

## Wednesday December 10, 2014

Arrived at DSS about 1:30 PM. Put orange cones in place, new red reflectors on poles and warning signs on east side of warming hut.

Snake proof all done and it looks nice. 61 degrees. Light wind from NE. Thin clouds overhead.

Clouds still around, thin overhead, thicker W -> N and in E. 54 degrees and no wind now.

Clouds are a thick haze now. 4:54 PM 43 degrees.

Left at 5:30 PM. Too cloudy to continue.

## Thursday December 11, 2014

Back at DSS again. 64 degrees. 3:40 PM. Just finished added screens to top of observatory's NE and SW footings.

Clear. Clouds low along W horizon. No contrails overhead. Calm wind.

4:43 PM. Light breeze from S. 47 degrees.

Used my 20x80 mounted binoculars to observe these double stars. The DSS is 6 miles east of Deer Trail, CO at coordinates 103.56 W and 39.65 N.

"On a line..." gives a clock direction from what I deemed as the primary star to the secondary star.

The seeing and transparency are Good.

STF 2562	AQL	5:16 PM	A bright primary (Pri) and a very faint secondary (Sec). Very close together. On a line 5:30 o'clock in FOV. Pri blue white in color. Sec too faint to tell.
STT 356	LYR	5:35 PM	Hard to see Sec. Pri dim and Sec <u>very</u> dim. Very near each other. On a line 12:30 o'clock.
STF 2470 STF 2474	LYR	5:41 PM	Both in same FOV. Both near each other. Pri brighter and Sec <u>very</u> dim. STF 2470 is on a line 11:30 o'clock and very close together. STF 2474's Sec is extremely faint and on a line 10:00 o'clock.

STF 2578	CYG	5:46 PM	2 dim stars. On a line 2 o'clock. Very close together. Lower left star is a hare brighter than upper right star.
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Seeing and Transparency is OK.

STF 2690	DEL	5:49 PM	2 very dim stars close to each other. On a line 9 o'clock. Both same magnitude.
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STF 2646	AQL	5:57 PM	A dim Pri and <u>very</u> faint Sec. Close to each other. On a line 8 o'clock.
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S 763	CAP	6:00 PM	2 dim blue white stars. <u>Very</u> close together. On a line 9:30 o'clock. Both approx. same magnitude with left star a hare brighter.
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34 degrees. Seeing and Transparency OK. Light breeze from south.

STF 2809	AQR	6:10 PM	A brighter Pri and extremely faint Sec. On a line 2 o'clock. M2 is to lower right and in same FOV. Nice fuzz ball.
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STF 2787	AQR	6:13 PM	A brighter Pri and <u>very</u> close. On a line 12:30 o'clock. Sec is a much dimmer star. Pri is blue white in color.
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HJ 5355	AQR	6:15 PM	3 very dim stars. Brightest is bottom star and near and above is a bit dimmer star. On a line 1:30 o'clock from first star and a bit farther away is the third star, a bit dimmer than second. All blue white in color.
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STF 2993 S 826	AQR	6:21 PM	3 stars. Upper right is the brightest. Blue white in color. And below on a line 6:30 o'clock and <u>very</u> close is a bit dimmer blue white star. Then to left of these two and near is an extremely faint star on a line 9 o'clock.
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30 degrees. Seeing and Transparency is good. Light breeze from SE.

