

# Observing Plan for Station Control (LCU)

## MPIfR Effelsberg LOFAR Station

### 2013-07-15 through 2013-07-28

| Date       |    | CEST                        |    |   |   |   |   |    |         |                             |   |                            |    |                            |    |    |    |    |    |    |    |    |    |    |        | Code Markers |    |
|------------|----|-----------------------------|----|---|---|---|---|----|---------|-----------------------------|---|----------------------------|----|----------------------------|----|----|----|----|----|----|----|----|----|----|--------|--------------|----|
|            |    | 0                           | 1  | 2 | 3 | 4 | 5 | 6  | 7       | 8                           | 9 | 10                         | 11 | 12                         | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23     |              | 0  |
| 2013-07-15 | Mo |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-16 | Tu |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-17 | We |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-18 | Th |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-19 | Fr |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-20 | Sa |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-21 | Su |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-22 | Mo | ELI2013-000 ILT Operations  |    |   |   |   |   |    |         |                             |   | *0                         |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-23 | Tu |                             |    |   |   |   |   | *1 |         | ELI2013-0070 Koehler et al. |   |                            |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-24 | We | ELI2013-0070 Koehler et al. |    |   |   |   |   |    |         |                             |   | *0                         |    | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-25 | Th |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-26 | Fr |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-27 | Sa |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-28 | Su |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| UTC        |    | 22                          | 23 | 0 | 1 | 2 | 3 | 4  | 5       | 6                           | 7 | 8                          | 9  | 10                         | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21     | 22           |    |
| LST        |    |                             |    |   |   |   |   | 0  | Sunrise |                             |   |                            |    |                            |    |    | 6  |    |    |    |    |    |    | 12 | Sunset |              | 18 |

#### Normal Experiment Code Markers

- 0 ELM2013-012 Kuniyoshi, Horneff
- 1 ELP2013-004 Kuniyoshi & Takefu

#### Other Code Markers

#### Color Meanings

- |                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for Transient Buffer Boards

## MPIfR Effelsberg LOFAR Station

### 2013-07-15 through 2013-07-28

| Date       |    | CEST                        |    |   |   |   |   |    |         |                             |   |                            |    |                            |    |    |    |    |    |    |    |    |    |    |        | Code Markers |    |
|------------|----|-----------------------------|----|---|---|---|---|----|---------|-----------------------------|---|----------------------------|----|----------------------------|----|----|----|----|----|----|----|----|----|----|--------|--------------|----|
|            |    | 0                           | 1  | 2 | 3 | 4 | 5 | 6  | 7       | 8                           | 9 | 10                         | 11 | 12                         | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23     |              | 0  |
| 2013-07-15 | Mo |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-16 | Tu |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-17 | We |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-18 | Th |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-19 | Fr |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-20 | Sa |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-21 | Su |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-22 | Mo | ELI2013-000 ILT Operations  |    |   |   |   |   |    |         |                             |   | *0                         |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-23 | Tu |                             |    |   |   |   |   | *1 |         | ELI2013-0070 Koehler et al. |   |                            |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-24 | We | ELI2013-0070 Koehler et al. |    |   |   |   |   |    |         |                             |   | *0                         |    | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-25 | Th |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-26 | Fr |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-27 | Sa |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-28 | Su |                             |    |   |   |   |   |    |         |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| UTC        |    | 22                          | 23 | 0 | 1 | 2 | 3 | 4  | 5       | 6                           | 7 | 8                          | 9  | 10                         | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21     | 22           |    |
| LST        |    |                             |    |   |   |   |   | 0  | Sunrise |                             |   |                            |    |                            |    |    | 6  |    |    |    |    |    |    | 12 | Sunset |              | 18 |

#### Normal Experiment Code Markers

- 0 ELM2013-012 Kuniyoshi, Horneff
- 1 ELP2013-004 Kuniyoshi & Takefu

#### Other Code Markers

#### Color Meanings

- |                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for HBA MPIfR Effelsberg LOFAR Station 2013-07-15 through 2013-07-28

For any publication based on observations with the Effelsberg LOFAR station, please use the following acknowledgment: "Based on observations made with the Effelsberg LOFAR station of the Max-Planck-Institut für Radioastronomie (MPIfR) at Effelsberg."

| Date          | CEST                        |    |   |   |   |   |   |         |    |   |                             |    |                            |    |    |    |    |    |    |    |    |    |    |        | Code Markers |    |
|---------------|-----------------------------|----|---|---|---|---|---|---------|----|---|-----------------------------|----|----------------------------|----|----|----|----|----|----|----|----|----|----|--------|--------------|----|
|               | 0                           | 1  | 2 | 3 | 4 | 5 | 6 | 7       | 8  | 9 | 10                          | 11 | 12                         | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23     |              | 0  |
| 2013-07-15 Mo |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-16 Tu |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-17 We |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-18 Th |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-19 Fr |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-20 Sa |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-21 Su |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-22 Mo | ELI2013-000 ILT Operations  |    |   |   |   |   |   |         |    |   | *0                          |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-23 Tu |                             |    |   |   |   |   |   |         | *0 |   | ELI2013-0070 Koehler et al. |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-24 We | ELI2013-0070 Koehler et al. |    |   |   |   |   |   |         |    |   | *0                          |    | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-25 Th |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-26 Fr |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-27 Sa |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-28 Su |                             |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations  |    |                            |    |    |    |    |    |    |    |    |    |    |        |              |    |
| <b>UTC</b>    | 22                          | 23 | 0 | 1 | 2 | 3 | 4 | 5       | 6  | 7 | 8                           | 9  | 10                         | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21     | 22           |    |
| <b>LST</b>    |                             |    |   |   |   |   | 0 | Sunrise |    |   |                             |    |                            |    |    | 6  |    |    |    |    |    |    | 12 | Sunset |              | 18 |

**Normal Experiment Code Markers**

0 ELM2013-012 Kuniyoshi, Horneff

**Other Code Markers**

**Color Meanings**

|                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for Low Band High (LBA) MPIfR Effelsberg LOFAR Station 2013-07-15 through 2013-07-28

