

# Goodman Spectrograph



Date (UT): 28-29 SEPT 2012 (CIVIL)  
 Night # 1/5 Page # 1/6  
 Observer (s) ALAM, BUTLER  
BUTNER, TUCKER  
 Assistant Sergio Pizarro, Juan Espinosa  
Alfredo Ferrero

Detector: BLUE CAMERA  
 Gain Setting: 200 kHz ATWS/2.5 ADU  
 X sum 2 Y sum 2  
 Amplifiers \_\_\_\_\_

| Filter | Offset | Filter | Offset |
|--------|--------|--------|--------|
| 2f2    |        |        |        |
| 3f2    |        |        |        |
| 4f2    |        |        |        |
| 5f2    |        |        |        |

| Picture Number | Object Name / type                         |                  | Airmass     | Begin U.T    | Exposure           | Tel focus/ Instr Focus                         | Seeing    | FILTER                                  | Grating        | Comments  |
|----------------|--|------------------|-------------|--------------|--------------------|--|-----------|---|----------------|---|
|                | R.A.                                       | DEC.             | Epoch       | Begin H.A.   |                    | Spect/Direct                                   | Sky cond. | Slit                                    | Center         |   |
| <u>1/20</u>    | <u>focus test (H<sub>2</sub>Ar+Ne)</u>     |                  |             |              | <u>20 x 1 sec</u>  | <u>Focus: -2000 → 2000</u><br><u>step 1200</u> |           | <u>0.45"</u>                            | <u>default</u> | <u>T=83 -</u><br><u>best focus -? Redo!</u>             |
| <u>21/41</u>   | <u>focus test 2 (H<sub>2</sub>Ar+Ne)</u>   |                  |             |              | <u>21 x 1 sec</u>  | <u>focus: 0 → 1000</u><br><u>step 100</u>      |           | <u>should have been</u><br><u>400WD</u> |                | <u>T=9.1°C</u><br><u>best focus = 1527 (extra 1530)</u> |
| <u>42</u>      | <u>comparison arc (H<sub>2</sub>Ar+Ne)</u> |                  |             |              | <u>1 x 0.3 sec</u> |  |           | <u>1.00"</u>                            | <u>400WD</u>   | <u>bad! Not 400WD &amp;</u><br><u>setting!</u>          |
| <u>43-47</u>   | <u>comparison arc (H<sub>2</sub>Ar+Ne)</u> |                  |             |              | <u>5 x 0.3 sec</u> |  |           |   |                |   |
| <u>48-52</u>   | <u>comparison arc (H<sub>2</sub>Ar+Ne)</u> |                  |             |              | <u>5 x 0.3 sec</u> |  |           | <u>0.45"</u>                            | <u>400WD</u>   | <u>Thin (0.45") slit!</u>                               |
| <u>53</u>      | <u>Dome (quartz) test</u>                  |                  |             |              | <u>1 x 7 sec</u>   |  |           | <u>1.00"</u>                            | <u>400WD</u>   | <u>Quartz lamp saturated!</u><br><u>100% intensity</u>  |
| <u>54</u>      | <u>Dome (quartz) test</u>                  |                  |             |              | <u>1 x 3 sec</u>   |  |           |   |                | <u>or saturated!</u>                                    |
| <u>55-104</u>  | <u>Dome (quartz) test</u>                  |                  |             |              | <u>51 x 1 sec</u>  |  |           |   |                | <u>good</u>   |
| <u>105-154</u> | <u>bias</u>                                |                  |             |              |                    |  |           |   |                |   |
| <u>155-157</u> | <u>LTT 7987 (sid star)</u>                 |                  | <u>1.02</u> | <u>23:35</u> | <u>3 x 30 sec</u>  |  |           |   |                |   |
|                | <u>20:10:57.1</u>                          | <u>-30:13:07</u> |             |              |                    |  |           |   |                |   |
| <u>158</u>     | <u>comparison arc</u>                      |                  |             |              | <u>1 x 0.3 sec</u> |  |           |   |                |   |
| <u>159</u>     | <u>SSS J193018.9-520345</u>                |                  | <u>1.08</u> | <u>23:40</u> | <u>1 x 360 sec</u> | <u>OB 401</u>                                  |           |   |                | <u>wrong target?</u><br><u>move to next target</u>      |
|                | <u>19:30:18.9</u>                          | <u>-52:03:45</u> |             |              |                    |  |           |   |                | <u>danner productions</u>                               |

