## Mauna Loa Solar Observatory Observer's Log \_\_\_\_\_\_ Sun Nov 4 17:05:19 GMT 2012 Year: 12 Doy: 309 Observer: berkey WEATHER COMMENT: Sun Nov 4 17:05:33 GMT 2012 temp 48f, wind 5mph from s, clear skies with a very thick vog layer below the 7000ft temp inversion end Sun Nov 4 17:14:16 GMT 2012: PSPT Start Patrol Sun Nov 4 17:15:44 GMT 2012 CHIP Start Patrol Sun Nov 04 17:19:38 GMT 2012 COMP Start Patrol CHIP Sun Nov 4 18:00:46 GMT 2012 LSD Sun Nov 4 18:02:43 GMT 2012 CHIP End LSD Sun Nov 4 18:02:54 GMT 2012 CHIP BiasLSD Sun Nov 4 18:03:49 GMT 2012 CHIP End BiasLSD Sun Nov 4 18:03:57 GMT 2012 CHIP Bias Sun Nov 4 18:04:52 GMT 2012 CHIP End Bias Sun Nov 4 18:05:02 GMT 2012 CHIP ReStart Patrol Sun Nov 04 20:18:51 GMT 2012 COMP End Patrol Sun Nov 04 20:18:52 GMT 2012 COMP Start Patrol Sun Nov 4 23:02:46 GMT 2012 CHIP LSD Sun Nov 4 23:04:37 GMT 2012 CHIP End LSD Sun Nov 4 23:04:46 GMT 2012 CHIP BiasLSD Sun Nov 4 23:05:16 GMT 2012 CHIP End BiasLSD Sun Nov 4 23:05:30 GMT 2012 CHIP Bias Sun Nov 4 23:05:51 GMT 2012 End Bias CHIP Sun Nov 4 23:05:59 GMT 2012 CHIP ReStart Patrol Sun Nov 04 23:17:51 GMT 2012 COMP End Patrol Sun Nov 04 23:17:53 GMT 2012 COMP Start Patrol NOTE BY BEN: Mon Nov 5 00:30:14 GMT 2012 Volcanoic haze has been moving in for the last couple hours, and there are now clouds starting to move into the direction of the sun. end Mon Nov 05 00:36:53 GMT 2012 COMP End Patrol Mon Nov 5 00:37:01 GMT 2012 CHIP End Patrol Mon Nov 5 00:41:47 GMT 2012: PSPT Abort Patrol GONG COMMENT BY BEN: Mon Nov 5 00:50:36 GMT 2012 Gong monthly pm done. end MKIV COMMENT BY BEN: Mon Nov 5 00:50:51 GMT 2012 To get a better inspection of the back end optics the occulting disk assembly was pulled out today. I found the field len

s has a lot of clouding and some burn/marks in one of the layers of coatings matching the 5 solar spots that pass through the plate behind the occulting disk. The retarder was also found to have a lot of clouding, dust and a chip near the end of the optic.

It also seems that a brown powder (I assume either wear from of luburcuant of) the retarteder rotation stage was found to be lightly scattered on the field lense and covering the retarder and retarder rotation motor/gears train. I also found peices of a thin brittle film that remind me a lot of highly uv dagemage plastic packing. But it could also be some sort of coating. It is not at all apparently where the plastic film came from.

Also on the field lens it appears that the coating is starting to fail near the deges of the optic leading to strange inte rferance patterns at obleak angles.

My guess is most of these problems have been slow to build up over time and to represent the sudden loss of mk4 last month . Tomorrow I will bring a bright head lamp to try and investage further.

\_\_\_end\_\_\_ Mon Nov 5 00:59:29 GMT 2012

MkIV