57.5	57.3	57.2	57.2	57.3	57.5	57.6	57.7	21	46.4	46.3	46.2	46.2	46.3	46.4	46.5	46.6	46.7	46.7	46.7	46.6
Eta Serpens	3.3	84	32.7	32.5	32.3	32.1	31.9	31.7	31.6	31.6	31.7	31.8	31.9	31.9	-2	53.8	53.9	53.9	53.9	53.8	53.8	53.7	53.7	53.6	53.6	53.6	53.7
Chi Draco	3.6	84	48.1	47.9	47.5	46.9	46.4	46.0	46.0	46.2	46.7	47.3	47.9	48.3	72	44.1	44.0	43.9	43.8	43.9	44.1	44.2	44.4	44.5	44.6	44.5	44.4
Kaus Media	2.7	84	35.6	35.4	35.2	34.9	34.6	34.4	34.3	34.3	34.4	34.5	34.6	34.7	-29	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4
Eta Sagittarius	3.1	85	25.5	25.3	25.1	24.8	24.5	24.3	24.2	24.2	24.2	24.4	24.5	24.6	-36	45.5	45.5	45.4	45.4	45.4	45.4	45.5	45.5	45.5	45.5	45.5	45.5
Mu Sagittarius	3.8	86	24.7	24.5	24.3	24.0	23.8	23.6	23.5	23.4	23.5	23.6	23.8	23.8	-21	03.4	03.4	03.4	03.4	03.4	03.3	03.3	03.3	03.3	03.3	03.3	03.3
Omicron Hercules	3.8	88	01.2	01.1	00.9	00.6	00.4	00.2	00.1	00.2	00.3	00.4	00.6	00.7	28	45.8	45.6	45.6	45.6	45.6	45.8	45.9	46.0	46.1	46.1	46.1	46.0
Omicron Ophiuchus	3.7	88	02.8	02.6	02.4	02.2	02.0	01.8	01.7	01.7	01.8	01.9	02.0	02.1	9	33.9	33.8	33.7	33.7	33.8	33.9	34.0	34.1	34.1	34.1	34.1	34.0
Theta Ara	3.7	88	09.0	08.8	08.5	08.1	07.8	07.5	07.4	07.3	07.5	07.7	07.8	07.9	-50	05.4	05.3	05.3	05.3	05.3	05.4	05.4	05.5	05.5	05.6	05.5	05.4
El Nasl	3.6	88	23.3	23.1	22.9	22.6	22.4	22.2	22.0	22.0	22.1	22.3	22.4	22.4	-30	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
Nu Ophiuchus	3.3	90	06.4	06.2	06.0	05.8	05.6	05.4	05.3	05.3	05.4	05.5	05.6	05.7	-9	46.5	46.6	46.6	46.6	46.6	46.5	46.4	46.4	46.4	46.4	46.4	46.4
Xi Hercules	3.7	90	27.9	27.7	27.5	27.3	27.1	26.9	26.8	26.9	27.0	27.1	27.3	27.4	29	14.7	14.6	14.5	14.5	14.6	14.7	14.9	15.0	15.1	15.1	15.0	14.9
Eltanin	2.2	90																									

Name	Mag	Sidereal Hour Angle												Declination															
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
Sargas	1.9	95	29.5	29.3	29.0	28.7	28.4	28.2	28.1	28.1	28.2	28.4	28.5	28.6	-43	00.2	00.2	00.2	00.2	00.2	00.2	00.2	00.3	00.3	00.4	00.4	00.3	00.3	
Ras Alhague	2.1	96	09.1	09.0	08.7	08.5	08.3	08.2	08.1	08.1	08.2	08.4	08.5	08.5	12	33.1	33.0	32.9	32.9	32.9	33.0	33.1	33.2	33.3	33.3	33.3	33.3	33.2	
Shaula	1.6	96	25.8	25.5	25.3	25.0	24.7	24.5	24.4	24.4	24.5	24.7	24.8	24.8	-37	06.6	06.6	06.6	06.6	06.6	06.6	06.7	06.7	06.7	06.7	06.8	06.8	06.7	06.7
Choo	2.9	96	50.9	50.6	50.3	50.0	49.6	49.4	49.3	49.3	49.5	49.7	49.8	49.8	-49	53.0	52.9	52.9	52.9	52.9	53.0	53.0	53.1	53.2	53.2	53.2	53.1	53.1	
Delta Ara	3.6	97	00.2	59.8	59.4	59.0	58.6	58.3	58.2	58.2	58.4	58.7	58.9	59.0	-60	41.4	41.4	41.3	41.3	41.4	41.4	41.5	41.6	41.7	41.7	41.7	41.7	41.6	
Lesath	2.7	97	08.4	08.2	07.9	07.6	07.4	07.2	07.1	07.1	07.2	07.3	07.5	07.5	-37	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.2	
Rastaban	2.8	97	20.5	20.3	20.1	19.7	19.5	19.3	19.3	19.4	19.6	19.9	20.1	20.2	52	17.5	17.3	17.3	17.3	17.3	17.4	17.5	17.7	17.8	17.9	17.9	17.8	17.7	
Gamma Ara	3.3	98	26.6	26.3	25.9	25.5	25.2	24.9	24.8	24.8	25.0	25.3	25.4	25.5	-56	23.1	23.1	23.1	23.1	23.1	23.1	23.2	23.3	23.4	23.4	23.4	23.4	23.3	
Beta Ara	2.8	98	28.2	27.9	27.5	27.1	26.8	26.5	26.4	26.4	26.6	26.8	27.0	27.1	-55	32.3	32.2	32.2	32.2	32.2	32.3	32.3	32.4	32.4	32.5	32.6	32.5	32.4	
Theta Ophiuchus	3.3	99	20.7	20.5	20.2	20.0	19.8	19.6	19.5	19.5	19.6	19.8	19.9	19.9	-25	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6	00.6	
Pi Hercules	3.1	101	09.3	09.1	08.9	08.6	08.4	08.3	08.2	08.3	08.5	08.6	08.8	08.8	36	47.7	47.6	47.5	47.5	47.6	47.6	47.8	47.9	48.0	48.1	48.1	48.0	47.9	
Sarin	3.1	101	08.5	08.3	08.1	07.9	07.7	07.5	07.5	07.5	07.7	07.8	07.9	08.0	24	49.5	49.4	49.3	49.3	49.4	49.5	49.7	49.8	49.8	49.8	49.8	49.8	49.6	
Ras Algethi	2.7	101	13.5	13.4	13.1	12.9	12.7	12.6	12.5	12.6	12.7	12.8	12.9	12.9	14	22.6	22.5	22.5	22.5	22.5	22.6	22.7	22.8	22.9	22.9	22.8	22.7		
Eta Scorpius	3.3	101	47.0	46.8	46.5	46.2	45.9	45.7	45.6	45.6	45.8	45.9	46.1	46.1	-43	15.1	15.1	15.1	15.1	15.1	15.2	15.2	15.3	15.3	15.3	15.2	15.2		
Sabik	2.4	102	15.8	15.6	15.3	15.1	14.9	14.7	14.7	14.7	14.8	14.9	15.0	15.0	-15	44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.2	44.2	44.2	
Aldhibah	3.2	102	48.5	48.2	47.8	47.4	47.0	46.9	46.9	47.2	47.6	48.0	48.3	48.5	65	41.9	41.8	41.7	41.7	41.9	42.0	42.2	42.3	42.3	42.4	42.4	42.3	42.1	
Epsilon Hercules	3.9	104	50.1	49.9	49.7	49.4	49.2	49.1	49.1	49.1	49.3	49.4	49.6	49.6	30	54.6	54.4	54.4	54.4	54.5	54.6	54.7	54.8	54.9	54.9	54.8	54.7		
Zeta Ara	3.1	105	08.4	08.1	07.7	07.3	07.0	06.7	06.7	06.7	06.9	07.1	07.3	07.3	-56	00.3	00.2	00.2	00.2	00.3	00.4	00.5	00.6	00.6	00.6	00.5	00.4		
Kappa Ophiuchus	3.2	105	27.9	27.7	27.5	27.3	27.1	27.0	27.0	27.0	27.1	27.2	27.3	27.3	9	21.5	21.4	21.3	21.3	21.4	21.5	21.6	21.6	21.7	21.7	21.6	21.5		
Zeta Scorpius	3.6	106	10.8	10.5	10.2	09.9	09.6	09.4	09.4	09.4	09.6	09.7	09.8	09.8	-42	22.6	22.6	22.6	22.7	22.7	22.8	22.8	22.9	22.9	22.9	22.8	22.8		
Mu2 Scorpius	3.6	106	44.8	44.6	44.3	44.0	43.8	43.6	43.5	43.6	43.7	43.9	44.0	44.0	-38	02.0	02.0	02.0	02.1	02.1	02.2	02.2	02.2	02.2	02.2	02.2	02.2	02.1	
Mu1 Scorpius	3.0	106	51.8	51.6	51.3	51.0	50.8	50.6	50.5	50.6	50.7	50.8	50.9	50.9	-38	03.8	03.8	03.8	03.9	03.9	04.0	04.0	04.0	04.0	04.0	04.0	04.0	03.9	
Epsilon Scorpius	2.3	107	17.9	17.6	17.3	17.1	16.9	16.7	16.6	16.7	16.8	16.9	17.0	17.0	-34	18.6	18.6	18.7	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	
Eta Ara	3.8	107	20.4	20.0	19.6	19.2	18.8	18.6	18.5	18.6	18.8	19.1	19.3	19.3	-59	03.4	03.4	03.4	03.4	03.5	03.6	03.7	03.8	03.8	03.8	03.7	03.6		
