



Netherlands Institute for Radio Astronomy

# The LOFAR visibility calculator

Aleksandar Shulevski

# Interface layout



## LOFAR visibility calculator

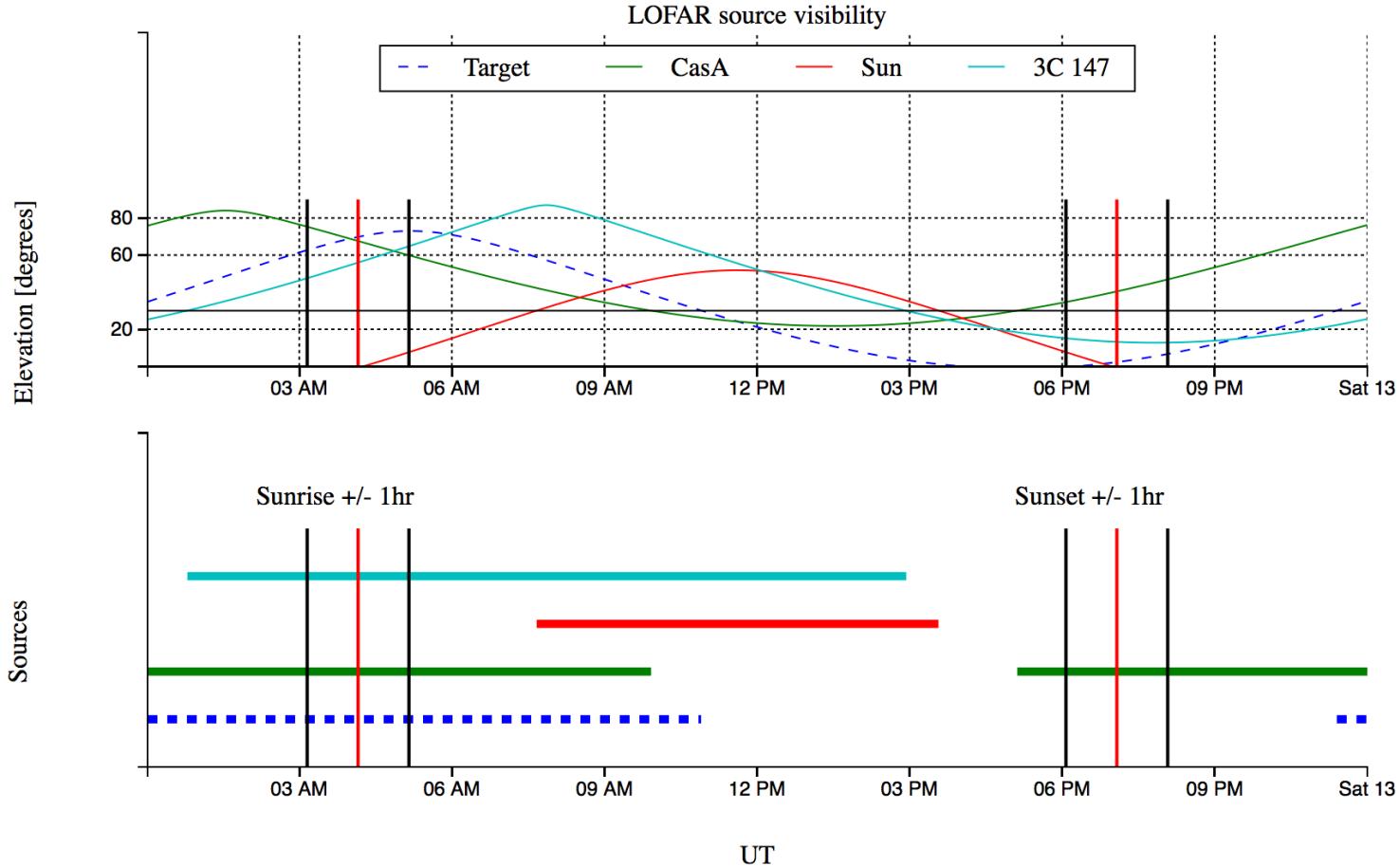
- For a given target, this calculator displays its visibility and elevation over a 24hr period at a date set by the user.
- The default minimum elevation is 20 degrees, it can be modified by the user.
- Apart from the target, the user can select to display the visibility of the LOFAR standard calibrator sources, some solar system targets and some of the brightest radio sources on the sky (the A team).
- The angular distance between the selected A team sources or solar system sources and the target is shown at the bottom of the page.

Target	4C 35.06	<input type="button" value="Resolve"/>
RA	03:01:51.38	[hh:mm:ss.s]
DEC	+35:50:23.2	[dd:mm:ss.s]
Date	08/12/2016	[mm/dd/yyyy]
Min. elevation	30	[deg]

A team:	Solar system:	LOFAR calibrators:	<input type="button" value="Calculate"/>
Cyg A <input type="checkbox"/>	Jupiter <input type="checkbox"/>	3C 48 <input type="checkbox"/>	
Cas A <input checked="" type="checkbox"/>	Sun <input checked="" type="checkbox"/>	3C 147 <input checked="" type="checkbox"/>	
Tau A <input type="checkbox"/>		3C 295 <input type="checkbox"/>	
Vir A <input type="checkbox"/>		3C 196 <input type="checkbox"/>	
		3C 380 <input type="checkbox"/>	

- Target coordinates and date mandatory
- Minimal elevation optional (default 20 degrees)
- Found at: <https://support.astron.nl/otool/calculate/> (LOFAR tools page)

# Output: elevation and visibility



Celestial angle between Cas A and pointing center: 41:54:56.2 [dd:mm:ss.s]

Celestial angle between Sun and pointing center: 86:21:56.8 [dd:mm:ss.s]