For any publication based on observations with the Effelsberg LOFAR station, please use the following acknowledgment: "Based on observations made with the Effelsberg LOFAR station of the Max-Planck-Institut für Radioastronomie (MPIfR) at Effelsberg."

| Date       |    | CEST                        |    |   |   |   |   |           |   |                             |   |                            |    |                            |    |    |    |    |    |    |    |    |    |    |    | Code Markers |   |    |  |
|------------|----|-----------------------------|----|---|---|---|---|-----------|---|-----------------------------|---|----------------------------|----|----------------------------|----|----|----|----|----|----|----|----|----|----|----|--------------|---|----|--|
|            |    | 0                           | 1  | 2 | 3 | 4 | 5 | 6         | 7 | 8                           | 9 | 10                         | 11 | 12                         | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |              | 0 |    |  |
| 2013-07-15 | Mo |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-16 | Tu |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-17 | We |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-18 | Th |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-19 | Fr |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-20 | Sa |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-21 | Su |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-22 | Mo | ELI2013-000 ILT Operations  |    |   |   |   |   |           |   |                             |   | *0                         |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-23 | Tu |                             |    |   |   |   |   | *1        |   | ELI2013-0070 Koehler et al. |   |                            |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-24 | We | ELI2013-0070 Koehler et al. |    |   |   |   |   |           |   |                             |   | *0                         |    | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-25 | Th |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-26 | Fr |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-27 | Sa |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| 2013-07-28 | Su |                             |    |   |   |   |   |           |   |                             |   | ELI2013-000 ILT Operations |    |                            |    |    |    |    |    |    |    |    |    |    |    |              |   |    |  |
| UTC        |    | 22                          | 23 | 0 | 1 | 2 | 3 | 4         | 5 | 6                           | 7 | 8                          | 9  | 10                         | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22           |   |    |  |
| LST        |    |                             |    |   |   |   |   | 0 Sunrise |   |                             |   |                            |    |                            |    | 6  |    |    |    |    |    |    |    | 12 |    | Sunset       |   | 18 |  |

### Normal Experiment Code Markers

- 0 ELM2013-012 Kuniyoshi, Horneff
- 1 ELP2013-004 Kuniyoshi & Takefu

### Other Code Markers

### Color Meanings

- |                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for Low Band Low, Unused Inputs

## MPIfR Effelsberg LOFAR Station

### 2013-07-15 through 2013-07-28

For any publication based on observations with the Effelsberg LOFAR station, please use the following acknowledgment: "Based on observations made with the Effelsberg LOFAR station of the Max-Planck-Institut für Radioastronomie (MPIfR) at Effelsberg."

| Date          | CEST                       |    |   |   |   |   |   |         |    |   |                            |    |    |    |    |    |    |    |    |    |    |    |    |    | Code Markers |   |  |  |        |    |  |
|---------------|----------------------------|----|---|---|---|---|---|---------|----|---|----------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------|---|--|--|--------|----|--|
|               | 0                          | 1  | 2 | 3 | 4 | 5 | 6 | 7       | 8  | 9 | 10                         | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |              | 0 |  |  |        |    |  |
| 2013-07-15 Mo |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-16 Tu |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-17 We |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-18 Th |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-19 Fr |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-20 Sa |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-21 Su |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-22 Mo | ELI2013-000 ILT Operations |    |   |   |   |   |   |         |    |   | *0                         |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-23 Tu |                            |    |   |   |   |   |   |         |    |   |                            |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-24 We |                            |    |   |   |   |   |   |         | *0 |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-25 Th |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-26 Fr |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-27 Sa |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| 2013-07-28 Su |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |    |              |   |  |  |        |    |  |
| UTC           | 22                         | 23 | 0 | 1 | 2 | 3 | 4 | 5       | 6  | 7 | 8                          | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22           |   |  |  |        |    |  |
| LST           |                            |    |   |   |   |   | 0 | Sunrise |    |   |                            |    |    |    | 6  |    |    |    |    |    |    | 12 |    |    |              |   |  |  | Sunset | 18 |  |

#### Normal Experiment Code Markers

0 ELM2013-012 Kuniyoshi, Horneff

#### Other Code Markers

#### Color Meanings

|                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for Station Interferometer

## MPIfR Effelsberg LOFAR Station

### 2013-07-15 through 2013-07-28

For any publication based on observations with the Effelsberg LOFAR station, please use the following acknowledgment: "Based on observations made with the Effelsberg LOFAR station of the Max-Planck-Institut für Radioastronomie (MPIfR) at Effelsberg."

| Date       |    | CEST                       |    |   |   |   |   |   |         |    |   |                            |    |    |    |    |    |    |    |    |    |    |    |    |        | Code Markers |    |
|------------|----|----------------------------|----|---|---|---|---|---|---------|----|---|----------------------------|----|----|----|----|----|----|----|----|----|----|----|----|--------|--------------|----|
|            |    | 0                          | 1  | 2 | 3 | 4 | 5 | 6 | 7       | 8  | 9 | 10                         | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23     |              | 0  |
| 2013-07-15 | Mo |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-16 | Tu |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-17 | We |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-18 | Th |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-19 | Fr |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-20 | Sa |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-21 | Su |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-22 | Mo | ELI2013-000 ILT Operations |    |   |   |   |   |   |         |    |   | *0                         |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-23 | Tu |                            |    |   |   |   |   |   |         |    |   |                            |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-24 | We |                            |    |   |   |   |   |   |         | *0 |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-25 | Th |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-26 | Fr |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-27 | Sa |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-28 | Su |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| UTC        |    | 22                         | 23 | 0 | 1 | 2 | 3 | 4 | 5       | 6  | 7 | 8                          | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21     | 22           |    |
| LST        |    |                            |    |   |   |   |   | 0 | Sunrise |    |   |                            |    |    |    |    | 6  |    |    |    |    |    |    | 12 | Sunset |              | 18 |

