

CCD Commander Log File
Software v1.3.15
This copy is registered to:
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00:35:36 Action starting.
00:35:36 Connecting to the Camera...
00:35:36 Connecting to the Mount...
00:35:37 Cannot tell which side of mount telescope is on.
00:35:52 User specified telescope on west side
00:35:52 Connecting to FocusMax...
00:35:52 Connecting to Rotator...
00:35:52 Connected to rotator.
00:35:53 Rotator reports current angle as 14 degrees.
00:35:53 Actual position angle is 321.55 degrees.
00:35:53 Turning on Fan.
00:35:53 Turning on cooler.
00:35:53 Setting cooler = -15
00:35:53 Simple Temperature Control complete.
00:35:53 In Rotate Function. Current PA = 321.55, New PA = 275.00
00:35:53 Current Rotator Angle = 14
00:35:53 New Rotator Angle = 61
00:35:53 Moving rotator...
00:35:59 Rotation complete.
00:35:59 Guider calibration angle different than current angle.
00:35:59 Recomputing calibration coefficients.
00:35:59 Current Angle = 275.00
00:35:59 GuiderCalAngle = 321.88
00:35:59 Running new_m101_red.act
00:35:59 Starting move to action.
00:35:59 Precessing coordinatnes.
00:35:59 J2000 Coordinates: RA: 13h 57m 60.0s Dec: +54°35'09"
00:35:59 JNow Coordinates: RA: 13h 57m 16.5s Dec: +54°33'14"
00:35:59 Slewing to SAO 28942...
00:36:49 Done slewing!
00:36:49 Starting post slew delay.
00:36:52 Completed post slew delay.
00:36:52 Setting imager bin mode to 2x2.
00:36:52 Setting filter to Luminance.
00:37:00 Taking 5 second image for Plate solve...
00:37:19 Saving Image...
00:37:20 Performing Plate Solve with CCDSoft...
00:37:23 Plate solve results:
00:37:23 Pixel Scale = 1.74 asp.
00:37:23 North Angle = 274.70 degrees.
00:37:23 J2000 Coordinates = RA: 13h 55m 49.7s Dec: +54°33'09"
00:37:23 Adjusting current PA for Plate Solve. CurrentAngle = 275.00
00:37:23 Adjusted PA = 275.00
00:37:23 Syncing to RA 13.93505, Dec 54.52047
00:37:37 Starting focus run...
00:39:02 Focus succeeded! HFD = 3.26
00:39:02 Starting move to action.
00:39:02 Precessing coordinatnes.
00:39:02 J2000 Coordinates: RA: 14h 03m 12.0s Dec: +54°20'58"
00:39:02 JNow Coordinates: RA: 14h 03m 28.2s Dec: +54°19'04"
00:39:02 Slewing to m101...
00:39:13 Done slewing!
00:39:13 Starting post slew delay.
00:39:16 Completed post slew delay.
00:39:16 Setting imager bin mode to 2x2.
00:39:16 Setting filter to Luminance.
00:39:19 Taking 5 second image for Plate solve...
00:39:38 Saving Image...
00:39:39 Performing Plate Solve with CCDSoft...
00:39:40 Plate solve results:
00:39:40 Pixel Scale = 1.74 asp.
00:39:40 North Angle = 274.69 degrees.
00:39:40 J2000 Coordinates = RA: 14h 03m 11.3s Dec: +54°23'27"
00:39:40 Adjusting current PA for Plate Solve. CurrentAngle = 275.00
00:39:40 Adjusted PA = 275.00
00:39:40 Syncing to RA 14.05764, Dec 54.35929
00:39:49 Setting image type to Light.
00:39:49 Setting imager bin mode to 2x2.
00:39:49 Setting filter to Red.
00:39:52 Setting imager to full frame.
00:39:52 Setting imager exposure time to 600 seconds.
00:39:53 Setting autoguider bin mode to 2x2.
00:39:53 Taking a 2 second autoguider exposure.
00:40:02 Beginning guide star search...
00:40:04 Found possible guide star at 202, 115 with a max brightness of 3432 ADU.
00:40:04 Taking a 2 second autoguider exposure.
00:40:09 Beginning guide star search...
00:40:10 Found appropriate guide star at 202, 115 with a max brightness of 3749 ADU.
00:40:10 Trying to autoguide on star at 202.0,115.0.
00:40:10 Starting to autoguide.
00:40:18 Checking autoguider max error...
00:40:20 Autoguider error: X=-0.29 Y=-0.52
00:40:20 Checking autoguider max error...
00:40:23 Autoguider error: X=-0.17 Y=-0.36

00:40:23 Autoguider max error < 0.5!
00:40:23 Stopping autoguider...
00:40:25 Automatic guide star acquisition successful!
00:40:25 Setting autoguider exposure time to 2 seconds.
00:40:25 Setting guide star position to 202.0,115.0.
00:40:25 Starting to autoguide.
00:40:33 Checking autoguider max error...
00:40:34 Autoguider error: X=0.36 Y=-0.62
00:40:34 Checking autoguider max error...
00:40:37 Autoguider error: X=0.02 Y=-0.13
00:40:37 Autoguider max error < 0.5!
00:40:37 Starting imager exposure (1 of 4).
00:50:44 Saving Image...
00:50:44 Imager exposure complete.
00:50:44 Stopping autoguider...
00:50:46 Setting autoguider exposure time to 2 seconds.
00:50:46 Setting guide star position to 204.0,115.0.
00:50:46 Starting to autoguide.
00:50:54 Checking autoguider max error...
00:50:57 Autoguider error: X=-0.63 Y=-0.03
00:50:57 Checking autoguider max error...
00:51:00 Autoguider error: X=-0.36 Y=0.02
00:51:00 Autoguider max error < 0.5!
00:51:00 Starting imager exposure (2 of 4).
01:01:07 Saving Image...
01:01:07 Imager exposure complete.
01:01:07 Stopping autoguider...
01:01:09 Setting autoguider exposure time to 2 seconds.
01:01:09 Setting guide star position to 204.0,117.0.
01:01:09 Starting to autoguide.
01:01:17 Checking autoguider max error...
01:01:19 Autoguider error: X=-0.58 Y=-0.80
01:01:19 Checking autoguider max error...
01:01:22 Autoguider error: X=0.35 Y=-0.40
01:01:22 Autoguider max error < 0.5!
01:01:22 Starting imager exposure (3 of 4).
01:11:28 Saving Image...
01:11:28 Imager exposure complete.