Atria	1.9	107	34.4	33.9	33.3	32.7	32.2	31.9	31.9	32.0	32.4	32.7	33.0	33.0	-69	02.6	02.6	02.5	02.6	02.7	02.8	02.9	03.0	03.1	03.1	03.0	02.9	02.8	
Eta Hercules	3.5	109	11.6	11.4	11.1	10.9	10.7	10.6	10.6	10.7	10.9	11.0	11.2	11.2	38	54.0	53.9	53.8	53.8	53.9	54.1	54.2	54.3	54.4	54.4	54.3	54.3	54.1	
Zeta Hercules	2.9	109	35.2	35.0	34.8	34.5	34.3	34.2	34.2	34.3	34.5	34.6	34.7	34.7	31	34.9	34.8	34.7	34.7	34.8	35.0	35.1	35.2	35.2	35.2	35.1	35.0		
Zeta Ophiuchus	2.6	110	34.4	34.2	33.9	33.7	33.5	33.4	33.4	33.4	33.5	33.6	33.7	33.7	-10	35.3	35.3	35.4	35.4	35.4	35.4	35.3	35.3	35.3	35.3	35.3	35.3	35.3	
Tau Scorpius	2.8	110	52.4	52.2	51.9	51.7	51.5	51.3	51.3	51.3	51.5	51.6	51.7	51.6	-28	14.2	14.2	14.2	14.3	14.3	14.3	14.3	14.4	14.4	14.3	14.3	14.3	14.3	
Gamma Apus	3.9	111	15.7	14.7	13.7	12.7	11.9	11.4	11.4	11.8	12.5	13.2	13.7	13.7	-78	55.0	54.9	54.9	54.9	55.1	55.2	55.4	55.5	55.5	55.5	55.5	55.3	55.2	
Marfik	3.9	112	08.8	08.5	08.3	08.1	07.9	07.8	07.8	07.8	08.0	08.1	08.1	08.1	1	57.6	57.6	57.5	57.5	57.5	57.6	57.7	57.7	57.7	57.7	57.7	57.6	57.6	
Kornephoros	2.8	112	20.3	20.1	19.9	19.7	19.5	19.4	19.4	19.5	19.6	19.7	19.8	19.8	21	27.9	27.8	27.7	27.8	27.8	28.0	28.1	28.1	28.2	28.2	28.1	28.0		
Antares	1.1	112	29.7	29.4	29.2	29.0	28.8	28.6	28.6	28.6	28.8	28.9	28.9	28.9	-26	27.2	27.3	27.3	27.3	27.3	27.4	27.4	27.4	27.4	27.4	27.3	27.3	27.3	
Eta Draco	2.7	113	58.6	58.3	57.9	57.5	57.3	57.2	57.3	57.5	57.9	58.2	58.4	58.5	61	29.2	29.1	29.0	29.1	29.2	29.4	29.5	29.6	29.6	29.7	29.6	29.5	29.3	
Gamma Hercules	3.7	114	24.7	24.4	24.2	24.0	23.8	23.7	23.7	23.8	23.9	24.0	24.1	24.1	19	07.6	07.5	07.5	07.5	07.6	07.7	07.8	07.8	07.9	07.9	07.8	07.7		
Alniyat	2.9	114	33.1	32.8	32.6	32.3	32.1	32.0	32.0	32.0	32.1	32.2	32.3	32.3	-25	37.0	37.0	37.1	37.1	37.1	37.1	37.2	37.2	37.2	37.2	37.1	37.1	37.1	
Tau Hercules	3.9	114	59.6	59.4	59.1	58.8	58.6	58.5	58.6	58.7	58.9	59.1	59.3	59.3	46	17.1	17.0	17.0	17.0	17.1	17.3	17.4	17.5	17.5	17.5	17.4	17.2		
Yed Posterior	3.2	115	17.3	17.0	16.8	16.6	16.4	16.3	16.3	16.3	16.4	16.6	16.6	16.6	-4	43.1	43.2	43.2	43.2	43.2	43.2	43.1	43.1	43.1	43.0	43.0	43.1	43.1	
Atria	3.9	115	54.9	54.4	54.0	53.5	53.1	52.9	52.9	53.1	53.4	53.6	53.8	53.7	-63	42.5	42.5	42.5	42.6	42.7	42.8	42.9	43.0	43.0	43.0	42.9	42.7		
Yed Prior	2.7	116	17.0	16.7	16.5	16.3	16.1	16.0	16.0	16.1	16.2	16.3	16.3	16.3	-3	43.3	43.4	43.4	43.4	43.4	43.3	43.3	43.3	43.3	43.2	43.2	43.3	43.3	
Graffias	2.6	118	29.7	29.5	29.2	29.0	28.8	28.7	28.7	28.7	28.9	29.0	29.0	29.0	-19	50.0	50.0	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	
Dschubba	2.3	119	46.1	45.9	45.6	45.4	45.2	45.1	45.1	45.1	45.3	45.4	45.4	45.4	-22	39.0	39.1	39.1	39.1	39.1	39.2	39.2	39.2	39.2	39.2	39.1	39.1	39.1	
Eta Lupus	3.4	119	48.2	47.9	47.6	47.4	47.2	47.0	47.0	47.1	47.2	47.4	47.4	47.4	-38	25.4	25.5	25.5	25.6	25.6	25.7	25.7	25.8	25.8	25.7	25.7	25.6		
Pi Scorpius	2.9	120	08.1	07.9	07.6	07.4	07.2	07.1	07.1	07.1	07.3	07.4	07.4	07.4	-26	08.6	08.6	08.6	08.7	08.7	08.8	08.8	08.8	08.8	08.8	08.7	08.7	08.7	
Gamma Serpens	3.9	120	46.3	46.1	45.9	45.6	45.5	45.4	45.4	45.5	45.6	45.7	45.8	45.8	15	37.6	37.5	37.4	37.4	37.5	37.6	37.7	37.7	37.8	37.7	37.7	37.6		
Beta Triang' Aust'	2.8	120	59.7	59.2	58.8	58.3	58.0	57.8	57.8	58.0	58.3	58.6	58.7	58.6	-63	27.5	27.5	27.6	27.6	27.8	27.9	28.0	28.1	28.1	28.0	27.9	27.8		
Epsilon Serpens	3.7	122	10.3	10.0	09.8	09.6	09.5	09.4	09.4	09.5	09.6	09.7	09.7	09.7	4	26.8	26.7	26.6	26.6										

Name	Mag	Sidereal Hour Angle												Declination													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Phi Lupus	3.6	129	23.3	23.0	22.8	22.5	22.4	22.3	22.3	22.4	22.5	22.6	22.7	22.6	-36	17.8	17.8	17.9	18.0	18.0	18.1	18.1	18.2	18.1	18.1	18.0	18.0
Delta Lupus	3.2	129	29.5	29.2	28.9	28.7	28.5	28.4	28.4	28.5	28.7	28.8	28.8	28.7	-40	40.9	41.0	41.0	41.1	41.2	41.3	41.3	41.3	41.3	41.3	41.2	41.1
Pherkad	3.0	129	49.8	49.3	48.8	48.3	48.1	48.2	48.5	48.9	49.5	49.9	50.2	50.2	71	47.5	47.4	47.4	47.5	47.7	47.8	48.0	48.0	48.0	47.9	47.7	47.5
Gamma Triang' Aust'	2.9	130	02.4	01.8	01.2	00.7	00.4	00.3	00.4	00.7	01.0	01.3	01.4	01.3	-68	42.8	42.8	42.9	43.0	43.1	43.2	43.4	43.4	43.4	43.3	43.2	43.1
Zuben Elschemali	2.6	130	36.8	36.5	36.3	36.1	36.0	35.9	35.9	36.0	36.1	36.2	36.2	36.1	-9	25.2	25.3	25.4	25.4	25.4	25.4	25.4	25.3	25.3	25.3	25.3	25.4
Delta Bootes	3.5	131	01.5	01.2	00.9	00.7	00.6	00.6	00.6	00.8	00.9	01.0	01.1	01.0	33	16.4	16.3	16.2	16.3	16.4	16.5	16.6	16.7	16.7	16.6	16.5	16.4
Zeta Lupus	3.4	131	44.9	44.5	44.2	43.9	43.7	43.6	43.6	43.8	44.0	44.1	44.2	44.0	-52	08.1	08.1	08.2	08.3	08.4	08.5	08.6	08.6	08.6	08.5	08.4	08.3
Kappa Lupus	3.9	131	50.5	50.1	49.8	49.5	49.4	49.3	49.3	49.4	49.6	49.7	49.8	49.7	-48	46.4	46.5	46.5	46.6	46.7	46.8	46.9	46.9	46.9	46.8	46.7	46.7
Brachium	3.3	133	50.1	49.8	49.6	49.4	49.2	49.2	49.2	49.3	49.4	49.5	49.5	49.4	-25	19.3	19.3	19.4	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.4	19.4
Nekkar	3.5	134	25.2	24.9	24.7	24.5	24.3	24.3	24.4	24.6	24.7	24.9	24.9	24.9	40	20.8	20.7	20.6	20.7	20.8	21.0	21.1	21.1	21.1	21.0	20.9	20.7
Ke Kwan	3.1	135	02.7	02.4	02.1	01.9	01.7	01.7	01.7	01.8	02.0	02.1	02.1	02.0	-42	08.6	08.6	08.7	08.8	08.9	09.0	09.0	09.0	09.0	08.9	08.8	08.8
Beta Lupus	2.7	135	12.1	11.8	11.5	11.2	11.1	11.0	11.1	11.2	11.3	11.4	11.5	11.3	-43	10.4	10.4	10.5	10.6	10.7	10.8	10.8	10.8	10.8	10.7	10.6	10.6
Zuben El Genubi	2.8	137	08.4	08.2	07.9	07.8	07.6	07.6	07.6	07.7	07.8	07.9	07.9	07.8	-16	05.0	05.1	05.2	05.2	05.3	05.3	05.2	05.2	05.2	05.2	05.2	05.2
