

# Tjornes Watec All-Sky Images 20221119–20221120

18:00:00 UT N	TJO	18:01:00 UT N	TJO	18:02:00 UT N	TJO	18:03:00 UT N	TJO	18:04:00 UT N	TJO	18:05:00 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
18:06:00 UT N	TJO	18:07:00 UT N	TJO	18:08:00 UT N	TJO	18:09:00 UT N	TJO	18:10:00 UT N	TJO	18:11:00 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
18:12:00 UT N	TJO	18:13:00 UT N	TJO	18:14:00 UT N	TJO	18:15:01 UT N	TJO	18:16:01 UT N	TJO	18:17:01 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
18:18:01 UT N	TJO	18:19:01 UT N	TJO	18:20:01 UT N	TJO	18:21:01 UT N	TJO	18:22:01 UT N	TJO	18:23:01 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
18:24:01 UT N	TJO	18:25:01 UT N	TJO	18:26:01 UT N	TJO	18:27:01 UT N	TJO	18:28:01 UT N	TJO	18:29:01 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
18:30:01 UT N	TJO	18:31:01 UT N	TJO	18:32:01 UT N	TJO	18:33:01 UT N	TJO	18:34:01 UT N	TJO	18:35:01 UT 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 20221119–20221120

18:36:01 UT N	TJO	18:37:01 UT N	TJO	18:38:01 UT N	TJO	18:39:01 UT N	TJO	18:40:01 UT N	TJO	18:41:01 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
18:42:01 UT N	TJO	18:43:01 UT N	TJO	18:44:01 UT N	TJO	18:45:01 UT N	TJO	18:46:02 UT N	TJO	18:47:02 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
18:48:02 UT N	TJO	18:49:02 UT N	TJO	18:50:02 UT N	TJO	18:51:02 UT N	TJO	18:52:02 UT N	TJO	18:53:02 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
18:54:02 UT N	TJO	18:55:02 UT N	TJO	18:56:02 UT N	TJO	18:57:02 UT N	TJO	18:58:02 UT N	TJO	18:59:02 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
19:00:02 UT N	TJO	19:01:02 UT N	TJO	19:02:02 UT N	TJO	19:03:02 UT N	TJO	19:04:02 UT N	TJO	19:05:02 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
19:06:02 UT N	TJO	19:07:02 UT N	TJO	19:08:02 UT N	TJO	19:09:02 UT N	TJO	19:10:02 UT N	TJO	19:11:02 UT 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 20221119–20221120

19:12:02 UT N	TJO	19:13:02 UT N	TJO	19:14:02 UT N	TJO	19:15:02 UT N	TJO	19:16:02 UT N	TJO	19:17:03 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
19:18:03 UT N	TJO	19:19:03 UT N	TJO	19:20:03 UT N	TJO	19:21:03 UT N	TJO	19:22:03 UT N	TJO	19:23:03 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
19:24:03 UT N	TJO	19:25:03 UT N	TJO	19:26:03 UT N	TJO	19:27:03 UT N	TJO	19:28:03 UT N	TJO	19:29:03 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
19:30:03 UT N	TJO	19:31:03 UT N	TJO	19:32:03 UT N	TJO	19:33:03 UT N	TJO	19:34:03 UT N	TJO	19:35:03 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
19:36:03 UT N	TJO	19:37:03 UT N	TJO	19:38:03 UT N	TJO	19:39:03 UT N	TJO	19:40:03 UT N	TJO	19:41:03 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
19:42:03 UT N	TJO	19:43:03 UT N	TJO	19:44:03 UT N	TJO	19:45:03 UT N	TJO	19:46:03 UT N	TJO	19:47:03 UT 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 20221119–20221120

20:24:05 UT N	TJO	20:25:05 UT N	TJO	20:26:05 UT N	TJO	20:27:05 UT N	TJO	20:28:05 UT N	TJO	20:29:05 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
20:30:05 UT N	TJO	20:31:05 UT N	TJO	20:32:05 UT N	TJO	20:33:05 UT N	TJO	20:34:05 UT N	TJO	20:35:05 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
20:36:05 UT N	TJO	20:37:05 UT N	TJO	20:38:05 UT N	TJO	20:39:05 UT N	TJO	20:40:05 UT N	TJO	20:41:05 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
20:42:05 UT N	TJO	20:43:05 UT N	TJO	20:44:05 UT N	TJO	20:45:05 UT N	TJO	20:46:05 UT N	TJO	20:47:05 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
20:48:05 UT N	TJO	20:49:05 UT N	TJO	20:50:05 UT N	TJO	20:51:05 UT N	TJO	20:52:05 UT N	TJO	20:53:05 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
20:54:05 UT N	TJO	20:55:06 UT N	TJO	20:56:06 UT N	TJO	20:57:06 UT N	TJO	20:58:06 UT N	TJO	20:59:06 UT 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 20221119–20221120