01:11:28 Stopping autoguider...
01:11:30 Setting autoguider exposure time to 2 seconds.
01:11:30 Setting guide star position to 202.0,117.0.
01:11:30 Starting to autoguide.
01:11:39 Checking autoguider max error...
01:11:40 Autoguider error: X=1.25 Y=0.21
01:11:40 Checking autoguider max error...
01:11:43 Autoguider error: X=0.95 Y=-0.02
01:11:43 Checking autoguider max error...
01:11:46 Autoguider error: X=0.86 Y=0.33
01:11:46 Checking autoguider max error...
01:11:49 Autoguider error: X=1.07 Y=0.09
01:11:49 Checking autoguider max error...
01:11:53 Autoguider error: X=0.96 Y=-0.06
01:11:53 Checking autoguider max error...
01:11:56 Autoguider error: X=0.90 Y=-0.32
01:11:56 Checking autoguider max error...
01:11:59 Autoguider error: X=0.79 Y=-0.04
01:11:59 Checking autoguider max error...
01:12:02 Autoguider error: X=0.68 Y=-0.34
01:12:02 Checking autoguider max error...
01:12:05 Autoguider error: X=0.38 Y=-0.02
01:12:05 Autoguider max error < 0.5!
01:12:05 Starting imager exposure (4 of 4).
01:22:10 Saving Image...
01:22:11 Imager exposure complete.
01:22:11 Stopping autoguider...
01:22:13 Take Images Action complete.
01:22:13 Done running new_m101_red.act
01:22:13 Running new_m101_grn.act
01:22:13 Starting move to action.
01:22:13 Precessing coordinatates.
01:22:13 J2000 Coordinates: RA: 13h 57m 60.0s Dec: +54°35'09"
01:22:13 JNow Coordinates: RA: 13h 57m 16.5s Dec: +54°33'14"
01:22:13 Flipping mount...
01:24:24 Slewing to SAO 28942...
01:24:43 Done slewing!
01:24:43 Starting post slew delay.
01:24:47 Completed post slew delay.
01:24:47 In Rotate Function. Current PA = 275.00, New PA = 275.00
01:24:47 On east side - angles computed on west side, adding 180 degrees.
01:24:47 Adjusted PA = 95.00
01:24:47 Current Rotator Angle = 61
01:24:47 New Rotator Angle = 241
01:24:47 Moving rotator...
01:25:10 Rotation complete.
01:25:10 Guider calibration angle different than current angle.
01:25:10 Recomputing calibration coefficients.
01:25:10 Current Angle = 275.00
01:25:10 GuiderCalAngle = 95.00
01:25:10 Setting imager bin mode to 2x2.
01:25:10 Setting filter to Luminance.

01:25:17 Taking 5 second image for Plate Solve...
01:25:27 Saving Image...
01:25:27 Performing Plate Solve with CCDSoft...
01:25:29 Plate solve results:
01:25:29 Pixel Scale = 1.74 asp.
01:25:29 North Angle = 275.31 degrees.
01:25:29 J2000 Coordinates = RA: 13h 59m 34.0s Dec: +54°22'02"
01:25:29 Adjusting current PA for Plate Solve. CurrentAngle = 275.00
01:25:29 Adjusted PA = 275.00
01:25:29 Syncing to RA 13.99734, Dec 54.33547
01:25:43 Starting focus run...
01:27:02 Focus succeeded! HFD = 3.53
01:27:02 Starting move to action.
01:27:02 Precessing coordinatnes.
01:27:02 J2000 Coordinates: RA: 14h 03m 12.0s Dec: +54°20'58"
01:27:02 JNow Coordinates: RA: 14h 03m 28.2s Dec: +54°19'04"
01:27:02 Slewing to m101...
01:27:15 Done slewing!
01:27:15 Starting post slew delay.
01:27:18 Completed post slew delay.
01:27:18 Setting imager bin mode to 2x2.
01:27:18 Setting filter to Luminance.
01:27:20 Taking 5 second image for Plate Solve...
01:27:40 Saving Image...
01:27:40 Performing Plate Solve with CCDSoft...
01:27:41 Plate solve results:
01:27:41 Pixel Scale = 1.75 asp.
01:27:41 North Angle = 275.29 degrees.
01:27:41 J2000 Coordinates = RA: 14h 03m 12.3s Dec: +54°21'24"
01:27:41 Adjusting current PA for Plate Solve. CurrentAngle = 275.00
01:27:41 Adjusted PA = 275.00
01:27:41 Syncing to RA 14.05792, Dec 54.32494
01:28:10 Setting image type to Light.
01:28:10 Setting imager bin mode to 2x2.
01:28:10 Setting filter to Green.
01:28:14 Setting imager to full frame.
01:28:14 Setting imager exposure time to 600 seconds.
01:28:15 Setting autoguider bin mode to 2x2.
01:28:15 Taking a 2 second autoguider exposure.
01:28:23 Beginning guide star search...
01:28:24 Found possible guide star at 204, 112 with a max brightness of 2697 ADU.
01:28:24 Taking a 2 second autoguider exposure.
01:28:30 Beginning guide star search...
01:28:31 Found appropriate guide star at 204, 112 with a max brightness of 2380 ADU.
01:28:31 Trying to autoguide on star at 204.0,112.0.
01:28:31 Starting to autoguide.
01:28:39 Checking autoguider max error...
01:28:41 Autoguider error: x=0.16 Y=-0.07
01:28:41 Autoguider max error < 0.5!
01:28:41 Stopping autoguider...
01:28:43 Automatic guide star acquisition successful!
01:28:43 Setting autoguider exposure time to 2 seconds.
01:28:43 Setting guide star position to 204.0,112.0.
01:28:43 Starting to autoguide.
01:28:51 Checking autoguider max error...
01:28:54 Autoguider error: x=0.02 Y=0.02
01:28:54 Autoguider max error < 0.5!
01:28:54 Starting imager exposure (1 of 4).
01:39:00 Saving Image...
01:39:00 Imager exposure complete.
01:39:00 Stopping autoguider...
01:39:03 Setting autoguider exposure time to 2 seconds.
01:39:03 Setting guide star position to 206.0,112.0.
01:39:03 Starting to autoguide.
01:39:11 Checking autoguider max error...
01:39:14 Autoguider error: x=-0.81 Y=-0.71
01:39:14 Checking autoguider max error...
01:39:18 Autoguider error: x=-0.38 Y=-0.76
01:39:18 Checking autoguider max error...