Kochab	2.1	137	20.3	19.7	19.1	18.6	18.4	18.6	19.0	19.6	20.2	20.6	20.9	20.8	74	06.5	06.4	06.4	06.5	06.7	06.8	06.9	07.0	06.9	06.8	06.6	06.4
Alpha Apus	3.8	137	43.3	42.3	41.3	40.5	40.0	40.0	40.3	41.0	41.7	42.2	42.4	42.0	-79	05.0	05.0	05.1	05.2	05.4	05.5	05.7	05.7	05.7	05.6	05.4	05.3
109 Virgo	3.7	138	18.6	18.4	18.1	18.0	17.9	17.8	17.9	17.9	18.0	18.1	18.1	18.0	1	50.9	50.8	50.8	50.8	50.8	50.8	50.9	50.9	50.9	50.9	50.9	50.8
Mirak	2.4	138	38.6	38.4	38.1	37.9	37.8	37.8	37.9	38.0	38.1	38.2	38.3	38.2	27	01.7	01.6	01.5	01.6	01.7	01.8	01.9	01.9	01.9	01.8	01.7	01.6
Rijl al Awwa	3.9	139	06.1	05.8	05.6	05.5	05.3	05.3	05.3	05.4	05.5	05.6	05.6	05.5	-5	42.2	42.3	42.3	42.4	42.4	42.3	42.3	42.3	42.3	42.3	42.3	42.3
Alpha Circinus	3.2	139	10.2	09.7	09.2	08.8	08.6	08.6	08.7	09.0	09.3	09.5	09.5	09.3	-65	00.9	01.0	01.0	01.2	01.3	01.5	01.6	01.6	01.6	01.5	01.3	01.2
Men	2.3	139	21.0	20.6	20.3	20.1	19.9	19.9	19.9	20.1	20.2	20.4	20.4	20.2	-47	25.7	25.8	25.9	26.0	26.1	26.2	26.3	26.3	26.2	26.2	26.1	26.0
Zeta Bootes	3.8	139	35.5	35.3	35.1	34.9	34.8	34.8	34.8	34.9	35.0	35.1	35.1	35.0	13	40.9	40.8	40.8	40.8	40.9	40.9	41.0	41.1	41.1	41.0	40.9	40.8
Rigel Kentaurus	0.0	139	55.6	55.2	54.8	54.5	54.3	54.3	54.4	54.6	54.9	55.1	55.1	54.9	-60	52.4	52.4	52.5	52.6	52.8	52.9	53.0	53.0	53.0	52.9	52.7	52.6
Eta Centaurus	2.3	140	57.8	57.4	57.2	56.9	56.8	56.7	56.8	56.9	57.1	57.2	57.2	57.0	-42	12.0	12.1	12.2	12.3	12.4	12.4	12.5	12.5	12.4	12.4	12.3	12.2
Seginus	3.0	141	52.8	52.5	52.2	52.1	52.0	52.0	52.1	52.2	52.4	52.5	52.5	52.4	38	15.6	15.5	15.5	15.5	15.6	15.8	15.9	15.9	15.9	15.8	15.6	15.5
Rho Bootes	3.6	141	56.0	55.8	55.5	55.4	55.3	55.3	55.3	55.5	55.6	55.7	55.7	55.6	30	19.4	19.3	19.3	19.3	19.4	19.5	19.6	19.7	19.6	19.6	19.4	19.3
Lambda Bootes	3.6	144	59.2	58.9	58.6	58.4	58.2	58.2	58.3	58.4	58.6	58.7	58.6	58.5	-46	06.1	06.2	06.3	06.4	06.5	06.6	06.7	06.7	06.6	06.5	06.4	06.4
Arcturus	0.2	145	58.1	57.9	57.7	57.5	57.4	57.4	57.5	57.6	57.7	57.8	57.8	57.7	19	07.6	07.5	07.5	07.5	07.6	07.6	07.7	07.7	07.7	07.7	07.6	07.4
Menkent	2.1	148	10.8	10.5	10.2	10.0	10.0	09.9	10.0	10.1	10.2	10.3	10.3	10.1	-36	25.1	25.2	25.3	25.4	25.4	25.5	25.5	25.5	25.5	25.4	25.3	25.3
Pi Hydra	3.3	148	15.7	15.4	15.2	15.1	15.0	14.9	15.0	15.1	15.2	15.3	15.2	15.1	-26	43.8	43.9	44.0	44.1	44.1	44.2	44.2	44.2	44.1	44.1	44.0	44.0
Thuban	3.7	148	50.2	49.7	49.3	49.1	49.0	49.2	49.4	49.7	50.1	50.3	50.3	50.2	64	19.3	19.2	19.2	19.4	19.5	19.6	19.7	19.7	19.7	19.5	19.3	19.2
Agena	0.6	148	51.9	51.5	51.1	50.8	50.7	50.7	50.8	51.1	51.3	51.4	51.4	51.2	-60	25.1	25.2	25.3	25.4	25.6	25.7	25.8	25.8	25.7	25.6	25.5	25.4
Zeta Centaurus	2.5	150	57.4	57.0	56.8	56.5	56.5	56.5	56.5	56.7	56.8	56.9	56.9	56.7	-47	20.1	20.2	20.3	20.4	20.6	20.7	20.7	20.7	20.7	20.6	20.5	20.4
Muphrid	2.7	151	12.5	12.2	12.0	11.8	11.8	11.8	11.9	12.0	12.1	12.1	12.1	12.0	18	20.6	20.5	20.5	20.5	20.6	20.7	20.7	20.8	20.8	20.7	20.6	20.5
Mu Centaurus	3.5	152	26.5	26.2	26.0	25.8	25.7	25.7	25.8	25.9	26.0	26.1	26.1	25.9	-42	31.3	31.4	31.5	31.6	31.7	31.8	31.8	31.8	31.8	31.7	31.6	31.6
Nu Centaurus	3.4	152	28.3	27.9	27.7	27.5	27.4	27.4	27.5	27.6	27.8	27.8	27.8	27.6	-41	44.1	44.2	44.3	44.5	44.6	44.7	44.7	44.7	44.6	44.5	44.4	44.4
Alkaid	1.9	153	00.9	00.6	00.3	00.1	00.1	00.2	00.3	00.5	00.7	00.8	00.8	00.6	49	15.4	15.4	15.4	15.5	15.6	15.7	15.8	15.8	15.8	15.6	15.5	15.3
Epsilon Centaurus	2.3	154	52.0	51.6	51.3	51.1	51.0	51.0	51.2	51.3	51.5	51.6	51.5	51.3	-53	30.9	31.0	31.1	31.2	31.4	31.5	31.5	31.5	31.5	31.4	31.3	31.2
Heze	3.4	156	11.8	11.5	11.3	11.2	11.2	11.2	11.2	11.3	11.4	11.4	11.4	11.2	-0	38.9	39.0	39.1	39.1	39.1	39.1	39.0	39.0	39.0	39.0	39.1	39.1
d Centaurus	3.9	157	05.4	05.1	04.9	04.7	04.7	04.7	04.8	04.9	05.0	05.1	05.0	04.8	-39	27.4	27.5	27.7	27.8	27.9	28.0	28.0	28.0	27.9	27.8	27.7	27.7
Spica	1.1	158	34.0	33.7	33.6	33.4	33.4	33.4	33.5	33.5	33.6	33.6	33.6	33.4	-11	12.9	13.0	13.1	13.1	13.1	13.1	13.1	13.1	13.0	13.0	13.0	13.1
Mizar	2.2	158	55.0	54.6	54.3	54.1	54.1	54.3	54.4	54.7	54.9	54.9	54.9	54.7	-54	52.0	51.9	52.0	52.1	52.2	52.3	52.4	52.4	52.3	52.2	52.0	51.8
Iota Centaurus	2.8	159	42.4	42.1	41.9	41.7	41.7	41.7	41.8	41.9	42.0	42.1	42.0	41.8	-36	45.8	45.9	46.0	46.2	46.3	46.3	46.3	46.3	46.2	46.2	46.1	46.1
Gamma Hydra	3.0	160	07.8	07.5	07.3	07.2	07.2	07.2	07.2	07.3	07.4	07.5	07.4	07.2	-23	13.4	13.6	13.7	13.7	13.8	13.8	13.8	13.8	13.7	13.7	13.7	13.7
Delta Musca	3.6	164	15.3	14.7	14.2	14.0	13.9	14.1	14.5	14.9	15.2	15.3	15.2	14.7	-71	36.0	36.0	36.2	36.4	36.5	36.7	36.7	36.7	36.6	36.5	36.4	36.3
Vindemiatrix	2.8	164	19.7	19.4	19.2	19.1	19.1	19.1	19.2	19.3	19.4	19.4	19.3	19.2	10	54.1	54.0	54.0	54.0	54.0	54.1	54.1	54.2	54.2	54.1	54.0	53.9
Cor Caroli	2.9	165	52.4	52.1	51.9	51.7	51.7	51.8	51.9	52.1	52.2	52.2	52.1	51.9	38	15.5	15.5	15.5	15.6	15.7	15.8	15.8	15.8	15.7	15.6	15.5	15.3
Auva	3.4	165	58.2	57.9	57.7	57.6	57.6	57.6	57.7	57.8	57.9	57.9	57.8	57.6	3	20.4	20.3	20.3	20.3	20.3	20.3	20.4	20.4	20.4	20.4	20.3	20.2
Alioth	1.8	166	22.8	22.4	22.1	22.0	22.0	22.2	22.4	22.6	22.8	22.8	22.7	22.5	55	53.9	53.9	53.9	54.1	54.2	54.3	54.4	5				



Name	Mag	Sidereal Hour Angle												Declination														
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Epsilon Crux	3.6	174	31.2	30.8	30.5	30.4	30.4	30.6	30.8	31.0	31.2	31.2	31.0	30.7	-60	27.2	27.3	27.5	27.7	27.8	27.9	27.9	27.9	27.9	27.8	27.6	27.5	27.5
Zaniah	3.9	174	53.5	53.2	53.1	53.0	53.0	53.0	53.1	53.2	53.2	53.2	53.1	52.9	-0	43.5	43.6	43.6	43.7	43.7	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.7
