ETHZ Zürich, 3/30/2011

CALLISTO status report #27

To:

Arnold O. Benz A. Csillaghy Säm Krucker	ETHZ, Switzerland FHNW, Switzerland FHNW, Switzerland	benzΩastro.phys.ethz.ch andre.csillaghyΩfhnw.ch samual.kruckerΩfhnw.ch
P. K. Manoharan D. Nandagopal R. Venkatasubramani	NCRA Ooty, India	manoΩwm.ncra.tifr.res.in dngΩmailhost.tifr.res.in rvsΩmailhost.tifr.res.in
R. Ramesh V. C. Kathiravan	IIA Gauribidanur, Bangalore, India	rameshΩiiap.res.in kathirΩiiap.res.in
Alexander Altyntsev Sergey Lesovoi	SSRT Badary/Irkutsk Russian Federation	altyntsevΩiszf.irk.ru lesovoiΩiszf.irk.ru
Francisco Frutos Marco Paez	CINESPA, Costa Rica	frutosΩfisica.ucr.ac.cr cristalvitroΩice.co.cr
Alejandro Lara Gaudencio Paz Martinez Beatriz Argumedo Uribe	UNAM, Mexico	alaraΩgeofisica.unam.mx gaupazΩyahoo.es be.argumedoΩgmail.com
Kyungsuk Cho SuChang Bong	KASI, Daejeon, South Korea	kschoΩkasi.re.kr scbongΩkasi.re.kr
Christophe Marqué	ROB, Bruxelles Belgium	cmarqueΩoma.be
Hanumant Sawant Joaquim E. R. Costa Francisco C. R. Fernandes	INPE Sao José dos Campos Brazil	sawantΩdas.inpe.br jercostaΩdas.inpe.br gugaΩunivap.br
Girish Kumar Beeharry Rajasekhara Gauribidanur	MRT Bras d'Eau, Poste de Flacq, Mauritius	gkbΩuom.ac.mu rajagbdΩgmail.com
Usnikh Sukhbaatar S. Demberel D. Batmunkh	RCAG in Khurel Togoot near Ulaan Baatar, Mongolia	sukhbaatar_uΩyahoo.com demberelΩrcag.ac.mn batmunkhΩrcag.ac.mn
P. Gallagher Joe McCauley Pietro Zucca Eoin Carley	TCD/Birr castle, Ireland	GALLAGPTΩtcd.ie PMCCULEYΩtcd.ie pietrozucca83Ωgmail.com eoincarleyΩgmail.com
Peter Wright	ERAC, Germany	ErachqΩaol.com
Mihai Dumitru EDRO	Melbourne, Australia	cmdumitruΩausec.net
Hans Michlmayr VK6ZT	Perth, Australia	hmichlmayrΩbigpond.com
Jim Sky KH6SKY	Ocean View, Hawaii	radioskyΩradiosky.com
Karel Jiricka	OSRA, Czech Republic	jirickaΩasu.cas.cz
Merja Tornikoski Silja Pohjolainen Juha Kallunki	Metsähovi Radio Observatory Finland	mttΩkurp.hut.fi silpohΩutu.fi kallunkiΩkurp.hut.fi
Ayman M. Mahrous Heba Salah	Helwan university Egypt	ayman.mahrousΩgmail.com galaxy2049Ωyahoo.com
Wolfgang Arnold	DJ3QD	arnoldwoΩaol.com
Whitham D. Reeve	Anchorage Alaska USA	whitreeveΩgmail.com
Radial Anvar	Malaysia	adi_astroΩyahoo.com

Zety Sharizat Hamidi	Malaysia	zsharizatΩyahoo.co.uk
Oleg Gontarev	Almaty Kazakhstan	gog2035Ωyandex.ru
Ericson Lopez	Ecuador	observaquitoΩgmail.com
Walter R. Guevara Day	Peru	walterΩconida.gob.pe
Paul Baki	Nairobi Kenya	paulbakiΩgmail.com
Alexander MacKinnon	Glasgow	a.mackinnonΩeduc.gla.ac.uk
Ivan Dorotovic	Slovakia	ivan.dorotovicΩsuh.sk
Rajmal Jain	Ahmedabad India	rajmalΩprl.res.in

Cc:

Peter Messmer	TXCORP, USA	messmerΩtxcorp.com
N. Gopalswamy	NASA/GSFC, USA	Nat.GopalswamyΩnasa.gov
David Webb	ISWI representative	david.webbΩhanscom.af.mil
K. Yumoto	ISWI representative	yumotoΩserc.kyushu-u.ac.jp
G. Maeda	Editor ISWI newsletter	maedaΩserc.kyushu-u.ac.jp
J. M. Davila	NASA/ISWI, USA	joseph.m.davilaΩnasa.gov
B. Thompson	NASA/GSFC, USA	Barbara.J.ThompsonΩnasa.gov
H. Haubold	UN Office of outer space affairs, Vienna	hans.haubold Ωunvienna.org

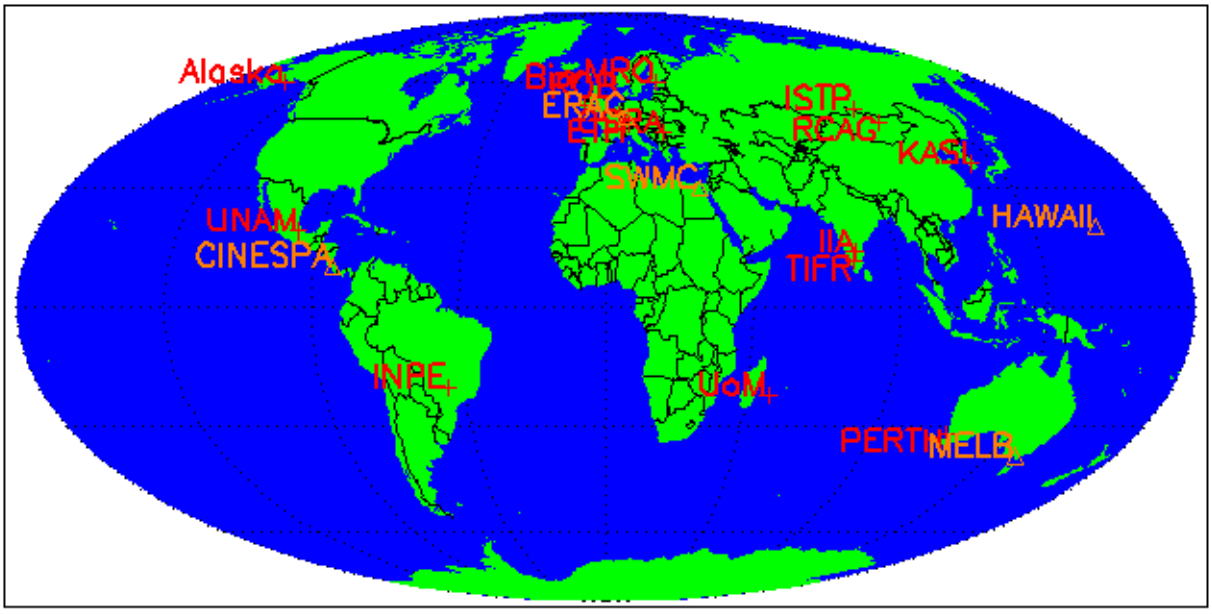
From:

Christian Monstein	ETH Zürich Switzerland	monsteinΩastro.phys.ethz.ch

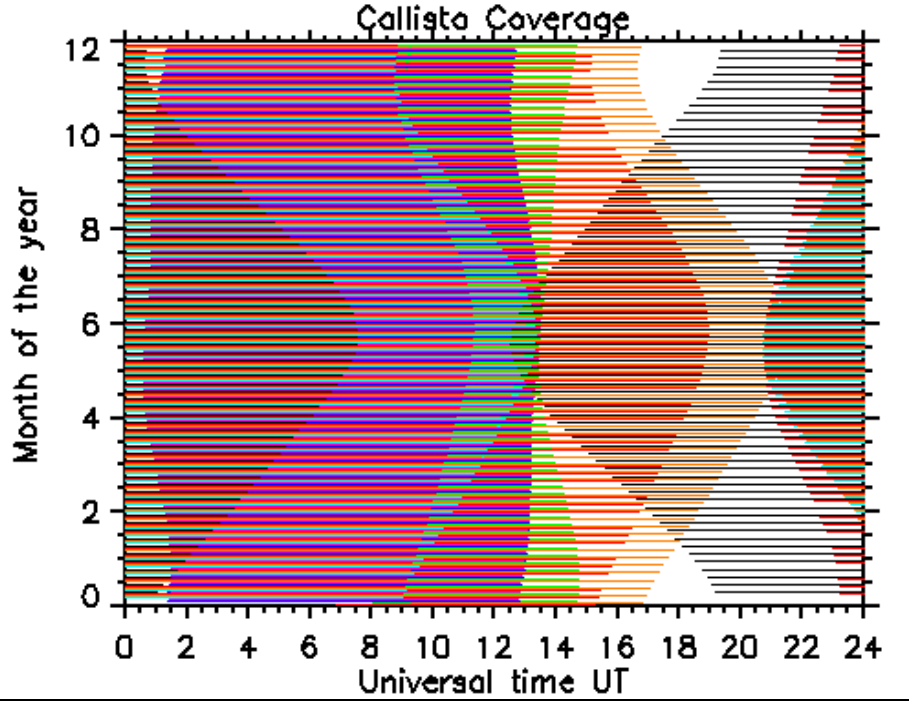
Remark: replace Ω with @ in the email addresses above.

If you do not want to receiver 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.

Current distribution of spectrometers in the e-Callisto network:

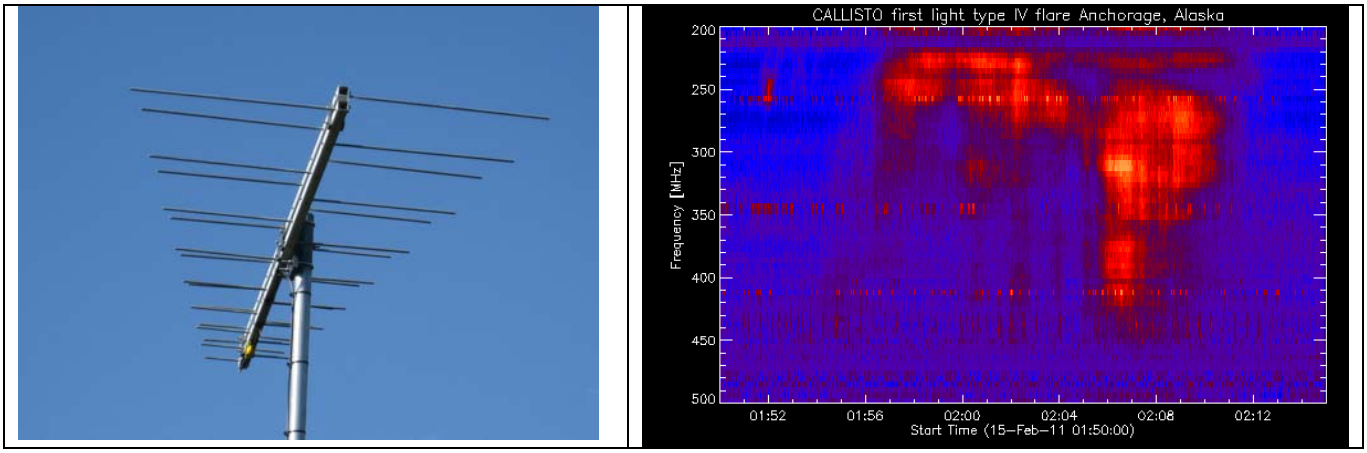


Coverage in Pacific region still needs to be improved (Canada, Hawaii, New Zealand, Peru, Ecuador, etc.)



Location	Instruments	Present status
Bleien, Switzerland	4	Operational
Freienbach, Switzerland	1	Operational
Ooty, India	2	Operational
Gauribidanur, India	1	Operational
Badary, Russian Federation	1	Operational
Daejeon, South Korea	2	Operational
Humain, Belgium	2	Operational
Poste de Flacq, Mauritius	3	Operational
Ulaan Baatar, Mongolia	1	Operational
Birr castle, Ireland	2	Operational
Perth, Australia	1	Operational
Ondrejov, Czech Republic	1	Operational
Anchorage, Alaska	2	Operational
Metsähovi, Finland	1	Operational
Hawaii	1	Lost contact, no data
Mannheim, Germany	1	Lost contact, no data
Melbourne, Australia	1	Lost contact, no data
Cachoeira Paulista, Brazil	2	Lost contact, no data
Costa Rica	1	Lost contact, no data
Mexico	1	Lost contact, no data
Cairo, Egypt	1	Not yet in operation, no data
Selangor, Malaysia	1	Not yet in operation, no data
Total locations:	**22**	
Total instruments:	**33**	
Percentage of active locations:	**63%**	