01:39:21 Autoguider error: x=0.19 Y=0.13
01:39:21 Autoguider max error < 0.5!
01:39:21 Starting imager exposure (2 of 4).
01:49:27 Saving Image...
01:49:27 Imager exposure complete.
01:49:27 Stopping autoguider...
01:49:29 Setting autoguider exposure time to 2 seconds.
01:49:29 Setting guide star position to 206.0,114.0.
01:49:29 Starting to autoguide.
01:49:38 Checking autoguider max error...
01:49:40 Autoguider error: x=-0.27 Y=-1.60
01:49:40 Checking autoguider max error...
01:49:44 Autoguider error: x=-0.49 Y=-0.69
01:49:44 Checking autoguider max error...
01:49:47 Autoguider error: x=-0.29 Y=-0.18
01:49:47 Autoguider max error < 0.5!
01:49:47 Starting imager exposure (3 of 4).
01:59:54 Saving Image...
01:59:54 Imager exposure complete.
01:59:54 Stopping autoguider...
01:59:56 Setting autoguider exposure time to 2 seconds.

01:59:56 Setting guide star position to 204.0,114.0.
01:59:56 Starting to autoguide.
02:00:04 Checking autoguider max error...
02:00:08 Autoguider error: X=1.89 Y=0.04
02:00:08 Checking autoguider max error...
02:00:12 Autoguider error: X=1.97 Y=0.09
02:00:12 Checking autoguider max error...
02:00:15 Autoguider error: X=2.03 Y=-0.05
02:00:15 Checking autoguider max error...
02:00:19 Autoguider error: X=1.70 Y=0.42
02:00:19 Checking autoguider max error...
02:00:23 Autoguider error: X=1.47 Y=0.14
02:00:23 Checking autoguider max error...
02:00:26 Autoguider error: X=0.73 Y=-0.21
02:00:26 Checking autoguider max error...
02:00:30 Autoguider error: X=0.69 Y=0.13
02:00:30 Checking autoguider max error...
02:00:33 Autoguider error: X=0.13 Y=-0.02
02:00:33 Autoguider max error < 0.5!
02:00:33 Starting imager exposure (4 of 4).
02:10:39 Saving Image...
02:10:40 Imager exposure complete.
02:10:40 Stopping autoguider...
02:10:42 Take Images Action complete.
02:10:42 Done running new_m101_grn.act
02:10:42 Running new_m101_blu.act
02:10:42 Starting move to action.
02:10:42 Precessing coordinates.
02:10:42 J2000 Coordinates: RA: 13h 57m 60.0s Dec: +54°35'09"
02:10:42 JNow Coordinates: RA: 13h 57m 16.5s Dec: +54°33'14"
02:10:42 Slewing to SAO 28942...
02:10:52 Done slewing!
02:10:52 Starting post slew delay.
02:10:55 Completed post slew delay.
02:10:55 Setting imager bin mode to 2x2.
02:10:55 Setting filter to Luminance.
02:11:02 Taking 5 second image for Plate solve...
02:11:12 Saving Image...
02:11:13 Performing Plate Solve with CCDSoft...
02:11:18 Plate solve results:
02:11:18 Pixel Scale = 1.75 asp.
02:11:18 North Angle = 275.31 degrees.
02:11:18 J2000 Coordinates = RA: 13h 57m 11.8s Dec: +54°33'38"
02:11:18 Adjusting current PA for Plate Solve. CurrentAngle = 275.00
02:11:18 Adjusted PA = 275.00
02:11:18 Syncing to RA 13.95786, Dec 54.52871
02:11:32 Starting focus run...
02:12:58 Focus succeeded! HFD = 3.59
02:12:58 Starting move to action.
02:12:58 Precessing coordinates.
02:12:58 J2000 Coordinates: RA: 14h 03m 12.0s Dec: +54°20'58"
02:12:58 JNow Coordinates: RA: 14h 03m 28.2s Dec: +54°19'04"
02:12:58 Slewing to m101...
02:13:11 Done slewing!
02:13:11 Starting post slew delay.
02:13:14 Completed post slew delay.
02:13:14 Setting imager bin mode to 2x2.
02:13:14 Setting filter to Luminance.
02:13:16 Taking 5 second image for Plate solve...
02:13:35 Saving Image...
02:13:35 Performing Plate Solve with CCDSoft...
02:13:36 Plate solve results:
02:13:36 Pixel Scale = 1.75 asp.
02:13:36 North Angle = 275.32 degrees.
02:13:36 J2000 Coordinates = RA: 14h 03m 11.5s Dec: +54°22'18"
02:13:36 Adjusting current PA for Plate Solve. CurrentAngle = 275.00
02:13:36 Adjusted PA = 275.00
02:13:37 Syncing to RA 14.05770, Dec 54.34001
02:13:46 Setting image type to Light.
02:13:46 Setting imager bin mode to 2x2.
02:13:46 Setting filter to Blue.
02:13:50 Setting imager to full frame.
02:13:50 Setting imager exposure time to 600 seconds.
02:13:51 Setting autoguider bin mode to 2x2.
02:13:51 Taking a 2 second autoguider exposure.
02:13:59 Beginning guide star search...
02:14:01 Found possible guide star at 204, 115 with a max brightness of 2848 ADU.
02:14:01 Taking a 2 second autoguider exposure.
02:14:06 Beginning guide star search...
02:14:07 Found appropriate guide star at 204, 114 with a max brightness of 2585 ADU.
02:14:07 Trying to autoguide on star at 204.0,114.0.
02:14:07 Starting to autoguide.
02:14:15 Checking autoguider max error...
02:14:16 Autoguider error: X=-0.28 Y=-0.65
02:14:16 Checking autoguider max error...
02:14:19 Autoguider error: X=-0.49 Y=-0.51
02:14:19 Checking autoguider max error...
02:14:22 Autoguider error: X=-0.05 Y=-0.21
02:14:22 Autoguider max error < 0.5!
02:14:22 Stopping autoguider...

02:14:24 Automatic guide star acquisition successful!
02:14:24 Setting autoguider exposure time to 2 seconds.
02:14:24 Setting guide star position to 204.0,114.0.
02:14:24 Starting to autoguide.
02:14:32 Checking autoguider max error...
02:14:33 Autoguider error: X=-0.26 Y=-0.48
02:14:33 Autoguider max error < 0.5!
02:14:33 Starting imager exposure (1 of 4).
02:24:39 Saving Image...
02:24:39 Imager exposure complete.
02:24:39 Stopping autoguider...