Gienah Ghurab	2.6	175	54.9	54.7	54.5	54.4	54.4	54.5	54.6	54.6	54.7	54.7	54.6	54.4	-17	35.9	36.0	36.1	36.2	36.2	36.2	36.2	36.2	36.2	36.1	36.1	36.1	36.1
Megrez	3.3	176	00.9	00.5	00.2	00.2	00.3	00.4	00.6	00.8	01.0	01.0	00.8	00.6	56	58.2	58.2	58.3	58.4	58.5	58.6	58.6	58.6	58.6	58.5	58.3	58.1	58.0
Delta Crux	2.8	176	04.5	04.1	03.9	03.8	03.8	04.0	04.2	04.4	04.6	04.6	04.4	04.0	-58	48.1	48.2	48.4	48.6	48.7	48.8	48.8	48.8	48.8	48.7	48.5	48.4	48.4
Minkar	3.0	177	20.1	19.9	19.7	19.6	19.6	19.7	19.8	19.9	19.9	19.9	19.8	19.6	-22	40.5	40.7	40.8	40.9	40.9	40.9	40.9	40.9	40.9	40.8	40.7	40.7	40.8
Delta Centaurus	2.6	177	46.5	46.2	46.0	45.9	46.0	46.1	46.2	46.4	46.5	46.5	46.3	46.0	-50	46.5	46.7	46.8	47.0	47.1	47.2	47.2	47.1	47.0	46.9	46.8	46.8	
Phad	2.4	181	24.3	23.9	23.7	23.7	23.8	23.9	24.1	24.3	24.4	24.3	24.2	23.9	53	38.0	37.9	38.0	38.1	38.3	38.3	38.3	38.3	38.3	38.2	38.0	37.8	37.7
Zavijava	3.6	182	11.4	11.2	11.1	11.0	11.0	11.1	11.2	11.2	11.3	11.2	11.1	10.9	1	42.4	42.3	42.2	42.2	42.2	42.2	42.3	42.3	42.3	42.3	42.3	42.2	42.1
Denebola	2.1	182	36.1	35.9	35.7	35.7	35.7	35.8	35.9	36.0	36.0	35.9	35.8	35.6	14	30.8	30.7	30.7	30.7	30.7	30.8	30.8	30.8	30.8	30.8	30.7	30.6	30.5
Chi Ursae Major	3.7	183	20.9	20.6	20.5	20.4	20.5	20.6	20.8	20.9	21.0	20.9	20.8	20.5	47	43.1	43.0	43.1	43.2	43.3	43.4	43.4	43.4	43.4	43.3	43.1	42.9	42.8
Lambda Musca	3.6	183	28.4	28.0	27.7	27.7	27.8	28.1	28.4	28.7	28.8	28.8	28.5	28.1	-66	46.9	47.0	47.2	47.4	47.5	47.6	47.6	47.6	47.6	47.4	47.3	47.2	47.1
Lambda Centaurus	3.1	185	55.9	55.6	55.4	55.3	55.5	55.7	55.9	56.2	56.3	56.3	56.0	55.6	-63	04.3	04.5	04.7	04.8	05.0	05.1	05.1	05.0	04.9	04.7	04.6	04.6	
Xi Hydra	3.5	186	37.2	37.0	36.9	36.8	36.9	37.0	37.1	37.2	37.2	37.1	37.0	36.7	-31	54.7	54.9	55.0	55.1	55.2	55.2	55.2	55.1	55.1	55.0	54.9	55.0	
Giauzar	3.8	186	59.5	59.0	58.7	58.7	58.9	59.3	59.6	59.9	00.1	00.0	59.7	59.3	69	16.1	16.2	16.3	16.4	16.5	16.6	16.6	16.5	16.3	16.1	16.0	15.8	
Pi Centaurus	3.9	189	37.7	37.3	37.2	37.2	37.3	37.5	37.7	37.8	37.9	37.8	37.6	37.3	-54	32.6	32.8	32.9	33.1	33.2	33.3	33.3	33.2	33.1	32.9	32.9	32.9	
Delta Crater	3.6	190	02.0	01.8	01.7	01.7	01.7	01.8	01.9	01.9	01.9	01.9	01.7	01.5	-14	50.0	50.1	50.2	50.3	50.3	50.3	50.3	50.2	50.2	50.2	50.2	50.2	
Alula Borealis	3.5	190	14.3	14.1	13.9	13.9	14.0	14.1	14.2	14.3	14.3	14.2	14.0	13.8	33	02.1	02.0	02.1	02.2	02.2	02.3	02.3	02.3	02.2	02.1	01.9	01.8	
Alula Australis	3.8	190	18.9	18.6	18.5	18.5	18.5	18.6	18.7	18.8	18.8	18.8	18.6	18.4	31	28.1	28.1	28.1	28.1	28.2	28.3	28.3	28.3	28.2	28.1	27.9	27.8	
Chort	3.3	191	18.1	17.9	17.8	17.8	17.8	17.9	18.0	18.1	18.1	18.0	17.8	17.6	15	22.3	22.2	22.2	22.2	22.3	22.3	22.3	22.3	22.3	22.2	22.1	22.0	
Zozma	2.6	191	20.0	19.8	19.7	19.6	19.7	19.8	19.9	19.9	19.9	19.9	19.7	19.5	20	27.9	27.8	27.8	27.9	27.9	28.0	28.0	28.0	28.0	27.9	27.9	27.8	27.6
Psi Ursae Major	3.0	192	26.2	25.9	25.7	25.7	25.8	26.0	26.1	26.2	26.2	26.1	25.9	25.7	44	26.3	26.3	26.4	26.5	26.6	26.6	26.6	26.6	26.6	26.4	26.3	26.2	26.0
BS 4337	3.9	192	44.3	44.0	43.9	43.9	44.0	44.2	44.4	44.6	44.7	44.6	44.3	44.0	-59	01.6	01.8	01.9	02.1	02.2	02.3	02.3	02.2	02.1	01.9	01.8	01.8	
Dubhe	1.8	193	54.3	53.9	53.7	53.7	53.9	54.2	54.4	54.6	54.6	54.5	54.2	53.9	61	41.4	41.5	41.6	41.7	41.8	41.9	41.8	41.7	41.6	41.4	41.3	41.1	
Merak	2.4	194	22.8	22.5	22.3	22.3	22.5	22.7	22.9	23.0	23.0	22.9	22.7	22.3	56	19.3	19.4	19.5	19.6	19.7	19.7	19.7	19.6	19.5	19.3	19.2	19.1	
u Carina	3.8	196	31.0	30.7	30.6	30.7	30.8	31.0	31.3	31.4	31.5	31.4	31.1	30.7	-58	54.2	54.4	54.6	54.7	54.9	54.9	54.9	54.8	54.7	54.5	54.5	54.5	
Praecipula	3.8	196	31.5	31.2	31.1	31.1	31.2	31.3	31.4	31.5	31.5	31.4	31.2	30.9	34	09.4	09.3	09.4	09.5	09.5	09.6	09.6	09.5	09.4	09.3	09.2	09.1	
Nu Hydra	3.1	197	27.8	27.6	27.5	27.5	27.6	27.7	27.8	27.8	27.8	27.7	27.5	27.3	-16	14.8	14.9	15.0	15.1	15.1	15.1	15.1	15.0	15.0	14.9	14.9	15.0	
Mu Velorum	2.7	198	11.6	11.3	11.2	11.3	11.4	11.5	11.7	11.8	11.8	11.7	11.5	11.2	-49	28.3	28.4	28.6	28.8	28.9	28.9	28.9	28.8	28.6	28.5	28.5	28.5	
Theta Carina	2.7	199	09.8	09.5	09.4	09.4	09.7	09.9	10.2	10.4	10.5	10.4	10.0	09.6	-64	26.6	26.8	27.0	27.2	27.3	27.4	27.3	27.2	27.1	27.0	26.9	26.9	
Rho Leo	3.9	201	39.5	39.3	39.2	39.2	39.3	39.4	39.5	39.5	39.5	39.4	39.2	38.9	9	15.1	15.1	15.0	15.0	15.1	15.1	15.1	15.1	15.1	15.1	15.0	14.9	
BS 4140	3.4	201	53.8	53.5	53.4	53.5	53.7	54.0	54.2	54.4	54.4	54.3	54.0	53.6	-61	44.1	44.2	44.4	44.6	44.7	44.7	44.7	44.6	44.5	44.3	44.3	44.3	
BS 4114	3.8	202	55.8	55.6	55.5	55.6	55.7	56.0	56.2	56.4	56.4	56.2	55.9	55.6	-58	47.3	47.5	47.6	47.8	47.9	48.0	47.9	47.8	47.7	47.5	47.5	47.5	
Mu Hydra	3.8	203	21.0	20.8	20.7	20.7	20.8	20.9	21.0	21.0	21.0	20.9	20.7	20.5	-16	53.3	53.4	53.5	53.6	53.6	53.6	53.6	53.5	53.4	53.4	53.4	53.5	
Tania Australis	3.1	204	15.6	15.3	15.3	15.3	15.4	15.6	15.7	15.7	15.7	15.5	15.3	15.0	41	26.6	26.7	26.7	26.8	26.9	26.9	26.9	26.8	26.7	26.6	26.5	26.4	
Algieba	2.0	204	51.7	51.5	51.4	51.4	51.5	51.6	51.7	51.7	51.6	51.5	51.3	51.1	19	47.2	47.2	47.2	47.2	47.3	47.3	47.3	47.3	47.3	47.2	47.1	47.0	
Tania Borealis	3.4	205	34.0	33.7	33.6	33.7	33.8	33.9	34.0	34.1	34.0	33.9	33.7	33.4	42	51.6	51.6	51.6	51.7	51.8	51.8	51.8	51.7	51.6	51.5	51.4	51.3	
BS4050	3.4	205	38.2	38.0	37.9	38.0	38.2	38.5	38.7	38.9	38.9	38.8	38.4	38.0	-61	22.8	23.0	23.2	23.3	23.4	23.5	23.4	23.3	23.2	23.0	23.0	23.0	
Adhafera	3.4	205	40.8	40.6	40.5	40.6	40.7	40.8	40.8	40.9	40.8	40.7	40.5	40.2	23	21.8	21.8	21.8	21.8	21.9	21.9	21.9	21.9	21.8	21.8	21.7	21.6	
BS 4023	3.8	206	12.2	12.0	11.9	12.0	12.1	12.3	12.4	12.5	12.4	12.3	12.1	11.8	-42	10.2	10.4	10.5	10.7	10.8	10.8	10.7	10.6	10.5	10.4	10.4	10.4	