#### Normal Experiment Code Markers

0 ELM2013-012 Kuniyoshi, Horneff

#### Other Code Markers

#### Color Meanings

|                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for IofarAN Computers

## MPIfR Effelsberg LOFAR Station

### 2013-07-15 through 2013-07-28

For any publication based on observations with the Effelsberg LOFAR station, please use the following acknowledgment: "Based on observations made with the Effelsberg LOFAR station of the Max-Planck-Institut für Radioastronomie (MPIfR) at Effelsberg."

| Date          | CEST                        |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    | Code Markers |
|---------------|-----------------------------|----|---|---|---|---|---|---|-----------------------------|---|----|----|----|----|----|----|----|----|-----------|----|----|----|----|----|--------------|
|               | 0                           | 1  | 2 | 3 | 4 | 5 | 6 | 7 | 8                           | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18        | 19 | 20 | 21 | 22 | 23 |              |
| 2013-07-15 Mo | ELG2013-000U Koehler et al. |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-16 Tu | ELG2013-000U Koehler et al. |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-17 We | ELG2013-000U Koehler et al. |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-18 Th | ELG2013-000U Koehler et al. |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-19 Fr | ELG2013-000U Koehler et al. |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-20 Sa | ELG2013-000U Koehler et al. |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-21 Su | ELG2013-000U Koehler et al. |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-22 Mo | ELG2013-000U Koehler et al. |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-23 Tu |                             |    |   |   |   |   |   |   | ELI2013-007O Koehler et al. |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-24 We | ELI2013-007O Koehler et al. |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-25 Th |                             |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-26 Fr |                             |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-27 Sa |                             |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| 2013-07-28 Su |                             |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
| UTC           | 22                          | 23 | 0 | 1 | 2 | 3 | 4 | 5 | 6                           | 7 | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22           |
| LST           |                             |    |   |   |   |   |   |   |                             |   |    |    |    |    |    |    |    |    |           |    |    |    |    |    |              |
|               | 0 Sunrise                   |    |   |   |   |   | 6 |   |                             |   |    |    | 12 |    |    |    |    |    | Sunset 18 |    |    |    |    |    |              |

#### Normal Experiment Code Markers

0 ELM2013-012 Kuniyoshi, Horneff

#### Other Code Markers

\*0

#### Color Meanings

|                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for IofarBN Computers MPIfR Effelsberg LOFAR Station 2013-07-15 through 2013-07-28

For any publication based on observations with the Effelsberg LOFAR station, please use the following acknowledgment: "Based on observations made with the Effelsberg LOFAR station of the Max-Planck-Institut für Radioastronomie (MPIfR) at Effelsberg."

| Date          | CEST                        |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    | Code Markers |   |  |    |
|---------------|-----------------------------|----|---|---|---|---|----|---------|-----------------------------|---|----|----|----|----|----|----|----|----|----|----|----|--------|----|----|--------------|---|--|----|
|               | 0                           | 1  | 2 | 3 | 4 | 5 | 6  | 7       | 8                           | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21     | 22 | 23 |              | 0 |  |    |
| 2013-07-15 Mo | ELG2013-000U Koehler et al. |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-16 Tu | ELG2013-000U Koehler et al. |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-17 We | ELG2013-000U Koehler et al. |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-18 Th | ELG2013-000U Koehler et al. |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-19 Fr | ELG2013-000U Koehler et al. |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-20 Sa | ELG2013-000U Koehler et al. |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-21 Su | ELG2013-000U Koehler et al. |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-22 Mo | ELG2013-000U Koehler et al. |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-23 Tu |                             |    |   |   |   |   | *1 |         | ELI2013-007O Koehler et al. |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-24 We | ELI2013-007O Koehler et al. |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-25 Th |                             |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-26 Fr |                             |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-27 Sa |                             |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| 2013-07-28 Su |                             |    |   |   |   |   |    |         |                             |   |    |    |    |    |    |    |    |    |    |    |    |        |    |    |              |   |  |    |
| UTC           | 22                          | 23 | 0 | 1 | 2 | 3 | 4  | 5       | 6                           | 7 | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19     | 20 | 21 | 22           |   |  |    |
| LST           |                             |    |   |   |   |   | 0  | Sunrise |                             |   |    |    |    | 6  |    |    |    |    |    |    | 12 | Sunset |    |    |              |   |  | 18 |