23:24:10 UT N	TJO	23:25:10 UT N	TJO	23:26:10 UT N	TJO	23:27:10 UT N	TJO	23:28:10 UT N	TJO	23:29:10 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
23:30:10 UT N	TJO	23:31:10 UT N	TJO	23:32:10 UT N	TJO	23:33:10 UT N	TJO	23:34:10 UT N	TJO	23:35:10 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
23:36:10 UT N	TJO	23:37:10 UT N	TJO	23:38:10 UT N	TJO	23:39:10 UT N	TJO	23:40:10 UT N	TJO	23:41:10 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
23:42:10 UT N	TJO	23:43:10 UT N	TJO	23:44:10 UT N	TJO	23:45:10 UT N	TJO	23:46:10 UT N	TJO	23:47:10 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
23:48:10 UT N	TJO	23:49:10 UT N	TJO	23:50:11 UT N	TJO	23:51:11 UT N	TJO	23:52:11 UT N	TJO	23:53:11 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
23:54:11 UT N	TJO	23:55:11 UT N	TJO	23:56:11 UT N	TJO	23:57:11 UT N	TJO	23:58:11 UT N	TJO	23:59:11 UT 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 20221119–20221120

00:00:11 UT N	TJO	00:01:11 UT N	TJO	00:02:11 UT N	TJO	00:03:11 UT N	TJO	00:04:11 UT N	TJO	00:05:11 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
00:06:11 UT N	TJO	00:07:11 UT N	TJO	00:08:11 UT N	TJO	00:09:11 UT N	TJO	00:10:11 UT N	TJO	00:11:11 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
00:12:11 UT N	TJO	00:13:11 UT N	TJO	00:14:11 UT N	TJO	00:15:11 UT N	TJO	00:16:11 UT N	TJO	00:17:11 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
00:18:11 UT N	TJO	00:19:11 UT N	TJO	00:20:11 UT N	TJO	00:21:12 UT N	TJO	00:22:12 UT N	TJO	00:23:12 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
00:24:12 UT N	TJO	00:25:12 UT N	TJO	00:26:12 UT N	TJO	00:27:12 UT N	TJO	00:28:12 UT N	TJO	00:29:12 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
00:30:12 UT N	TJO	00:31:12 UT N	TJO	00:32:12 UT N	TJO	00:33:12 UT N	TJO	00:34:12 UT N	TJO	00:35:12 UT 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 20221119–20221120

01:12:13 UT N	TJO	01:13:13 UT N	TJO	01:14:13 UT N	TJO	01:15:13 UT N	TJO	01:16:13 UT N	TJO	01:17:13 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
	S		S		S		S		S		S	
01:18:13 UT N	TJO	01:19:13 UT N	TJO	01:20:13 UT N	TJO	01:21:13 UT N	TJO	01:22:13 UT N	TJO	01:23:13 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
	S		S		S		S		S		S	
01:24:13 UT N	TJO	01:25:13 UT N	TJO	01:26:13 UT N	TJO	01:27:13 UT N	TJO	01:28:13 UT N	TJO	01:29:13 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
	S		S		S		S		S		S	
01:30:13 UT N	TJO	01:31:13 UT N	TJO	01:32:13 UT N	TJO	01:33:13 UT N	TJO	01:34:13 UT N	TJO	01:35:14 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
	S		S		S		S		S		S	
01:36:14 UT N	TJO	01:37:14 UT N	TJO	01:38:14 UT N	TJO	01:39:14 UT N	TJO	01:40:14 UT N	TJO	01:41:14 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
	S		S		S		S		S		S	
01:42:14 UT N	TJO	01:43:14 UT N	TJO	01:44:14 UT N	TJO	01:45:14 UT N	TJO	01:46:14 UT N	TJO	01:47:14 UT 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 20221119–20221120

02:24:15 UT N	TJO	02:25:15 UT N	TJO	02:26:15 UT N	TJO	02:27:15 UT N	TJO	02:28:15 UT N	TJO	02:29:15 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
02:30:15 UT N	TJO	02:31:15 UT N	TJO	02:32:15 UT N	TJO	02:33:15 UT N	TJO	02:34:15 UT N	TJO	02:35:15 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
02:36:16 UT N	TJO	02:37:16 UT N	TJO	02:38:16 UT N	TJO	02:39:16 UT N	TJO	02:40:16 UT N	TJO	02:41:16 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
02:42:16 UT N	TJO	02:43:16 UT N	TJO	02:44:16 UT N	TJO	02:45:16 UT N	TJO	02:46:16 UT N	TJO	02:47:16 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
02:48:16 UT N	TJO	02:49:16 UT N	TJO	02:50:16 UT N	TJO	02:51:16 UT N	TJO	02:52:16 UT N	TJO	02:53:16 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
02:54:16 UT N	TJO	02:55:16 UT N	TJO	02:56:16 UT N	TJO	02:57:16 UT N	TJO	02:58:16 UT N	TJO	02:59:16 UT 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 20221119–20221120