Omega Carina	3.3	206	29.8	29.5	29.4	29.6	29.9	30.4	30.7	31.0	31.0	30.8	30.4	29.8	-70	05.1	05.3	05.5	05.6	05.8	05.8	05.7	05.6	05.5	05.3	05.3	05.3	
Lambda Hydra	3.6	207	13.4	13.2	13.2	13.2	13.3	13.4	13.5	13.5	13.4	13.3	13.1	12.9	-12	24.3	24.4	24.5	24.5	24.6	24.5	24.5	24.4	24.4	24.4	24.4	24.5	
Regulus	1.4	207	46.0	45.8	45.7	45.7	45.8	45.9	46.0	46.0	45.9	45.8	45.6	45.4	11	54.9	54.9	54.8	54.8	54.9	54.9	54.9	54.9	54.9	54.9	54.8	54.7	
Eta Leo	3.5	208	01.4	01.2	01.1	01.1	01.2	01.3	01.4	01.4	01.3	01.2	01.0	00.8	16	42.6	42.6	42.6	42.6	42.6	42.7	42.7	42.7	42.6	42.6	42.5	42.4	
Tseen Ke	3.5	210	41.3	41.1	41.0	41.2	41.3	41.6	41.7	41.8	41.8	41.7	41.4	41.0	-54	36.8	37.0	37.2	37.3	37.4	37.4	37.4	37.2	37.1	37.0	36.9	37.0	
Rasalas	3.9	211	39.5	39.3	39.2	39.3	39.4	39.5	39.6	39.6	39.5	39.4	39.2	38.9	25	57.4	57.3	57.4	57.4	57.5	57.5	57.5	57.4	57.4	57.3	57.2	57.1	
Upsilon Ursae Major	3.8	212	03.7	03.5	03.4	03.5	03.7	03.9	04.1	04.2	04.1	03.9	03.5	03.1	58	59.2	59.2	59.3	59.5	59.5	59.5	59.5	59.4	59.2	59.1	58.9	58.9	
Upsilon Carina	3.0	213	09.1	08.9	08.9	09.1	09.4																					

Name	Mag	Sidereal Hour Angle												Declination													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Turais	2.3	<b>220</b>	39.0	38.9	38.9	39.1	39.4	39.6	39.8	39.9	39.8	39.6	39.3	38.9	<b>-59</b>	18.9	19.1	19.3	19.4	19.5	19.5	19.4	19.3	19.1	19.0	19.0	19.1
Theta Hydra	3.9	<b>221</b>	16.2	16.1	16.0	16.1	16.2	16.3	16.3	16.3	16.2	16.1	15.9	15.6	<b>2</b>	16.2	16.1	16.1	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.1	16.0
Miaplacidus	1.7	<b>221</b>	39.7	39.5	39.6	39.9	40.3	40.7	41.1	41.2	41.2	40.8	40.4	39.8	<b>-69</b>	45.4	45.6	45.7	45.9	46.0	46.0	45.9	45.7	45.6	45.5	45.4	45.5
Canopus	3.4	<b>222</b>	10.9	10.8	10.8	11.0	11.3	11.5	11.7	11.8	11.7	11.5	11.2	10.8	<b>-59</b>	00.4	00.6	00.7	00.9	00.9	00.9	00.8	00.7	00.6	00.4	00.4	00.5
Suhail	2.2	<b>222</b>	54.0	53.9	53.9	54.0	54.2	54.3	54.5	54.5	54.4	54.2	53.9	53.7	<b>-43</b>	28.3	28.5	28.7	28.8	28.8	28.8	28.7	28.6	28.5	28.4	28.4	28.4
BS 3614	3.8	<b>223</b>	52.0	51.8	51.8	52.0	52.2	52.4	52.5	52.5	52.4	52.2	51.9	51.6	<b>-47</b>	08.2	08.4	08.5	08.7	08.7	08.7	08.6	08.5	08.3	08.2	08.2	08.3
Talitha Australis	3.6	<b>223</b>	54.7	54.5	54.4	54.6	54.7	54.9	55.0	54.9	54.8	54.6	54.3	54.0	<b>47</b>	06.8	06.8	06.9	07.0	07.0	07.0	07.0	06.9	06.8	06.6	06.5	06.5
Talitha	3.1	<b>225</b>	00.9	00.7	00.7	00.8	01.0	01.1	01.2	01.2	01.0	00.8	00.5	00.2	<b>47</b>	59.9	00.0	00.0	00.1	00.2	00.2	00.1	00.0	59.9	59.8	59.7	59.6
Zeta Hydra	3.1	<b>226</b>	00.6	00.5	00.5	00.6	00.7	00.7	00.8	00.8	00.7	00.5	00.3	00.0	<b>5</b>	54.3	54.3	54.2	54.2	54.2	54.3	54.3	54.3	54.3	54.3	54.2	54.2
BS 3571	3.8	<b>226</b>	10.3	10.1	10.2	10.4	10.7	11.0	11.2	11.3	11.2	10.9	10.6	10.2	<b>-60</b>	40.9	41.1	41.2	41.4	41.4	41.4	41.3	41.2	41.0	40.9	40.9	41.0
Epsilon Hydra	3.4	<b>228</b>	09.9	09.8	09.8	09.8	09.9	10.0	10.1	10.0	09.9	09.7	09.5	09.3	<b>6</b>	22.8	22.7	22.7	22.7	22.7	22.7	22.8	22.8	22.8	22.7	22.6	
Delta Vela	1.9	<b>228</b>	44.7	44.6	44.7	44.9	45.1	45.3	45.5	45.5	45.4	45.2	44.8	44.5	<b>-54</b>	44.7	44.8	45.0	45.1	45.2	45.1	45.0	44.9	44.8	44.7	44.7	44.7
Asellus Australis	3.9	<b>228</b>	40.6	40.5	40.5	40.6	40.7	40.8	40.8	40.8	40.6	40.5	40.2	40.0	<b>18</b>	06.9	06.9	06.9	06.9	06.9	06.9	06.9	06.9	06.9	06.8	06.8	06.7
Alpha Pyxis	3.7	<b>228</b>	59.6	59.4	59.5	59.6	59.7	59.9	59.9	59.9	59.8	59.6	59.4	59.1	<b>-33</b>	13.3	13.5	13.6	13.7	13.7	13.7	13.6	13.5	13.4	13.3	13.3	13.4
BS 3445	3.8	<b>229</b>	45.1	45.0	45.0	45.2	45.4	45.5	45.6	45.7	45.5	45.3	45.0	44.8	<b>-46</b>	41.0	41.2	41.3	41.5	41.5	41.5	41.4	41.2	41.1	41.0	41.0	41.1
Omicron Velorum	3.6	<b>229</b>	50.7	50.6	50.7	50.9	51.1	51.3	51.4	51.5	51.4	51.1	50.8	50.5	<b>-62</b>	57.4	57.6	57.7	57.8	57.9	57.8	57.7	57.6	57.5	57.4	57.4	57.5
Muscida	3.4	<b>232</b>	12.6	12.4	12.4	12.6	12.9	13.1	13.2	13.2	12.9	12.6	12.2	11.8	<b>60</b>	40.8	40.9	41.1	41.1	41.2	41.1	41.0	40.9	40.8	40.7	40.6	40.6
Beta Volans	3.8	<b>233</b>	31.6	31.5	31.7	32.0	32.4	32.8	33.0	33.0	32.9	32.6	32.1	31.7	<b>-66</b>	10.1	10.3	10.5	10.6	10.7	10.6	10.5	10.3	10.2	10.1	10.1	10.2
BS 3314	3.9	<b>233</b>	27.0	26.9	27.0	27.0	27.2	27.2	27.3	27.2	27.1	26.9	26.7	26.5	<b>-3</b>	56.4	56.5	56.6	56.6	56.6	56.6	56.5	56.5	56.4	56.4	56.5	56.6
Avior	2.0	<b>234</b>	18.6	18.5	18.6	18.9	19.2	19.4	19.6	19.6	19.5	19.2	18.8	18.5	<b>-59</b>	32.4	32.6	32.8	32.9	32.9	32.9	32.8	32.6	32.5	32.4	32.4	32.5
Altarf	3.5	<b>235</b>	43.6	43.4	43.5	43.6	43.7	43.8	43.8	43.7	43.6	43.4	43.2	42.9	<b>9</b>	09.2	09.1	09.1	09.1	09.1	09.1	09.2	09.2	09.2	09.2	09.1	09.0
Suhail	1.8	<b>237</b>	31.8	31.7	31.8	32.0	32.2	32.4	32.5	32.4	32.3	32.1	31.8	31.5	<b>-47</b>	21.9	22.1	22.3	22.3	22.4	22.3	22.2	22.0	21.9	21.8	21.9	22.0
Rho Puppis	2.8	<b>237</b>	59.9	59.8	59.9	00.0	00.1	00.2	00.3	00.2	00.1	59.9	59.6	59.4	<b>-24</b>	20.0	20.2	20.3	20.3	20.3	20.2	20.2	20.1	20.0	19.9	20.0	20.1
Naos	2.2	<b>239</b>	00.4	00.3	00.4	00.6	00.7	00.9	00.9	00.9	00.8	00.5	00.3	00.0	<b>-40</b>	01.9	02.0	02.2	02.2	02.3	02.2	02.1	01.9	01.8	01.8	01.8	01.9
Chi Carina	3.5	<b>240</b>	43.9	43.8	43.9	44.2	44.4	44.6	44.7	44.7	44.5	44.3	44.0	43.7	<b>-53</b>	00.5	00.7	00.8	00.9	00.9	00.9	00.8	00.6	00.5	00.4	00.4	00.5
BS 3080	3.7	<b>241</b>	51.0	50.9	51.0	51.2	51.4	51.5	51.6	51.5	51.4	51.2	50.9	50.6	<b>-40</b>	36.1	36.3	36.4	36.5	36.5	36.4	36.3	36.1	36.0	36.0	36.0	36.1
Asmidiske	3.3	<b>242</b>	33.7	33.7	33.7	33.8	34.0	34.1	34.1	34.0	33.9	33.7	33.5	33.2	<b>-24</b>	53.1	53.3	53.4	53.4	53.4	53.3	53.3	53.1	53.1	53.0	53.1	53.2