02:24:41 Setting autoguider exposure time to 2 seconds.
02:24:41 Setting guide star position to 206.0,114.0.
02:24:41 Starting to autoguide.
02:24:50 Checking autoguider max error...
02:24:51 Autoguider error: X=-0.74 Y=0.13
02:24:51 Checking autoguider max error...
02:24:54 Autoguider error: X=-0.01 Y=0.31
02:24:54 Autoguider max error < 0.5!
02:24:54 Starting imager exposure (2 of 4).
02:35:00 Saving Image...
02:35:01 Imager exposure complete.
02:35:01 Stopping autoguider...
02:35:03 Setting autoguider exposure time to 2 seconds.
02:35:03 Setting guide star position to 206.0,116.0.
02:35:03 Starting to autoguide.
02:35:11 Checking autoguider max error...
02:35:13 Autoguider error: X=0.10 Y=-1.25
02:35:13 Checking autoguider max error...
02:35:16 Autoguider error: X=0.11 Y=-0.12
02:35:16 Autoguider max error < 0.5!
02:35:16 Starting imager exposure (3 of 4).
02:45:22 Saving Image...
02:45:22 Imager exposure complete.
02:45:22 Stopping autoguider...
02:45:24 Setting autoguider exposure time to 2 seconds.
02:45:24 Setting guide star position to 204.0,116.0.
02:45:24 Starting to autoguide.
02:45:33 Checking autoguider max error...
02:45:34 Autoguider error: X=2.11 Y=0.28
02:45:34 Checking autoguider max error...
02:45:38 Autoguider error: X=1.83 Y=0.11
02:45:38 Checking autoguider max error...
02:45:41 Autoguider error: X=1.68 Y=-0.05
02:45:41 Checking autoguider max error...
02:45:44 Autoguider error: X=1.79 Y=-0.31
02:45:44 Checking autoguider max error...
02:45:48 Autoguider error: X=1.15 Y=0.05
02:45:48 Checking autoguider max error...
02:45:52 Autoguider error: X=0.77 Y=-0.34
02:45:52 Checking autoguider max error...
02:45:55 Autoguider error: X=0.20 Y=-0.16
02:45:55 Autoguider max error < 0.5!
02:45:55 Starting imager exposure (4 of 4).
02:56:01 Saving Image...
02:56:02 Imager exposure complete.
02:56:02 Stopping autoguider...
02:56:04 Take Images Action complete.
02:56:04 Done running new_m101_blu.act
02:56:04 Running new_m101_lum.act
02:56:04 Starting move to action.
02:56:04 Precessing coordinates.
02:56:04 J2000 Coordinates: RA: 13h 57m 60.0s Dec: +54°35'09"
02:56:04 JNow Coordinates: RA: 13h 57m 16.5s Dec: +54°33'14"
02:56:04 Slewing to SAO 28942...
02:56:14 Done slewing!
02:56:14 Starting post slew delay.
02:56:17 Completed post slew delay.
02:56:17 Setting imager bin mode to 2x2.
02:56:17 Setting filter to Luminance.
02:56:24 Taking 5 second image for Plate solve...
02:56:34 Saving Image...
02:56:34 Performing Plate Solve with CCDSoft...
02:56:37 Plate solve results:
02:56:37 Pixel Scale = 1.75 asp.
02:56:37 North Angle = 275.38 degrees.
02:56:37 J2000 Coordinates = RA: 13h 57m 09.5s Dec: +54°34'27"
02:56:37 Adjusting current PA for Plate Solve. CurrentAngle = 275.00
02:56:37 Adjusted PA = 275.00
02:56:37 Syncing to RA 13.95721, Dec 54.54222
02:56:48 Starting focus run...
02:58:24 Focus succeeded! HFD = 3.95
02:58:24 Starting move to action.
02:58:24 Precessing coordinates.
02:58:24 J2000 Coordinates: RA: 14h 03m 12.0s Dec: +54°20'58"
02:58:24 JNow Coordinates: RA: 14h 03m 28.2s Dec: +54°19'04"
02:58:24 Slewing to m101...
02:58:37 Done slewing!
02:58:37 Starting post slew delay.
02:58:40 Completed post slew delay.

02:58:40 Setting imager bin mode to 2x2.
02:58:40 Setting filter to Luminance.
02:58:42 Taking 5 second image for Plate Solve...
02:59:01 Saving Image...
02:59:01 Performing Plate Solve with CCDSoft...
02:59:03 Plate solve results:
02:59:03 Pixel Scale = 1.74 asp.
02:59:03 North Angle = 275.37 degrees.
02:59:03 J2000 Coordinates = RA: 14h 03m 10.4s Dec: +54°21'45"
02:59:03 Adjusting current PA for Plate Solve. CurrentAngle = 275.00
02:59:03 Adjusted PA = 275.00
02:59:03 Syncing to RA 14.05739, Dec 54.33093
02:59:25 Setting image type to Light.
02:59:25 Setting imager bin mode to 1x1.
02:59:25 Setting filter to Luminance.
02:59:27 Setting imager to full frame.
02:59:27 Setting imager exposure time to 600 seconds.
02:59:28 Setting autoguider bin mode to 2x2.
02:59:28 Taking a 2 second autoguider exposure.
02:59:37 Beginning guide star search...
02:59:39 Found possible guide star at 221, 112 with a max brightness of 9178 ADU.
02:59:39 Taking a 2 second autoguider exposure.
02:59:44 Beginning guide star search...
02:59:45 Found appropriate guide star at 221, 112 with a max brightness of 7871 ADU.
02:59:45 Trying to autoguide on star at 221.0,112.0.
02:59:45 Starting to autoguide.
02:59:53 Checking autoguider max error...
02:59:55 Autoguider error: X=-0.30 Y=-0.45
02:59:55 Autoguider max error < 0.5!
02:59:55 Stopping autoguider...
02:59:57 Automatic guide star acquisition successful!
02:59:57 Setting autoguider exposure time to 2 seconds.
02:59:57 Setting guide star position to 221.0,112.0.
02:59:57 Starting to autoguide.
03:00:05 Checking autoguider max error...
03:00:06 Autoguider error: X=0.09 Y=-0.66
03:00:06 Checking autoguider max error...
03:00:09 Autoguider error: X=0.42 Y=0.17
03:00:09 Autoguider max error < 0.5!
03:00:09 Starting imager exposure (1 of 12).
03:10:19 Saving Image...
03:10:19 Imager exposure complete.