### Normal Experiment Code Markers

- 0 ELM2013-012 Kuniyoshi, Horneff
- 1 ELP2013-004 Kuniyoshi & Takefu

### Other Code Markers

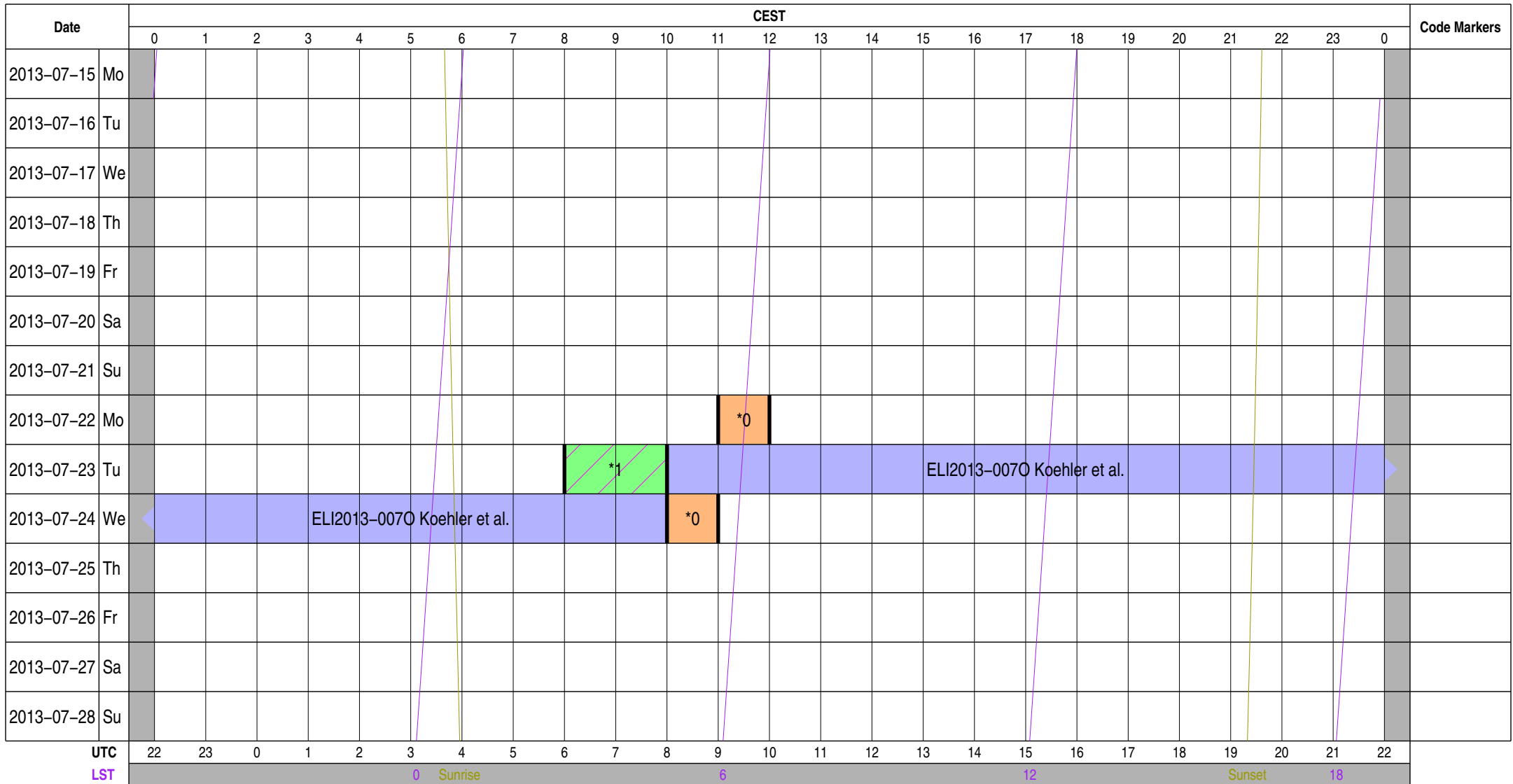
### Color Meanings

- |                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |



# Observing Plan for lofarx Computer MPIfR Effelsberg LOFAR Station 2013-07-15 through 2013-07-28

For any publication based on observations with the Effelsberg LOFAR station, please use the following acknowledgment: "Based on observations made with the Effelsberg LOFAR station of the Max-Planck-Institut für Radioastronomie (MPIfR) at Effelsberg."