Anchorage Alaska welcome on board of the e-Callisto network



Left: Logarithmic-periodic antenna mounted on top of the roof. Picture: Whitham D. Reeve, Anchorage.
Right: 1st light of Anchorage system, part of a long lasting type IV flare.

Planned new installations for a Callisto

Almaty Kazakhstan end of May 2011
Malaysia mid of July 2011

New instrument in negotiation phase

Kenya, Peru, Ecuador, India, Turkey, Slovakia, Scotland, Russia

Probably not all requests can be satisfied. Priority has the scientific aspect to have all longitudes on board to cover 24h of observation including some redundancy with respect to time of observation, frequency of observation and interference level. And, a minimum of funding is needed to procure an antenna, a low noise preamplifier, a PC, some cables, adapters etc.

Callisto blog with some nice pictures here:
http://www.e-callisto.blogspot.com/

Access to Callisto documentation and data here:
http://soleil.i4ds.ch/solarradio/

Article about Callisto at ETH Zürich (German language)
http://www.ethlife.ethz.ch/archive_articles/100809_Messgeraete_cho

Article in CRAF newsletter No. 21 2010 (pages 4-6), Radio-spectrometer network e-Callisto:
http://www.astro.phys.ethz.ch/astro1/Users/cmonstei/papers/CRAF_21_8p.A4_12August.pdf

Article in Nature News: Global Solar Observatory Flares Into Life (N. Nosengo):
http://www.nature.com/news/2011/110217/full/news.2011.97.html

New software version V1.13a available here:
http://www.exp-astro.phys.ethz.ch/astro1/Users/cmonstei/instrument/callisto/ecallisto/callisto_V113a.zip

This new version 1.13a is available as a preliminary version. It is designed such that it can cope with standard Callisto (8 bit and tuner CD1316LS/IV) as well as with the HAM-version (10 bit tuner CD1316LS/IHP-3 and CD1316LS/LV-3 and CD1316LK/GIH). It automatically detects the Callisto type and switches all parameter accordingly. After 10 years of operation, many badly coded lines in the application software have been detected and improved.

Linux:
http://www.metsahovi.fi/callisto/e-Callisto_for_Unix/
Open source Linux version of Callisto application has been supplied by Metsähovi observatory, Finland. Due to lack of manpower, no support by ETH.

Hints & Tricks:

A very good idea came from Whitham D. Reeve Anchorage. He found a convenient tool (free of charge for private users) to automatically upload FIT-files to our exchange FTP-server. This tool is much easier to handle than any individual PERL-script. Tool available here:
http://toolsandmore.de/Central/Produkte/Software/Internet/Webmaster/FTP-Watchdog/
For username and password please ask me via email, I do not want to publish them here.

Kits for students and hobbyists:

The German publisher FUNKAMATEUR in Berlin is sold out, no more components or PCBs available.

Beginning of April a new series of 10 instruments Callisto will be produced by apprentices of the Physics Department of ETH. It will be a new version due to change in tuner type. The previous tuner CD1316LS/IV is no more available on the market. Now a new type CD1316LS/IV-3 will be used instead.

Links to web-presentations of Callisto data:

1. Humain, Belgium: http://sidc.be/humain/survey.php
2. Metsähovi, Finland: http://www.metsahovi.fi/callisto-gallery
3. Birr, Ireland: http://www.rosseobservatory.ie/

If you know about other Callisto related web-presentations, please let me know.

My own business:

I still have 3 up-converters on stock for 280.00€ including low noise pre-amplifier, power supply and shipping cost.

- Input frequency range: 20 – 90 MHz (band pass filtered)
- Output frequency range 220 – 290 MHz (fits into the input range of Callisto)

Two more could be manufactured if there is enough interest from the observer side.