

**CALLISTO status report #30****To:**

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Remark: replace Ω with @ in the email addresses above.

If you do not want to receive this status-report just send me an email that I can take out your email of my list.

On the other hand, if you know of someone who might be interested just send me the email of that person.

### Two new locations in Europe operational:

Two licensed radio amateurs built their own Callisto spectrometer based on our documentation. One is Karl-Heinz Gansel from Germany (DL6EBS) and the other one is Fritz Lensch from Austria (OE3FLB).

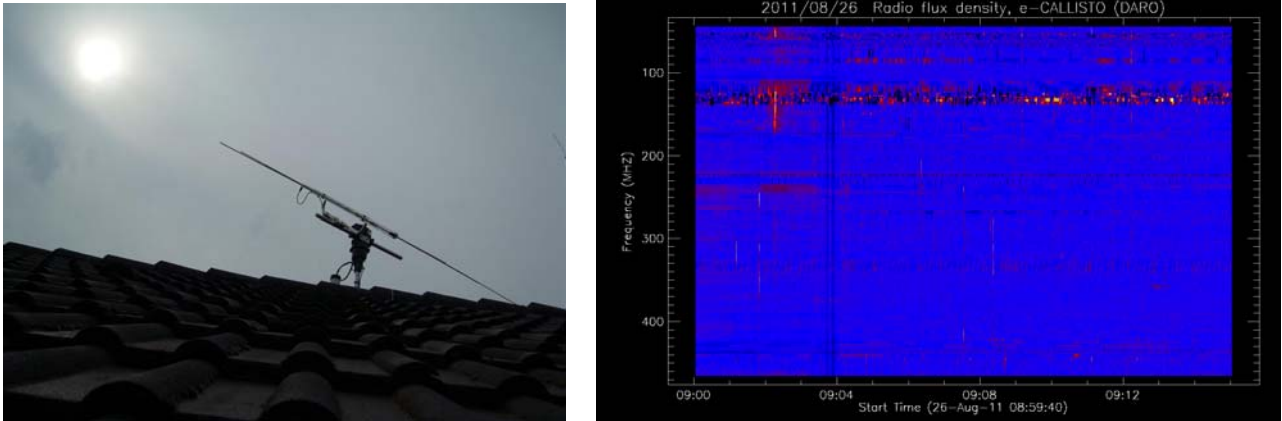


Fig. 1: Left: Logarithmic – periodic antenna on top of the roof tracking the sun with a YAESU G5500 Rotator. Right 1<sup>st</sup> light of a type III flare from 20110826 at 09:02. Station name DRAO, <http://www.radio-astronomie.de/ra/>

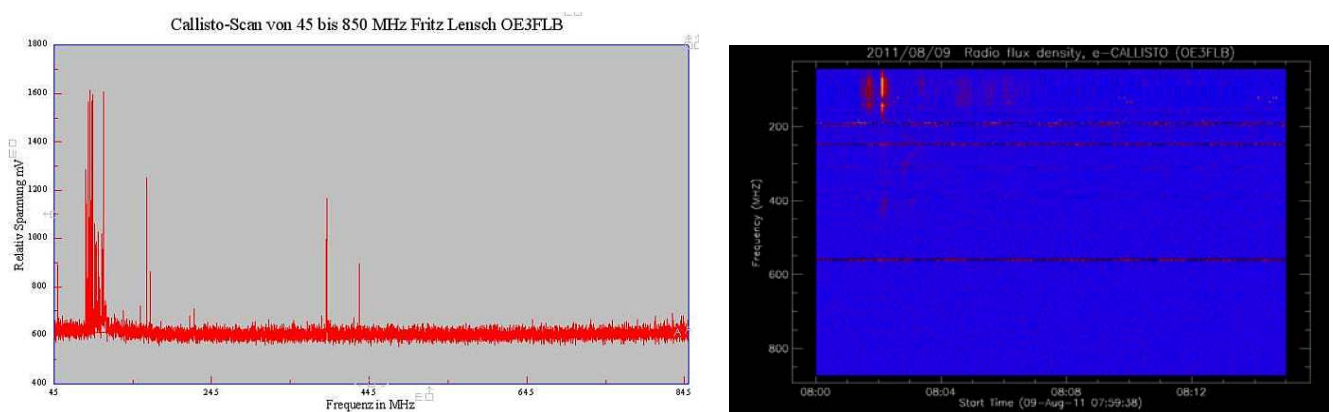


Fig. 2: Left: spectral overview at the location in Austria. Right: 1<sup>st</sup> light of OE3FLB, the X9.3 flare of August 9<sup>th</sup>, 2011 at 08:02. URL: [http://turbo.at/antares/antares\\_ng/doku.php?id=radioastronomie](http://turbo.at/antares/antares_ng/doku.php?id=radioastronomie)

### Data access:

Relevant links can be found here:

<http://e-callisto.org/>

### **Frontend SWMC ready**

The frontend for SWMC (Space Weather Monitor Center) of University of Cairo has been finished, tested and will be installed beginning of October.

