





# CALLISTO status report/newsletter #92

We wish you a Happy New Year 2022 and a lot of high quality solar radio bursts!

## Station upgrade at HAARP-site in Alaska



Fig. 1: The low frequency station at HAARP-site has recently been re-located on a place with less local rfi and upgraded for circular polarization observations.

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## New equipment in Banting, Malaysia

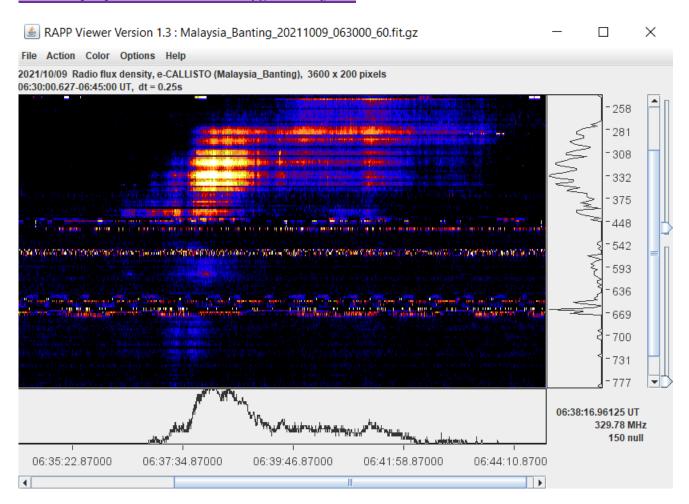


Fig. 2: The frontend in Malaysia has been upgraded with an LNA2000. Here the 1<sup>st</sup> light, a type II burst, observed with the new configuration. Malaysia is suffering from a lot of local rfi.







## Restart of CALLISTO at Arecibo Observatory, Puerto Rico

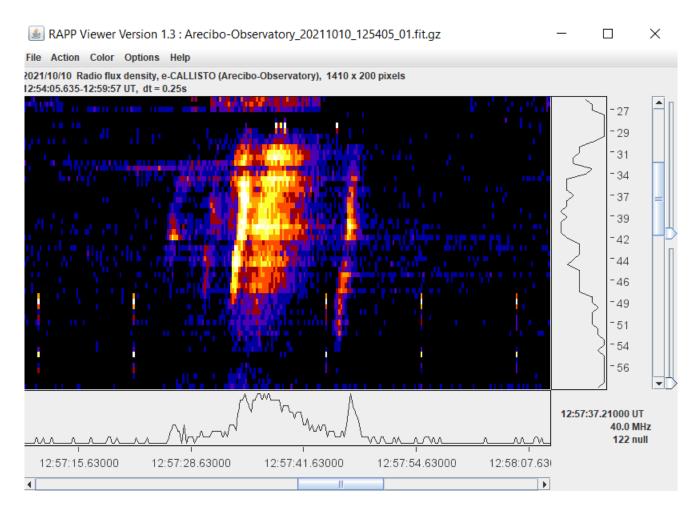


Fig. 3: 1<sup>st</sup> light at Arecibo at the new location, a small group of type III bursts.

## **Recent Papers**

https://zenodo.org/record/5529658#.YVGAsKT4-JAhttps://angeo.copernicus.org/articles/39/945/2021/

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## e-Callisto burst statistics 2021

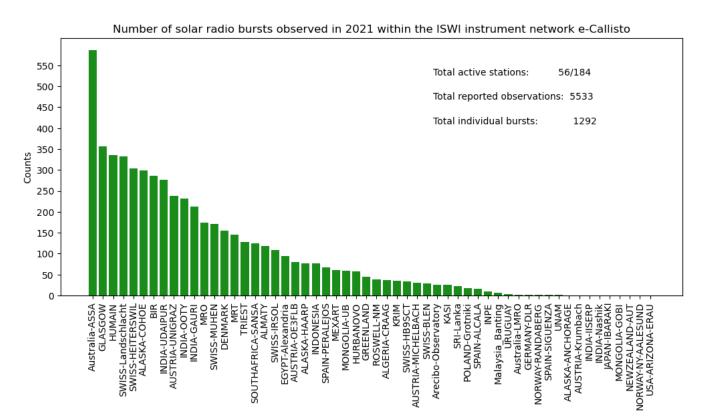


Fig. 4: Compilation of all visually detected bursts from all Callisto-stations which provide data to the e-Callisto network. There is a clear winner of the 'competition', ASSA in Australia; congratulations!

Those stations which never ever detected any burst in 2021 or which detected less than about 50 bursts in 2021 should urgently check their equipment.

Is the antenna complete and coaxial cable connected? Is the antenna more or less pointing to the average position of the Sun? Is the LNA powered and working?

Are all cables o.k.?

Are all connectors o.k.?

Did you upload your data files to the central server?

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#### **CESRA NEWS**

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The active region source of a type III radio storm observed by Parker Solar Probe during encounter2 by L. Harra et al\*

https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3058

Properties of High-Frequency Type II Radio Bursts and Their Relation to the Associated Coronal Mass Ejections

by A.C. Umuhire et al.\*

https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3067

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First Frequency-time-resolved Imaging Spectroscopy Observations of Solar Radio Spikes by D. L. Clarkson et al.\*

https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3080

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Radio, X-ray and extreme-ultraviolet observations of weak energy releases in the 'quiet' Sun by Ramesh et. al.

https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3090

Radio Interferometric Observations of the Sun Using Commercial Dish TV Antennas by G. V. S. Gireesh et al.\*

https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3100

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PIC simulations of harmonic maser emissions

by Ning et al.\*

https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3108

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Searching for optical/EUV counterparts of type IIs in a complex metric burst?

by Costas Alissandrakis et al.\*

http://cesra.net/?p=3140

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Particle-in-cell simulation of plasma emission in solar radio bursts

by T. M. Li et al.

https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3151

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Characterising coronal turbulence using snapshot imaging of radio bursts in 80 – 200 MHz by Atul Mohan

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https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3181

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#### **AOB**

- IRSOL is meant as the new core-station of the e-Callisto network
- 1st time 70 station providing data to the network 02.12.2021
- Another access to Callisto data here: <a href="https://vwo.nasa.gov/">https://vwo.nasa.gov/</a>
   See also separate pdf



- CALLISTO or Callisto denotes to the spectrometer itself while e-Callisto denotes to the worldwide network.
- "After a temporary suspension of LWA Antennas to international customers, Reeve Engineers will resume international shipments in November 2021. Pricing will vary based on packing and handling and destination. For additional information, contact Whitham Reeve at orderinfo@reeve.com."
- General information and data access here: http://e-callisto.org/
- e-Callisto data are hosted at University of Applied Sciences, Institute for Data Science FHNW in Brugg/Windisch, Switzerland. Additionally, data are available at ESA site here: SSA Space Weather Portal (<a href="http://swe.ssa.esa.int/">http://swe.ssa.esa.int/</a>).
- In case you (as the responsible person for operating and maintenance of Callisto) are leaving the institute or, if you are retiring, please send me name and email address of the successor.

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