

MARS

| Data 2020 | 0 ^h UT | | | Data 2020 | 0 ^h UT | | | | | |
|--------------|-------------------|----------------|----------------|--------------|-------------------|----------------|----------------|--------|--------|--------|
| | P | B ₀ | L ₀ | | P | B ₀ | L ₀ | | | |
| I | 1 | 37.31 | 10.52 | 44.67 | II | 18 | 26.04 | -3.35 | 298.54 | |
| | 2 | 37.19 | 10.25 | 34.95 | | 19 | 25.70 | -3.64 | 288.82 | |
| | 3 | 37.07 | 9.98 | 25.23 | | 20 | 25.36 | -3.93 | 279.11 | |
| | 4 | 36.94 | 9.70 | 15.52 | | 21 | 25.01 | -4.22 | 269.39 | |
| | 5 | 36.80 | 9.43 | 5.80 | | 22 | 24.66 | -4.52 | 259.67 | |
| | 6 | 36.66 | 9.15 | 356.08 | | 23 | 24.31 | -4.81 | 249.95 | |
| | 7 | 36.52 | 8.88 | 346.37 | | 24 | 23.95 | -5.10 | 240.24 | |
| | 8 | 36.37 | 8.60 | 336.65 | | 25 | 23.59 | -5.39 | 230.52 | |
| | 9 | 36.21 | 8.32 | 326.94 | | 26 | 23.23 | -5.68 | 220.79 | |
| | 10 | 36.05 | 8.04 | 317.22 | | 27 | 22.86 | -5.97 | 211.07 | |
| | 11 | 35.88 | 7.76 | 307.51 | | 28 | 22.50 | -6.26 | 201.35 | |
| | 12 | 35.71 | 7.47 | 297.80 | | 29 | 22.13 | -6.54 | 191.63 | |
| | 13 | 35.53 | 7.19 | 288.09 | | III | 1 | 21.75 | -6.83 | 181.90 |
| | 14 | 35.35 | 6.91 | 278.38 | | | 2 | 21.37 | -7.11 | 172.18 |
| | 15 | 35.16 | 6.62 | 268.66 | | | 3 | 20.99 | -7.40 | 162.45 |
| | 16 | 34.97 | 6.34 | 258.95 | | | 4 | 20.61 | -7.68 | 152.72 |
| | 17 | 34.77 | 6.05 | 249.24 | | | 5 | 20.23 | -7.96 | 143.00 |
| | 18 | 34.57 | 5.76 | 239.53 | | | 6 | 19.84 | -8.25 | 133.27 |
| | 19 | 34.36 | 5.47 | 229.82 | | | 7 | 19.45 | -8.53 | 123.53 |
| | 20 | 34.15 | 5.18 | 220.11 | | | 8 | 19.06 | -8.80 | 113.80 |
| | 21 | 33.93 | 4.89 | 210.41 | | | 9 | 18.66 | -9.08 | 104.07 |
| | 22 | 33.71 | 4.60 | 200.70 | | | 10 | 18.26 | -9.36 | 94.33 |
| | 23 | 33.48 | 4.31 | 190.99 | | | 11 | 17.86 | -9.63 | 84.60 |
| | 24 | 33.25 | 4.02 | 181.28 | | 12 | 17.46 | -9.91 | 74.86 | |
| | 25 | 33.01 | 3.73 | 171.57 | | 13 | 17.06 | -10.18 | 65.12 | |
| | 26 | 32.77 | 3.44 | 161.86 | | 14 | 16.65 | -10.45 | 55.38 | |