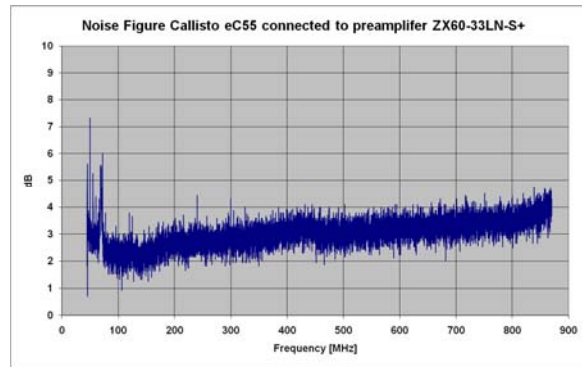
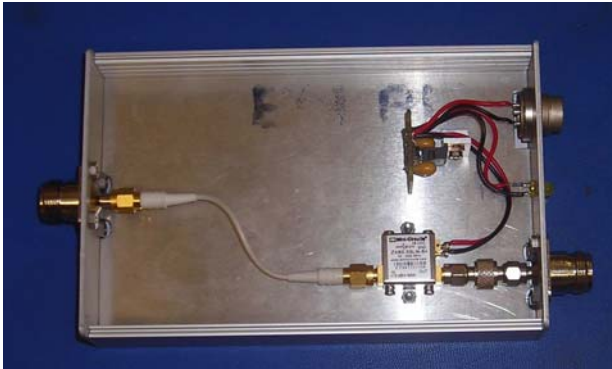


Fig. 3: Left: opened frontend with preamplifier. Right: Noise figure measured with a Callisto.

### **AOB**

An installation workshop will be held at Cairo University in October 3<sup>rd</sup> – 7<sup>th</sup> this year.  
Contact person: Dr. Ayman M. Mahrous, Helwan University, Egypt. [ayman.mahrous\(at\)gmail.com](mailto:ayman.mahrous(at)gmail.com)

Plans for a Callisto-related workshop at ANGASKA in Malaysia from {tbd} till {tbd}  
Contact person: Zety Sharizat Hamidi, [zsharizat\(at\)yahoo.co.uk](mailto:zsharizat(at)yahoo.co.uk)

And another, but similar workshop is planned in Pune/India from 23.11.2011 till 25.11.2011  
Contact person: Subramaniam Ananthakrishnan, [subra.anan\(at\)gmail.com](mailto:subra.anan(at)gmail.com)

A 4th workshop will be held in Nairobi, Kenya in November, may be December this year.

A new series of 10 Callisto based on CD1316LS/IV-3 + CD1316L/IHP-3 + CD1316LK/GIH has been produced and tested. Final qualification will be done beginning of September.

A Callisto spectrometer has been sent to Crimean Astrophysical Observatory, Simpheropol.

A replacement has been sent to Badary. Their original instrument is down due to lightning stroke.

M9.3 flare observed with Callisto Network on August 4<sup>th</sup>, 2011

## NOAA-list:

2550	0341	0357	0404	G15	5	XRA	1-8A	M9.3	5.4E-02	1261
2550	0344	0355	0505	LEA	3	FLA	N19W36	2B	PRB	1261
2550 +	0349	0353	0402	LEA	G	RBR	4995	1300	CastelliU	1261
2550 +	0349	0353	0402	LEA	G	RBR	8800	2400	CastelliU	1261
2550 +	0349	0351	0401	LEA	G	RBR	2695	720	CastelliU	1261
2550	0349	0353	0402	LEA	G	RBR	15400	2100	CastelliU	1261
2550 +	0349	0351	0400	LEA	G	RBR	1415	470	CastelliU	1261
2550 +	0350	////	0353	CUL	C	RSP	018-600	III/3		1261
2550 +	0350	0413	0423	LEA	G	RBR	410	2200	CastelliU	1261
2550 +	0351	0356	0422	LEA	G	RBR	610	4800	CastelliU	1261
2550 +	0351	0356	0423	LEA	G	RBR	245	13000	CastelliU	1261
2550 +	0354	////	0403	LEA	C	RSP	066-180	II/2	750	1261
2550 +	0358	////	0401	PAL	C	RSP	025-180	V/3		1261

**Remark: green covers the frequency range of Callisto**

Radio observations from 8 different locations worldwide are available.

Stations with observations are:

Anchorage/Alaska  
 Gauribidanur/India  
 Daejeon/South Korea  
 Metsähovi/Finland  
 Poste de Flacq/Mauritius  
 Ooty/India  
 Ulaan Baatar/Mongolia  
 Almaty/Kazakhstan

All locations have the same spectrometer but different antennas pointing into different sky-positions and different pre-amplifier. All are more less suffering from local rfi. All plots show the same frequency range. Some locations only observe part of the total spectrum of Callisto.

It might be a nice job for a PhD student to combine all observations from different locations with different frequency ranges into one single plot with reduced rfi and improved snr (signal to noise ratio).