**Normal Experiment Code Markers**

- 0 ELM2013-012 Kuniyoshi, Horneff
- 1 ELP2013-004 Kuniyoshi & Takefu

**Other Code Markers**

\*0

\*1

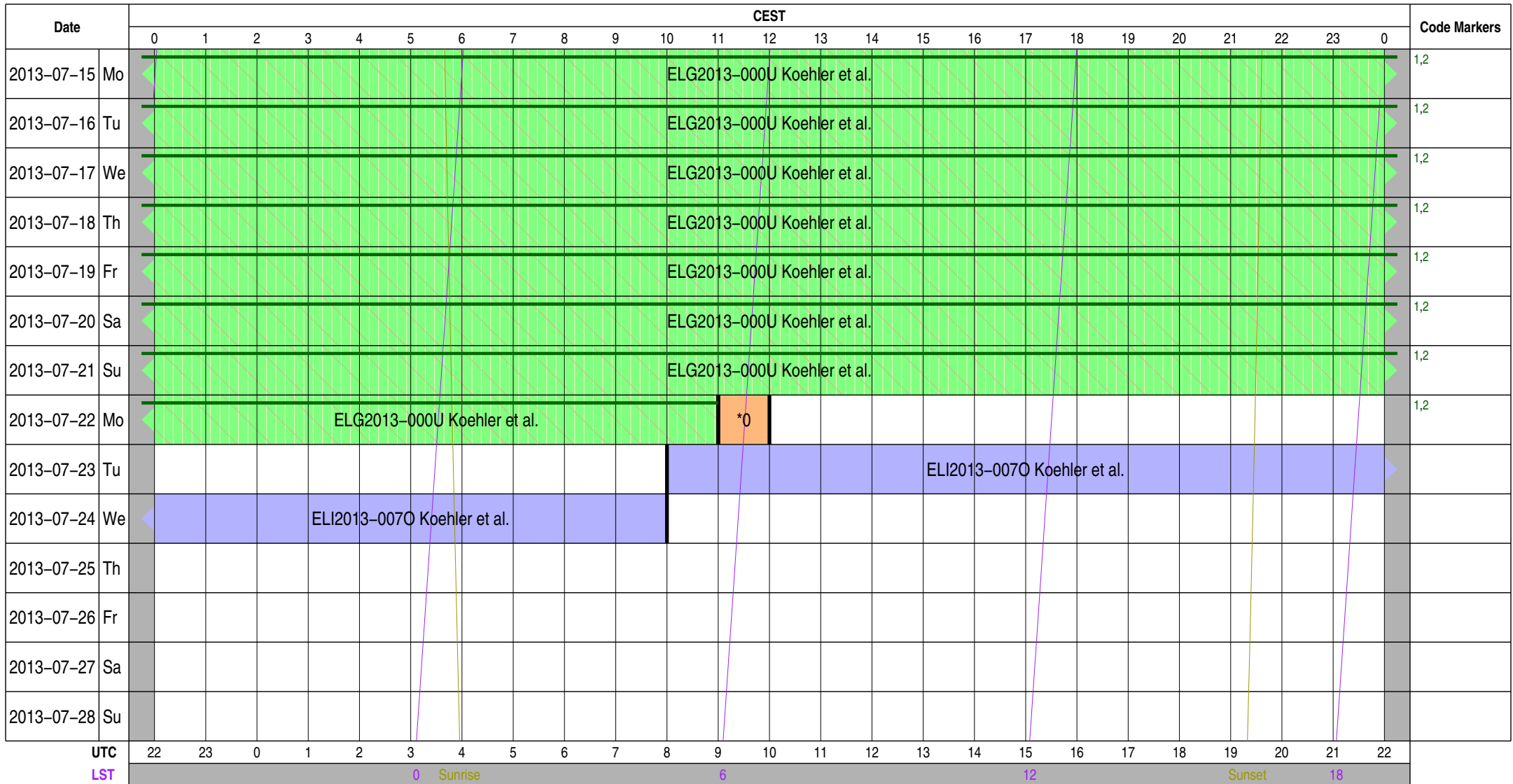
\*0

**Color Meanings**

- |                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for Iofarsrv Computer MPIfR Effelsberg LOFAR Station 2013-07-15 through 2013-07-28

For any publication based on observations with the Effelsberg LOFAR station, please use the following acknowledgment: "Based on observations made with the Effelsberg LOFAR station of the Max-Planck-Institut für Radioastronomie (MPIfR) at Effelsberg."



### Normal Experiment Code Markers

0 ELM2013-012 Kuniyoshi, Horneff

### Other Code Markers

- 1 ELE2013-000B Horneffer
- 2 ELE2013-000C Horneffer

### Color Meanings

- |                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for LOFAR Fiber Connection

## MPIfR Effelsberg LOFAR Station

### 2013-07-15 through 2013-07-28

| Date       |    | CEST                       |    |   |   |   |   |   |         |    |   |                            |    |    |    |    |    |    |    |    |    |    |    |    |        | Code Markers |    |
|------------|----|----------------------------|----|---|---|---|---|---|---------|----|---|----------------------------|----|----|----|----|----|----|----|----|----|----|----|----|--------|--------------|----|
|            |    | 0                          | 1  | 2 | 3 | 4 | 5 | 6 | 7       | 8  | 9 | 10                         | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23     |              | 0  |
| 2013-07-15 | Mo |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    | 1  |    |    |        |              |    |
| 2013-07-16 | Tu |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    | 1  |    |    |        |              |    |
| 2013-07-17 | We |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    | 1  |    |    |        |              |    |
| 2013-07-18 | Th |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    | 1  |    |    |        |              |    |
| 2013-07-19 | Fr |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    | 1  |    |    |        |              |    |
| 2013-07-20 | Sa |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    | 1  |    |    |        |              |    |
| 2013-07-21 | Su |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    | 1  |    |    |        |              |    |
| 2013-07-22 | Mo | ELI2013-000 ILT Operations |    |   |   |   |   |   |         | *0 |   |                            |    |    |    |    |    |    |    |    |    |    |    |    |        | 1            |    |
| 2013-07-23 | Tu |                            |    |   |   |   |   |   |         |    |   |                            |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-24 | We |                            |    |   |   |   |   |   |         | *0 |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-25 | Th |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-26 | Fr |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-27 | Sa |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| 2013-07-28 | Su |                            |    |   |   |   |   |   |         |    |   | ELI2013-000 ILT Operations |    |    |    |    |    |    |    |    |    |    |    |    |        |              |    |
| UTC        |    | 22                         | 23 | 0 | 1 | 2 | 3 | 4 | 5       | 6  | 7 | 8                          | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21     | 22           |    |
| LST        |    |                            |    |   |   |   |   | 0 | Sunrise |    |   |                            |    |    |    |    | 6  |    |    |    |    |    |    | 12 | Sunset |              | 18 |

#### Normal Experiment Code Markers

0 ELM2013-012 Kuniyoshi, Horneff

#### Other Code Markers

1 ELE2013-0008 Horneff

#### Color Meanings

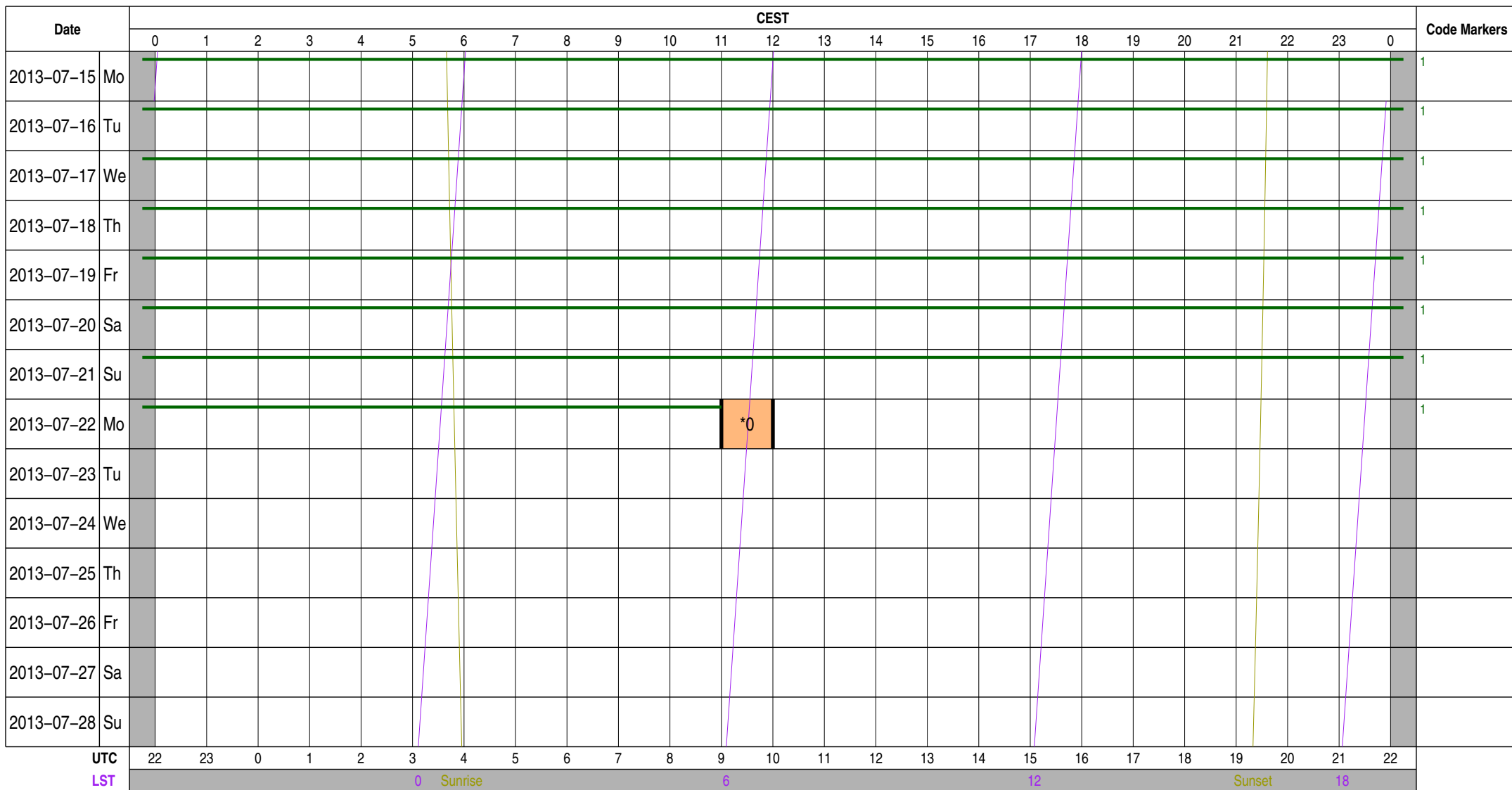
|                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for LOFAR Bonn--EF Fiber Connection