03:10:19 Stopping autoguider...
03:10:21 Setting autoguider exposure time to 2 seconds.
03:10:21 Setting guide star position to 223.0,112.0.
03:10:21 Starting to autoguide.
03:10:29 Checking autoguider max error...
03:10:31 Autoguider error: X=-1.59 Y=-0.24
03:10:31 Checking autoguider max error...
03:10:34 Autoguider error: X=-1.35 Y=-0.59
03:10:34 Checking autoguider max error...
03:10:38 Autoguider error: X=-1.10 Y=0.07
03:10:38 Checking autoguider max error...
03:10:41 Autoguider error: X=-1.22 Y=0.07
03:10:41 Checking autoguider max error...
03:10:44 Autoguider error: X=-1.30 Y=-0.67
03:10:44 Checking autoguider max error...
03:10:47 Autoguider error: X=-1.10 Y=0.18
03:10:47 Checking autoguider max error...
03:10:50 Autoguider error: X=-0.33 Y=-0.28
03:10:50 Autoguider max error < 0.5!
03:10:50 Starting imager exposure (2 of 12).
03:21:00 Saving Image...
03:21:01 Imager exposure complete.
03:21:01 Stopping autoguider...
03:21:03 Setting autoguider exposure time to 2 seconds.
03:21:03 Setting guide star position to 223.0,114.0.
03:21:03 Starting to autoguide.
03:21:11 Checking autoguider max error...
03:21:12 Autoguider error: X=-0.11 Y=-1.77
03:21:12 Checking autoguider max error...
03:21:16 Autoguider error: X=0.15 Y=0.06
03:21:16 Autoguider max error < 0.5!
03:21:16 Starting imager exposure (3 of 12).
03:31:25 Saving Image...
03:31:26 Imager exposure complete.
03:31:26 Stopping autoguider...
03:31:28 Setting autoguider exposure time to 2 seconds.
03:31:28 Setting guide star position to 221.0,114.0.
03:31:28 Starting to autoguide.
03:31:36 Checking autoguider max error...
03:31:37 Autoguider error: X=0.50 Y=0.15
03:31:37 Autoguider max error < 0.5!
03:31:37 Starting imager exposure (4 of 12).
03:41:47 Saving Image...
03:41:48 Imager exposure complete.
03:41:48 Stopping autoguider...
03:41:50 Setting autoguider exposure time to 2 seconds.
03:41:50 Setting guide star position to 219.0,114.0.
03:41:50 Starting to autoguide.

03:41:58 Checking autoguider max error...
03:42:00 Autoguider error: X=0.22 Y=0.29
03:42:00 Autoguider max error < 0.5!
03:42:00 Starting imager exposure (5 of 12).
03:52:09 Saving Image...
03:52:10 Imager exposure complete.
03:52:10 Stopping autoguider...
03:52:12 Setting autoguider exposure time to 2 seconds.
03:52:12 Setting guide star position to 219.0,112.0.
03:52:12 Starting to autoguide.
03:52:20 Checking autoguider max error...
03:52:22 Autoguider error: X=0.24 Y=0.56
03:52:22 Checking autoguider max error...
03:52:25 Autoguider error: X=0.28 Y=0.19
03:52:25 Autoguider max error < 0.5!
03:52:25 Starting imager exposure (6 of 12).
04:02:35 Saving Image...
04:02:35 Imager exposure complete.
04:02:35 Stopping autoguider...
04:02:37 Setting autoguider exposure time to 2 seconds.
04:02:37 Setting guide star position to 219.0,110.0.
04:02:37 Starting to autoguide.
04:02:45 Checking autoguider max error...
04:02:47 Autoguider error: X=-0.11 Y=0.27
04:02:47 Autoguider max error < 0.5!
04:02:47 Starting imager exposure (7 of 12).
04:12:56 Saving Image...
04:12:57 Imager exposure complete.
04:12:57 Stopping autoguider...
04:12:59 Setting autoguider exposure time to 2 seconds.
04:12:59 Setting guide star position to 221.0,110.0.
04:12:59 Starting to autoguide.
04:13:07 Checking autoguider max error...
04:13:09 Autoguider error: X=-1.37 Y=-0.53
04:13:09 Checking autoguider max error...
04:13:12 Autoguider error: X=-1.41 Y=0.29
04:13:12 Checking autoguider max error...
04:13:15 Autoguider error: X=-1.28 Y=-0.67
04:13:15 Checking autoguider max error...
04:13:18 Autoguider error: X=-1.16 Y=-0.07
04:13:18 Checking autoguider max error...
04:13:21 Autoguider error: X=-1.09 Y=-0.19
04:13:21 Checking autoguider max error...
04:13:24 Autoguider error: X=-1.02 Y=-0.53
04:13:24 Checking autoguider max error...
04:13:27 Autoguider error: X=-0.84 Y=0.25
04:13:27 Checking autoguider max error...
04:13:31 Autoguider error: X=-0.89 Y=-0.36
04:13:31 Checking autoguider max error...
04:13:34 Autoguider error: X=-0.86 Y=-0.57
04:13:34 Checking autoguider max error...
04:13:37 Autoguider error: X=-0.70 Y=0.04
04:13:37 Checking autoguider max error...
04:13:40 Autoguider error: X=-0.69 Y=0.34
04:13:40 Checking autoguider max error...
04:13:42 Autoguider error: X=-0.85 Y=-0.22
04:13:42 Checking autoguider max error...
04:13:45 Autoguider error: X=-0.89 Y=-0.04
04:13:45 Checking autoguider max error...
04:13:48 Autoguider error: X=-1.03 Y=0.18
04:13:48 Checking autoguider max error...
04:13:52 Autoguider error: X=-0.90 Y=-0.48
04:13:52 Checking autoguider max error...
04:13:55 Autoguider error: X=-0.81 Y=-0.29
04:13:55 Checking autoguider max error...
04:13:58 Autoguider error: X=-0.88 Y=0.24
04:13:58 Checking autoguider max error...
04:14:01 Autoguider error: X=-0.85 Y=-0.23
04:14:01 Checking autoguider max error...
04:14:04 Autoguider error: X=-0.68 Y=-0.59
04:14:04 Checking autoguider max error...
04:14:07 Autoguider error: X=-0.73 Y=0.28
04:14:07 Autoguider error failed to decrease to < 0.5!
04:14:08 Take Images Action failed.
04:14:08 Done running new_m101_lum.act
04:14:08 Running dark_series.act
04:14:08 Running Action List Iteration #1
04:14:08 Setting image type to Dark.