Pollux	1.2	<b>243</b>	30.4	30.3	30.4	30.5	30.6	30.7	30.7	30.6	30.4	30.2	29.9	29.7	<b>28</b>	00.0	00.0	00.0	00.1	00.1	00.1	00.0	00.0	00.0	59.9	59.9	59.8
c Puppis	3.6	<b>243</b>	35.2	35.2	35.3	35.4	35.6	35.7	35.8	35.7	35.6	35.4	35.1	34.9	<b>-37</b>	59.6	59.7	59.9	59.9	59.9	59.9	59.7	59.6	59.5	59.4	59.5	59.6
Kappa Gemini	3.6	<b>243</b>	43.6	43.5	43.5	43.6	43.8	43.8	43.8	43.7	43.6	43.4	43.1	42.9	<b>24</b>	22.3	22.3	22.3	22.4	22.4	22.4	22.4	22.3	22.3	22.3	22.2	22.2
Alpha Monoceros	3.9	<b>244</b>	33.6	33.5	33.5	33.7	33.8	33.8	33.9	33.8	33.6	33.4	33.2	33.0	<b>-9</b>	34.5	34.6	34.7	34.7	34.7	34.7	34.6	34.5	34.5	34.4	34.5	34.6
Procyon	0.4	<b>245</b>	02.0	02.0	02.0	02.1	02.2	02.3	02.3	02.2	02.0	01.8	01.6	01.4	<b>5</b>	11.9	11.8	11.8	11.8	11.8	11.8	11.9	11.9	11.9	11.9	11.8	11.8
Castor	1.6	<b>246</b>	10.8	10.7	10.7	10.9	11.0	11.1	11.1	11.0	10.8	10.5	10.3	10.0	<b>31</b>	51.9	51.9	51.9	51.9	52.0	51.9	51.9	51.9	51.8	51.8	51.7	51.7
Sigma Puppis	3.3	<b>247</b>	36.2	36.2	36.3	36.5	36.7	36.8	36.8	36.8	36.6	36.4	36.1	35.8	<b>-43</b>	19.3	19.5	19.6	19.7	19.6	19.6	19.4	19.3	19.2	19.1	19.2	19.3
Gomeisa	2.9	<b>248</b>	04.0	03.9	04.0	04.1	04.2	04.3	04.3	04.2	04.0	03.8	03.6	03.3	<b>8</b>	16.1	16.0	16.0	16.0	16.0	16.0	16.1	16.1	16.1	16.1	16.0	16.0
Iota Gemini	3.8	<b>248</b>	24.1	24.0	24.1	24.2	24.3	24.4	24.4	24.3	24.1	23.9	23.6	23.3	<b>27</b>	46.6	46.6	46.6	46.7	46.7	46.6	46.6	46.6	46.6	46.5	46.5	46.4
Aludra	2.5	<b>248</b>	52.1	52.0	52.1	52.3	52.4	52.5	52.5	52.4	52.3	52.1	51.8	51.6	<b>-29</b>	19.4	19.5	19.6	19.7	19.7	19.6	19.5	19.4	19.3	19.2	19.3	19.4
Wasat	3.5	<b>249</b>	48.5	48.5	48.5	48.6	48.8	48.8	48.8	48.7	48.5	48.3	48.0	47.8	<b>21</b>	57.7	57.7	57.8	57.8	57.8	57.8	57.8	57.8	57.7	57.7	57.7	57.6
Lambda Gemini	3.6	<b>250</b>	19.3	19.3	19.3	19.5	19.6	19.6	19.6	19.5	19.3	19.1	18.9	18.6	<b>16</b>	31.3	31.2	31.2	31.2	31.2	31.3	31.3	31.3	31.3	31.2	31.2	31.1
Pi Puppis	2.7	<b>250</b>	37.0	36.9	37.0	37.2	37.4	37.5	37.5	37.5	37.3	37.1	36.8	36.6	<b>-37</b>	06.9	07.1	07.2	07.3	07.2	07.2	07.0	06.9	06.8	06.8	06.8	06.9
Gamma Volans	3.8	<b>252</b>	49.2	49.3	49.6	50.1	50.6	51.0	51.2	51.2	50.8	50.4	49.8	49.4	<b>-70</b>	30.9	31.0	31.2	31.2	31.2	31.1	31.0	30.8	30.7	30.6	30.7	30.8
Wezen	1.8	<b>252</b>	47.5	47.4	47.5	47.7	47.8	47.9	47.9	47.8	47.6	47.4	47.2	47.0	<												

Name	Mag	Sidereal Hour Angle												Declination												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Theta Auriga	2.7	269	53.2	53.2	53.3	53.5	53.6	53.6	53.5	53.3	53.1	52.8	52.5	52.3	37	12.8	12.9	12.9	12.9	12.8	12.8	12.8	12.7	12.7	12.7	12.7
Menkalinan	1.9	269	55.2	55.2	55.3	55.5	55.7	55.7	55.6	55.4	55.1	54.8	54.5	54.2	44	56.9	57.0	57.0	57.0	57.0	56.9	56.9	56.8	56.8	56.8	56.8
Prijipati	3.7	269	53.7	53.8	53.9	54.2	54.3	54.4	54.3	54.0	53.7	53.3	52.9	52.6	54	17.1	17.2	17.3	17.3	17.2	17.1	17.1	17.0	16.9	16.9	17.0
Eta Columba	3.9	270	07.6	07.6	07.8	08.0	08.2	08.3	08.3	08.1	07.9	07.6	07.4	07.2	-42	48.9	49.1	49.1	49.2	49.1	49.0	48.8	48.7	48.6	48.6	48.8
Eta Lepus	3.7	270	46.5	46.5	46.6	46.8	46.9	46.9	46.9	46.7	46.5	46.3	46.1	45.9	-14	10.0	10.1	10.1	10.1	10.1	10.0	09.9	09.8	09.8	09.7	09.9
Betelgeuse	0.6	271	03.7	03.7	03.8	03.9	04.0	04.0	03.9	03.8	03.6	03.4	03.1	03.0	7	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.6	24.6	24.6	24.5
Delta Lepus	3.8	272	03.1	03.2	03.3	03.4	03.6	03.6	03.5	03.4	03.2	02.9	02.7	02.6	-20	52.7	52.8	52.9	52.9	52.9	52.8	52.7	52.5	52.5	52.5	52.6
Wezn	3.1	272	09.7	09.8	09.9	10.1	10.3	10.3	10.3	10.1	09.9	09.6	09.4	09.2	-35	45.9	46.0	46.1	46.1	46.1	45.9	45.8	45.7	45.6	45.6	45.8
Saiph	2.1	272	56.0	56.0	56.1	56.2	56.3	56.3	56.3	56.1	55.9	55.7	55.5	55.3	-9	40.0	40.1	40.1	40.1	40.1	40.0	39.9	39.8	39.8	39.8	39.9
Beta Pictor	3.9	273	06.5	06.6	06.8	07.1	07.3	07.4	07.4	07.2	07.0	06.7	06.4	06.2	-51	03.8	04.0	04.0	04.0	04.0	03.8	03.7	03.5	03.4	03.4	03.5
Zeta Lepus	3.6	273	08.3	08.3	08.4	08.6	08.7	08.7	08.6	08.5	08.3	08.0	07.8	07.7	-14	49.1	49.2	49.3	49.3	49.2	49.2	49.0	48.9	48.9	48.9	49.0
Gamma Lepus	3.6	273	46.2	46.3	46.4	46.5	46.6	46.7	46.6	46.5	46.3	46.0	45.8	45.7	-22	26.7	26.9	26.9	26.9	26.9	26.8	26.6	26.5	26.5	26.5	26.6
Alnitak	1.7	274	40.5	40.5	40.6	40.7	40.8	40.8	40.7	40.6	40.4	40.1	39.9	39.8	-1	56.3	56.3	56.3	56.4	56.3	56.3	56.2	56.1	56.1	56.1	56.2
Phact	2.7	274	59.2	59.3	59.4	59.6	59.8	59.8	59.8	59.6	59.4	59.1	58.9	58.8	-34	04.2	04.3	04.4	04.4	04.3	04.2	04.0	03.9	03.8	03.8	03.9
Sigma Orion	3.8	275	10.7	10.7	10.8	10.9	11.0	11.0	11.0	10.8	10.6	10.4	10.2	10.0	-2	35.7	35.7	35.8	35.8	35.7	35.7	35.6	35.5	35.5	35.5	35.6
Zeta Taurus	3.0	275	25.7	25.7	25.8	26.0	26.0	26.0	25.9	25.8	25.5	25.3	25.1	24.9	21	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9	08.9
Alnilam	1.7	275	48.6	48.6	48.7	48.8	48.9	48.9	48.9	48.7	48.5	48.3	48.1	47.9	-1	11.7	11.8	11.8	11.8	11.8	11.8	11.7	11.6	11.6	11.6	11.7
Na'ir al Saif	2.8	276	00.6	00.6	00.7	00.8	00.9	00.9	00.9	00.7	00.5	00.3	00.1	59.9	-5	54.2	54.3	54.3	54.3	54.3	54.2	54.2	54.1	54.0	54.0	54.1
Heka	3.4	276	04.1	04.1	04.2	04.3	04.4	04.4	04.3	04.1	03.9	03.7	03.5	03.3	9	56.5	56.4	56.4	56.4	56.4	56.4	56.5	56.5	56.5	56.5	56.5
Beta Dorado	3.8	276	33.5	33.7	34.1	34.4	34.7	34.9	34.9	34.7	34.3	34.0	33.6	33.4	-62	29.0	29.2	29.3	29.3	29.2	29.0	28.9	28.7	28.6	28.6	28.7
Arneb	2.6	276	41.9	41.9	42.0	42.2	42.3	42.3	42.2	42.0	41.8	41.6	41.4	41.3	-17	48.9	49.0	49.1	49.1	49.0	48.9	48.8	48.7	48.7	48.7	48.8
Mintaka	2.2	276	51.6	51.7	51.8	51.9	52.0	52.0	51.9	51.7	51.5	51.3	51.1	50.9	-0	17.5	17.6	17.6	17.6	17.6	17.5	17.5	17.4	17.3	17.3	17.4
