

The 2006 AAVSO Deep and Wide Field

a.k.a SHMOOCH!



*ScHmidt
Multiple
Observer
Organized
Campaign
Hoopla*

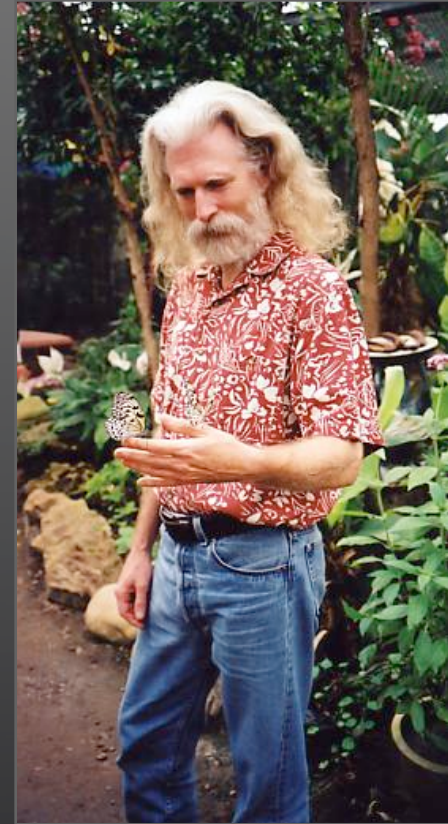


Reunited (and it feels so good): The AAVSO returns to Kitt Peak

Aaron Price, AAVSO
95th Spring Meeting of the AAVSO
Rockford, IL

In a Nutshell

- Steve Howell @AAS
- Case Western Reserve University
- Kepler
- AAVSO Participation
- Public Data



Burrell Schmidt Telescope

- Warner and Swasey Observatory of the Case Western Reserve University w/AURA
- Installed at Kitt Peak in 1979
- 0.9m f/3.5
- SITe back-illuminated 2kx4k chip with 15 micron (1.5 arcsec) pixels
- 4-inch Harris UBVRI filters (or Sloan)