| | 27 | 32.53 | 3.14 | 152.15 | | 15 | 16.24 | -10.72 | 45.64 | |
| | 28 | 32.28 | 2.85 | 142.45 | | 16 | 15.83 | -10.99 | 35.90 | |
| | 29 | 32.02 | 2.56 | 132.74 | | 17 | 15.42 | -11.26 | 26.15 | |
| | 30 | 31.76 | 2.26 | 123.03 | 18 | 15.00 | -11.52 | 16.41 | | |
| | 31 | 31.50 | 1.97 | 113.32 | 19 | 14.58 | -11.79 | 6.66 | | |
| II | 1 | 31.23 | 1.67 | 103.62 | 20 | 14.17 | -12.05 | 356.91 | | |
| | 2 | 30.96 | 1.38 | 93.91 | 21 | 13.75 | -12.31 | 347.16 | | |
| | 3 | 30.68 | 1.08 | 84.20 | 22 | 13.32 | -12.57 | 337.41 | | |
| | 4 | 30.40 | 0.79 | 74.49 | 23 | 12.90 | -12.83 | 327.65 | | |
| | 5 | 30.11 | 0.49 | 64.78 | 24 | 12.47 | -13.08 | 317.90 | | |
| | 6 | 29.82 | 0.20 | 55.07 | 25 | 12.05 | -13.33 | 308.14 | | |
| | 7 | 29.53 | -0.10 | 45.37 | 26 | 11.62 | -13.59 | 298.38 | | |
| | 8 | 29.23 | -0.40 | 35.66 | 27 | 11.19 | -13.84 | 288.62 | | |
| | 9 | 28.93 | -0.69 | 25.95 | 28 | 10.76 | -14.08 | 278.86 | | |
| | 10 | 28.63 | -0.99 | 16.24 | 29 | 10.33 | -14.33 | 269.10 | | |
| | 11 | 28.32 | -1.28 | 6.53 | 30 | 9.89 | -14.57 | 259.34 | | |
| | 12 | 28.00 | -1.58 | 356.81 | 31 | 9.46 | -14.81 | 249.57 | | |
| | 13 | 27.68 | -1.87 | 347.10 | IV | 1 | 9.02 | -15.05 | 239.80 | |
| | 14 | 27.36 | -2.17 | 337.39 | | 2 | 8.58 | -15.29 | 230.03 | |
| | 15 | 27.04 | -2.46 | 327.68 | | 3 | 8.15 | -15.52 | 220.26 | |
| | 16 | 26.71 | -2.76 | 317.97 | | 4 | 7.71 | -15.75 | 210.49 | |
| | 17 | 26.38 | -3.05 | 308.25 | | 5 | 7.27 | -15.98 | 200.72 | |

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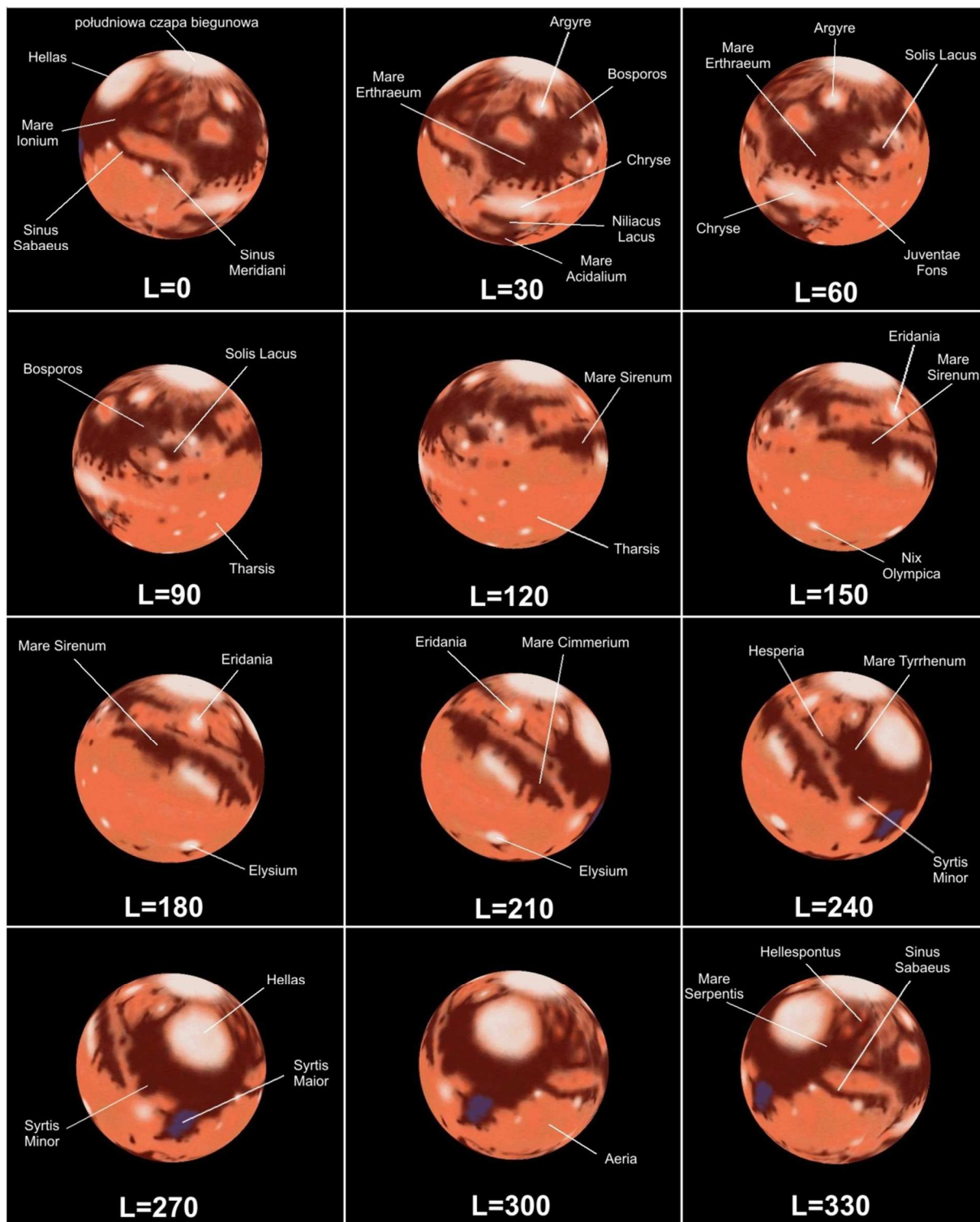
| Data 2020 | 0 ^h UT | | | Data 2020 | 0 ^h UT | | | | |
|--------------|-------------------|----------------|----------------|--------------|-------------------|----------------|----------------|--------|--------|
| | P | B ₀ | L ₀ | | P | B ₀ | L ₀ | | |
| IV | 6 | 6.83 | -16.21 | 190.94 | V | 24 | 345.72 | -23.48 | 80.10 |
| | 7 | 6.38 | -16.43 | 181.16 | | 25 | 345.31 | -23.54 | 70.28 |
| | 8 | 5.94 | -16.65 | 171.38 | | 26 | 344.90 | -23.60 | 60.46 |