Epsilon Columba	3.9	277	05.9	06.0	06.1	06.3	06.4	06.5	06.4	06.3	06.0	05.8	05.6	05.4	-35	27.8	28.0	28.0	28.0	28.0	27.8	27.7	27.6	27.5	27.5	27.7
Nihal	2.8	277	49.3	49.4	49.5	49.6	49.7	49.8	49.7	49.5	49.3	49.1	48.9	48.7	-20	45.1	45.2	45.3	45.3	45.2	45.1	45.0	44.9	44.8	44.8	44.9
Alnath	1.7	278	15.4	15.5	15.6	15.7	15.8	15.8	15.7	15.5	15.2	15.0	14.7	14.6	28	37.0	37.0	37.0	37.0	37.0	37.0	36.9	36.9	36.9	37.0	37.0
Bellatrix	1.7	278	34.4	34.4	34.5	34.6	34.7	34.7	34.6	34.5	34.2	34.0	33.8	33.6	6	21.5	21.5	21.5	21.5	21.5	21.5	21.6	21.6	21.7	21.7	21.6
Eta Orion	3.4	278	44.7	44.7	44.8	45.0	45.1	45.1	45.0	44.8	44.6	44.4	44.2	44.0	-2	23.3	23.3	23.4	23.4	23.4	23.3	23.2	23.1	23.1	23.1	23.2
Tau Orion	3.6	280	28.0	28.1	28.2	28.3	28.4	28.4	28.3	28.1	27.9	27.7	27.5	27.4	-6	50.0	50.1	50.1	50.1	50.1	50.0	49.9	49.9	49.8	49.8	49.9
Capella	0.1	280	37.7	37.8	37.9	38.1	38.2	38.2	38.1	37.8	37.5	37.2	36.9	36.7	46	00.6	00.6	00.7	00.6	00.6	00.5	00.4	00.4	00.4	00.4	00.5
Rigel	0.3	281	14.2	14.2	14.3	14.4	14.5	14.5	14.4	14.3	14.0	13.8	13.6	13.5	-8	11.4	11.5	11.5	11.5	11.5	11.4	11.3	11.2	11.2	11.2	11.3
Mu Lepus	3.3	281	38.7	38.8	38.9	39.0	39.1	39.1	39.0	38.9	38.6	38.4	38.2	38.1	-16	11.6	11.7	11.8	11.8	11.7	11.6	11.5	11.4	11.3	11.3	11.4
Cursa	2.8	282	54.3	54.3	54.4	54.6	54.7	54.7	54.6	54.4	54.2	53.9	53.7	53.6	-5	04.4	04.5	04.5	04.5	04.5	04.4	04.3	04.2	04.2	04.2	04.3
Hoedus II	3.2	283	11.0	11.0	11.2	11.3	11.4	11.4	11.3	11.0	10.7	10.4	10.2	10.0	41	15.0	15.0	15.0	15.0	15.0	14.9	14.8	14.8	14.8	14.8	14.9
Epsilon Lepus	3.2	283	31.2	31.2	31.4	31.5	31.6	31.6	31.5	31.4	31.1	30.9	30.7	30.6	-22	21.5	21.6	21.6	21.6	21.6	21.5	21.3	21.2	21.1	21.1	21.2
Haedi	3.8	284	11.6	11.6	11.7	11.9	12.0	12.0	11.8	11.6	11.3	11.0	10.7	10.6	41	05.5	05.6	05.6	05.6	05.5	05.4	05.4	05.4	05.4	05.4	05.5
Al Anz	3.0	284	18.9	18.9	19.1	19.3	19.4	19.3	19.2	18.9	18.6	18.3	18.1	17.9	43	50.4	50.4	50.5	50.4	50.4	50.3	50.2	50.2	50.2	50.2	50.3
Hassaleh	2.7	285	34.6	34.7	34.8	34.9	35.0	35.0	34.8	34.6	34.4	34.1	33.8	33.7	33	11.0	11.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9	11.0
Pi5 Orion	3.7	286	17.8	17.9	18.0	18.1	18.2	18.2	18.0	17.9	17.6	17.4	17.2	17.1	2	27.4	27.4	27.4	27.4	27.4	27.4	27.5	27.6	27.6	27.6	27.5
Pi4 Orion	3.7	287	03.3	03.4	03.5	03.6	03.7	03.7	03.5	03.3	03.1	02.9	02.7	02.6	5	37.4	37.3	37.3	37.3	37.3	37.3	37.4	37.5	37.5	37.5	37.5
Pi3 Orion	3.2	287	23.7	23.7	23.8	23.9	24.0	24.0	23.9	23.7	23.4	23.2	23.0	22.9	6	58.8	58.7	58.7	58.7	58.7	58.7	58.8	58.9	58.9	58.9	58.9
Sceptrum	3.9	290	19.9	19.9	20.1	20.2	20.3	20.3	20.1	19.9	19.7	19.5	19.3	19.2	-14	17.1	17.2	17.2	17.2	17.1	17.0	16.9	16.8	16.8	16.8	16.9
Nu Eridanus	3.9	290	47.2	47.2	47.3	47.5	47.5	47.5	47.4	47.2	46.9	46.7	46.6	46.4	-3	19.9	20.0	20.0	20.0	20.0	19.9	19.8	19.7	19.7	19.7	19.8
Aldebaran	1.0	290	52.0	52.0	52.1	52.3	52.3	52.3	52.1	51.9	51.7	51.5	51.3	51.1	16	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.9	31.9	31.9	31.9
Theemim	3.8	291	00.4	00.4	00.6	00.8	00.9	00.9	00.7	00.5	00.3	00.1	59.9	59.8	-30	32.6	32.7	32.7	32.7	32.6	32.5	32.3	32.2	32.1	32.1	32.2
Alpha Dorado	3.3	291	26.1	26.3	26.6	26.9	27.1	27.1	27.0	26.8	26.4	26.1	25.9	25.8	-55	01.6	01.7	01.7	01.6	01.5	01.4	01.2	01.1	01.0	01.0	01.1
Theta2 Taurus	3.4	292	40.9	41.0	41.1	41.2	41.2	41.2	41.1	40.8	40.6	40.4	40.2	40.1	15	53.7	53.6	53.6	53.6	53.6	53.6	53.7	53.7	53.8	53.8	53.8
Ain	3.5	292	41.4	41.4	41.5	41.7	41.7	41.7	41.5	41.3	41.1	40.8	40.7	40.5	19	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.3	12.3	12.3
Secundus Hyadum	3.8	294	06.7	06.8	06.9	07.0	07.1	07.0	06.9	06.7	06.4	06.2	06.0	05.9	17	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.1	34.1	34.1	34.1
Primus Hyadum	3.7	294	54.0	54.0	54.1	54.3	54.3	54.3	54.1	53.9	53.7	53.4	53.2	53.1	15	39.2	39.2	39.2	39.1	39.1	39.1	39.2	39.2	39.3	39.3	39.3
Upsilon4 Eridanus	3.6	295	25.4	25.5	25.6	25.8	25.9	25.9	25.7	25.5	25.3	25.1	24.9	24.8	-33	46.5	46.6									

Name	Mag	Sidereal Hour Angle												Declination													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Maia	3.9	303	23.1	23.2	23.3	23.4	23.4	23.3	23.2	22.9	22.7	22.4	22.3	22.2	24	24.1	24.1	24.1	24.0	24.0	24.0	24.0	24.0	24.1	24.1	24.2	24.2
Nu Perseus	3.8	303	31.2	31.3	31.5	31.6	31.6	31.5	31.3	31.0	30.7	30.5	30.3	30.1	42	36.8	36.8	36.8	36.8	36.7	36.6	36.6	36.6	36.7	36.7	36.8	36.9
Electra	3.7	303	37.4	37.4	37.6	37.7	37.7	37.6	37.5	37.2	37.0	36.7	36.6	36.5	24	08.8	08.8	08.8	08.8	08.7	08.7	08.8	08.8	08.8	08.9	08.9	09.0
Atik	3.9	303	45.2	45.3	45.4	45.5	45.6	45.5	45.3	45.0	44.7	44.5	44.3	44.2	32	19.4	19.4	19.4	19.3	19.3	19.2	19.2	19.3	19.3	19.4	19.4	19.5
Beta Reticulum	3.8	303	54.4	54.7	55.1	55.5	55.7	55.7	55.5	55.1	54.7	54.3	54.1	54.1	-64	46.7	46.7	46.7	46.6	46.5	46.3	46.1	46.0	46.0	46.1	46.2	46.4
Rana	3.5	304	03.6	03.7	03.8	03.9	03.9	03.9	03.7	03.5	03.3	03.1	02.9	02.9	-9	43.8	43.8	43.8	43.8	43.8	43.7	43.6	43.5	43.4	43.4	43.5	43.5
Delta Perseus	3.0	304	04.7	04.8	05.0	05.1	05.2	05.1	04.9	04.5	04.2	03.9	03.7	03.6	47	49.4	49.4	49.4	49.3	49.3	49.2	49.1	49.1	49.2	49.3	49.4	49.5
Epsilon Eridanus	3.7	306	38.5	38.6	38.7	38.8	38.8	38.7	38.6	38.4	38.1	38.0	37.8	37.8	-9	25.5	25.5	25.5	25.5	25.4	25.3	25.2	25.1	25.1	25.1	25.1	25.2
Xi Taurus	3.7	308	03.8	03.9	04.0	04.1	04.1	04.0	03.9	03.6	03.4	03.2	03.1	03.0	9	46.1	46.1	46.1	46.1	46.1	46.1	46.2	46.3	46.3	46.4	46.4	46.3
Omicron Taurus	3.6	308	39.2	39.3	39.4	39.5	39.5	39.4	39.3	39.0	38.8	38.6	38.5	38.4	9	03.9	03.9	03.9	03.9	03.9	03.9	04.0	04.1	04.1	04.2	04.2	04.1