04:14:08 Setting imager bin mode to 1x1.
04:14:08 Setting filter to Luminance.
04:14:10 Setting imager to full frame.
04:14:10 Setting imager exposure time to 600 seconds.
04:14:11 Starting imager exposure (1 of 1).
04:24:20 Saving Image...
04:24:20 Imager exposure complete.
04:24:20 Take Images Action complete.
04:24:20 Setting image type to Dark.
04:24:20 Setting imager bin mode to 2x2.
04:24:20 Setting filter to Luminance.
04:24:22 Setting imager to full frame.

04:24:22 Setting imager exposure time to 600 seconds.
04:24:23 Starting imager exposure (1 of 1).
04:34:28 Saving Image...
04:34:28 Imager exposure complete.
04:34:28 Take Images Action complete.
04:34:28 Running Action List Iteration #2
04:34:28 Setting image type to Dark.
04:34:28 Setting imager bin mode to 1x1.
04:34:28 Setting filter to Luminance.
04:34:30 Setting imager to full frame.
04:34:30 Setting imager exposure time to 600 seconds.
04:34:31 Starting imager exposure (1 of 1).
04:44:39 Saving Image...
04:44:40 Imager exposure complete.
04:44:40 Take Images Action complete.
04:44:40 Setting image type to Dark.
04:44:40 Setting imager bin mode to 2x2.
04:44:40 Setting filter to Luminance.
04:44:42 Setting imager to full frame.
04:44:42 Setting imager exposure time to 600 seconds.
04:44:43 Starting imager exposure (1 of 1).
04:54:48 Saving Image...
04:54:48 Imager exposure complete.
04:54:48 Take Images Action complete.
04:54:48 Running Action List Iteration #3
04:54:48 Setting image type to Dark.
04:54:48 Setting imager bin mode to 1x1.
04:54:48 Setting filter to Luminance.
04:54:50 Setting imager to full frame.
04:54:50 Setting imager exposure time to 600 seconds.
04:54:51 Starting imager exposure (1 of 1).
05:04:59 Saving Image...
05:05:00 Imager exposure complete.
05:05:00 Take Images Action complete.
05:05:00 Setting image type to Dark.
05:05:00 Setting imager bin mode to 2x2.
05:05:00 Setting filter to Luminance.
05:05:02 Setting imager to full frame.
05:05:02 Setting imager exposure time to 600 seconds.
05:05:03 Starting imager exposure (1 of 1).
05:15:08 Saving Image...
05:15:09 Imager exposure complete.
05:15:09 Take Images Action complete.
05:15:09 Running Action List Iteration #4
05:15:09 Setting image type to Dark.
05:15:09 Setting imager bin mode to 1x1.
05:15:09 Setting filter to Luminance.
05:15:11 Setting imager to full frame.
05:15:11 Setting imager exposure time to 600 seconds.
05:15:12 Starting imager exposure (1 of 1).
05:25:20 Saving Image...
05:25:21 Imager exposure complete.
05:25:21 Take Images Action complete.
05:25:21 Setting image type to Dark.
05:25:21 Setting imager bin mode to 2x2.
05:25:21 Setting filter to Luminance.
05:25:22 Setting imager to full frame.
05:25:22 Setting imager exposure time to 600 seconds.
05:25:23 Starting imager exposure (1 of 1).
05:35:29 Saving Image...
05:35:29 Imager exposure complete.
05:35:29 Take Images Action complete.
05:35:29 Running Action List Iteration #5
05:35:29 Setting image type to Dark.
05:35:29 Setting imager bin mode to 1x1.
05:35:29 Setting filter to Luminance.
05:35:31 Setting imager to full frame.
05:35:31 Setting imager exposure time to 600 seconds.
05:35:32 Starting imager exposure (1 of 1).
05:45:41 Saving Image...
05:45:41 Imager exposure complete.
05:45:41 Take Images Action complete.
05:45:41 Setting image type to Dark.
05:45:41 Setting imager bin mode to 2x2.
05:45:41 Setting filter to Luminance.
05:45:43 Setting imager to full frame.
05:45:43 Setting imager exposure time to 600 seconds.
05:45:44 Starting imager exposure (1 of 1).
05:55:49 Saving Image...
05:55:50 Imager exposure complete.
05:55:50 Take Images Action complete.
05:55:50 Done running dark_series.act
05:55:50 In Auto Flat Action.
05:55:50 waiting for dawn twilight...
06:26:21 Slewing to flat target location.
06:26:21 Moving to Alt-Az position: Alt: 85°00' 00.0" Az: 270°00'00"
06:27:25 Done slewing!
06:27:25 Starting post slew delay.
06:27:28 Completed post slew delay.
06:27:29 Setting imager bin mode to 1x1.

06:27:29 Setting filter to Luminance.
06:27:32 Setting imager to full frame.
06:27:43 Setting imager exposure time to 1.0 seconds.
06:27:43 Starting imager exposure...
06:27:52 Exposure complete. Computing average ADU.
06:27:52 Average ADU = 977
06:27:52 Target ADU = 18000
06:27:52 New exposure time computed to be 18.4
06:28:00 Setting imager exposure time to 18.4 seconds.
06:28:00 Starting imager exposure...
06:28:27 Exposure complete. Computing average ADU.
06:28:27 Average ADU = 18328
06:28:27 Target ADU = 18000
06:28:27 Current exposure time good! Taking Flats.
06:28:34 Setting imager exposure time to 18.4 seconds.
06:28:34 Starting imager exposure #1
06:29:01 Saving Image...
06:29:01 Exposure complete. Computing average ADU.
06:29:02 Average ADU = 21812
06:29:02 Recomputing exposure time...
06:29:02 New exposure time computed to be 13.8
06:29:08 Setting imager exposure time to 13.8 seconds.
06:29:08 Starting imager exposure #2
06:29:30 Saving Image...
06:29:31 Exposure complete. Computing average ADU.
06:29:31 Average ADU = 17991
06:29:31 Recomputing exposure time...
06:29:31 New exposure time computed to be 12.6
06:29:38 Setting imager exposure time to 12.6 seconds.
06:29:38 Starting imager exposure #3
06:29:59 Saving Image...
06:30:00 Exposure complete. Computing average ADU.
06:30:00 Average ADU = 18899
06:30:00 Recomputing exposure time...
06:30:00 New exposure time computed to be 10.9
06:30:00 Setting filter to Red.
06:30:03 Setting imager to full frame.