| | 9 | 5.50 | -16.87 | 161.60 | | 27 | 344.50 | -23.66 | 50.63 |
| | 10 | 5.05 | -17.09 | 151.82 | | 28 | 344.09 | -23.71 | 40.81 |
| | 11 | 4.61 | -17.31 | 142.03 | | 29 | 343.69 | -23.76 | 30.99 |
| | 12 | 4.16 | -17.52 | 132.25 | | 30 | 343.29 | -23.80 | 21.17 |
| | 13 | 3.72 | -17.73 | 122.46 | | 31 | 342.90 | -23.84 | 11.34 |
| | 14 | 3.27 | -17.93 | 112.67 | VI | 1 | 342.50 | -23.88 | 1.53 |
| | 15 | 2.82 | -18.14 | 102.88 | | 2 | 342.11 | -23.91 | 351.71 |
| | 16 | 2.37 | -18.34 | 93.09 | | 3 | 341.73 | -23.94 | 341.89 |
| | 17 | 1.93 | -18.53 | 83.29 | | 4 | 341.34 | -23.96 | 332.07 |
| | 18 | 1.48 | -18.73 | 73.50 | | 5 | 340.96 | -23.98 | 322.26 |
| | 19 | 1.03 | -18.92 | 63.70 | | 6 | 340.58 | -24.00 | 312.44 |
| | 20 | 0.58 | -19.11 | 53.90 | | 7 | 340.21 | -24.01 | 302.63 |
| | 21 | 0.13 | -19.29 | 44.10 | | 8 | 339.84 | -24.02 | 292.82 |
| | 22 | 359.69 | -19.48 | 34.30 | | 9 | 339.47 | -24.03 | 283.01 |
| | 23 | 359.24 | -19.66 | 24.49 | | 10 | 339.10 | -24.03 | 273.21 |
| | 24 | 358.79 | -19.83 | 14.69 | | 11 | 338.74 | -24.02 | 263.40 |
| | 25 | 358.34 | -20.00 | 4.88 | | 12 | 338.38 | -24.02 | 253.60 |
| | 26 | 357.89 | -20.17 | 355.08 | | 13 | 338.03 | -24.01 | 243.80 |
| | 27 | 357.45 | -20.34 | 345.27 | | 14 | 337.68 | -24.00 | 234.00 |
| | 28 | 357.00 | -20.50 | 335.46 | | 15 | 337.33 | -23.98 | 224.20 |
| | 29 | 356.55 | -20.66 | 325.65 | | 16 | 336.99 | -23.96 | 214.41 |
| | 30 | 356.11 | -20.82 | 315.84 | | 17 | 336.65 | -23.94 | 204.62 |
| V | 1 | 355.66 | -20.97 | 306.02 | | 18 | 336.32 | -23.91 | 194.83 |
| | 2 | 355.22 | -21.12 | 296.21 | | 19 | 335.99 | -23.88 | 185.04 |
| | 3 | 354.77 | -21.27 | 286.39 | | 20 | 335.66 | -23.85 | 175.26 |
| | 4 | 354.33 | -21.41 | 276.58 | | 21 | 335.34 | -23.81 | 165.48 |
| | 5 | 353.89 | -21.55 | 266.76 | | 22 | 335.02 | -23.77 | 155.70 |
| | 6 | 353.44 | -21.68 | 256.94 | | 23 | 334.70 | -23.73 | 145.93 |
| | 7 | 353.00 | -21.82 | 247.12 | | 24 | 334.39 | -23.68 | 136.16 |
| | 8 | 352.56 | -21.94 | 237.30 | | 25 | 334.09 | -23.63 | 126.39 |
