Visibility charts from European Southern Observatory, La Silla

1 Epochs

- Chart 1: 2019-01-15

2 Cuts applied to the selection

Quantity	Condition	Description	Units
Alt	> 30	Maximum altitude	deg
$\widehat{\mathrm{SEO}}$	> 30	Solar elongation	deg
$\widehat{\mathrm{MEO}}$	> 5	Lunar elongation	deg
m_V	n.a.	Apparent magnitude	mag
α	n.a.	Phase angle	deg
ϕ	n.a.	Apparent diameter	arcsec
$\mathcal{D}$	> 0	Minimum duration of visibility	min
Visibility computed between civil twilights.			

3 Meaning of displayed quantities

Quantity	Description	Units
Target	Target designation	–
m_V	Apparent magnitude	mag
ϕ	Apparent diameter	arcsec
$\mathcal{D}$	Duration of visibility window	h:m
Alt	Altitude	deg
Az.	Azimuth	deg
RA	Right Ascension	h:m:s
DEC	Declination	d:m:s
Rate	Apparent non-sidereal motion	arcsec/h
λ_G	Galactic longitude	deg
β_G	Galactic latitude	deg
r	Range to observer	au
Δ	Heliocentric distance	au
α	Solar phase angle	deg
$\widehat{\text{SEO}}$	Solar elongation	deg
$\widehat{\text{MEO}}$	Moon elongation	deg

For each target, the values are reported at the time of the highest altitude.

Credits

ViSiON (**Vi**sibility **S**erv**i**ce for **O**bserving **N**ights) has been developed by Benoît Carry and Jérôme Berthier at IMCCE.

If ViSiON was helful for your research, please add the following in your acknowledgments: "This publication makes use of the Virtual Observatory Web service ViSiON, developed by IMCCE and OCA."