HJ 1968	CET	6:29 PM	A dim Pri and extremely faint Sec which is near and on a line 8:30 o'clock.
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STF 39	CET	6:32 PM	A dim blue white Pri star and on a line 6:30 o'clock and a bit away is a much dimmer Sec star.
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HJ 2052	CET	6:38 PM	2 blue white stars, very close together. On a line 8 o'clock. Upper right star is brighter than a bit dimmer lower left star.
HJ 1992	SCL	6:48 PM	A very bright blue white Pri and <u>very</u> close together. On a line 8:30 o'clock is an <u>extremely</u> faint Sec.
35 degrees. Seeing and Transparency OK.			
STF 2769	VUL	6:57 PM	2 dim stars approx. same magnitude with lower right star a bit brighter. On a line 8:30 o'clock.
HO 465	PEG	7:12 PM	A dim Pri and extremely faint Sec. On a line 2 o'clock. Pri <u>very</u> near Sec.
HJ 1735	LAC	7:21 PM	Triple stars. All close with upper right star brighter. Below and very near and to right is a bit dimmer star. On a line 4 o'clock. Then below and to left of brightest star and on a line 6:30 o'clock and a bit farther away is a bit dimmer star than second. All blue white in color.
STF 2840	CEP	7:29 PM	Nice. A bright blue white star and very close, on a line 10 o'clock, is a much dimmer, yet bright blue white star.
STF 2816	CEP	7:35 PM	A brighter blue white star. Then above, on a line 1 o'clock and near is a much dimmer star. Then to right of second star and near on a line 3 o'clock is a similar bright star.
STF 60	CAS	7:41 PM	A <u>very</u> bright blue white star over shines it's <u>extremely</u> faint Sec. On a line 8:30 o'clock and <u>very</u> close to Pri.
ES 940	CAS	7:49 PM	A dim blue white star and then a bit away on a line 5 o'clock is an extremely faint Sec.
S 397	CAS	7:55 PM	A brighter blue white star, to left of a bit dimmer star. On a line 3:30 o'clock and a bit away.
HJ 2028	CAS	8:02 PM	A brighter blue white star is below and near a bit dimmer Sec. On a line 11:30 o'clock.

STF 3053	CAS	8:07 PM	2 stars, <u>very</u> close together. On a line 3 o'clock. Left star much brighter than dimmer, yet bright right star. Both blue white in color.
STF 2873	CEP	8:19 PM	2 blue white stars, <u>very</u> close together. Left star a bit brighter than right star. On a line 2:30 o'clock.
STF 1625	CAM	8:34 PM	2 brighter blue white stars, <u>very</u> close together. On a line 1 o'clock. Lower star here brighter than upper.

32 degrees. Seeing and Transparency Good.

STF 331	PER	8:44 PM	A bright blue white star is <b>very</b> close to a bit dimmer, blue white star. On a line 3:30 o'clock.
BU 1144	PEG	8:48 PM	A very bright blue white star on a line 10 o'clock and a distance away is a very faint Sec.
H5 17	AND	8:53 PM	A bright blue white star on a line 6:30 o'clock and a bit away is a very dim Sec.
STF 47	AND	9:01 PM	A dim blue white star and near, on a line 10 o'clock, is a much dimmer Sec.
STF 2985	AND	9:07 PM	2 dim stars on a line 1 o'clock. Very close together. Approx. same magnitude with lower star a hare brighter.
STF 239	TRI	9:13 PM	2 dim stars, very close together, approx. same magnitude with left star a hare brighter. On a line 3 o'clock.
STF 401	TAU	9:17 PM	2 blue white stars, approx. same magnitude, very close together. On a line 3:30 o'clock.
STF 872	AUR	9:23 PM	2 dim blue white stars, <u>very</u> close together. Left star here brighter. On a line 3 o'clock.
STF 681	AUR	9:25 PM	Just below Capella is a dim Pri star, on a line 11:30 o'clock and close to it is a much dimmer Sec.
STF 231	CET	9:30 PM	A dim blue white star and close together. On a line 10 o'clock is a much dimmer Sec.

STF 274	CET	9:32 PM	2 very dim, approx. same magnitude, very close together stars. On a line 9:30 o'clock.
HJ 3511	CET	9:40 PM	2 dim stars, close together, on a line 10 o'clock. Lower right brighter and upper left a bit dimmer.
34 degrees. Seeing and Transparency OK. Moonrise is imminent.			
BU 1236	ERI	9:47 PM	2 very dim stars close together. On a line 8 o'clock. Upper right a hare brighter.
STF 630	ORI	9:51 PM	A brighter blue white star on left and close together is a bit dimmer Sec star. On a line 3 o'clock.

A great night of double star observing. Sorin and Chris showed up and they imaged until moonrise. Even though the temperature hovered around 32 degrees, I never felt cold.

Saw 3 nice Geminid meteors. Looked at Alberio and M31 with the binos also. Mars was in Capricorn, which was weird to have such a bright "star" in that part of the sky. The clouds in the west stay over there all night. Where I was observing was clear.