| | 9 | 352.13 | -22.07 | 227.48 | | 26 | 333.79 | -23.58 | 116.63 |
| | 10 | 351.69 | -22.19 | 217.66 | | 27 | 333.49 | -23.52 | 106.87 |
| | 11 | 351.25 | -22.31 | 207.83 | | 28 | 333.20 | -23.46 | 97.12 |
| | 12 | 350.82 | -22.42 | 198.01 | | 29 | 332.91 | -23.40 | 87.37 |
| | 13 | 350.38 | -22.53 | 188.18 | | 30 | 332.63 | -23.34 | 77.62 |
| | 14 | 349.95 | -22.63 | 178.36 | VII | 1 | 332.35 | -23.27 | 67.88 |
| | 15 | 349.52 | -22.74 | 168.54 | | 2 | 332.08 | -23.20 | 58.14 |
| | 16 | 349.09 | -22.83 | 158.71 | | 3 | 331.81 | -23.13 | 48.40 |
| | 17 | 348.66 | -22.93 | 148.88 | | 4 | 331.54 | -23.05 | 38.67 |
| | 18 | 348.24 | -23.02 | 139.06 | | 5 | 331.28 | -22.98 | 28.94 |
| | 19 | 347.81 | -23.10 | 129.23 | | 6 | 331.03 | -22.90 | 19.22 |
| | 20 | 347.39 | -23.19 | 119.41 | | 7 | 330.78 | -22.81 | 9.51 |
| | 21 | 346.97 | -23.27 | 109.58 | | 8 | 330.53 | -22.73 | 359.79 |
| | 22 | 346.55 | -23.34 | 99.75 | | 9 | 330.29 | -22.64 | 350.09 |
| | 23 | 346.14 | -23.41 | 89.93 | | 10 | 330.05 | -22.55 | 340.38 |

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| Data 2020 | | 0 ^h UT | | | Data 2020 | | 0 ^h UT | | |
|--------------|----|-------------------|----------------|----------------|--------------|----|-------------------|----------------|----------------|
| | | P | B ₀ | L ₀ | | | P | B ₀ | L ₀ |
| VII | 11 | 329.82 | -22.46 | 330.69 | VIII | 28 | 323.86 | -17.85 | 233.94 |
| | 12 | 329.59 | -22.37 | 320.99 | | 29 | 323.82 | -17.80 | 224.67 |
| | 13 | 329.37 | -22.28 | 311.31 | | 30 | 323.79 | -17.75 | 215.41 |
| | 14 | 329.15 | -22.18 | 301.63 | | 31 | 323.76 | -17.71 | 206.17 |
| | 15 | 328.94 | -22.08 | 291.95 | IX | 1 | 323.74 | -17.67 | 196.93 |
| | 16 | 328.73 | -21.98 | 282.28 | | 2 | 323.71 | -17.64 | 187.71 |
| | 17 | 328.53 | -21.88 | 272.62 | | 3 | 323.69 | -17.61 | 178.51 |
| | 18 | 328.33 | -21.78 | 262.96 | | 4 | 323.68 | -17.58 | 169.31 |
| | 19 | 328.14 | -21.68 | 253.31 | | 5 | 323.66 | -17.56 | 160.13 |
| | 20 | 327.95 | -21.57 | 243.67 | | 6 | 323.65 | -17.55 | 150.97 |
