Face to Face ILT-TO Meeting

November 6 & 7

Station LV614 (Irbene / LOFAR-LV)

dr.sc.ing. Romass Pauliks

Content

- LOFAR construction (DONE)
- Site Acceptance Test (DONE)
- ILT contract (IN-PROGRESS)
- LOFAR-LV opening (DONE)
- VIRAC Infrastructure
- International Scientific Conference
- Current LV614 team
- Future plans

LOFAR construction

HBA 1 day - https://www.youtube.com/watch?v=7YVl7PcUW1U&feature=youtu.be (max 11 per day)

HBA - https://www.youtube.com/watch?v=7YVl7PcUW1U&feature=youtu.be

Site Acceptance Test

Site Acceptance Test (SAT)
Station LV614 (Irbene/ LOFAR-LV)

Signature sheet

Location: Station LV614 LOFAR-LV, Irbene, Ventspils district, Latvia

Project/Reference: Agreement No./Nr. SM17-145 from 29.11.2017 on performance of the project: "Development of next-generation sensor programmable LOFAR radio telescope of Ventspils University College (identification No. VeA 2017/17/VP)". Decision No. VeA 2017/17/VP-02.

VENTSPILS UNIVERSITY of APPLIED SCIENCES hereinafter referred to as the "Buyer"
and
ASTROTEC HOLDING B.V., hereinafter referred to as the "Supplier",

agree that the international **LOFAR station LV614 Irbene / LOFAR-LV** successfully passed the Site Acceptance Test (SAT) on the condition that the Station Validation Report as a result of this SAT will be transferred to Buyer within 30 days after signing and on the condition that, if applicable, any open actions and issues mentioned in this SAT have been closed within three month after signing of this SAT.

Supplier representative:	Buyer representative (1st)	Buyer representative (2nd) (if applicable)
Name: Menno Norden	Name: Karlis Krastins	Name: [illegible]
Date: 15-8-2019	Date: 15th August 2019	Date: 15.08.2019
Place: Irbene	Place: Irbene	Place: [illegible]
Signature:	Signature:	Signature:

ASTROTEC HOLDING

Site Acceptance Test
LV614
(Station Irbene / LOFAR-LV)

Doc.nr.: ATH-MOM-SAT-LV614
Rev.: 1.0
Date: 08-08-2019
Class.: Limited

ASTROTEC-MOM-SAT R1

1 / 15

ILT contract (In-progress)

Agreement regulating the usage of the international LOFAR station LV614 (Irbene) by the Stichting International LOFAR Telescope (ILT); the usage of the International LOFAR telescope by the Ventspils International Radio Astronomy Centre, Ventspils University of Applied Sciences (VIRAC, VUAS) as part of the LOFAR-LATVIA Consortium; and the contribution of VIRAC to the central operations of the International LOFAR Telescope.