## MPIfR Effelsberg LOFAR Station

### 2013-07-15 through 2013-07-28

For any publication based on observations with the Effelsberg LOFAR station, please use the following acknowledgment: "Based on observations made with the Effelsberg LOFAR station of the Max-Planck-Institut für Radioastronomie (MPIfR) at Effelsberg."



#### Normal Experiment Code Markers

0 ELM2013-012 Kuniyoshi, Horneff

#### Other Code Markers

1 ELE2013-0008 Horneff

#### Color Meanings

|                           |                          |                   |                           |
|---------------------------|--------------------------|-------------------|---------------------------|
| Science A (Astrometry)    | Science O (Other)        | ILT Mode          | Piggyback Without Control |
| Science C (Cosmology)     | Science P (Pulsar)       | Effelsberg Mode   | Experiment Warning        |
| Science E (Extragalactic) | Science R (Cosmic Rays)  | GLOW Mode         | Override Possible         |
| Science G (Galactic)      | Science S (Solar System) | Juelich Mode      |                           |
| Science H (Ionosphere)    | Test Observation         | Station Failure   |                           |
| Science N (AGN)           | Maintenance Mode         | Piggyback Control |                           |

# Observing Plan for Operator On-Duty

## MPIfR Effelsberg LOFAR Station

### 2013-07-15 through 2013-07-28

For any publication based on observations with the Effelsberg LOFAR station, please use the following acknowledgment: "Based on observations made with the Effelsberg LOFAR station of the Max-Planck-Institut für Radioastronomie (MPIfR) at Effelsberg."

| Date       |    | CEST |   |   |   |   |   |   |   |   |   |                       |    |    |    |    |    |    |    |    |    |    |    |    |    | Code Markers |
|------------|----|------|---|---|---|---|---|---|---|---|---|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------|
|            |    | 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |              |
| 2013-07-15 | Mo |      |   |   |   |   |   |   |   |   |   | ELD2013-002 Kuniyoshi |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-16 | Tu |      |   |   |   |   |   |   |   |   |   | ELD2013-002 Kuniyoshi |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-17 | We |      |   |   |   |   |   |   |   |   |   | ELD2013-002 Kuniyoshi |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-18 | Th |      |   |   |   |   |   |   |   |   |   | ELD2013-002 Kuniyoshi |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-19 | Fr |      |   |   |   |   |   |   |   |   |   | ELD2013-002 Kuniyoshi |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-20 | Sa |      |   |   |   |   |   |   |   |   |   | ELD2013-002 Kuniyoshi |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-21 | Su |      |   |   |   |   |   |   |   |   |   | ELD2013-002 Kuniyoshi |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-22 | Mo |      |   |   |   |   |   |   |   |   |   | ELD2013-002 Kuniyoshi |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-23 | Tu |      |   |   |   |   |   |   |   |   |   | ELD2013-002 Kuniyoshi |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-24 | We |      |   |   |   |   |   |   |   |   |   | ELD2013-002 Kuniyoshi |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-25 | Th |      |   |   |   |   |   |   |   |   |   | ELD2013-001 Anderson  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-26 | Fr |      |   |   |   |   |   |   |   |   |   | ELD2013-001 Anderson  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-27 | Sa |      |   |   |   |   |   |   |   |   |   | ELD2013-001 Anderson  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |
| 2013-07-28 | Su |      |   |   |   |   |   |   |   |   |   | ELD2013-001 Anderson  |    |    |    |    |    |    |    |    |    |    |    |    |    |              |

UTC 22 23 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22  
 LST 0 Sunrise 6 12 Sunset 18