| | 21 | 327.76 | -21.47 | 234.03 | | 7 | 323.64 | -17.54 | 141.82 |
| | 22 | 327.58 | -21.36 | 224.40 | | 8 | 323.63 | -17.53 | 132.68 |
| | 23 | 327.41 | -21.25 | 214.77 | | 9 | 323.63 | -17.53 | 123.56 |
| | 24 | 327.24 | -21.15 | 205.15 | | 10 | 323.62 | -17.54 | 114.45 |
| | 25 | 327.07 | -21.04 | 195.54 | | 11 | 323.62 | -17.55 | 105.35 |
| | 26 | 326.91 | -20.93 | 185.94 | | 12 | 323.63 | -17.57 | 96.27 |
| | 27 | 326.75 | -20.82 | 176.34 | | 13 | 323.63 | -17.59 | 87.20 |
| | 28 | 326.60 | -20.71 | 166.75 | | 14 | 323.64 | -17.61 | 78.15 |
| | 29 | 326.45 | -20.60 | 157.17 | | 15 | 323.65 | -17.65 | 69.11 |
| | 30 | 326.31 | -20.49 | 147.60 | | 16 | 323.67 | -17.68 | 60.09 |
| | 31 | 326.17 | -20.38 | 138.03 | | 17 | 323.68 | -17.73 | 51.08 |
| VIII | 1 | 326.04 | -20.27 | 128.47 | | 18 | 323.70 | -17.77 | 42.08 |
| | 2 | 325.91 | -20.16 | 118.92 | | 19 | 323.73 | -17.83 | 33.10 |
| | 3 | 325.78 | -20.05 | 109.38 | | 20 | 323.75 | -17.89 | 24.13 |
| | 4 | 325.66 | -19.94 | 99.84 | | 21 | 323.78 | -17.95 | 15.18 |
| | 5 | 325.54 | -19.84 | 90.32 | | 22 | 323.81 | -18.02 | 6.23 |
| | 6 | 325.43 | -19.73 | 80.80 | | 23 | 323.84 | -18.09 | 357.30 |
| | 7 | 325.32 | -19.62 | 71.29 | | 24 | 323.88 | -18.17 | 348.39 |
| | 8 | 325.21 | -19.52 | 61.79 | | 25 | 323.92 | -18.26 | 339.48 |
| | 9 | 325.11 | -19.41 | 52.30 | | 26 | 323.96 | -18.35 | 330.59 |
| | 10 | 325.01 | -19.31 | 42.82 | | 27 | 324.00 | -18.44 | 321.70 |
| | 11 | 324.92 | -19.21 | 33.34 | | 28 | 324.05 | -18.54 | 312.83 |
| | 12 | 324.83 | -19.11 | 23.88 | | 29 | 324.10 | -18.64 | 303.96 |
| | 13 | 324.74 | -19.01 | 14.43 | | 30 | 324.15 | -18.74 | 295.11 |
| | 14 | 324.66 | -18.92 | 4.98 | X | 1 | 324.21 | -18.85 | 286.26 |
| | 15 | 324.58 | -18.82 | 355.55 | | 2 | 324.26 | -18.96 | 277.43 |
| | 16 | 324.51 | -18.73 | 346.13 | | 3 | 324.32 | -19.08 | 268.60 |
| | 17 | 324.43 | -18.64 | 336.72 | | 4 | 324.39 | -19.20 | 259.77 |
| | 18 | 324.36 | -18.56 | 327.32 | | 5 | 324.45 | -19.32 | 250.96 |
