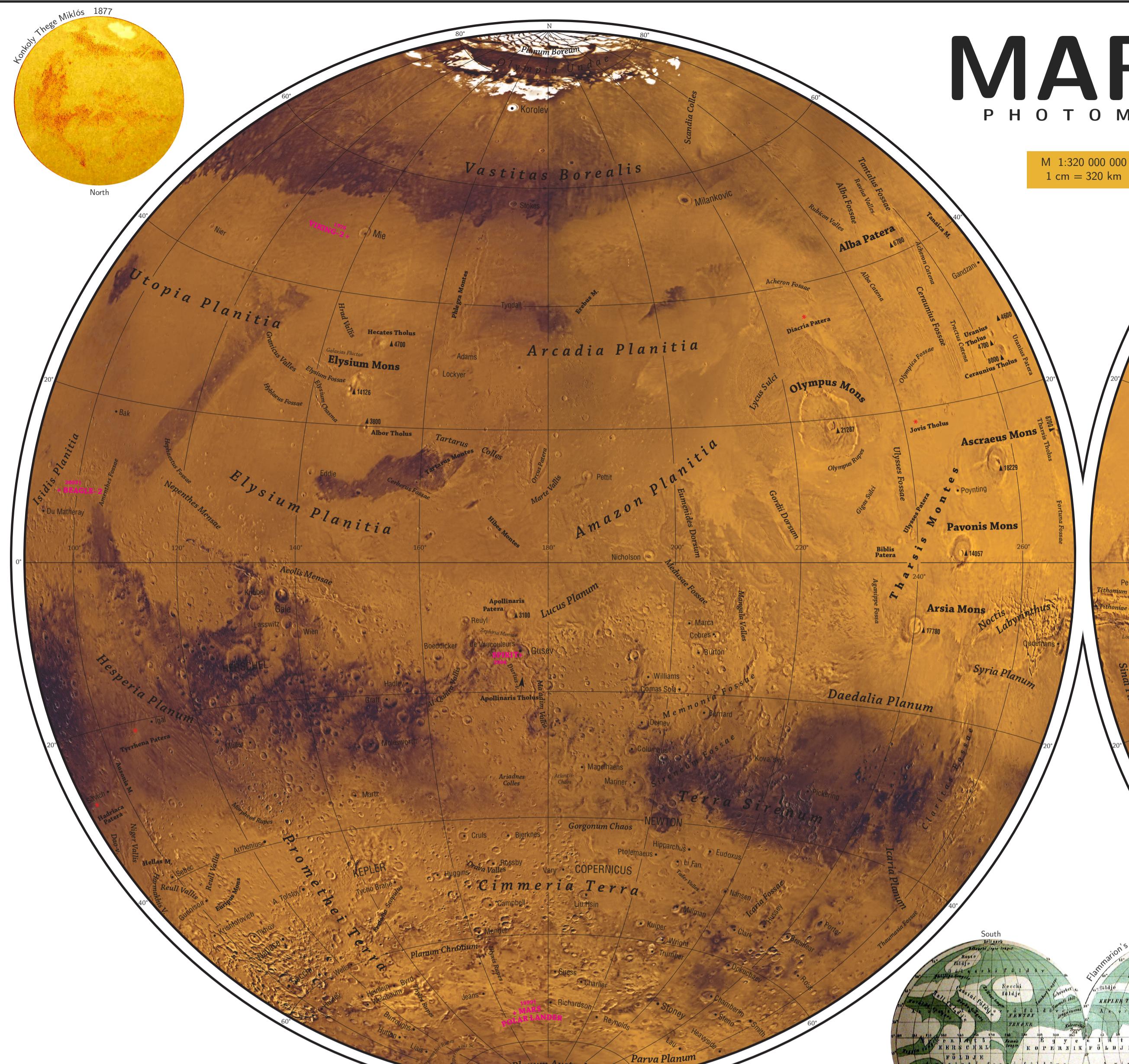


MARS

PHOTOMAP

M 1:320 000 000
1 cm = 320 km

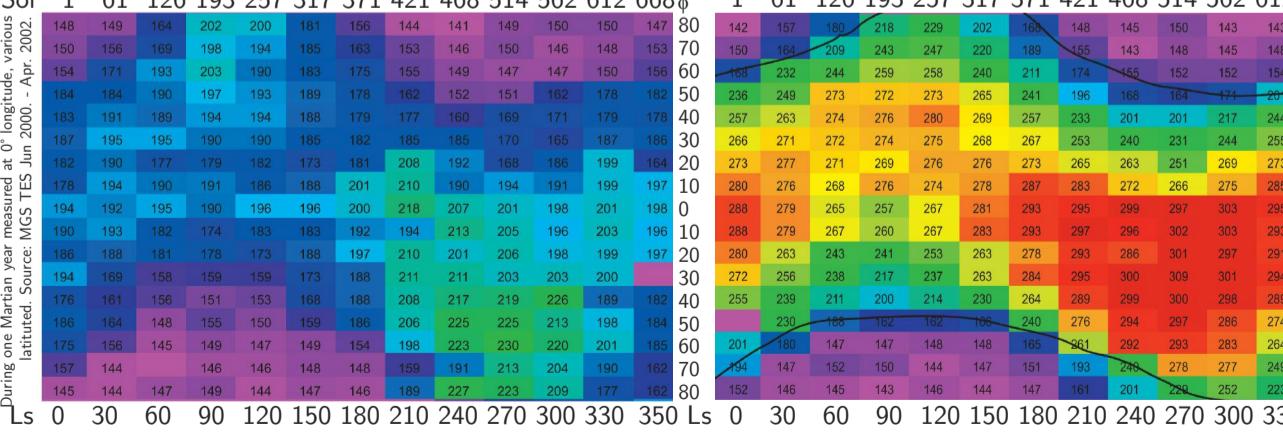


MARS FACTS

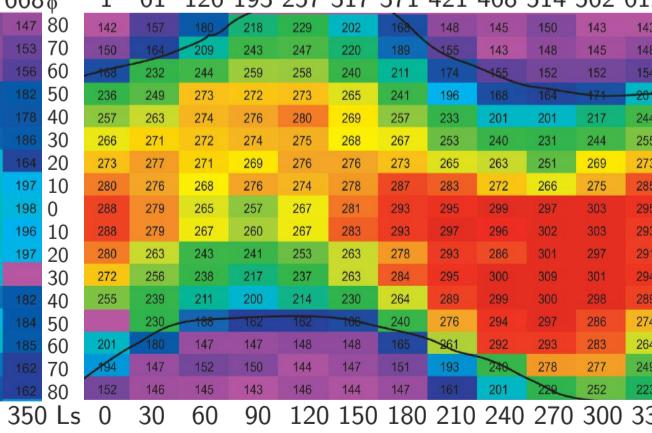
Solar Distance: 206–249 million km
Earth Distance: 54–401 million km
Equatorial Radius: 3396.2 km
Obliquity to orbit: 25°19' ($\pm 10'$)
Orbital Period: 668.59 Sol (=687 Earth Day)
Rotational Period (1 sol): 24h:37m
Gravity: 0.38 g
Length of Equator: 21 300 km
Surface Area: 144.2 million km²
Atmosphere: 95% CO₂; 2.6% N₂
Pressure: 6 mbar [min: 0.7–Olympus, max: 12–Hellas]
0. Longitude: Airy-0 crater
Height Datum: 3396 km radius
Distance from Earth at Light speed : 03:02–22:19 min.
Solar Distance: 589.2 W/m²
Satellites: Phobos, Deimos

CLIMATE

Lowest nighttime temperature [K]



Highest daytime temperatures during one Mars year [K]



Legend

Change of seasons on Mars is expressed as Ls degrees (Solar Longitude: distance of the Sun from the first point of Aries). Seasonal changes are not only by the tilt of axis, but also by the Solar distance, which is a major factor because of the highly elliptical orbit of Mars. This plays a major role on the actual extent of the polar (frost) caps. Southern seasons are extreme: Summer is while far from the Sun (aphelion). Northern seasons are less different: Winter is in perihelion. The basis (x-axis) of the diagrams shown here is not Ls, but a 56-sol month. The southern summer is the season for global dust storms. The almost always cloudless sky of Mars is pale pink in colour because of the dust. During the winter, CO₂ is precipitated as frost, even at 50° lat. By summer, this sublimates, adding to global atmospheric pressure and making strong winds.