# Goodman Spectrograph

Date (UT): 28-29 Sept 2018 (CIVIL)  
 Night # 1/5 Page # 2/6  
 Observer (s) ALLAM, BUTLER,  
MAKLER BUTNER, TUCKER  
 Assistant Sergio Pizzaro, Juan Espinosa  
Alfred Ferrel

Detector: BLUE CAMERA  
 Gain Setting: 200 kHz ATDZ=ADU  
 X sum 2 Y sum 2  
 Amplifiers \_\_\_\_\_

| Filter | Offset | Filter | Offset |
|--------|--------|--------|--------|
| 2f2    |        |        |        |
| 3f2    |        |        |        |
| 4f2    |        |        |        |
| 5f2    |        |        |        |
| 1f1    |        | 4f1    |        |
| 2f1    |        | 5f1    |        |
| 3f1    |        | 1f2    |        |



| Picture Number | Object Name / type         |      | Airmass | Begin U.T  | Exposure | Tel focus/ Instr Focus | Seeing    | FILTER | Grating | Comments  |
|----------------|----------------------------|------|---------|------------|----------|------------------------|-----------|--------|---------|---|
|                | R. A.                      | DEC. | Epoch   | Begin H.A. |          | Spect/Direct           | Sky cond. | Slit   | Center  |   |
| 160            | GAIA J1608.17-58:11:09.6   |      | 1.17    | 00:09      | 1x200    |                        |           |        |         | WRONG TARGET??  |
|                | 21:16:08.17 -58:11:09.6    |      |         |            |          |                        |           |        |         |   |
| 161-163        | ↓ OBS421 ↓                 |      | 1.16    | 00:17      | 3x200    |                        |           |        |         | ARM WAS IN BRIGHT SKYLINES  |
| 164            | Comp-arc                   |      | 1.15    | 00:33      | 1x0.3    |                        |           |        |         |   |
| 165-167        | SSSJ222030.7-004105        |      | 1.26    | 00:57      | 3x300    |                        |           |        |         |   |
|                | OBS297                     |      |         |            |          |                        |           |        |         |   |
| 168            | Comp-arc                   |      | 1.21    |            | 1x0.3    |                        |           |        |         |   |
| 169-171        | SSSJ225403.0-012241        |      | 1.26    | 01:28      | 3x240    |                        |           |        |         |   |
|                | OBS306                     |      |         |            |          |                        |           |        |         |   |
| 172            | Comp-arc                   |      | 1.22    | 01:47      | 1x0.3    |                        |           |        |         | Temp = 5.3<br>Focus = 1531  |
| 173-175        | ATLAS J001059.34-380657.58 |      | 1.18    | 01:52      | 3x250    |                        |           |        |         |   |
|                | OBS331                     |      |         |            |          |                        |           |        |         |   |
| 176            | comp ARC                   |      | 1.14    | 02:09      | 1x0.3    |                        |           |        |         |   |
|                | "2" not "9"                |      |         |            |          |                        |           |        |         |   |
| 177-179        | GAIA J220219.09-553214.7   |      | 1.11    | 02:18      | 3x50     |                        |           |        |         | odd shape; lines not too broad<br><del>not too narrow and close</del> |
|                | obj 488                    |      |         |            |          |                        |           |        |         |   |
| 180            | comp                       |      |         | 02:28      | 1x0.3    |                        |           |        |         |   |
| 181-183        | GAIA J22036.50-433116.4    |      | 1.03    | 02:38      | 3x50     |                        |           |        |         | NAMED DIFFERENTLY<br>0181 - GAIA J22036.fts<br>danner productions     |
|                | obj 489                    |      |         |            |          |                        |           |        |         |   |


# Goodman Spectrograph

|                                 |                          |        |        |
|---------------------------------|--------------------------|--------|--------|
| Date (UT): _____                |                          | Filter | Offset |
| Night # _____ Page # <u>3/6</u> |                          | 2f2    |        |
| Observer (s) _____              |                          | 3f2    |        |
| Assistant _____                 |                          | 4f2    |        |
|                                 | Detector : _____         | Filter | Offset |
|                                 | Gain Setting: _____ =ADU | 1f1    | 4f1    |
|                                 | X sum _____ Y sum _____  | 2f1    | 5f1    |
|                                 | Amplifiers _____         | 3f1    | 1f2    |
|                                 |                          | 5f2    |        |