06:30:10 Setting imager exposure time to 1.0 seconds.
06:30:10 Starting imager exposure...
06:30:19 Exposure complete. Computing average ADU.
06:30:20 Average ADU = 628
06:30:20 Target ADU = 18000
06:30:20 New exposure time computed to be 28.7
06:30:27 Setting imager exposure time to 25.0 seconds.
06:30:27 Starting imager exposure...
06:31:01 Exposure complete. Computing average ADU.
06:31:02 Average ADU = 15137
06:31:02 Target ADU = 18000
06:31:08 Setting imager exposure time to 25.0 seconds.
06:31:08 Starting imager exposure...
06:31:41 Exposure complete. Computing average ADU.
06:31:42 Average ADU = 18877
06:31:42 Target ADU = 18000
06:31:42 Current exposure time good! Taking Flats.
06:31:48 Setting imager exposure time to 25.0 seconds.
06:31:48 Starting imager exposure #1
06:32:22 Saving Image...
06:32:22 Exposure complete. Computing average ADU.
06:32:22 Average ADU = 23772
06:32:22 Recomputing exposure time...
06:32:22 New exposure time computed to be 17.2
06:32:29 Setting imager exposure time to 17.2 seconds.
06:32:29 Starting imager exposure #2
06:32:55 Saving Image...
06:32:55 Exposure complete. Computing average ADU.
06:32:56 Average ADU = 18431
06:32:56 Recomputing exposure time...
06:32:56 New exposure time computed to be 15.3
06:33:02 Setting imager exposure time to 15.3 seconds.
06:33:02 Starting imager exposure #3
06:33:26 Saving Image...
06:33:26 Exposure complete. Computing average ADU.
06:33:27 Average ADU = 18244
06:33:27 Recomputing exposure time...
06:33:27 New exposure time computed to be 13.7
06:33:27 Setting filter to Green.
06:33:30 Setting imager to full frame.
06:33:38 Setting imager exposure time to 1.0 seconds.
06:33:38 Starting imager exposure...
06:33:48 Exposure complete. Computing average ADU.
06:33:48 Average ADU = 1335
06:33:49 Target ADU = 18000
06:33:49 New exposure time computed to be 13.5
06:33:56 Setting imager exposure time to 13.5 seconds.
06:33:56 Starting imager exposure...
06:34:18 Exposure complete. Computing average ADU.
06:34:18 Average ADU = 18378
06:34:18 Target ADU = 18000
06:34:18 Current exposure time good! Taking Flats.
06:34:25 Setting imager exposure time to 13.5 seconds.

06:34:25 Starting imager exposure #1
06:34:47 Saving Image...
06:34:47 Exposure complete. Computing average ADU.
06:34:48 Average ADU = 20209
06:34:48 Recomputing exposure time...
06:34:48 New exposure time computed to be 10.9
06:34:56 Setting imager exposure time to 10.9 seconds.
06:34:56 Starting imager exposure #2
06:35:16 Saving Image...
06:35:16 Exposure complete. Computing average ADU.
06:35:17 Average ADU = 18717
06:35:17 Recomputing exposure time...
06:35:17 New exposure time computed to be 9.5
06:35:25 Setting imager exposure time to 9.5 seconds.
06:35:25 Starting imager exposure #3
06:35:43 Saving Image...
06:35:44 Exposure complete. Computing average ADU.
06:35:44 Average ADU = 18098
06:35:44 Recomputing exposure time...
06:35:44 New exposure time computed to be 8.6
06:35:44 Setting filter to Blue.
06:35:47 Setting imager to full frame.
06:35:54 Setting imager exposure time to 1.0 seconds.
06:35:54 Starting imager exposure...
06:36:03 Exposure complete. Computing average ADU.
06:36:04 Average ADU = 2942
06:36:04 Target ADU = 18000
06:36:04 New exposure time computed to be 6.1
06:36:12 Setting imager exposure time to 6.1 seconds.
06:36:12 Starting imager exposure...
06:36:27 Exposure complete. Computing average ADU.
06:36:28 Average ADU = 18722
06:36:28 Target ADU = 18000
06:36:28 Current exposure time good! Taking Flats.
06:36:34 Setting imager exposure time to 6.1 seconds.
06:36:34 Starting imager exposure #1
06:36:49 Saving Image...
06:36:49 Exposure complete. Computing average ADU.
06:36:50 Average ADU = 20355
06:36:50 Recomputing exposure time...
06:36:50 New exposure time computed to be 4.9
06:36:56 Setting imager exposure time to 4.9 seconds.
06:36:56 Starting imager exposure #2
06:37:09 Saving Image...
06:37:10 Exposure complete. Computing average ADU.
06:37:10 Average ADU = 17862
06:37:10 Recomputing exposure time...
06:37:10 New exposure time computed to be 4.5
06:37:16 Setting imager exposure time to 4.5 seconds.
06:37:16 Starting imager exposure #3
06:37:29 Saving Image...
06:37:30 Exposure complete. Computing average ADU.
06:37:30 Average ADU = 17766
06:37:30 Recomputing exposure time...
06:37:30 New exposure time computed to be 4.1
06:37:30 Automatic Flat Action complete.
06:37:30 In Rotate Function. Current PA = 275.00, New PA = 275.00
06:37:30 On east side - angles computed on west side, adding 180 degrees.
06:37:30 Adjusted PA = 95.00
06:37:30 Current Rotator Angle = 241
06:37:30 New Rotator Angle = 241
06:37:30 No rotator movement necessary.
06:37:30 In Auto Flat Action.
06:37:30 Slewing to flat target location.
06:37:30 Moving to Alt-Az position: Alt: 80°00' 00.0" Az: 270°00'00"
06:37:47 Done slewing!
06:37:47 Starting post slew delay.
06:37:50 Completed post slew delay.
06:37:51 Setting imager bin mode to 1x1.
06:37:51 Setting filter to Luminance.
06:37:57 Setting imager to full frame.
06:38:06 Setting imager exposure time to 1.0 seconds.
06:38:06 Starting imager exposure...
06:38:15 Exposure complete. Computing average ADU.
06:38:16 Average ADU = 12802
06:38:16 Target ADU = 18000
06:38:16 New exposure time computed to be 1.4
06:38:22 Setting imager exposure time to 1.4 seconds.
06:38:22 Starting imager exposure...
06:38:32 Exposure complete. Computing average ADU.
06:38:32 Average ADU = 18411
06:38:32 Target ADU = 18000
06:38:32 Current exposure time good! Taking Flats.
