

NSV 2026 A new Dwarf Nova in Taurus!

A BAAVSS observing campaign for the 2015-16 season

NSV 2026 was discovered by Doris Hoffleit in 1935, and first announced in the Harvard College Observatory Bulletin 901 as one of 115 new variables discovered on photographic plates. Since that time very little attention has been paid to this new variable star and despite being recognised for over 70 years, monitoring of NSV 2026 only began in 2011, with a few CCD observers detecting occasional outbursts. NSV 2026 is also associated with the faint ROSAT X-ray source 1RXS J052954.9+184817.

Since 2011 further attempts by both visual and CCD observers have revealed that the star enters outburst at fairly frequent intervals – possibly three times per month! During outburst the star can reach magnitude 13.6V, whilst at minimum its range varies between 17.0C-18.0C.

One might ask why automated sky surveys have not detected further outbursts during the course of their patrol work. The CSS (Catalina Sky Survey) for example rarely visits this area of sky due to its galactic latitude (-8d), and once per month the field is also in conjunction with the Moon, hence the few reported outbursts so far.

BAAVSS observers Ian Miller, Jeremy Shears, Roger Pickard and Gary Poyner have monitored the star since 2012, detecting a number of outbursts for their efforts and obtaining some patchy time series photometry – usually interrupted by bad weather. The light curves obtained so far reveal very tantalising glimpses that NSV 2026 may be a UGSU type Dwarf Nova – showing both normal and superoutbursts. However more data is needed to confirm our suspicions.

A new observing campaign to monitor NSV 2026 following its 2015 solar conjunction is to be introduced by the BAAVSS when the observing season for Taurus begins in September 2015. It is hoped that both Visual (*to monitor for outbursts*) and CCD (*for time series photometry*) observers will combine their efforts to monitor the star as closely as possible for *at least* one observing season to finally unravel its true Cataclysmic nature.

Observers are asked to monitor the star on a nightly basis, to report all observations to the BAAVSS database (www.britastro.org/vss/) and to announce any outburst detected to the BAAVSS alert group (<https://groups.yahoo.com/neo/groups/baavss-alert/info>) as soon as detected. Charts are available from the AAVSO online VS Chart Plotter www.aavso.org/vsp with a sequence limit faint enough to measure the star at minimum.

Gary Poyner

Unfiltered time-series of the Feb-Mar 2012 outburst of NSV 2026 (Furzehill Observatory)

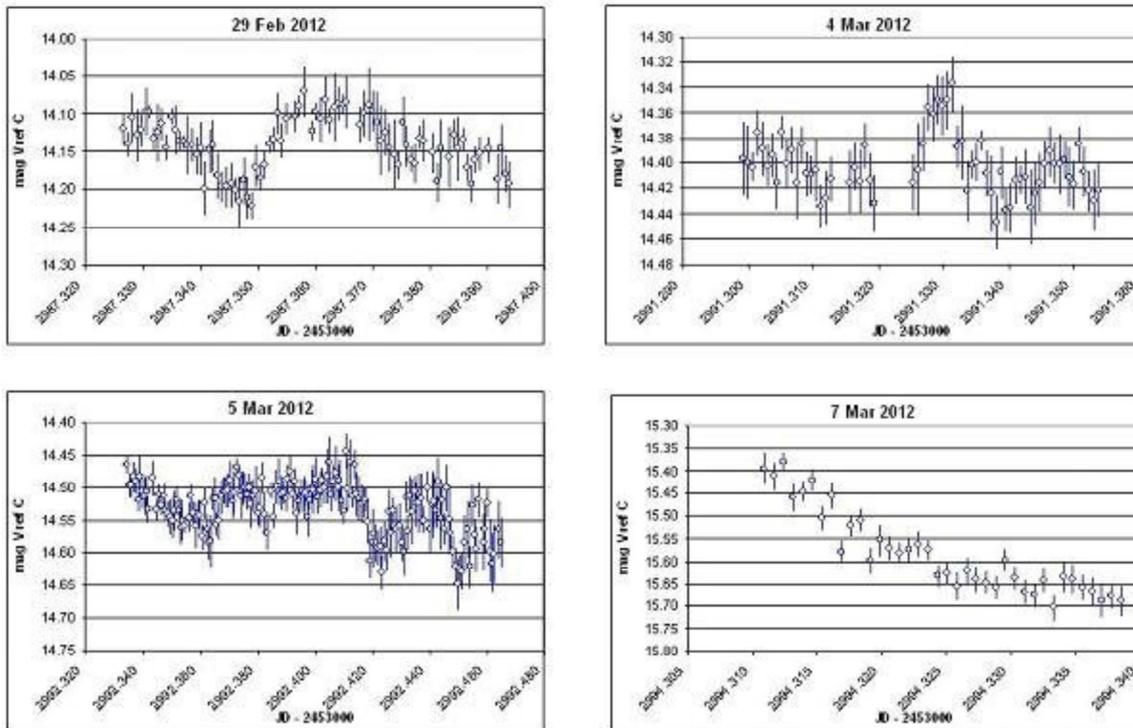


Fig 1:

CCD time series observations of NSV 2026 undertaken by Ian Miller during Feb-Mar 2012, Furzehill Observatory, South Wales.