| | 19 | 324.30 | -18.47 | 317.93 | | 6 | 324.52 | -19.44 | 242.15 |
| | 20 | 324.24 | -18.39 | 308.55 | | 7 | 324.59 | -19.57 | 233.34 |
| | 21 | 324.18 | -18.31 | 299.18 | | 8 | 324.66 | -19.70 | 224.54 |
| | 22 | 324.12 | -18.24 | 289.83 | | 9 | 324.73 | -19.83 | 215.74 |
| | 23 | 324.07 | -18.16 | 280.48 | | 10 | 324.81 | -19.96 | 206.95 |
| | 24 | 324.02 | -18.09 | 271.15 | | 11 | 324.88 | -20.09 | 198.15 |
| | 25 | 323.98 | -18.03 | 261.83 | | 12 | 324.96 | -20.22 | 189.36 |
| | 26 | 323.93 | -17.97 | 252.52 | | 13 | 325.04 | -20.36 | 180.56 |
| | 27 | 323.89 | -17.91 | 243.23 | | 14 | 325.12 | -20.49 | 171.77 |

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| Data 2020 | 0 ^h UT | | | Data 2020 | 0 ^h UT | | | | | |
|--------------|-------------------|----------------|----------------|--------------|-------------------|----------------|----------------|--------|--------|--------|
| | P | B ₀ | L ₀ | | P | B ₀ | L ₀ | | | |
| X | 15 | 325.20 | -20.63 | 162.97 | XII | 1 | 325.97 | -24.22 | 97.70 | |
| | 16 | 325.28 | -20.76 | 154.18 | | 2 | 325.89 | -24.22 | 88.34 | |
| | 17 | 325.36 | -20.89 | 145.37 | | 3 | 325.81 | -24.22 | 78.98 | |
| | 18 | 325.44 | -21.03 | 136.57 | | 4 | 325.73 | -24.21 | 69.60 | |
| | 19 | 325.52 | -21.16 | 127.76 | | 5 | 325.65 | -24.20 | 60.21 | |
| | 20 | 325.60 | -21.29 | 118.94 | | 6 | 325.56 | -24.18 | 50.81 | |
| | 21 | 325.68 | -21.42 | 110.11 | | 7 | 325.48 | -24.17 | 41.40 | |
| | 22 | 325.76 | -21.55 | 101.28 | | 8 | 325.39 | -24.15 | 31.98 | |
| | 23 | 325.83 | -21.67 | 92.44 | | 9 | 325.29 | -24.12 | 22.56 | |
| | 24 | 325.91 | -21.79 | 83.59 | | 10 | 325.20 | -24.09 | 13.12 | |
| | 25 | 325.98 | -21.92 | 74.73 | | 11 | 325.11 | -24.06 | 3.68 | |
| | 26 | 326.05 | -22.04 | 65.86 | | 12 | 325.01 | -24.03 | 354.22 | |
| | 27 | 326.11 | -22.15 | 56.98 | | 13 | 324.91 | -23.99 | 344.76 | |
| | 28 | 326.18 | -22.27 | 48.08 | | 14 | 324.81 | -23.95 | 335.29 | |
| | 29 | 326.24 | -22.38 | 39.18 | | 15 | 324.71 | -23.91 | 325.81 | |