All data available here:

<http://soleil.i4ds.ch/solarradio/callistoQuicklooks/>

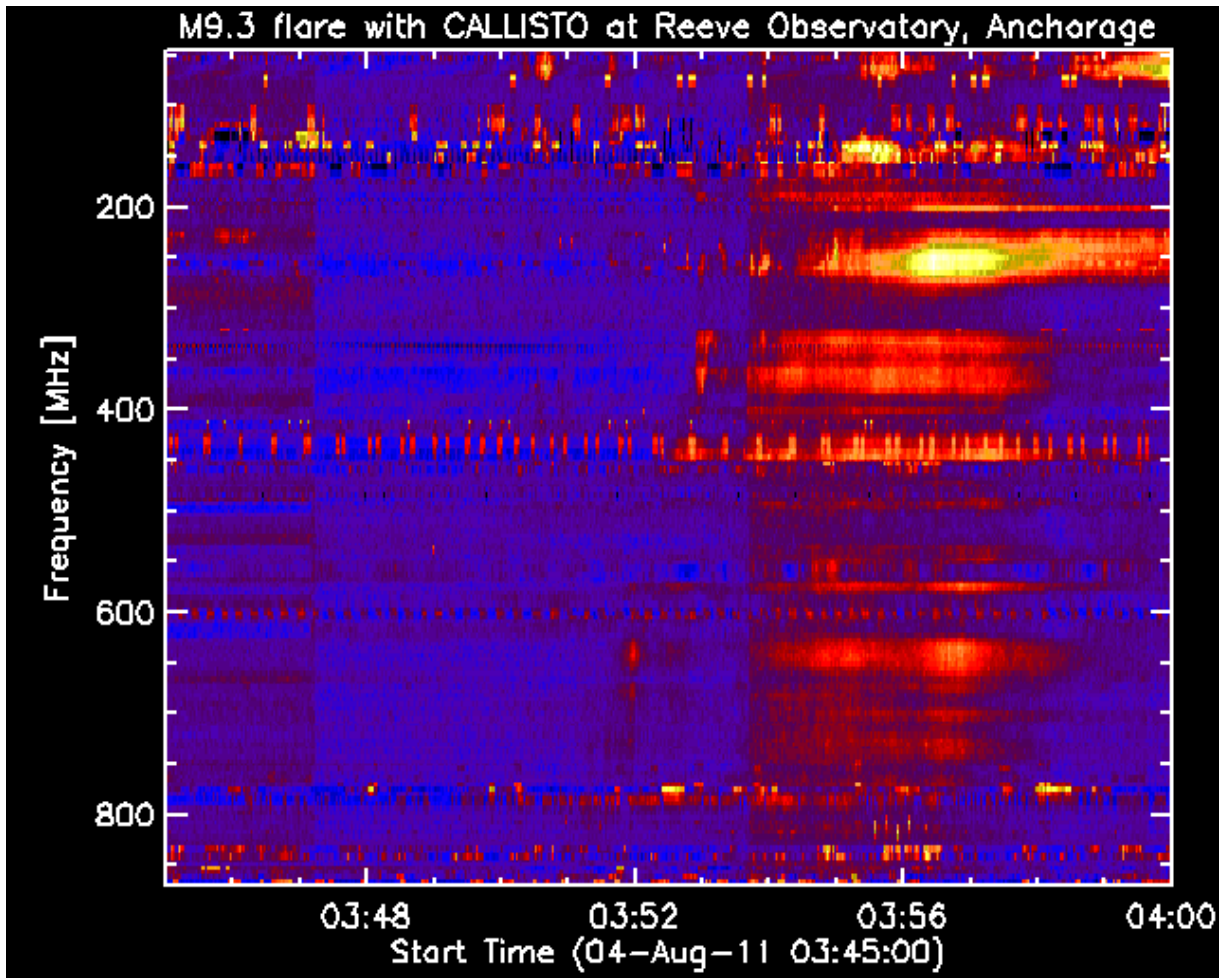


Fig. 4



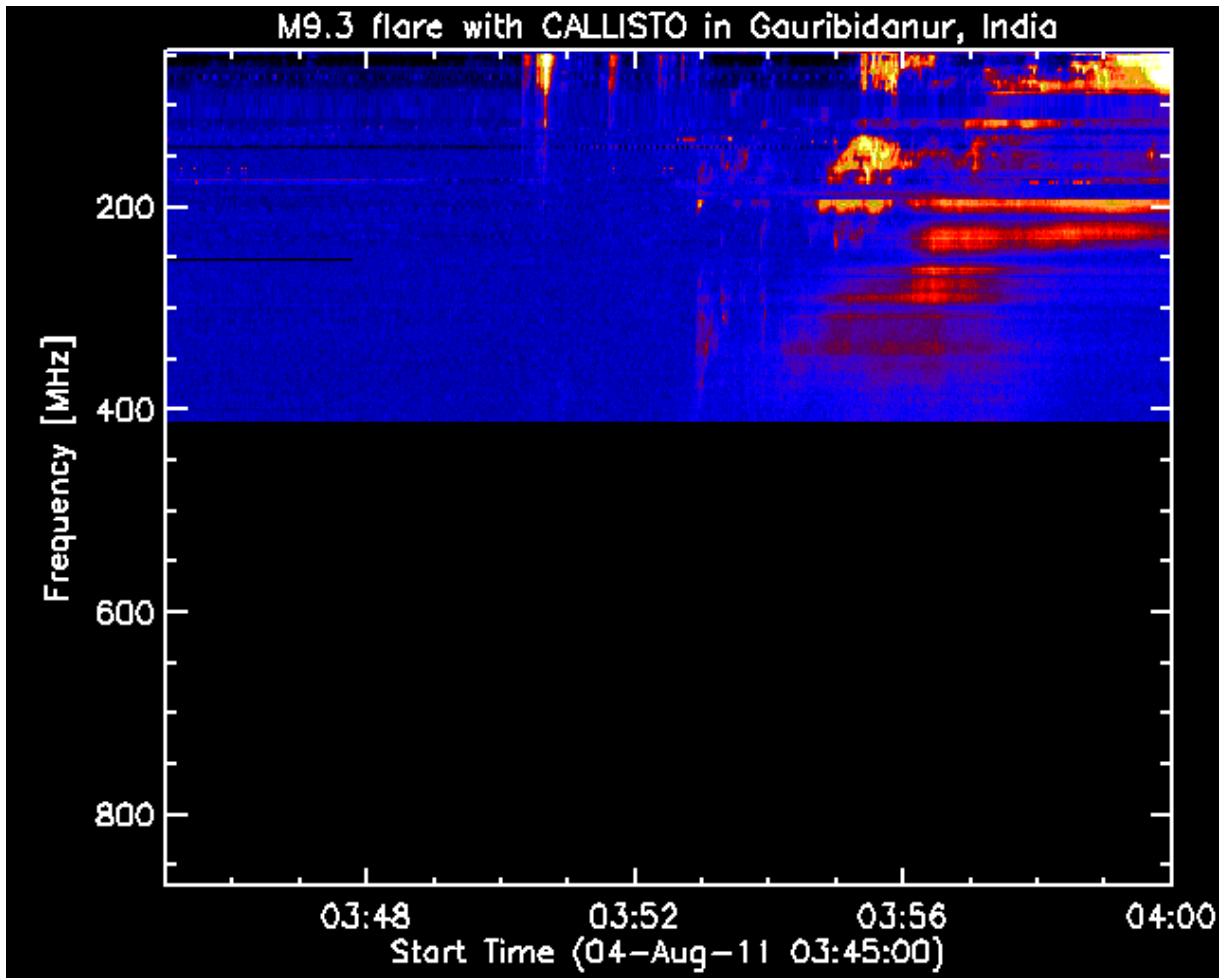


