

# Tjornes Watec All-Sky Images 20221106–20221107

|                  |     |                  |     |                  |     |                  |     |                  |     |                  |     |     |
|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|-----|
| 18:24:38 UT<br>N | TJO | 18:25:38 UT<br>N | TJO | 18:26:38 UT<br>N | TJO | 18:27:38 UT<br>N | TJO | 18:28:39 UT<br>N | TJO | 18:29:39 UT<br>N | TJO |     |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W   |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     |     |
| 18:30:39 UT<br>N | TJO | 18:31:39 UT<br>N | TJO | 18:32:39 UT<br>N | TJO | 18:33:39 UT<br>N | TJO | 18:34:39 UT<br>N | TJO | 18:35:39 UT<br>N | TJO | TJO |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W   |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     |     |
| 18:36:39 UT<br>N | TJO | 18:37:39 UT<br>N | TJO | 18:38:39 UT<br>N | TJO | 18:39:39 UT<br>N | TJO | 18:40:39 UT<br>N | TJO | 18:41:39 UT<br>N | TJO | TJO |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W   |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     |     |
| 18:42:39 UT<br>N | TJO | 18:43:39 UT<br>N | TJO | 18:44:39 UT<br>N | TJO | 18:45:39 UT<br>N | TJO | 18:46:39 UT<br>N | TJO | 18:47:39 UT<br>N | TJO | TJO |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W   |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     |     |
| 18:48:39 UT<br>N | TJO | 18:49:39 UT<br>N | TJO | 18:50:39 UT<br>N | TJO | 18:51:39 UT<br>N | TJO | 18:52:39 UT<br>N | TJO | 18:53:39 UT<br>N | TJO | TJO |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W   |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     |     |
| 18:54:39 UT<br>N | TJO | 18:55:39 UT<br>N | TJO | 18:56:39 UT<br>N | TJO | 18:57:39 UT<br>N | TJO | 18:58:39 UT<br>N | TJO | 18:59:39 UT<br>N | TJO | TJO |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W   |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     |     |

# Tjornes Watec All-Sky Images 20221106–20221107

|                  |     |                  |     |                  |     |                  |     |                  |     |                  |     |   |
|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|---|
| 19:00:39 UT<br>N | TJO | 19:01:39 UT<br>N | TJO | 19:02:39 UT<br>N | TJO | 19:03:39 UT<br>N | TJO | 19:04:39 UT<br>N | TJO | 19:05:39 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 19:06:39 UT<br>N | TJO | 19:07:39 UT<br>N | TJO | 19:08:39 UT<br>N | TJO | 19:09:40 UT<br>N | TJO | 19:10:40 UT<br>N | TJO | 19:11:40 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 19:12:40 UT<br>N | TJO | 19:13:40 UT<br>N | TJO | 19:14:40 UT<br>N | TJO | 19:15:40 UT<br>N | TJO | 19:16:40 UT<br>N | TJO | 19:17:40 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 19:18:40 UT<br>N | TJO | 19:19:40 UT<br>N | TJO | 19:20:40 UT<br>N | TJO | 19:21:40 UT<br>N | TJO | 19:22:40 UT<br>N | TJO | 19:23:40 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 19:24:40 UT<br>N | TJO | 19:25:40 UT<br>N | TJO | 19:26:40 UT<br>N | TJO | 19:27:40 UT<br>N | TJO | 19:28:40 UT<br>N | TJO | 19:29:40 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 19:30:40 UT<br>N | TJO | 19:31:40 UT<br>N | TJO | 19:32:40 UT<br>N | TJO | 19:33:40 UT<br>N | TJO | 19:34:40 UT<br>N | TJO | 19:35:40 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |







# Tjornes Watec All-Sky Images 20221106–20221107

|                  |     |                  |     |                  |     |                  |     |                  |     |                  |     |   |
|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|---|
| 21:24:44 UT<br>N | TJO | 21:25:44 UT<br>N | TJO | 21:26:44 UT<br>N | TJO | 21:27:44 UT<br>N | TJO | 21:28:44 UT<br>N | TJO | 21:29:44 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 21:30:44 UT<br>N | TJO | 21:31:44 UT<br>N | TJO | 21:32:44 UT<br>N | TJO | 21:33:44 UT<br>N | TJO | 21:34:44 UT<br>N | TJO | 21:35:44 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 21:36:44 UT<br>N | TJO | 21:37:44 UT<br>N | TJO | 21:38:44 UT<br>N | TJO | 21:39:44 UT<br>N | TJO | 21:40:44 UT<br>N | TJO | 21:41:44 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 21:42:44 UT<br>N | TJO | 21:43:44 UT<br>N | TJO | 21:44:44 UT<br>N | TJO | 21:45:44 UT<br>N | TJO | 21:46:44 UT<br>N | TJO | 21:47:44 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 21:48:44 UT<br>N | TJO | 21:49:44 UT<br>N | TJO | 21:50:44 UT<br>N | TJO | 21:51:44 UT<br>N | TJO | 21:52:45 UT<br>N | TJO | 21:53:45 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 21:54:45 UT<br>N | TJO | 21:55:45 UT<br>N | TJO | 21:56:45 UT<br>N | TJO | 21:57:45 UT<br>N | TJO | 21:58:45 UT<br>N | TJO | 21:59:45 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |







# Tjornes Watec All-Sky Images 20221106–20221107

|                  |     |                  |     |                  |     |                  |     |                  |     |                  |     |   |
|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|---|
| 23:12:47 UT<br>N | TJO | 23:13:47 UT<br>N | TJO | 23:14:47 UT<br>N | TJO | 23:15:47 UT<br>N | TJO | 23:16:47 UT<br>N | TJO | 23:17:47 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 23:18:47 UT<br>N | TJO | 23:19:47 UT<br>N | TJO | 23:20:47 UT<br>N | TJO | 23:21:47 UT<br>N | TJO | 23:22:47 UT<br>N | TJO | 23:23:47 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 23:24:47 UT<br>N | TJO | 23:25:47 UT<br>N | TJO | 23:26:48 UT<br>N | TJO | 23:27:48 UT<br>N | TJO | 23:28:48 UT<br>N | TJO | 23:29:48 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 23:30:48 UT<br>N | TJO | 23:31:48 UT<br>N | TJO | 23:32:48 UT<br>N | TJO | 23:33:48 UT<br>N | TJO | 23:34:48 UT<br>N | TJO | 23:35:48 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 23:36:48 UT<br>N | TJO | 23:37:48 UT<br>N | TJO | 23:38:48 UT<br>N | TJO | 23:39:48 UT<br>N | TJO | 23:40:48 UT<br>N | TJO | 23:41:48 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 23:42:48 UT<br>N | TJO | 23:43:48 UT<br>N | TJO | 23:44:48 UT<br>N | TJO | 23:45:48 UT<br>N | TJO | 23:46:48 UT<br>N | TJO | 23:47:48 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |









# Tjornes Watec All-Sky Images 20221106–20221107

|                  |     |                  |     |                  |     |                  |     |                  |     |                  |     |   |
|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|---|
| 02:12:52 UT<br>N | TJO | 02:13:52 UT<br>N | TJO | 02:14:52 UT<br>N | TJO | 02:15:52 UT<br>N | TJO | 02:16:52 UT<br>N | TJO | 02:17:52 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| 02:18:52 UT<br>N | TJO | 02:19:52 UT<br>N | TJO | 02:20:53 UT<br>N | TJO | 02:21:53 UT<br>N | TJO | 02:22:53 UT<br>N | TJO | 02:23:53 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| 02:24:53 UT<br>N | TJO | 02:25:53 UT<br>N | TJO | 02:26:53 UT<br>N | TJO | 02:27:53 UT<br>N | TJO | 02:28:53 UT<br>N | TJO | 02:29:53 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| 02:30:53 UT<br>N | TJO | 02:31:53 UT<br>N | TJO | 02:32:53 UT<br>N | TJO | 02:33:53 UT<br>N | TJO | 02:34:53 UT<br>N | TJO | 02:35:53 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| 02:36:53 UT<br>N | TJO | 02:37:53 UT<br>N | TJO | 02:38:53 UT<br>N | TJO | 02:39:53 UT<br>N | TJO | 02:40:53 UT<br>N | TJO | 02:41:53 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| 02:42:53 UT<br>N | TJO | 02:43:53 UT<br>N | TJO | 02:44:53 UT<br>N | TJO | 02:45:53 UT<br>N | TJO | 02:46:53 UT<br>N | TJO | 02:47:53 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |



# Tjornes Watec All-Sky Images 20221106–20221107

|                  |     |                  |     |                  |     |                  |     |                  |     |                  |     |   |
|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|---|
| 03:24:54 UT<br>N | TJO | 03:25:54 UT<br>N | TJO | 03:26:54 UT<br>N | TJO | 03:27:54 UT<br>N | TJO | 03:28:54 UT<br>N | TJO | 03:29:54 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
|                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |   |
| 03:30:54 UT<br>N | TJO | 03:31:54 UT<br>N | TJO | 03:32:55 UT<br>N | TJO | 03:33:55 UT<br>N | TJO | 03:34:55 UT<br>N | TJO | 03:35:55 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
|                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |   |
| 03:36:55 UT<br>N | TJO | 03:37:55 UT<br>N | TJO | 03:38:55 UT<br>N | TJO | 03:39:55 UT<br>N | TJO | 03:40:55 UT<br>N | TJO | 03:41:55 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
|                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |   |
| 03:42:55 UT<br>N | TJO | 03:43:55 UT<br>N | TJO | 03:44:55 UT<br>N | TJO | 03:45:55 UT<br>N | TJO | 03:46:55 UT<br>N | TJO | 03:47:55 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
|                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |   |
| 03:48:55 UT<br>N | TJO | 03:49:55 UT<br>N | TJO | 03:50:55 UT<br>N | TJO | 03:51:55 UT<br>N | TJO | 03:52:55 UT<br>N | TJO | 03:53:55 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
|                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |   |
| 03:54:55 UT<br>N | TJO | 03:55:55 UT<br>N | TJO | 03:56:55 UT<br>N | TJO | 03:57:55 UT<br>N | TJO | 03:58:55 UT<br>N | TJO | 03:59:55 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
|                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |                  | S   |   |







# Tjornes Watec All-Sky Images 20221106–20221107

|                  |     |                  |     |                  |     |                  |     |                  |     |                  |     |   |
|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|---|
| 05:12:57 UT<br>N | TJO | 05:13:57 UT<br>N | TJO | 05:14:58 UT<br>N | TJO | 05:15:58 UT<br>N | TJO | 05:16:58 UT<br>N | TJO | 05:17:58 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| 05:18:58 UT<br>N | TJO | 05:19:58 UT<br>N | TJO | 05:20:58 UT<br>N | TJO | 05:21:58 UT<br>N | TJO | 05:22:58 UT<br>N | TJO | 05:23:58 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| 05:24:58 UT<br>N | TJO | 05:25:58 UT<br>N | TJO | 05:26:58 UT<br>N | TJO | 05:27:58 UT<br>N | TJO | 05:28:58 UT<br>N | TJO | 05:29:58 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| 05:30:58 UT<br>N | TJO | 05:31:58 UT<br>N | TJO | 05:32:58 UT<br>N | TJO | 05:33:58 UT<br>N | TJO | 05:34:58 UT<br>N | TJO | 05:35:58 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| 05:36:58 UT<br>N | TJO | 05:37:58 UT<br>N | TJO | 05:38:58 UT<br>N | TJO | 05:39:58 UT<br>N | TJO | 05:40:58 UT<br>N | TJO | 05:41:58 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| 05:42:58 UT<br>N | TJO | 05:43:58 UT<br>N | TJO | 05:44:58 UT<br>N | TJO | 05:45:58 UT<br>N | TJO | 05:46:58 UT<br>N | TJO | 05:47:58 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |





# Tjornes Watec All-Sky Images 20221106–20221107

| 07:01:01 UT<br>N | TJO | 07:02:01 UT<br>N | TJO | 07:03:01 UT<br>N | TJO | 07:04:01 UT<br>N | TJO | 07:05:01 UT<br>N | TJO | 07:06:01 UT<br>N | TJO |   |
|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|------------------|-----|---|
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 07:07:01 UT<br>N | TJO | 07:08:01 UT<br>N | TJO | 07:09:01 UT<br>N | TJO | 07:10:01 UT<br>N | TJO | 07:11:01 UT<br>N | TJO | 07:12:01 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 07:13:01 UT<br>N | TJO | 07:14:01 UT<br>N | TJO | 07:15:01 UT<br>N | TJO | 07:16:01 UT<br>N | TJO | 07:17:01 UT<br>N | TJO | 07:18:01 UT<br>N | TJO |   |
| E                | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | WE               | o   | W |
| S                |     | S                |     | S                |     | S                |     | S                |     | S                |     | S |
| 07:19:01 UT<br>N | TJO | 07:20:01 UT<br>N | TJO | 07:21:01 UT<br>N | TJO |                  |     |                  |     |                  |     |   |
| E                | o   | WE               | o   | WE               | o   | W                |     |                  |     |                  |     |   |
| S                |     | S                |     | S                |     |                  |     |                  |     |                  |     |   |