06:38:42 Setting imager exposure time to 1.4 seconds.
06:38:42 Starting imager exposure #1
06:38:52 Saving Image...
06:38:52 Exposure complete. Computing average ADU.
06:38:52 Average ADU = 19453
06:38:52 Recomputing exposure time...
06:38:53 New exposure time computed to be 1.3

06:39:01 Setting imager exposure time to 1.3 seconds.
06:39:01 Starting imager exposure #2
06:39:11 Saving Image...
06:39:12 Exposure complete. Computing average ADU.
06:39:12 Average ADU = 19909
06:39:12 Recomputing exposure time...
06:39:12 New exposure time computed to be 1.2
06:39:18 Setting imager exposure time to 1.2 seconds.
06:39:18 Starting imager exposure #3
06:39:28 Saving Image...
06:39:28 Exposure complete. Computing average ADU.
06:39:29 Average ADU = 19310
06:39:29 Recomputing exposure time...
06:39:29 New exposure time computed to be 1.1
06:39:29 Setting filter to Red.
06:39:32 Setting imager to full frame.
06:39:40 Setting imager exposure time to 1.0 seconds.
06:39:40 Starting imager exposure...
06:39:50 Exposure complete. Computing average ADU.
06:39:50 Average ADU = 6350
06:39:50 Target ADU = 18000
06:39:50 New exposure time computed to be 2.8
06:39:59 Setting imager exposure time to 2.8 seconds.
06:39:59 Starting imager exposure...
06:40:10 Exposure complete. Computing average ADU.
06:40:11 Average ADU = 19161
06:40:11 Target ADU = 18000
06:40:11 Current exposure time good! Taking Flats.
06:40:18 Setting imager exposure time to 2.8 seconds.
06:40:18 Starting imager exposure #1
06:40:29 Saving Image...
06:40:30 Exposure complete. Computing average ADU.
06:40:30 Average ADU = 20076
06:40:30 Recomputing exposure time...
06:40:30 New exposure time computed to be 2.5
06:40:39 Setting imager exposure time to 2.5 seconds.
06:40:39 Starting imager exposure #2
06:40:49 Saving Image...
06:40:50 Exposure complete. Computing average ADU.
06:40:50 Average ADU = 19812
06:40:50 Recomputing exposure time...
06:40:50 New exposure time computed to be 2.3
06:40:59 Setting imager exposure time to 2.3 seconds.
06:40:59 Starting imager exposure #3
06:41:09 Saving Image...
06:41:10 Exposure complete. Computing average ADU.
06:41:10 Average ADU = 18782
06:41:10 Recomputing exposure time...
06:41:10 New exposure time computed to be 2.2
06:41:10 Setting filter to Green.
06:41:14 Setting imager to full frame.
06:41:20 Setting imager exposure time to 1.0 seconds.
06:41:20 Starting imager exposure...
06:41:30 Exposure complete. Computing average ADU.
06:41:30 Average ADU = 7257
06:41:30 Target ADU = 18000
06:41:30 New exposure time computed to be 2.5
06:41:41 Setting imager exposure time to 2.5 seconds.
06:41:41 Starting imager exposure...
06:41:51 Exposure complete. Computing average ADU.
06:41:52 Average ADU = 19284
06:41:52 Target ADU = 18000
06:41:52 Current exposure time good! Taking Flats.
06:42:04 Setting imager exposure time to 2.5 seconds.
06:42:04 Starting imager exposure #1
06:42:15 Saving Image...
06:42:16 Exposure complete. Computing average ADU.
06:42:16 Average ADU = 20691
06:42:16 Recomputing exposure time...
06:42:16 New exposure time computed to be 2.2
06:42:22 Setting imager exposure time to 2.2 seconds.
06:42:22 Starting imager exposure #2
06:42:33 Saving Image...
06:42:33 Exposure complete. Computing average ADU.
06:42:34 Average ADU = 19446
06:42:34 Recomputing exposure time...
06:42:34 New exposure time computed to be 2.0
06:42:44 Setting imager exposure time to 2.0 seconds.
06:42:44 Starting imager exposure #3
06:42:54 Saving Image...
06:42:55 Exposure complete. Computing average ADU.
06:42:55 Average ADU = 18705
06:42:55 Recomputing exposure time...
06:42:55 New exposure time computed to be 1.9
06:42:55 Setting filter to Blue.
06:42:59 Setting imager to full frame.
06:43:05 Setting imager exposure time to 1.0 seconds.
06:43:05 Starting imager exposure...
06:43:14 Exposure complete. Computing average ADU.
06:43:15 Average ADU = 12029

06:43:15 Target ADU = 18000
06:43:15 New exposure time computed to be 1.5
06:43:25 Setting imager exposure time to 1.5 seconds.
06:43:25 Starting imager exposure...
06:43:35 Exposure complete. Computing average ADU.
06:43:35 Average ADU = 19471
06:43:35 Target ADU = 18000
06:43:35 Current exposure time good! Taking Flats.
06:43:42 Setting imager exposure time to 1.5 seconds.
06:43:42 Starting imager exposure #1
06:43:51 Saving Image...
06:43:52 Exposure complete. Computing average ADU.
06:43:52 Average ADU = 20323
06:43:52 Recomputing exposure time...
06:43:52 New exposure time computed to be 1.3
06:44:01 Setting imager exposure time to 1.3 seconds.
06:44:01 Starting imager exposure #2
06:44:11 Saving Image...
06:44:11 Exposure complete. Computing average ADU.
06:44:11 Average ADU = 18859
06:44:11 Recomputing exposure time...
06:44:11 New exposure time computed to be 1.2
06:44:21 Setting imager exposure time to 1.2 seconds.
06:44:21 Starting imager exposure #3
06:44:30 Saving Image...
06:44:30 Exposure complete. Computing average ADU.
06:44:31 Average ADU = 18333
06:44:31 Recomputing exposure time...
06:44:31 New exposure time computed to be 1.2
06:44:31 Automatic Flat Action complete.
06:44:31 Turning on Fan.
06:44:31 Warming up camera...
06:44:31 Setting camera temperature to -4.8
06:44:31 waiting for temperature to rise...
06:45:33 waiting for temperature to rise...
06:46:24 Setting camera temperature to 4.4
06:46:24 waiting for temperature to rise...
06:47:25 waiting for temperature to rise...
06:48:08 User aborted! Stopping imager and autoguider...
06:48:09 Shutting down cooler.
06:48:09 Action stopped.