Fig. 5

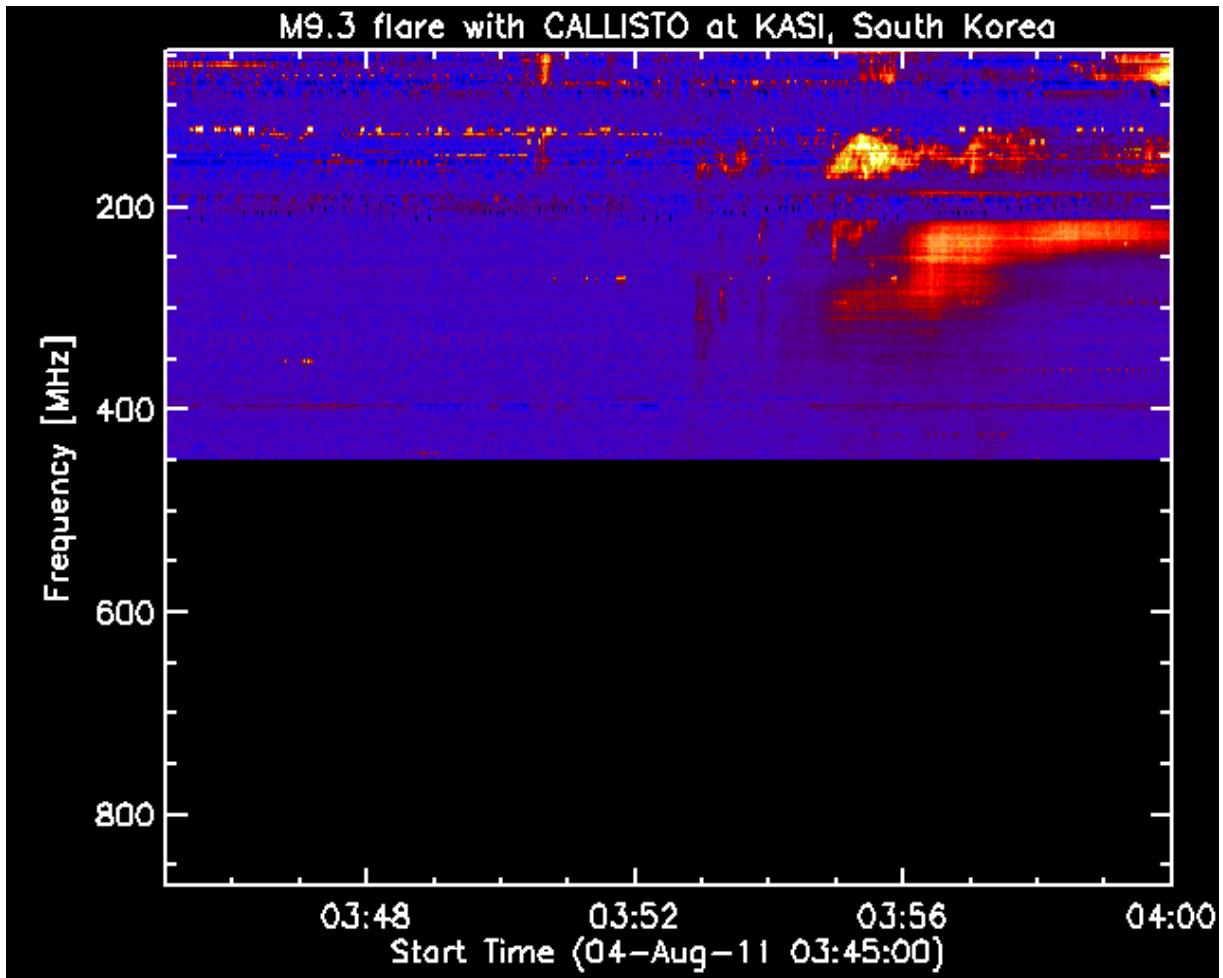


Fig. 6