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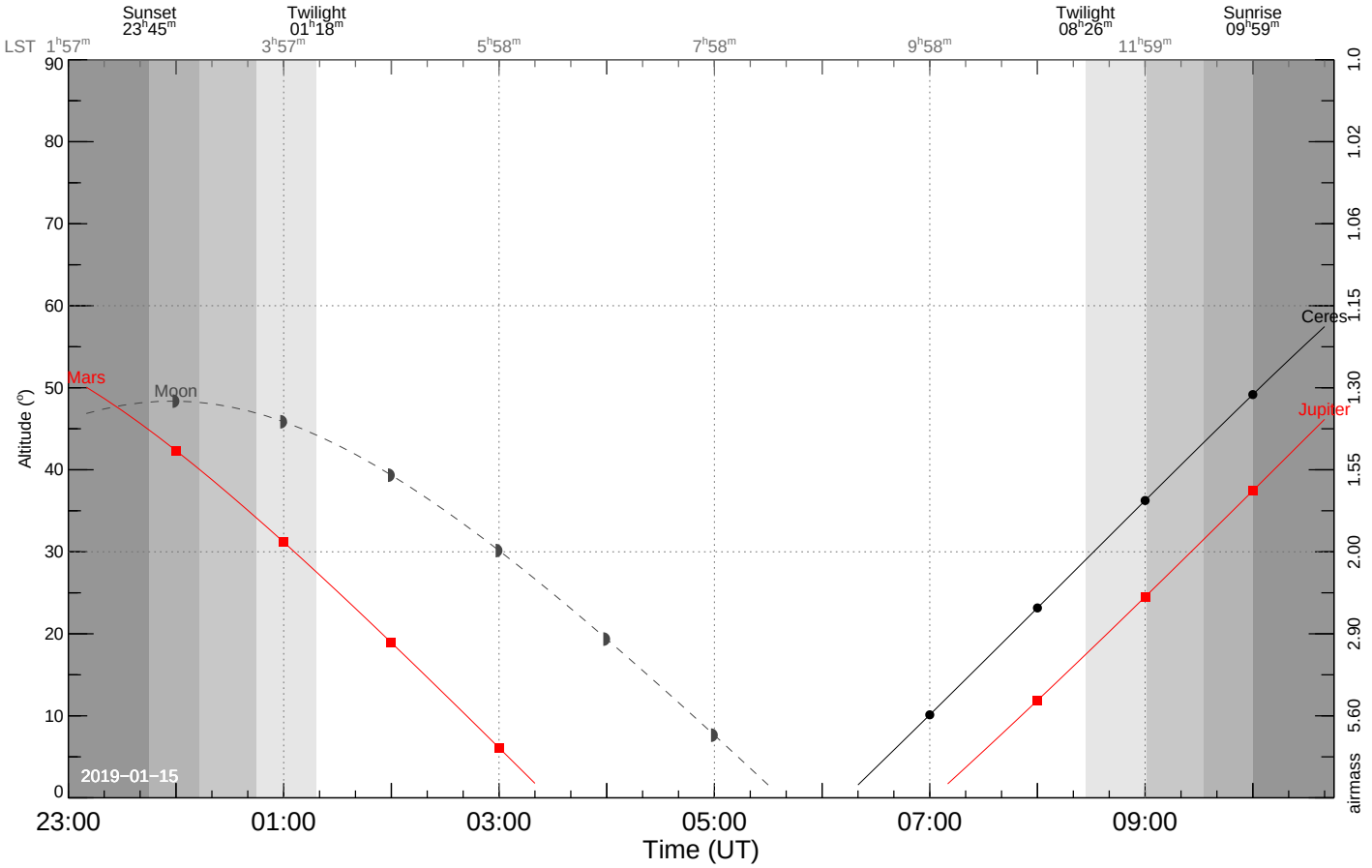
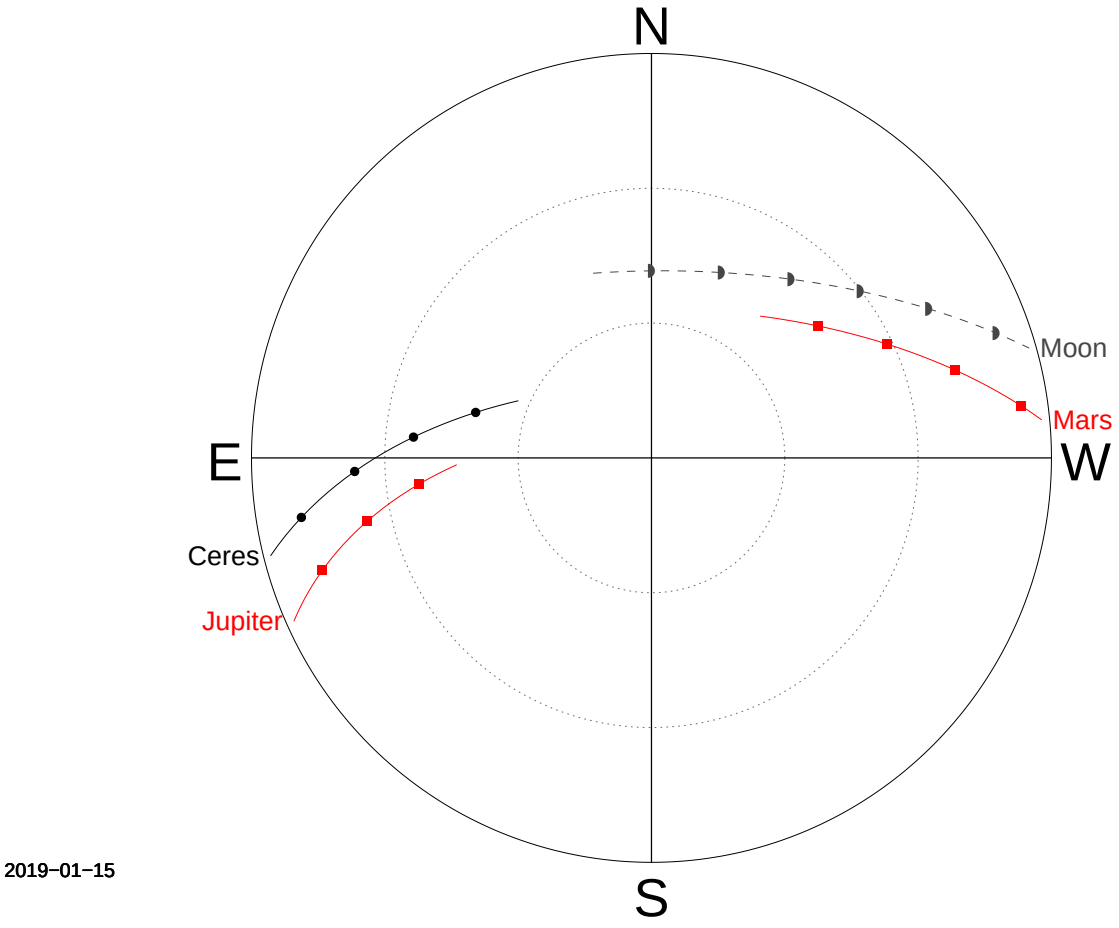


Figure 1: Airmass charts for epoch 2019-01-15



Target	m_V	ϕ	$\mathcal{D}$	Alt	Az.	RA	DEC	Rate	λ_G	β_G	r	Δ	α	$\widehat{\text{SEO}}$	$\widehat{\text{MEO}}$	Links
Moon	-10.52	1895	9^h20^m	48	352	$2^h\,59^m\,16^s$	$12^\circ\,25'\,39''$	1268	345	-39	0.003	0.985	69.2	110.6	0.0	–
Mars	0.67	6.73	50^m	38	303	$0^h\,36^m\,1^s$	$3^\circ\,53'\,58''$	100	296	-58	1.39	1.47	40.1	74.5	36.4	–
(1) Ceres	8.86	0.39	1^h00^m	42	80	$15^h\,42^m\,46^s$	$-13^\circ\,12'\,20''$	52	354	31	3.03	2.66	18.5	59.4	173.7	–
Jupiter	-1.82	31.88	10^m	30	99	$16^h\,53^m\,37^s$	$-21^\circ\,56'\,0''$	29	359	13	6.05	5.35	6.9	41.1	155.6	–

Table 1: Ephemerides summary for epoch 2019-01-15, values are reported at the time of the highest altitude.