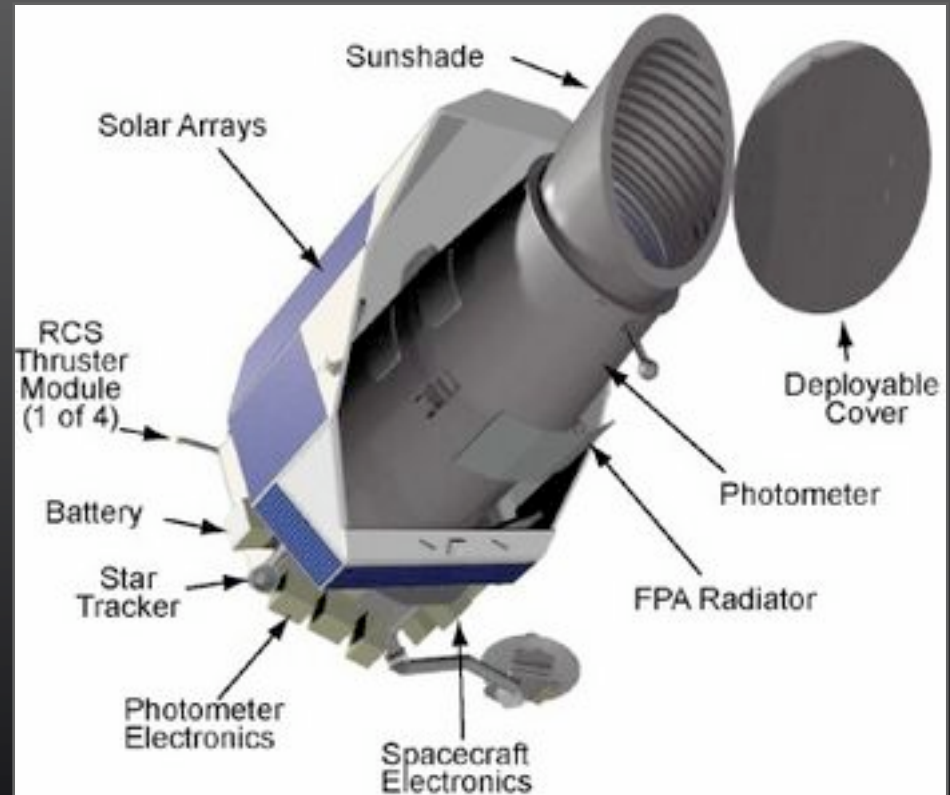


NOAO/AURA/NSF



Kepler

- Kepler Space Observatory
- Launch Estimate: October 2008
- Exoplanet transit search of 110 sq degrees
- Can detect Earth-like transits
- Photometric precision of 1:50,000 (0.00005 mag)
- 10 billion photons/star
- 100,000 stars every 6.5 hours for 4 years
- An image around every 3 seconds
- No shutter & 1 Mpix/sec
- ~\$467 million



NGC 6811

- Open Cluster
- 19:38.2 +46:34 (Cygnus)
- $M_v=6.8$
- Diameter = 13'
- Mean Distance: 1040pc
- Mean age = 0.7Gyr
(Glushkova et al. 1999)
- Well Studied