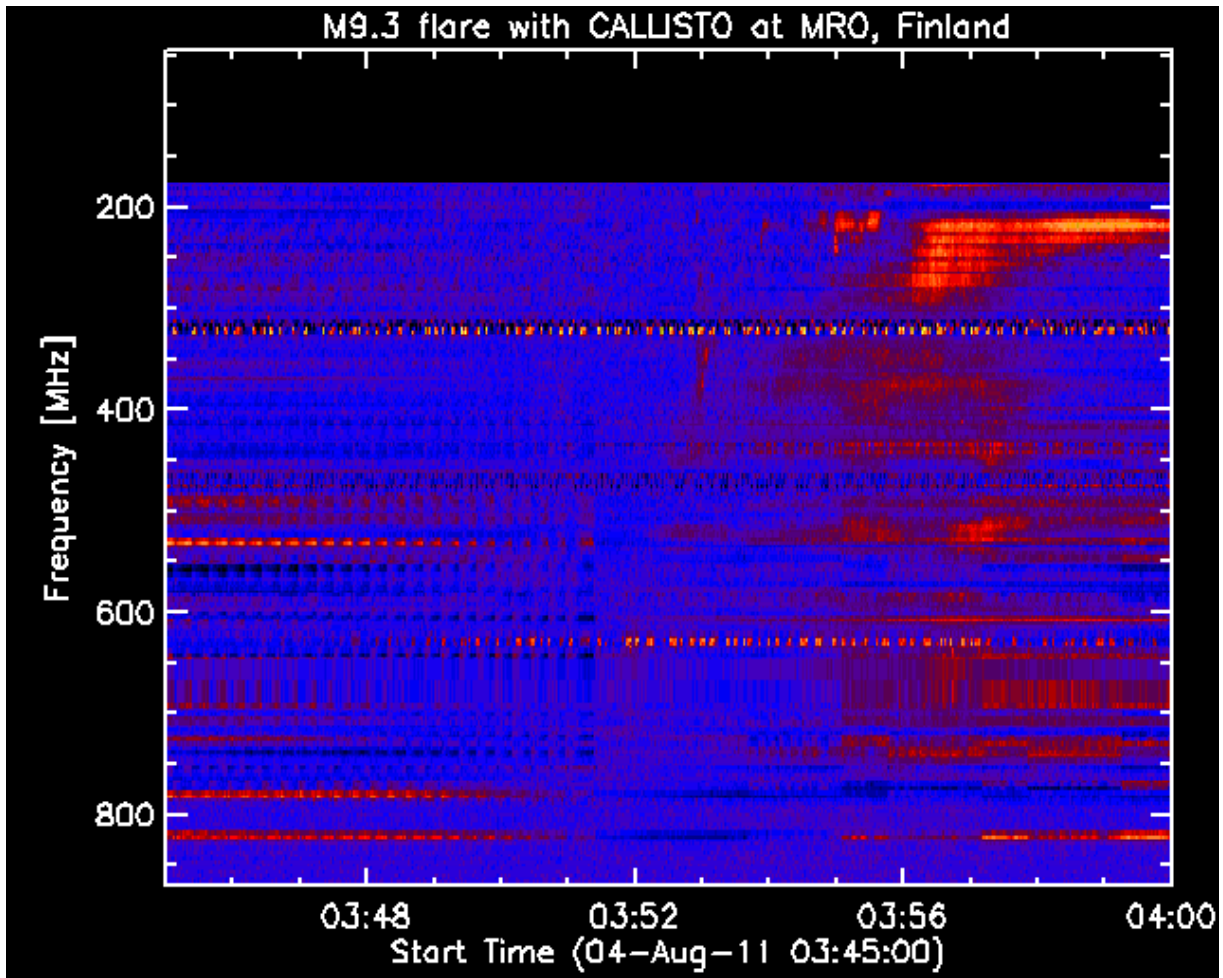


Fig. 7

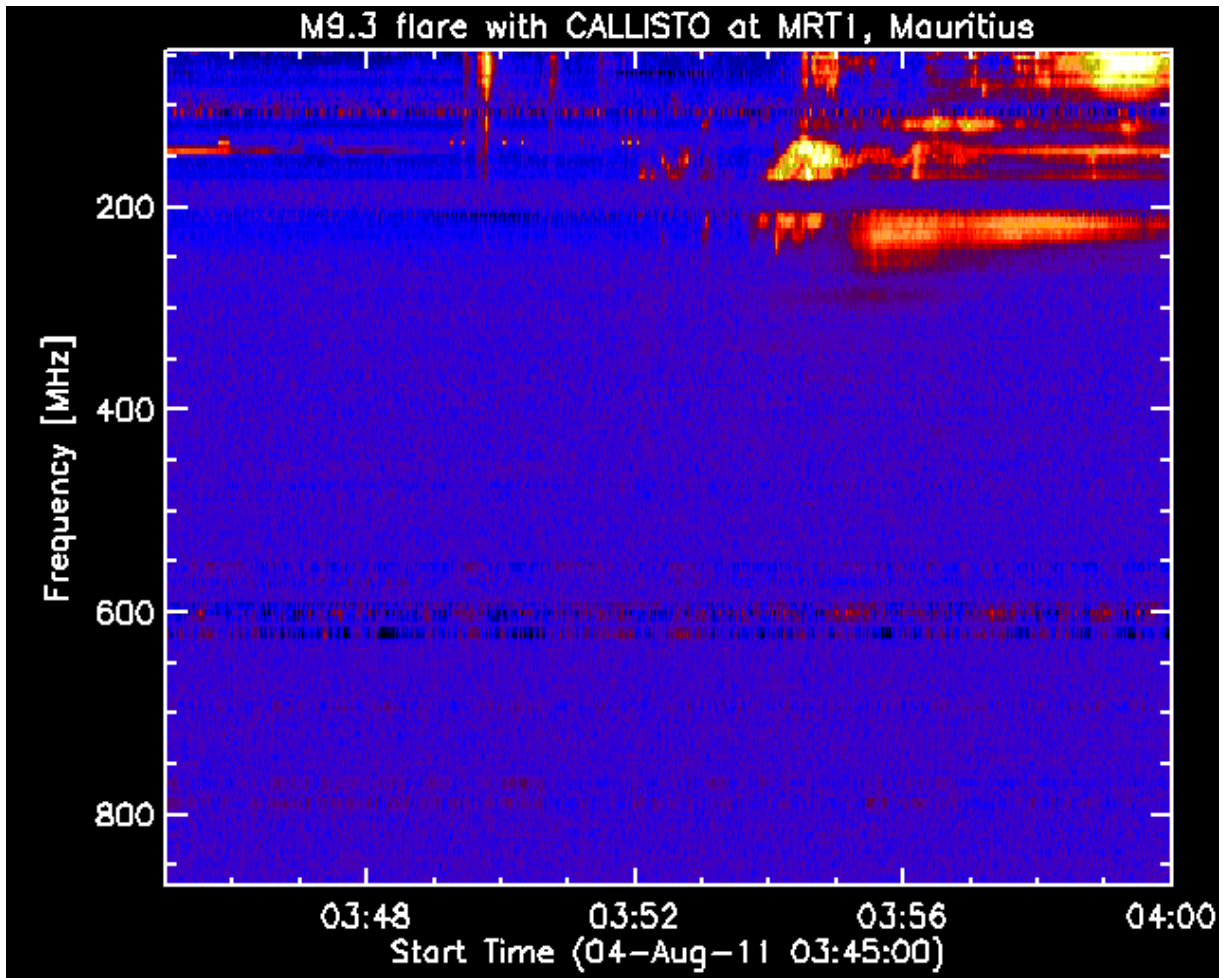