| Picture Number | Object Name / type        |      | Airmass | Begin U.T  | Exposure | Tel focus/ Instr Focus | Seeing    | FILTER | Grating | Comments   |
|----------------|---------------------------|------|---------|------------|----------|------------------------|-----------|--------|---------|--|
|                | R. A.                     | DEC. | Epoch   | Begin H.A. |          | Spect/Direct           | Sky cond. | Slit   | Center  |  |
| 184            | Comp Arc                  |      |         |            |          |                        |           |        |         | Same naming convention as 0181, but with comp. GAIA..    |
| 185-187        | GAIAJ220255.62-571354.0   |      | 1.13    | 02:49      | 3x50     |                        |           |        |         | seeing .75   |
| 188            | comp arc                  |      |         | 02:56      | 1x0.3    |                        |           |        |         |  |
| 189-191        | GAIAJ220533-570352.0      |      | 1.13    | 03:04      | 3x50     |                        |           |        |         | odd shape again, but fine                                |
| 192            | comp arc                  |      |         | 03:10      | 1x0.3    |                        |           |        |         |  |
| 193-195        | SSSJ222851.6-455058       |      | 1.05    | 03:15      | 3x130    |                        |           |        |         | Nice! Great lines  |
| 196            | comp arc                  |      |         | 03:24      | 1x0.3    |                        |           |        |         |  |
| 197            | SSSJ230010.0-480129       |      | 1.05    | 03:29      | 1x150    |                        |           |        |         | No obvious Balmer lines<br>Likely not WD.                |
| 198-200        | SSSJ230153.6-001313       |      | 1.17    | 03:45      | 3x250    |                        |           |        |         | Fairly strong sky lines, but likely WD. Maybe magnetic?  |
| 201            | comp arc                  |      |         | 04:02      | 1x0.3    |                        |           |        |         |  |
| 202            | SSSJ230339.0+014321       |      | 1.22    | 04:13      | 1x250    |                        |           |        |         | Galaxy? Probably not WD<br>Moving on after one exposure. |
| 203-205        | ATLASJ013349.57-390944.05 |      | 1.05    | 04:34      | 3x300    |                        |           |        |         | Very bright sky.   |

# Goodman Spectrograph

|                                 |   |        |        |  |
|---------------------------------|---|--------|--------|--|
| Date (UT): _____                | Detector : _____<br>Gain Setting: _____ =ADU<br>X sum _____ Y sum _____<br>Amplifiers _____ | Filter | Offset |  |
| Night # _____ Page # <u>4/6</u> |   | 2f2    |        |  |
| Observer (s) _____              |   | 3f2    |        |  |
| Assistant _____                 |   | 4f2    |        |  |
|                                 |   | 5f2    |        |  |

| Picture Number | Object Name / type                    |      | Airmass | Begin U.T. | Exposure | Tel focus/ Instr Focus | Seeing    | FILTER | Grating | Comments  |
|----------------|---------------------------------------|------|---------|------------|----------|------------------------|-----------|--------|---------|---|
|                | R. A.                                 | DEC. | Epoch   | Begin H.A. |          | Spect/Direct           | Sky cond. | Slit   | Center  |   |
| 206            | comp arc                              |      |         | 04:55      | 1 x 0.3  |                        |           |        |         |   |
| 207-209        | ATLAS J014010.47-345925.36<br>obj 352 |      | 1.02    | 05:19      | 3 x 180  |                        |           |        |         | Surprisingly, the sky/clouds didn't screw this up too much. |
| 210            | comp arc                              |      |         | 05:32      | 1 x 0.3  |                        |           |        |         | Martin did this one!<br>(and he continues...)               |
| 211-213        | ATLAS J013942.81-344239.87<br>obj 351 |      | 1.00    | 05:50      | 3 x 80   |                        |           |        |         | Good Balmer lines   |
| 214            | comp arc                              |      |         | 05:58      | 1 x 0.3  |                        |           |        |         |   |
| 215-217        | ATLAS J013516.36-383133.77<br>obj 350 |      | 1.01    | 06:05      | 3 x 300  |                        |           |        |         | Good Balmer lines   |
| 218            | comp arc                              |      |         | 06:23      | 1 x 0.3  |                        |           |        |         |   |
| 219-221        | ATLAS J013309.11-270545.03<br>obj 348 |      | 1.02    | 06:29      | 3 x 270  |                        |           |        |         |   |
| 222            | comp arc                              |      |         | 06:47      | 1 x 0.3  |                        |           |        |         |   |
| 223-225        | ATLAS J010836.04-323743.70<br>obj 344 |      | 1.06    | 06:51      | 3 x 60   |                        |           |        |         | Great Balmer lines  |
| 226            | comp arc                              |      |         | 06:56      | 1 x 0.3  |                        |           |        |         |   |
| 227-229        | ATLAS J012058.78-162247.14<br>obj 346 |      | 1.10    | 07:01      | 3 x 80   |                        |           |        |         |   |