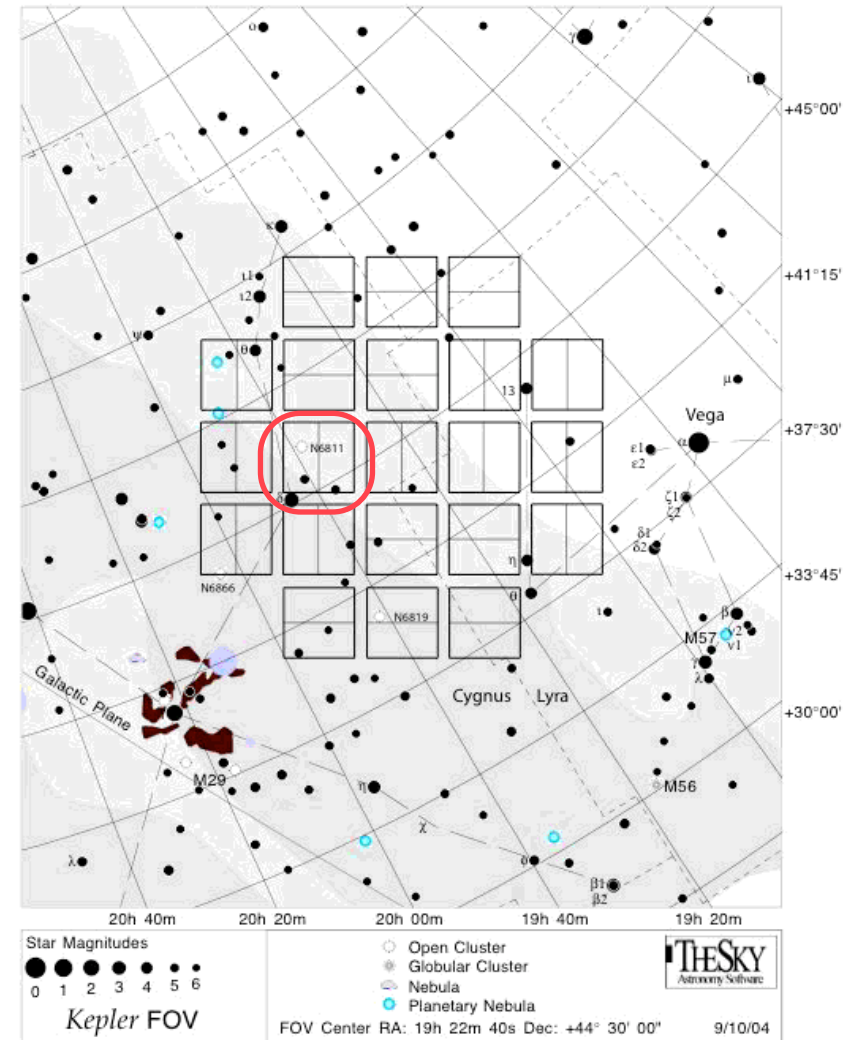


DSS



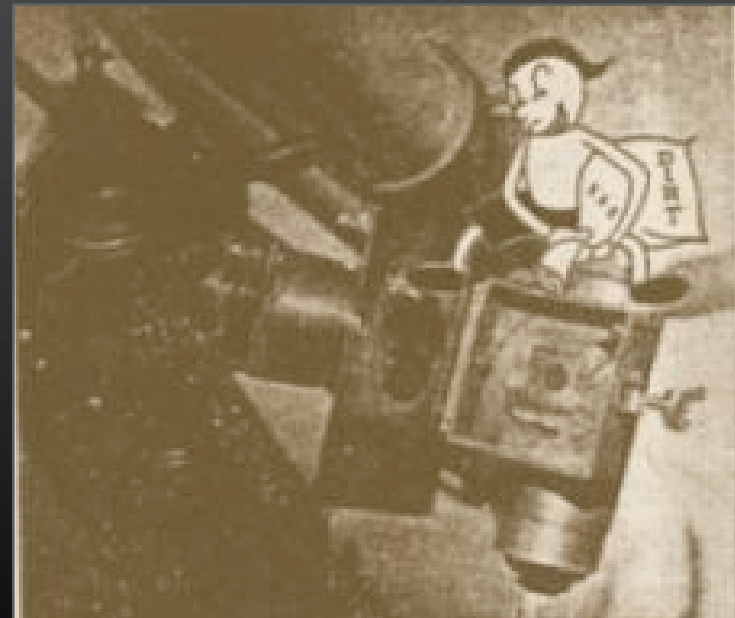
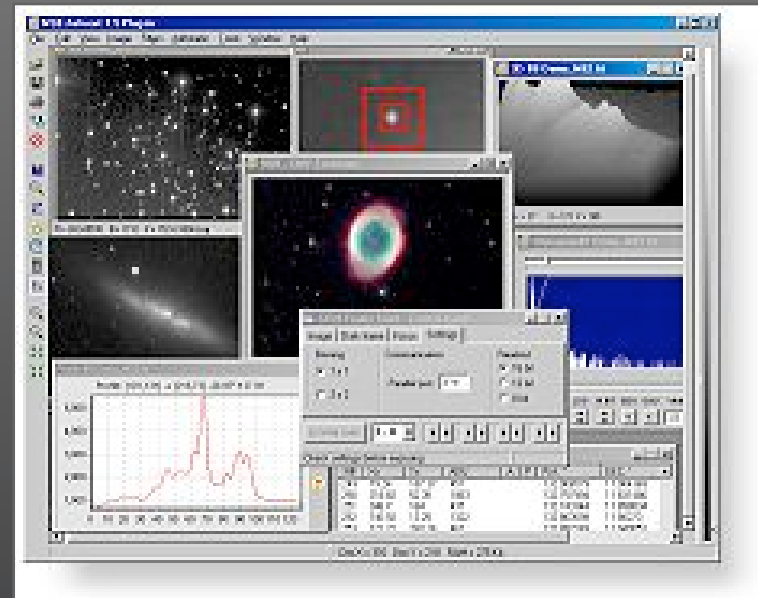
Their Plan

- The Schmidt camera will observe 1.25 sq degrees
- All night, every night for 4-8 weeks
- A single B (or G) image at start and end of each night
- 3 minute R or V images all night
- Rc or SDSS-R or Johnson V
- Mag 13-19
- Begins around September 1, 2006
- All data to be publicly available



