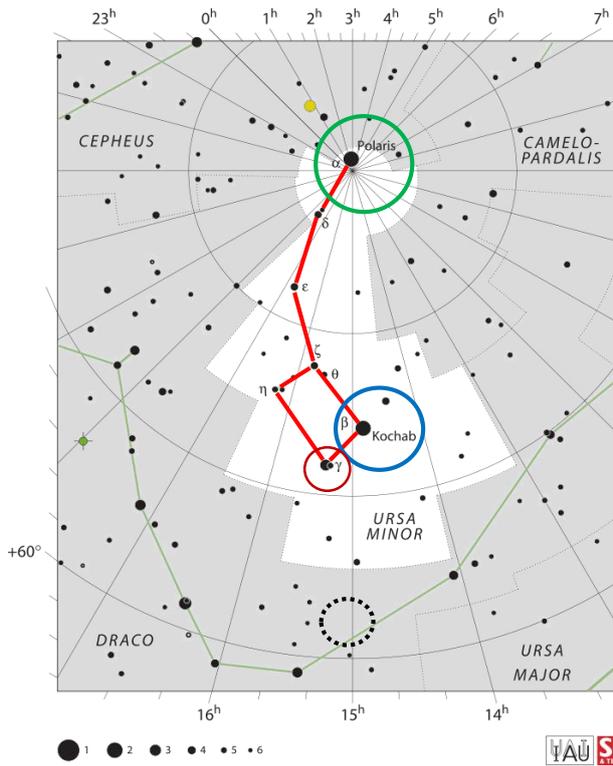


OCTOBER Night Sky

URSA MINOR 'The Little Plough'



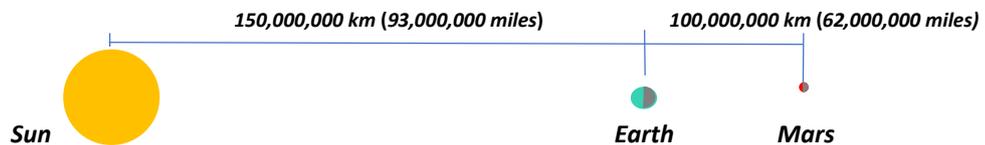
POLARIS – Is actually a triple star system comprising α *UMi Aa*, a pulsating variable yellow-white supergiant star, Spec.type F7 Ib, with a mass almost 5.4x greater than our Sun, together with a smaller companion α *UMi Ab* Spec.type F6 V. The third component of the group is an orange giant α *UMi B*, Spec.type F3 V having a mass 1.4x the Sun. Distance about 400 light-years away. (RA 02h 31m Dec +29° 31')

KOCHAB β UMi – A giant orange star Spec.type K4 III. It is 130x more luminous and mass 1.3x greater than the Sun. (RA 14h 50m Dec +74° 09')

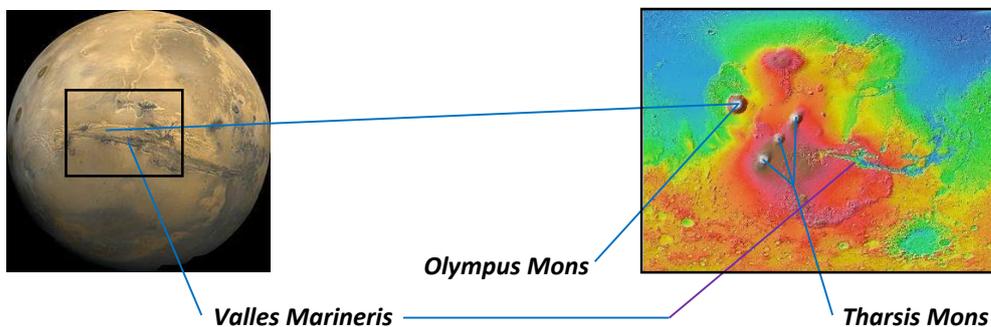
PHERKAD γ Umi White giant star Spec.type A2 III 1,100x luminous and 15x larger than the Sun at 487 light-years away. (RA 15h 21m Dec +71° 50')

H1504+65 – Within this constellation is the core of a hot massive star, 1,600 ly away. Thought to be the result of a supernova explosion and gravitational collapse that compressed the star density beyond the white dwarf stage, into a neutron star. (RA 15h 02m Dec +66° 12')

Also this month an opposition occurs, when the relative orbital positions of the **Earth** and the planet **Mars** align with the **Sun**, bringing the distance between the 2 planets to around 100 million km. This orbital alignment reoccurs approximately every 2 years.



A few geographical features to look for when viewing the planet (note: false colours used to indicate altitudes)



Valles Marineris – An enormous canyon extending over a quarter of the planet’s equatorial circumference at 4,000km long, up to 200km wide and in places 7km deep (Earth’s *Grand Canyon* is 450km x 29km x 2km).

Olympus & Tharsis Mons – 4 huge extinct shield volcanos of up to 21,000km high (*Mt. Everest* is just 9,000km).