

Meet the dwarf nova and cataclysmic variable

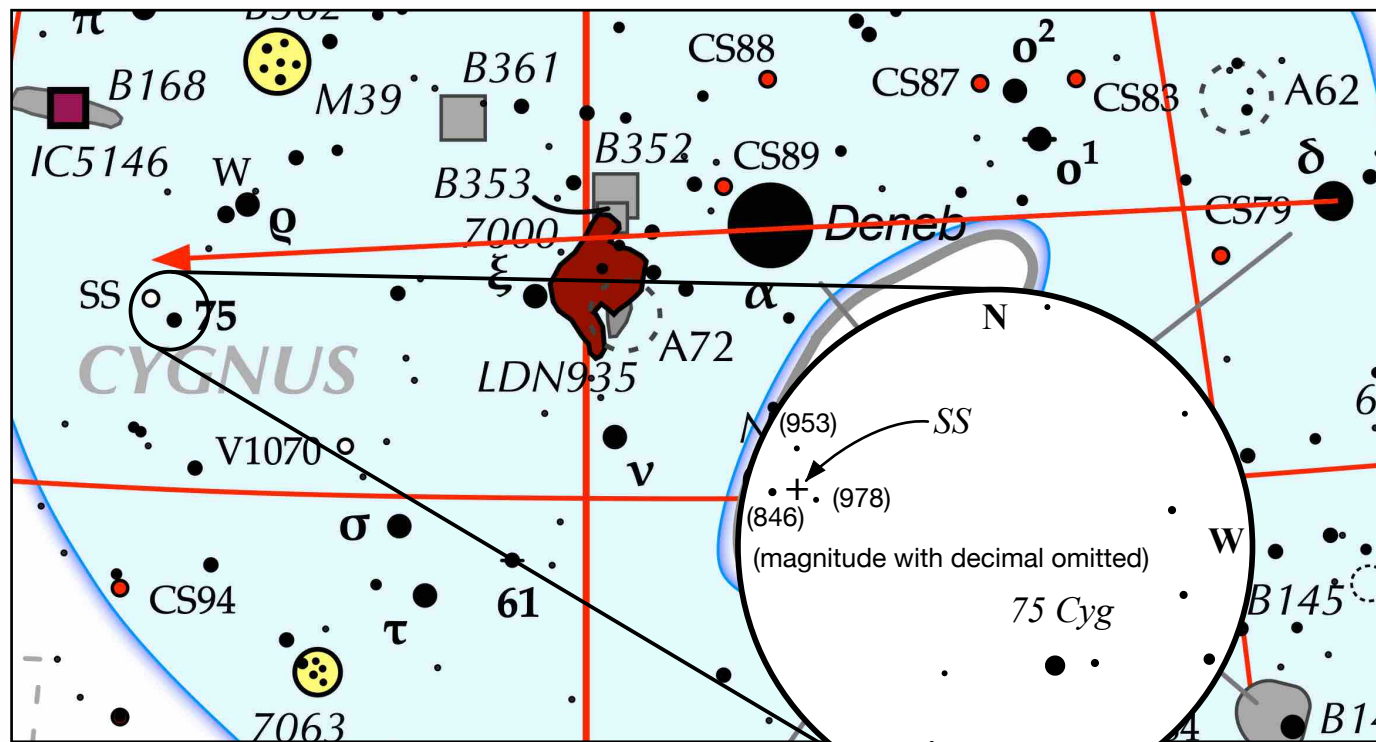


SS Cygni

also known as HD 206697 & TYC 3196-723-1



When it is near its peak brightness, it is a binocular variable star



How to find SS Cygni:

- Find Delta Cygni and Alpha Cygni (Deneb).
- Draw a line from Delta through Deneb and continue it for the same length. It ends about 1° north of fifth magnitude 75 Cygni.
- Place 75 Cygni in a wide field eyepiece.
- SS Cygni lies 31 minutes to the northeast of 75 Cyg.
- The star immediately east of SS is of nearly the same magnitude as SS at its max brightness.

Light Curve Characteristics:

Maximum mag.: 8.3
Minimum mag.: 12.2
Irregular cycle: 8-10 weeks
Time at max: 1-2 days
Time at min: 6-7 weeks

Physical mechanism for variability:

- A white dwarf star pulls hydrogen plasma from a closely orbiting red dwarf.
- Once enough material reaches the white dwarf's surface, it ignites in a fusion event. The star brightens significantly.

Physical Characteristics:

Distance: 371 light-years
White Dwarf mass: 0.8 solar mass
Red Dwarf mass: 0.5 solar mass

Reference: Colosimo, F, Lamperti, A; "Dwarf Novae,"
ASTRONOMICAL LEAGUE, Reflector, p20-21, Sep 2023

Find out more about SS Cygni: www.aavso.org