Legend

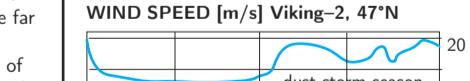
°C K
30 61 126 193 257 317 371 421 468 514 562 612 668
20 50 148 164 184 194 204 214 224 244 259 285 246
10 50 148 164 184 194 204 214 224 244 259 285 246
0 50 148 164 184 194 204 214 224 244 259 285 246
-10 50 148 164 184 194 204 214 224 244 259 285 246
-20 50 148 164 184 194 204 214 224 244 259 285 246
-30 50 148 164 184 194 204 214 224 244 259 285 246
-40 50 148 164 184 194 204 214 224 244 259 285 246
-50 50 148 164 184 194 204 214 224 244 259 285 246
-60 50 148 164 184 194 204 214 224 244 259 285 246
-70 50 148 164 184 194 204 214 224 244 259 285 246
-80 50 148 164 184 194 204 214 224 244 259 285 246
-90 50 148 164 184 194 204 214 224 244 259 285 246
-100 50 148 164 184 194 204 214 224 244 259 285 246
-110 50 148 164 184 194 204 214 224 244 259 285 246
-120 50 148 164 184 194 204 214 224 244 259 285 246
-130 50 148 164 184 194 204 214 224 244 259 285 246
-140 50 148 164 184 194 204 214 224 244 259 285 246
Line refers to the max extent of frost cover

METEO DATA

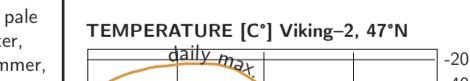
PRESSURE [mbar] Viking-2, 47°N



WIND SPEED [m/s] Viking-2, 47°N



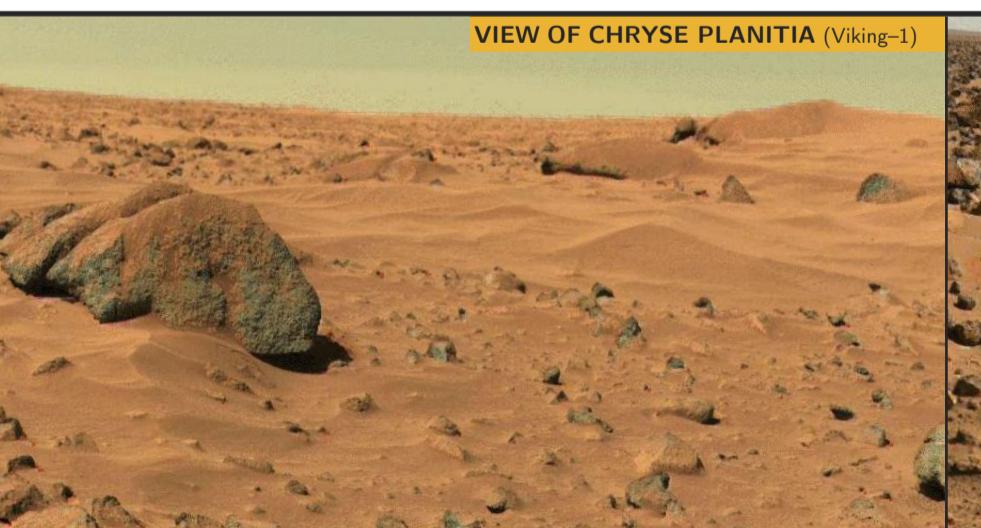
TEMPERATURE [°C] Viking-2, 47°N



DAILY SOLAR ENERGY AT VARIOUS LATITUDES [Wh/sol-m²]



SOLAR DISTANCE (million km)



PHOTOMAP OF MARS
Showing albedo features of the surface
Lambert Transversal Equivalent Azimuthal Projection
Published by Eötvös Loránd University
Cosmic Materials Space Research Group,
Budapest, Hungary
<http://planetologia.elte.hu>

Source: Viking Orbiter

Map © Henrik Hargitai 2008

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