



The Spirit of 33

Observing Project: 2009-2

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For our second 2009 project (running dates: June 1 to July 31, 2009), we will be exploring doubles in Ophiuchus, Corona Borealis, and Hercules. Many of these gems have been on prior S33 project lists, but many of them are rapidly moving binaries and will present new views to us this time around, and a number of them (15) are brand new. We have everything from easy and beautiful pairs to difficult and challenging beasties! We have also tossed in four “off the beaten path” pairs from observers you may have never heard of (or some you have, especially if you are a comet enthusiast!).

Here is the listing of the pairs. A detailed description will follow. For those who want it, we will also post a PDF observing form for the entire project on the S33 Yahoos Files area.

Ophiuchus				
<i>Pair</i>	<i>Position</i>	<i>Magnitudes</i>	<i>Most recent measures</i>	<i>What to look for</i>
Easy Pairs				
1. 36 Oph	1715.3-2636	4.33, 5.12	5.1" @ 147° (2007)	Fast moving pair!
Medium Pairs				
2. 70 Oph	1805.5+0230	4.22, 6.17	5.4" @ 134° (2007)	Awesome classic
Difficult Pairs				
3. Eta Oph (η)	1710.4-1544	3.05, 3.27	0.6" @ 240° (2008)	Very fast challenge
Corona Borealis				
Easy Pairs				
4. Zeta ₂ CrB (ζ_2)	1539.4+3638	4.96, 5.91	6.4" @ 305° (2007)	New, beautiful pair
5. STF 2029	1613.8+2844	7.95, 9.62	6.1" @ 187° (2005)	
6. Sigma CrB (σ)	1614.7+3352	5.62, 6.49	7" @ 237° (2007)	Colors
7. Sigma CrB (σ)	1614.7+3352	5.62, 6.49	7" @ 237° (2007)	New, great colors
8. STF 2044	1624.2+3702	8.43, 8.79	8.3" @ 341° (2005)	Pretty pair!
Medium Pairs				
9. STF 1950	1530.0+2530	8.07, 9.23	3.5" @ 93° (2007)	New, colors
10. STF 1963	1537.9+3006	8.54, 8.85	5.1" @ 298° (1998)	New, need measures
Difficult Pairs				
11. Eta CrB (η)	1523.2+3017	5.64, 5.95	0.5" @ 143° (2007)	New, 41.6 year period
Challengers! (Are you guys nuts??)				
12. Gamma CrB (γ)	1542.7+2618	4.04, 5.60	0.7" @ 114 (2006)	New, 93 year period

<i>Pair</i>	<i>Position</i>	<i>Magnitudes</i>	<i>Most recent measures</i>	<i>What to look for</i>
Hercules				
Easy Pairs				
13. STF 2063	1631.8+4536	5.69, 8.70	16.3" @ 196° (2007)	Need measurements
14. STF 2087	1642.6+2340	8.84, 8.90	4.9" @ 106° (1999)	"Exquisite"
15. STF 2120	1704.8+2805	7.37, 9.25	23.2" @ 231° (2007)	New, colors
16. STF 2135	1712.1+2114	7.59, 8.88	8.5" @ 193° (2007)	Colors
17. Delta Her (δ)	1715.0+2450	3.14, 8.30	11.9" @ 285° (2006)	New, colors
18. Rho Her (ρ)	1723.7+3709	4.50, 5.40	4.10" @ 319° (2007)	Colors
19. OS 330	1729.9+1558	8.22, 11.15	14.4" @ 57° (2000)	Need measurements
20. STF 2232	1750.3+2517	6.71, 8.85	6.0" @ 140° (2007)	Colors
21. STF 2259	1759.0+3003	7.27, 8.44	19.7" @ 278° (2005)	New, need measures
22. 95 Her	1801.5+2136	4.85, 5.20	6.3" @ 257° (2007)	Wonderful pair
23. 100 Her	1807.8+2606	5.81, 5.84	14.2" 2 183° (2007)	Bright and easy
24. STF 2399	1849.1+1313	8.83, 9.48	15.8" @ 118° (2004)	New pair
Medium Pairs				
25. STF 2101	1645.8+3538	7.51, 9.39	4.1" @ 48° (2002)	
26. STF 2242	1751.2+4454	8.14, 8.28	3.3" @ 326° (2004)	New; nice pair
27. STF 2245	1756.4+1820	7.43, 7.55	2.6" @ 292° (2004)	New; close, bright
28. STF 2282	1806.5+4022	7.93, 8.68	2.1" @ 87° (2005)	
29. OS 346	1815.4+1946	8.33, 9.01	5.4" @ 330° (2007)	
Difficult Pairs				
30. STF 2052	1628.9+1825	7.69, 7.91	2.2" @ 121° (2007)	New pair
31. STF 2152	1717.8+4535	9.79, 9.89	1.9" @ 237° (1999)	New pair
Challengers! (Are you guys nuts??)				
32. Zeta Her (ζ)	1641.3+3136	2.95, 5.40	1.1" @ 198° (2007)	New pair
33. OS 338	1752.0+1520	7.21, 7.38	0.8" @ 169° (2005)	New pair
Off the Beaten Path				
Holmes 7	1636.5+4856	10.41, 10.64	25.4" @ 8° (2007)	He also found a great comet!
Aller 2	1757.8+2751	8.86, 9.93	19.3 @ 206° (2004)	All for Aller
Weisse 33	1852.3+3926	8.69, 8.99	99.7" @ 330° (2004)	Herr "White"
WFC 216	1855.1+1644	9.07, 9.55	11.9" @ 89° (2004)	A wonderful series of double stars