05:24:21 UT N	TJO	05:25:21 UT N	TJO	05:26:21 UT N	TJO	05:27:21 UT N	TJO	05:28:21 UT N	TJO	05:29:21 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
05:30:21 UT N	TJO	05:31:21 UT N	TJO	05:32:21 UT N	TJO	05:33:21 UT N	TJO	05:34:21 UT N	TJO	05:35:21 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
05:36:21 UT N	TJO	05:37:21 UT N	TJO	05:38:21 UT N	TJO	05:39:21 UT N	TJO	05:40:21 UT N	TJO	05:41:21 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
05:42:21 UT N	TJO	05:43:21 UT N	TJO	05:44:21 UT N	TJO	05:45:21 UT N	TJO	05:46:21 UT N	TJO	05:47:21 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
05:48:21 UT N	TJO	05:49:21 UT N	TJO	05:50:21 UT N	TJO	05:51:21 UT N	TJO	05:52:22 UT N	TJO	05:53:22 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
05:54:22 UT N	TJO	05:55:22 UT N	TJO	05:56:22 UT N	TJO	05:57:22 UT N	TJO	05:58:22 UT N	TJO	05:59:22 UT 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 20221119–20221120

06:00:22 UT N	TJO	06:01:22 UT N	TJO	06:02:22 UT N	TJO	06:03:22 UT N	TJO	06:04:22 UT N	TJO	06:05:22 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
06:06:22 UT N	TJO	06:07:22 UT N	TJO	06:08:22 UT N	TJO	06:09:22 UT N	TJO	06:10:22 UT N	TJO	06:11:22 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
06:12:22 UT N	TJO	06:13:22 UT N	TJO	06:14:22 UT N	TJO	06:15:22 UT N	TJO	06:16:22 UT N	TJO	06:17:22 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
06:18:22 UT N	TJO	06:19:22 UT N	TJO	06:20:22 UT N	TJO	06:21:22 UT N	TJO	06:22:22 UT N	TJO	06:23:22 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
06:24:22 UT N	TJO	06:25:22 UT N	TJO	06:26:23 UT N	TJO	06:27:23 UT N	TJO	06:28:23 UT N	TJO	06:29:23 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
06:30:23 UT N	TJO	06:31:23 UT N	TJO	06:32:23 UT N	TJO	06:33:23 UT N	TJO	06:34:23 UT N	TJO	06:35:23 UT 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 20221119–20221120

06:36:23 UT N	TJO	06:37:23 UT N	TJO	06:38:23 UT N	TJO	06:39:23 UT N	TJO	06:40:23 UT N	TJO	06:41:23 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
06:42:23 UT N	TJO	06:43:23 UT N	TJO	06:44:23 UT N	TJO	06:45:23 UT N	TJO	06:46:23 UT N	TJO	06:47:23 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
06:48:23 UT N	TJO	06:49:23 UT N	TJO	06:50:23 UT N	TJO	06:51:23 UT N	TJO	06:52:23 UT N	TJO	06:53:23 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
06:54:23 UT N	TJO	06:55:23 UT N	TJO	06:56:23 UT N	TJO	06:57:23 UT N	TJO	06:58:23 UT N	TJO	06:59:23 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
07:00:24 UT N	TJO	07:01:24 UT N	TJO	07:02:24 UT N	TJO	07:03:24 UT N	TJO	07:04:24 UT N	TJO	07:05:24 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S
07:06:24 UT N	TJO	07:07:24 UT N	TJO	07:08:24 UT N	TJO	07:09:24 UT N	TJO	07:10:24 UT N	TJO	07:11:24 UT 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 20221119–20221120

07:12:24 UT N	TJO	07:13:24 UT N	TJO	07:14:24 UT N	TJO	07:15:24 UT N	TJO	07:16:24 UT N	TJO	07:17:24 UT N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
07:18:24 UT S N	TJO	07:19:24 UT S N	TJO	07:20:24 UT S N	TJO	07:21:24 UT S N	TJO	07:22:24 UT S N	TJO	07:23:24 UT S N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
07:24:24 UT S N	TJO	07:25:24 UT S N	TJO	07:26:24 UT S N	TJO	07:27:24 UT S N	TJO	07:28:24 UT S N	TJO	07:29:24 UT S N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
07:30:24 UT S N	TJO	07:31:24 UT S N	TJO	07:32:24 UT S N	TJO	07:33:24 UT S N	TJO	07:34:25 UT S N	TJO	07:35:25 UT S N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
07:36:25 UT S N	TJO	07:37:25 UT S N	TJO	07:38:25 UT S N	TJO	07:39:25 UT S N	TJO	07:40:25 UT S N	TJO	07:41:25 UT S N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
07:42:25 UT S N	TJO	07:43:25 UT S N	TJO	07:44:25 UT S N	TJO	07:45:25 UT S N	TJO	07:46:25 UT S N	TJO	07:47:25 UT S N	TJO	
E	o	WE	o	WE	o	WE	o	WE	o	WE	o	W
S		S		S		S		S		S		S

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