Fig. 8

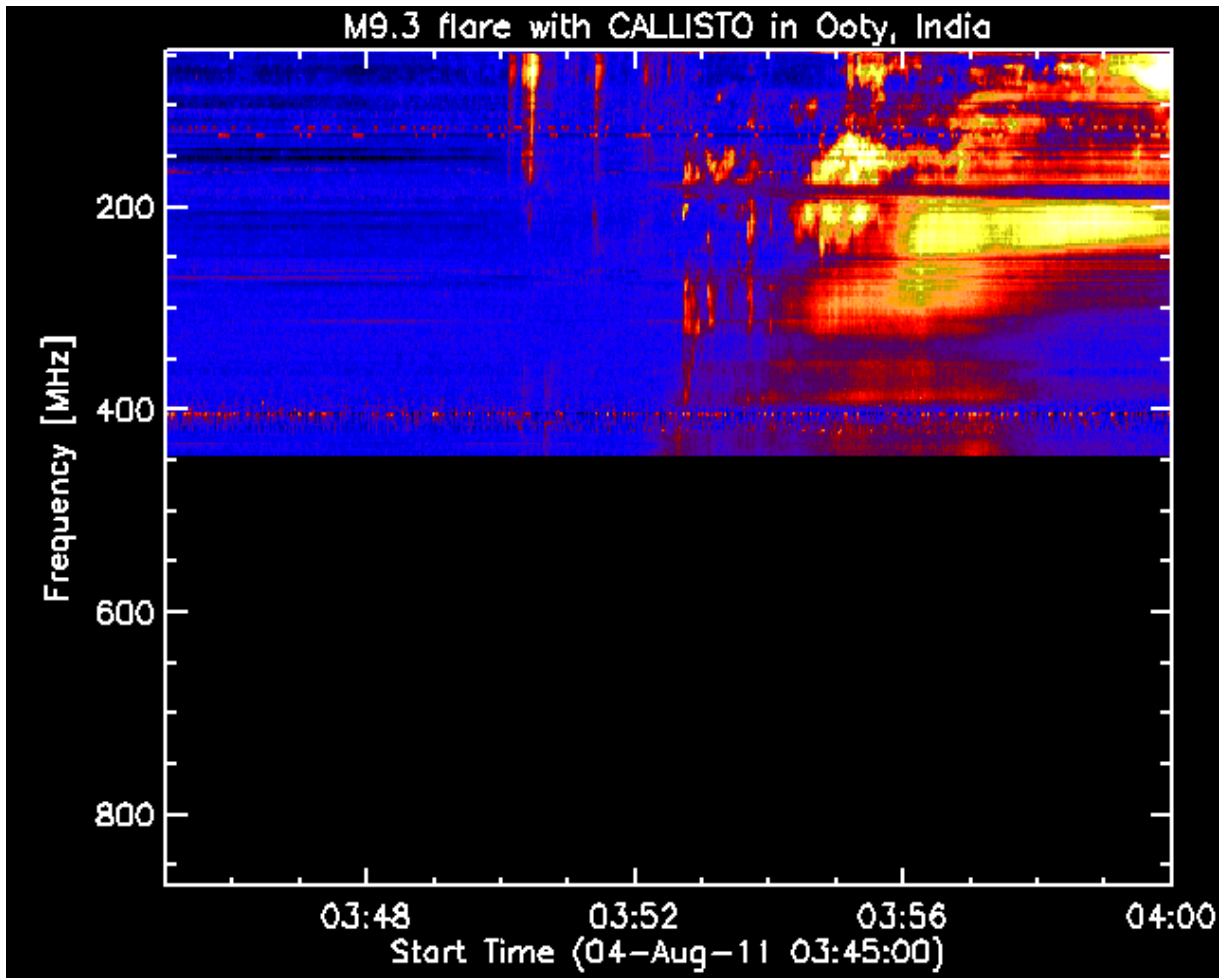


Fig. 9