Normal Experiment Code Markers

Other Code Markers

Color Meanings

- 100 m Operator
- Anderson
- Kuniyoshi
- Horneffer
- Other
- Unknown

## Experiment Information for Normal Observations

|                    |                                       |                                     |                        |  |
|--------------------|---------------------------------------|-------------------------------------|------------------------|--|
| <b>ELG2013-000</b> | <b>Koehler et al.</b>                 | <b>jana@mpi-fr-bonn.mpg.de</b>      | <b>+49 228 525 533</b> | <b>LC0_044 Studying large-scale polarization properties of the</b> |
| ELG2013-000 U      | Koehler et al.                        | jana@mpi-fr-bonn.mpg.de             | +49 228 525 533        | LC0_044 Studying large-scale polarization properties of the        |
| ELG2013-000 U      | Koehler et al.                        | jana@mpi-fr-bonn.mpg.de             | +49 228 525 533        | LC0_044 Studying large-scale polarization properties of the        |
| <b>ELI2013-000</b> | <b>ILT Operations</b>                 | <b>observer@astron.nl</b>           | <b>+31 521 595 777</b> | <b>Main ILT Observations, ILT Operations only on-duty 9--17, M</b> |
| ELI2013-000        | ILT Operations                        | observer@astron.nl                  | +31 521 595 777        | Main ILT Observations, ILT Operations only on-duty 9--17, M        |
| ELI2013-000        | ILT Operations                        | observer@astron.nl                  | +31 521 595 777        | Main ILT Observations, ILT Operations only on-duty 9--17, M        |
| <b>ELI2013-007</b> | <b>Koehler et al.</b>                 | <b>jana@mpi-fr-bonn.mpg.de</b>      | <b>+49 228 525 533</b> | <b>LC0_044 Studying large-scale polarization properties of the</b> |
| ELI2013-007 O      | Koehler et al.                        | jana@mpi-fr-bonn.mpg.de             | +49 228 525 533        | LC0_044 Studying large-scale polarization properties of the        |
| <b>ELM2013-012</b> | <b>Kuniyoshi, Horneffer, Anderson</b> | <b>lofar-ops@mpi-fr-bonn.mpg.de</b> | <b>+49 228 525 356</b> | <b>Handover operations for local to ILT mode (MPIFR time)</b>      |
| ELM2013-012        | Kuniyoshi, Horneffer, Anderson        | lofar-ops@mpi-fr-bonn.mpg.de        | +49 228 525 356        | Handover operations for local to ILT mode (MPIFR time)             |
| ELM2013-012        | Kuniyoshi, Horneffer, Anderson        | lofar-ops@mpi-fr-bonn.mpg.de        | +49 228 525 356        | Handover operations for local to ILT mode (MPIFR time)             |
| <b>ELP2013-004</b> | <b>Kuniyoshi &amp; Takefuji</b>       | <b>mkuniyos@mpi-fr-bonn.mpg.de</b>  | <b>+49 228 525 505</b> | <b>Simultaneous observations of giant single pulses of Crab PS</b> |
| ELP2013-004        | Kuniyoshi & Takefuji                  | mkuniyos@mpi-fr-bonn.mpg.de         | +49 228 525 505        | Simultaneous observations of giant single pulses of Crab PS        |

## Experiment Information for Other Actions

| ELE2013-000   | Horneffer | horneff@mpifr-bonn.mpg.de | +49 228 525 505 | Data copying for LOFAR MKSP ILT data to Bonn |
|---------------|-----------|---------------------------|-----------------|--|
| ELE2013-000 B | Horneffer | horneff@mpifr-bonn.mpg.de | +49 228 525 505 | Data copying for LOFAR MKSP ILT data to Bonn |
| ELE2013-000 C | Horneffer | horneff@mpifr-bonn.mpg.de | +49 228 525 505 | Data copying for LOFAR MKSP ILT data to Bonn |

## Experiment Information for Operator On-Duty Schedule

|                    |                  |                                   |                        |                          |
|--------------------|------------------|-----------------------------------|------------------------|--------------------------|
| <b>ELD2013-001</b> | <b>Anderson</b>  | <b>anderson@mpifr-bonn.mpg.de</b> | <b>+49 228 525 356</b> | <b>Project Manager</b>   |
| ELD2013-001        | Anderson         | anderson@mpifr-bonn.mpg.de        | +49 228 525 356        | Project Manager          |
| <b>ELD2013-002</b> | <b>Kuniyoshi</b> | <b>mkuniyos@mpifr-bonn.mpg.de</b> | <b>+49 228 525 505</b> | <b>Project Scheduler</b> |
| ELD2013-002        | Kuniyoshi        | mkuniyos@mpifr-bonn.mpg.de        | +49 228 525 505        | Project Scheduler        |



## Time Usage [hours] for Normal Observations

| Experiment Code    | station       | TBB           | HBA           | LBH           | LBL           | interfe       | lofarAN       | lofarBN       | lofarx       | lofarsr       | fiber       | BN--EF_     | duty          |
|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|-------------|-------------|---------------|
| <b>ELG2013-000</b> |               |               |               |               |               |               | <b>179.00</b> | <b>179.00</b> |              | <b>179.00</b> |             |             |               |
| ELG2013-000 U      |               |               |               |               |               |               |               | 179.00        |              |               |             |             |               |
| ELG2013-000 U      |               |               |               |               |               |               | 179.00        |               |              | 179.00        |             |             |               |
| <b>ELI2013-000</b> | <b>288.00</b> | <b>288.00</b> | <b>288.00</b> | <b>288.00</b> | <b>288.00</b> | <b>288.00</b> |               |               |              |               |             |             | <b>288.00</b> |
| ELI2013-000        | 179.00        | 179.00        | 179.00        | 179.00        | 179.00        | 179.00        |               |               |              |               |             |             | 179.00        |
| ELI2013-000        | 109.00        | 109.00        | 109.00        | 109.00        | 109.00        | 109.00        |               |               |              |               |             |             | 109.00        |
| <b>ELI2013-007</b> | <b>24.00</b>  | <b>24.00</b>  | <b>24.00</b>  | <b>24.00</b>  |               |               | <b>24.00</b>  | <b>24.00</b>  | <b>24.00</b> | <b>24.00</b>  |             |             |               |
| ELI2013-007 O      | 24.00         | 24.00         | 24.00         | 24.00         |               |               | 24.00         | 24.00         | 24.00        | 24.00         |             |             |               |
| <b>ELM2013-012</b> | <b>2.00</b>   | <b>2.00</b>   | <b>2.00</b>   | <b>2.00</b>   | <b>2.00</b>   | <b>2.00</b>   | <b>1.00</b>   | <b>1.00</b>   | <b>2.00</b>  | <b>1.00</b>   | <b>2.00</b> | <b>1.00</b> |               |
| ELM2013-012        | 1.00          | 1.00          | 1.00          | 1.00          | 1.00          | 1.00          | 1.00          | 1.00          | 1.00         | 1.00          | 1.00        | 1.00        |               |
| ELM2013-012        | 1.00          | 1.00          | 1.00          | 1.00          | 1.00          | 1.00          |               |               | 1.00         |               | 1.00        |             |               |
| <b>ELP2013-004</b> | <b>2.00</b>   | <b>2.00</b>   |               | <b>2.00</b>   |               |               |               | <b>2.00</b>   | <b>2.00</b>  |               |             |             |               |
| ELP2013-004        | 2.00          | 2.00          |               | 2.00          |               |               |               | 2.00          | 2.00         |               |             |             |               |