# Goodman Spectrograph

Date (UT): 28-29 SEP 2018 (CIVIL)

Night # 1/5 Page # 5/6

Observer (s) \_\_\_\_\_

Assistant \_\_\_\_\_

Detector : \_\_\_\_\_  
 Gain Setting: \_\_\_\_\_ =ADU  
 X sum \_\_\_\_\_ Y sum \_\_\_\_\_  
 Amplifiers \_\_\_\_\_

| Filter |  | Offset |  |
|--------|--|--------|--|
| 1f1    |  | 4f1    |  |
| 2f1    |  | 5f1    |  |
| 3f1    |  | 1f2    |  |
|        |  | 2f2    |  |
|        |  | 3f2    |  |
|        |  | 4f2    |  |
|        |  | 5f2    |  |



| Picture Number | Object Name / type                    |      | Airmass | Begin U.T  | Exposure | Tel focus/ Instr Focus | Seeing    | FILTER | Grating | Comments  |
|----------------|---------------------------------------|------|---------|------------|----------|------------------------|-----------|--------|---------|---|
|                | R. A.                                 | DEC. | Epoch   | Begin H.A. |          | Spect/Direct           | Sky cond. | Slit   | Center  |   |
| 230            | comp arc                              |      |         | 07:07      | 1x0.3    |                        |           |        |         |   |
| 231-233        | ATLAS J012655.95-253053.88<br>obj 347 |      | 1.08    | 07:12      | 3x130    |                        |           |        |         | Bright sky line, but average reveals Balmer lines |
| 234            | comp arc                              |      |         | 07:21      | 1x0.3    |                        |           |        |         |   |
| 235-237        | ATLAS J020417.89-301052.02<br>obj 358 |      | 1.03    | 07:26      | 3x80     |                        |           |        |         |   |
| 238            | comp arc                              |      |         |            | 1x0.3    |                        |           |        |         |   |
| 239-241        | ATLAS J033533.68-345002.13<br>obj 383 |      | 1.00    | 0737       | 3x90     |                        |           |        |         | Seeing .86"<br>Temp 4.7<br>Humidity 58.1          |
| 242            | COMP-ARC                              |      |         |            | 1x0.3    |                        |           |        |         |   |
| 243-245        | ATLAS J022436.14-261651.87<br>obj 365 |      | 1.05    | 0751       | 3x70     |                        |           |        |         |   |
| 246            | COMP ARC                              |      |         |            | 1x0.3    |                        |           |        |         |   |
| 247-249        | ATLAS J021356.67-281022.27<br>obj 361 |      | 1.07    | 0801       | 3x50     |                        |           |        |         |   |
| 250            | COMP ARC                              |      |         |            | 1x0.3    |                        |           |        |         |   |
| 251-253        | GAIA J021644.61-334522.4<br>obj 754   |      | 1.09    |            | 3x50     |                        |           |        |         | ??  |

# Goodman Spectrograph

Date (UT): 28-29 Sept. 2018 (CIVIL)

Night # 15 Page # 6/6

Observer (s) \_\_\_\_\_

Assistant \_\_\_\_\_

Detector : \_\_\_\_\_

Gain Setting: \_\_\_\_\_ =ADU

X sum \_\_\_\_\_ Y sum \_\_\_\_\_

Amplifiers \_\_\_\_\_

Filter

Offset

2f2

3f2

4f2

5f2

| Filter | Offset | Filter | Offset |
|--------|--------|--------|--------|
| 1f1    |        | 4f1    |        |
| 2f1    |        | 5f1    |        |
| 3f1    |        | 1f2    |        |



| Picture Number | Object Name / type                 |      | Airmass | Begin U.T  | Exposure       | Tel focus/ Instr Focus | Seeing    | FILTER | Grating | Comments              |
|----------------|------------------------------------|------|---------|------------|----------------|------------------------|-----------|--------|---------|-----------------------|
|                | R.A.                               | DEC. | Epoch   | Begin H.A. |                | Spect/Direct           | Sky cond. | Slit   | Center  |                       |
| 254            | Comp REC                           |      |         |            | 1x0.3          |                        |           |        |         |                       |
| <del>255</del> | <del>GATAJ074159.91-370154.8</del> |      |         |            | <del>x35</del> |                        |           |        |         | Too cloudy to observe |
|                | Obj 813                            |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |
|                |                                    |      |         |            |                |                        |           |        |         |                       |