| | 30 | 326.30 | -22.49 | 30.26 | | 16 | 324.61 | -23.86 | 316.33 | |
| | 31 | 326.35 | -22.59 | 21.34 | | 17 | 324.51 | -23.81 | 306.83 | |
| | XI | 1 | 326.40 | -22.69 | | 12.39 | 18 | 324.41 | -23.75 | 297.33 |
| | | 2 | 326.45 | -22.79 | | 3.44 | 19 | 324.30 | -23.70 | 287.83 |
| | | 3 | 326.49 | -22.89 | | 354.47 | 20 | 324.20 | -23.64 | 278.31 |
| | | 4 | 326.53 | -22.98 | | 345.49 | 21 | 324.10 | -23.57 | 268.79 |
| | | 5 | 326.57 | -23.07 | | 336.49 | 22 | 323.99 | -23.51 | 259.26 |
| | | 6 | 326.60 | -23.16 | | 327.49 | 23 | 323.89 | -23.44 | 249.73 |
| | | 7 | 326.63 | -23.24 | | 318.46 | 24 | 323.79 | -23.36 | 240.19 |
| | | 8 | 326.65 | -23.32 | | 309.43 | 25 | 323.68 | -23.29 | 230.64 |
| | | 9 | 326.67 | -23.40 | | 300.37 | 26 | 323.58 | -23.21 | 221.09 |
| | | 10 | 326.68 | -23.47 | | 291.31 | 27 | 323.48 | -23.13 | 211.54 |
| | | 11 | 326.69 | -23.54 | | 282.23 | 28 | 323.38 | -23.04 | 201.97 |
| | | 12 | 326.70 | -23.61 | | 273.13 | 29 | 323.28 | -22.95 | 192.41 |
| | | 13 | 326.70 | -23.67 | | 264.02 | 30 | 323.18 | -22.86 | 182.84 |
| | | 14 | 326.69 | -23.73 | | 254.90 | 31 | 323.08 | -22.76 | 173.26 |
| 15 | | 326.68 | -23.79 | 245.76 | | | | | | |
| 16 | | 326.67 | -23.84 | 236.61 | | | | | | |
| 17 | | 326.65 | -23.89 | 227.44 | | | | | | |
| 18 | | 326.63 | -23.94 | 218.26 | | | | | | |
| 19 | | 326.60 | -23.98 | 209.06 | | | | | | |
| 20 | | 326.57 | -24.02 | 199.85 | | | | | | |
| 21 | | 326.54 | -24.05 | 190.63 | | | | | | |
| 22 | | 326.50 | -24.09 | 181.40 | | | | | | |
| 23 | | 326.45 | -24.12 | 172.15 | | | | | | |
| 24 | | 326.40 | -24.14 | 162.88 | | | | | | |
| 25 | | 326.35 | -24.16 | 153.61 | | | | | | |
| 26 | | 326.30 | -24.18 | 144.32 | | | | | | |
| 27 | | 326.24 | -24.20 | 135.02 | | | | | | |
| 28 | | 326.17 | -24.21 | 125.71 | | | | | | |
| 29 | | 326.11 | -24.22 | 116.38 | | | | | | |
| 30 | | 326.04 | -24.22 | 107.05 | | | | | | |



Widok Marsa w teleskopie (południe u góry) w czasie opozycji na początku października 2020 r. przy różnych długościach południka centralnego L