## Time Usage [hours] for Other Actions

| Experiment Code | station | TBB | HBA | LBH | LBL | interfe | lofarAN | lofarBN | lofarx | lofarsr | fiber  | BN--EF_ | duty |
|-----------------|---------|-----|-----|-----|-----|---------|---------|---------|--------|---------|--------|---------|------|
| ELE2013-000     |         |     |     |     |     |         |         |         |        | 358.00  | 179.00 | 179.00  |      |
| ELE2013-000 B   |         |     |     |     |     |         |         |         |        | 179.00  | 179.00 | 179.00  |      |
| ELE2013-000 C   |         |     |     |     |     |         |         |         |        | 179.00  |        |         |      |



# Summary of Time Usage [total=336.00 hours] for MPIfR Effelsberg LOFAR Station

| Experiment Code  | station | TBB | HBA | LBH | LBL | interfe | lofarAN | lofarBN | lofarx | lofarsr | fiber | BN--EF_ | duty |
|--|---------|-----|-----|-----|-----|---------|---------|---------|--------|---------|-------|---------|------|
| <b>normal</b>  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science A (Astrometry)   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science C (Cosmology)  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science E (Extragalactic)  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science G (Galactic) 179.00 179.00 179.00  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science H (Ionosphere)   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science N (AGN)  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science O (Other)  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science P (Pulsar) 2.00 2.00 2.00 2.00 2.00  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science R (Cosmic Rays)  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science S (Solar System)   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Test Observation   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Maintenance Mode 2.00 2.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00 2.00 1.00             |         |     |     |     |     |         |         |         |        |         |       |         |      |
| ILT Mode 312.00 312.00 312.00 312.00 288.00 288.00 24.00 24.00 24.00 24.00 288.00        |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Effelsberg Mode  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| GLOW Mode  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Juelich Mode   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Station Failure  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 20.00 20.00 22.00 20.00 46.00 46.00 132.00 130.00 308.00 132.00 46.00 335.00        |         |     |     |     |     |         |         |         |        |         |       |         |      |
| <b>piggy-up</b>  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Piggyback Control  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 |         |     |     |     |     |         |         |         |        |         |       |         |      |
| <b>piggy-down</b>  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Piggyback Without Control 358.00 179.00 179.00   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 -22.00 157.00 157.00 |         |     |     |     |     |         |         |         |        |         |       |         |      |
| <b>warning</b>   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Experiment Warning   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 |         |     |     |     |     |         |         |         |        |         |       |         |      |
| <b>steal</b>   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Override Possible  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 336.00 |         |     |     |     |     |         |         |         |        |         |       |         |      |
| <b>duty</b>  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| 100 m Operator   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Anderson 96.00   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Kuniyoshi 240.00   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Horneffer  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Other  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 0.00  |         |     |     |     |     |         |         |         |        |         |       |         |      |

# Summary of Time Usage [total=100.00 %] for MPIfR Effelsberg LOFAR Station

| Experiment Code  | station | TBB | HBA | LBH | LBL | interfe | lofarAN | lofarBN | lofarx | lofarsr | fiber | BN--EF_ | duty |
|--|---------|-----|-----|-----|-----|---------|---------|---------|--------|---------|-------|---------|------|
| <b>normal</b>  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science A (Astrometry)   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science C (Cosmology)  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science E (Extragalactic)  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science G (Galactic) 53.27 53.27 53.27   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science H (Ionosphere)   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science N (AGN)  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science O (Other)  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science P (Pulsar) 0.60 0.60 0.60 0.60 0.60 0.60 0.30 0.30 0.60 0.30 0.60 0.30           |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science R (Cosmic Rays)  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Science S (Solar System)   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Test Observation   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Maintenance Mode 0.60 0.60 0.60 0.60 0.60 0.60 0.30 0.30 0.60 0.30 0.60 0.30             |         |     |     |     |     |         |         |         |        |         |       |         |      |
| ILT Mode 92.86 92.86 92.86 92.86 85.71 85.71 7.14 7.14 7.14 7.14 85.71                   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Effelsberg Mode  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| GLOW Mode  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Juelich Mode   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Station Failure  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 5.95 5.95 6.55 5.95 13.69 13.69 39.29 38.69 91.67 39.29 13.69 99.70                 |         |     |     |     |     |         |         |         |        |         |       |         |      |
| <b>piggy-up</b>  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Piggyback Control  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 |         |     |     |     |     |         |         |         |        |         |       |         |      |
| <b>piggy-down</b>  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Piggyback Without Control 106.55 53.27 53.27   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 -6.55 46.73 46.73    |         |     |     |     |     |         |         |         |        |         |       |         |      |
| <b>warning</b>   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Experiment Warning   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 |         |     |     |     |     |         |         |         |        |         |       |         |      |
| <b>steal</b>   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Override Possible  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 |         |     |     |     |     |         |         |         |        |         |       |         |      |
| <b>duty</b>  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| 100 m Operator   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Anderson 28.57   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Kuniyoshi 71.43  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Horneffer  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Other  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown  |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Unknown Code   |         |     |     |     |     |         |         |         |        |         |       |         |      |
| Idle 0.00  |         |     |     |     |     |         |         |         |        |         |       |         |      |