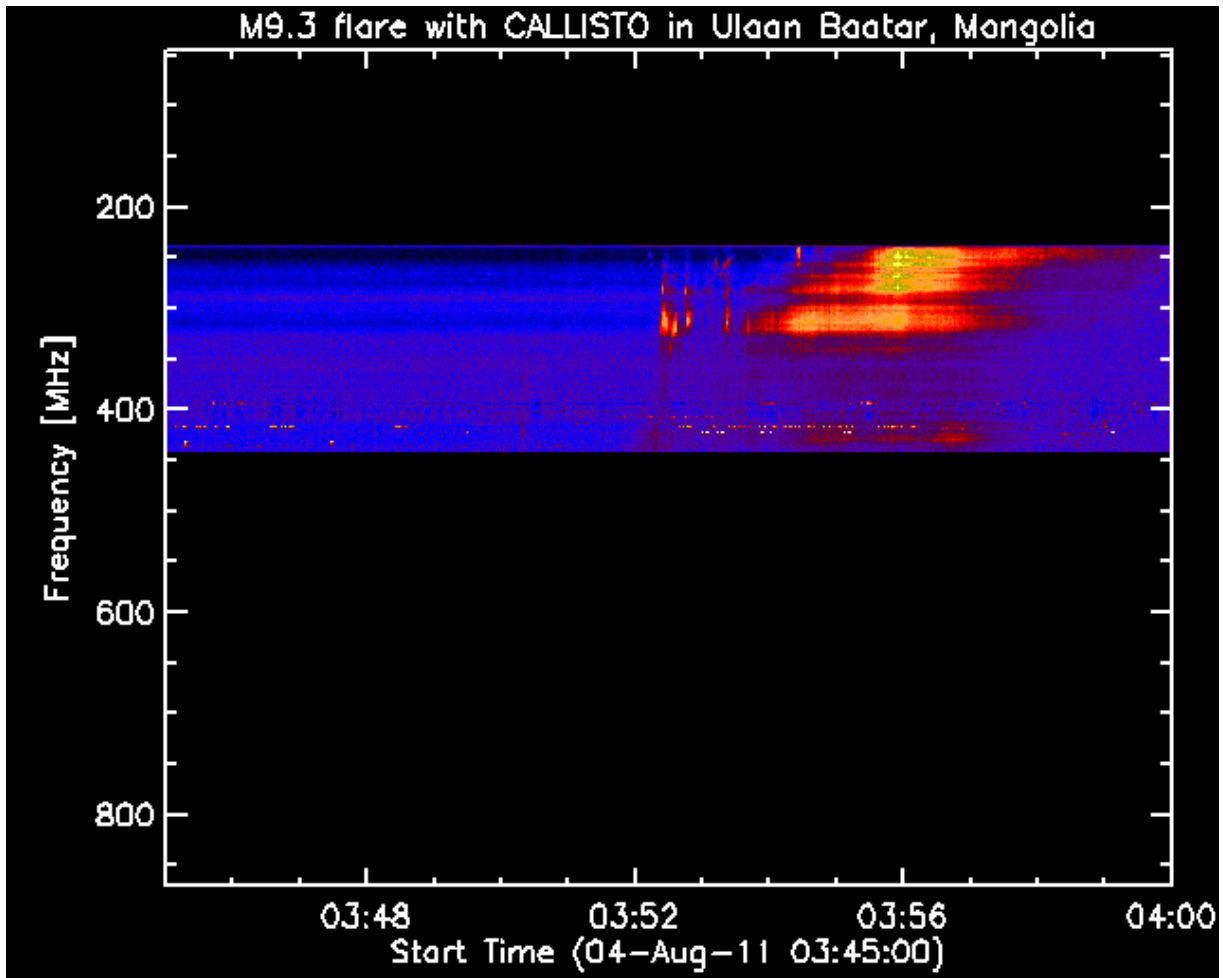


Fig. 10

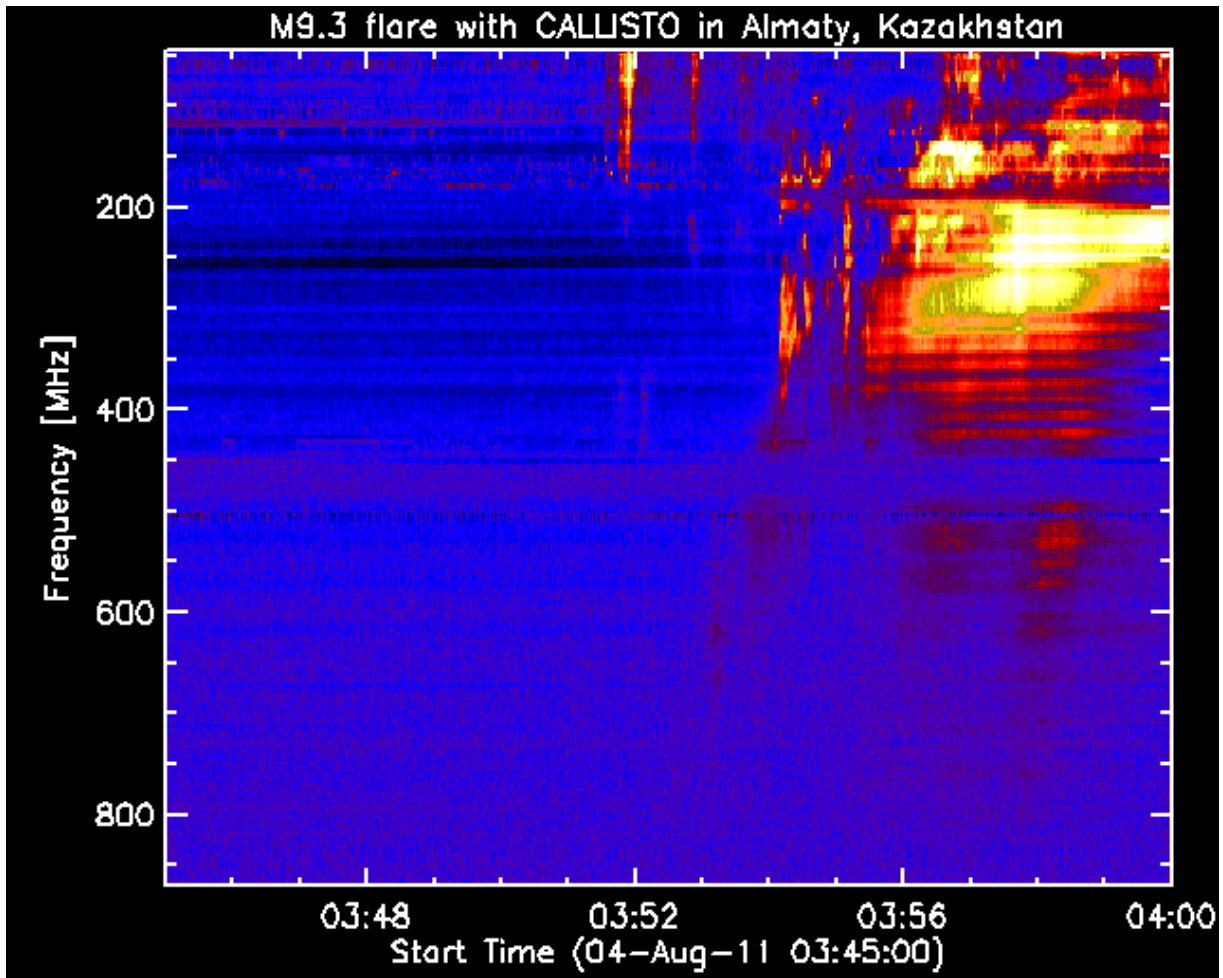


Fig. 11