Our Plan

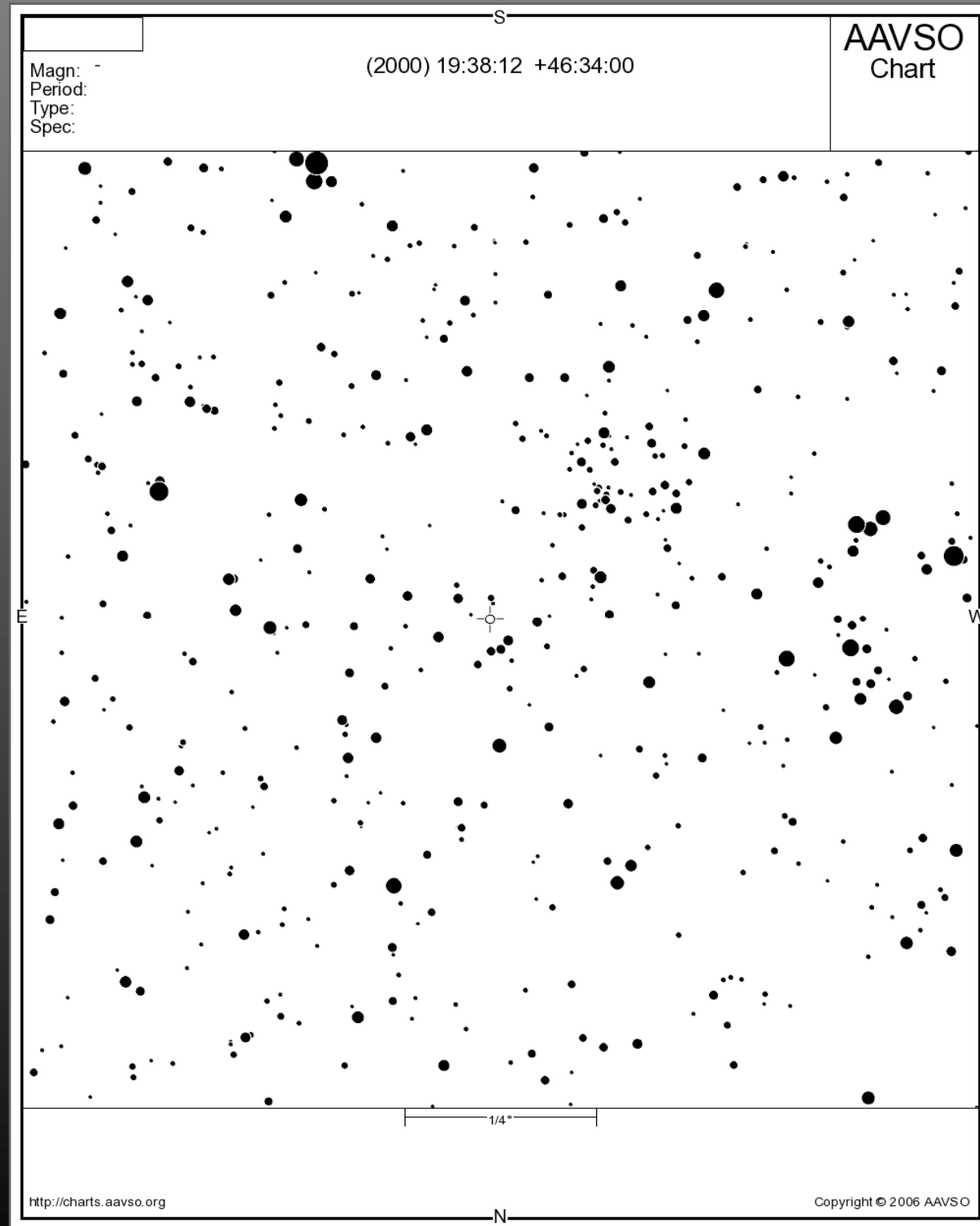
- Mag 13-18 during inclement weather
- Mag <13 all other times
- Rc (or V) priority, B secondary
- Maybe other bands for mag >13
- 1% precision
- Entire FOV
- Coordinate time, filter and FOV via aavso-photometry discussion group & the AAVSO IRC chat room



Charts

- Comp stars will be chosen from SDSS or Kepler's own catalog
- Use **ACP** to customize your FOV
- Known variables to get names/HDs
- Starlists for rest
- IRAF, AIP4Win, Mira, Pinpoint, others?
- Keep your images!

Every star is $>V=13!$



Getting Started

- Prelim charts in 2-4 weeks
- Alert Notice in 1-2 months
- Get baseline data in BVR
- Snapshot a few times per week
- Time series few times per month
- Coordinate via aavso-photometry discussion group
- Practice, practice, practice
- *Hang on!*

<u>August 2006</u>						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

2:● 9:○ 15:● 23:● 31:●

<u>September 2006</u>						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

7:○ 14:● 22:● 30:●

<u>October 2006</u>						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

6:○ 13:● 22:● 29:●

End Goal

Precise, multicolor time series every night, for every star from mag 3*-18, in a 1.25 degree field of view for 4-6 weeks.

Only the AAVSO can do this!

Only *you* can do this!

fin.