Mirfak	1.8	308	43.7	43.8	44.0	44.2	44.2	44.1	43.8	43.5	43.2	42.9	42.6	42.5	49	54.0	54.1	54.1	54.0	53.9	53.8	53.8	53.8	53.8	53.9	54.0	54.1
16 Eridanus	3.7	310	00.1	00.2	00.3	00.5	00.5	00.4	00.2	00.0	59.8	59.6	59.4	59.4	-21	43.3	43.4	43.4	43.3	43.3	43.1	43.0	42.9	42.8	42.9	42.9	43.1
Fornacis	3.8	311	52.0	52.1	52.3	52.4	52.4	52.4	52.2	51.9	51.7	51.5	51.4	51.3	-28	57.0	57.0	57.0	57.0	56.8	56.7	56.6	56.5	56.4	56.4	56.5	56.7
Algol	2.1	312	47.1	47.2	47.3	47.5	47.5	47.3	47.1	46.8	46.5	46.3	46.1	46.0	40	59.9	59.9	59.9	59.8	59.7	59.7	59.7	59.7	59.8	59.9	59.9	00.0
Gorgonea Tertia	3.4	313	32.1	32.2	32.4	32.5	32.5	32.4	32.1	31.9	31.6	31.3	31.2	31.1	38	53.0	53.0	52.9	52.9	52.8	52.8	52.8	52.8	52.9	53.0	53.0	53.1
Gamma Perseus	2.9	313	36.4	36.6	36.8	37.0	37.0	36.8	36.5	36.2	35.8	35.5	35.3	35.2	53	33.0	33.0	33.0	32.9	32.8	32.7	32.7	32.7	32.8	32.9	33.0	33.1
Menkar	2.6	314	17.5	17.6	17.7	17.8	17.8	17.7	17.5	17.3	17.0	16.8	16.7	16.7	4	07.8	07.8	07.8	07.8	07.8	07.8	07.9	08.0	08.1	08.1	08.1	08.1
Acamar	3.2	315	19.9	20.1	20.2	20.4	20.4	20.3	20.2	19.9	19.6	19.4	19.3	19.3	-40	16.0	16.0	16.0	15.9	15.8	15.6	15.5	15.4	15.4	15.4	15.5	15.7
Azha	3.9	315	45.8	45.9	46.0	46.1	46.1	46.0	45.8	45.6	45.4	45.2	45.1	45.0	-8	51.5	51.5	51.5	51.5	51.5	51.4	51.2	51.2	51.1	51.1	51.1	51.2
Tau Perseus	3.9	316	14.8	15.0	15.2	15.3	15.3	15.1	14.8	14.5	14.1	13.8	13.7	13.6	52	48.5	48.5	48.5	48.4	48.3	48.2	48.2	48.2	48.3	48.4	48.5	48.6
Miram	3.8	317	07.9	08.0	08.3	08.4	08.4	08.2	07.9	07.5	07.2	06.9	06.7	06.6	55	56.5	56.5	56.5	56.4	56.3	56.2	56.2	56.2	56.3	56.4	56.5	56.6
41 Aries	3.6	317	20.9	21.0	21.1	21.2	21.2	21.1	20.8	20.6	20.3	20.1	20.0	19.9	27	18.3	18.3	18.3	18.2	18.2	18.2	18.2	18.2	18.3	18.4	18.5	18.5
Kaffajjidmah	3.5	319	02.3	02.4	02.5	02.5	02.5	02.4	02.2	02.0	01.8	01.6	01.5	01.4	3	16.8	16.7	16.7	16.7	16.7	16.8	16.9	17.0	17.0	17.1	17.1	17.0
Polaris	2.0	318	46.1	58.5	10.8	19.9	21.6	15.8	04.6	49.8	34.7	23.0	16.3	16.4	89	18.8	18.9	18.9	18.8	18.6	18.5	18.4	18.4	18.4	18.6	18.7	18.9
Phi Eridanus	3.6	325	46.5	46.8	47.0	47.1	47.1	47.0	46.7	46.4	46.1	45.9	45.8	45.9	-51	28.1	28.1	28.1	28.0	27.8	27.6	27.5	27.4	27.4	27.5	27.6	27.8
Beta Triangulum	3.0	327	27.4	27.6	27.7	27.8	27.7	27.5	27.3	27.0	26.7	26.6	26.5	26.4	35	02.3	02.3	02.3	02.2	02.1	02.1	02.1	02.2	02.3	02.4	02.5	02.6
Hamal	2.0	328	03.5	03.6	03.7	03.8	03.7	03.6	03.3	03.1	02.9	02.7	02.6	02.6	23	30.8	30.8	30.7	30.7	30.6	30.7	30.7	30.8	30.9	31.0	31.0	31.0
Almaak	2.2	328	51.8	51.9	52.1	52.2	52.1	51.9	51.7	51.3	51.1	50.9	50.8	50.8	42	23.0	22.9	22.9	22.8	22.7	22.7	22.7	22.8	22.9	23.0	23.1	23.2
Alrisha	3.8	329	21.1	21.2	21.3	21.4	21.3	21.2	21.0	20.8	20.5	20.4	20.3	20.3	2	48.8	48.8	48.8	48.8	48.8	48.9	49.0	49.1	49.1	49.2	49.1	49.1
Alpha Hydrus	2.9	330	13.3	13.6	13.8	14.0	14.0	13.8	13.5	13.1	12.8	12.6	12.5	12.6	-61	31.5	31.5	31.4	31.2	31.1	30.9	30.7	30.7	30.7	30.8	31.0	31.1
Chi Eridanus	3.7	330	54.4	54.6	54.8	54.9	54.9	54.7	54.5	54.2	53.9	53.7	53.6	53.7	-51	33.7	33.7	33.7	33.5	33.4	33.2	33.0	33.0	33.0	33.1	33.2	33.4
Sheratan	2.7	331	11.7	11.8	11.9	12.0	11.9	11.7	11.5	11.3	11.0	10.9	10.8	10.8	20	51.6	51.6	51.5	51.5	51.5	51.5	51.6	51.6	51.7	51.8	51.9	51.9
Segin	3.4	331	12.6	12.9	13.1	13.3	13.2	12.9	12.5	12.0	11.6	11.3	11.2	11.2	63	43.5	43.5	43.5	43.3	43.2	43.1	43.1	43.2	43.3	43.4	43.6	43.7
Mothallah	3.4	331	34.8	34.9	35.0	35.1	35.0	34.8	34.6	34.3	34.1	33.9	33.8	33.8	29	37.9	37.9	37.8	37.7	37.7	37.7	37.8	37.8	37.9	38.0	38.1	38.1
Baten Kaitos	3.7	332	00.3	00.4	00.5	00.6	00.5	00.4	00.2	59.9	59.7	59.6	59.5	59.5	-10	17.1	17.2	17.2	17.1	17.0	16.9	16.8	16.7	16.7	16.7	16.7	16.8
Tau Cetus	3.5	333	51.7	51.8	51.9	51.9	51.9	51.7	51.5	51.3	51.1	50.9	50.9	50.9	-15	53.1	53.1	53.1	53.1	53.0	52.8	52.7	52.6	52.6	52.6	52.7	52.7
51 Andromeda	3.6	335	20.4	20.6	20.8	20.8	20.7	20.5	20.2	19.9	19.6	19.4	19.3	19.3	48	41.1	41.0	41.0	40.9	40.8	40.7	40.7	40.8	40.9	41.1	41.2	41.3
Achemar	0.5	335	28.3	28.6	28.8	28.9	28.9	28.7	28.4	28.0	27.7	27.5	27.5	27.6	-57	11.3	11.3	11.3	11.1	10.9	10.8	10.6	10.6	10.6	10.7	10.8	11.0
Eta Pisces	3.6	336	59.4	59.5	59.5	59.6	59.5	59.3	59.1	58.9	58.7	58.5	58.5	58.5	15	24.0	24.0	23.9	23.9	23.9	24.0	24.0	24.1	24.2	24.3	24.3	24.3
Delta Phoenix	3.9	337	04.6	04.8	05.0	05.1	05.0	04.8	04.6	04.3	04.0	03.8	03.8	03.9	-49	01.4	01.4	01.3	01.2	01.0	00.9	00.7	00.7	00.7	00.8	00.9	01.0
Gamma Phoenix	3.4	337	47.7	47.8	48.0	48.0	48.0	47.8	47.6	47.3	47.0	46.9	46.8	46.9	-43	16.2	16.2	16.1	16.0	15.8	15.7	15.5	15.5	15.5	15.6	15.7	15.8
Ruchbah	2.7	338	22.4	22.7	22.9	23.0	22.9	22.6	22.2	21.8	21.4	21.2	21.1	21.2	60	17.6	17.6	17.5	17.4	17.3	17.2	17.2	17.3	17.4	17.6	17.7	17.9
Theta Cetus	3.6	338	51.8	51.9	52.0	52.0	52.0	51.8	51.6	51.3	51.1	51.0	51.0	51.0	-8	07.9	07.9	07.9	07.9	07.8	07.7	07.6	07.5	07.4	07.4	07.5	07.5
Mirach	2.1	342	25.3	25.4	25.5	25.5	25.4	25.2	24.9	24.7	24.4	24.3	24.3	24.3	35	40.7	40.7	40.6	40.5	40.5	40.4	40.5	40.6	40.7	40.8	40.9	41.0
Dheneb	3.5	342	43.3	43.4	43.5	43.5	43.4	43.2	43.0	42.8	42.6	42.5	42.4	42.5	-10	07.7	07.8	07.8	07.7	07.6	07.5	07.4	07.3	07.3	07.3	07.3	07.4
Beta Phoenix	3.3	343	21.8	21.9	22.1	22.1	22.0	21.8	21.6	21.3	21.0	20.9	20.9	21.0	-46	40.0	40.0	39.9	39.8	39.6	39.5	39.4	39.3	39.3	39.4	39.6	39.7
Mu Andromeda	3.9	345	40.1	40.2	40.3	40.3	40.2	40.0	39.7	39.4	39.2	39.0	39.0	39.1	38	33.5	33.5	33.4	33.3	33.2	33.2	33.3	33.4	33.5	33.7	33.8	33.8
Tsih	2.2	345	39.9	40.2	40.4	40.4	40.3	39.9	39.5	39.1	38.8	38.6	38.6	38.7	60	46.6	46.6	46.5	46.4	46.3	46.2	46.2					