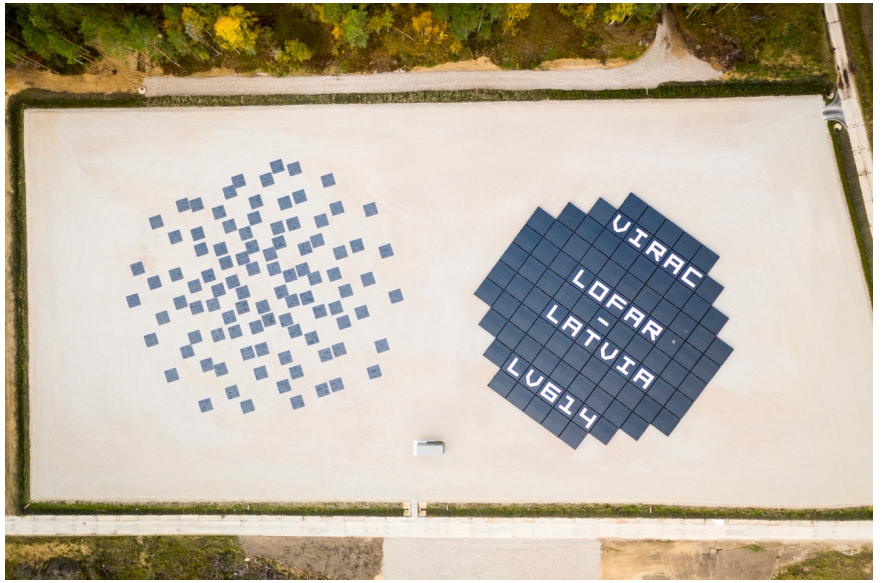
Preamble

This agreement is made between the Stichting ILT (Oude Hoogeveensedijk 4, 7991 PD Dwingeloo, The Netherlands), hereinafter called "Stichting ILT", and the **Ventspils International Radio Astronomy Centre, Venstpils University of Applied Sciences** (Inženieru iela 101, Venstpils, LV 3600, Latvia), hereinafter referred to as VIRAC, and together referred to as "The parties".

LOFAR-LV LV614 Opening

- LOFAR Irbene / LV614 Opening
- 25th anniversary of VIRAC

https://m.youtube.com/watch?v=b9EImam51nM



VIRAC infrastructure

LOFAR-LV LV614

RT-32

RT-16

LOFAR LOCAL-mode Storage solution (In-progress), buffer 110TB, tape 1,3PB

LOFAR LOCAL-mode Processing solution (In-progress)

International Scientific Conference (BAASP)

International Scientific Conference “Baltic Applied Astroinformatics and Space data Processing” (BAASP)

The scope of the conference covers fundamental and applied research that related to space technologies, and includes the following:

SPACE SCIENCE

including space and atmospheric physics, Earth observation and remote sensing from space, planetary sciences, astrochemistry, space geodesy, astronomy and astrophysics;

SPACE ENGINEERING,

including communications, navigation, space operations, satellite design, testing, and implementation, engineering of new generation radio telescope frontend and backend solutions;

SPACE AND INDUSTRIAL IT SOLUTIONS,

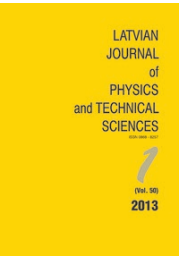
including data acquisition, signal processing, data correlation, data recording, transfer, processing and archiving high performance and cloud computing techniques.

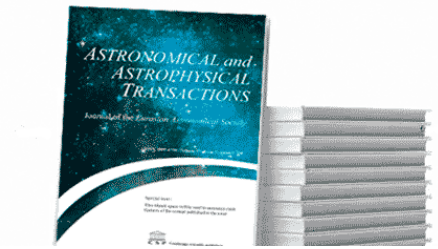
http://virac.eu/en/events/baasp/

BAASP'2019 Key-Facts

- *Up to 50 presentations;*
- *5 keynote speakers (I, NL, RUS, UA);*
- *6 scientific sessions;*
- *8 chairs (EE, LV, RUS);*
- *8 countries (EE, I, FIN, LV, NL, PL, RUS, UA)*

- *Up to 20 scientific articles (SCOPUS):*
  - *12 articles qualify for publication in the special edition of «**Latvian Journal of Physics and Technical Sciences**»*
  - *6+2 scientific articles qualify for publication in «**Astronomical and Astrophysical Transactions**»*





Current LV614 team

Position	Name	Responsibility
Station Owner Representative	Dr. Romass Pauliks	Point of Contact for any communication with technical and scientific operations of ILT
Radio astronomer	Dr. Artūrs Vrubļevskis	Solar Radio Astronomy, Space Weather research opportunities
Radio astronomer	Dr. Dmitrijs Bezrukovs	Solar Radio Astronomy
Engineer (HW&SW)	Arturs Volkovs	ILT and Single Station (SS) technical support and maintenance. SS hardware and software
Engineer (IT)	Artūrs Orbidāns	SS Storage and Processing applications
Radio astronomers (No agreement has been reached yet)	Dr. Ihor Kravtsov Dr. Artem Sukharev	Pulsars, Transients, Interplanetary Scintillation Observation

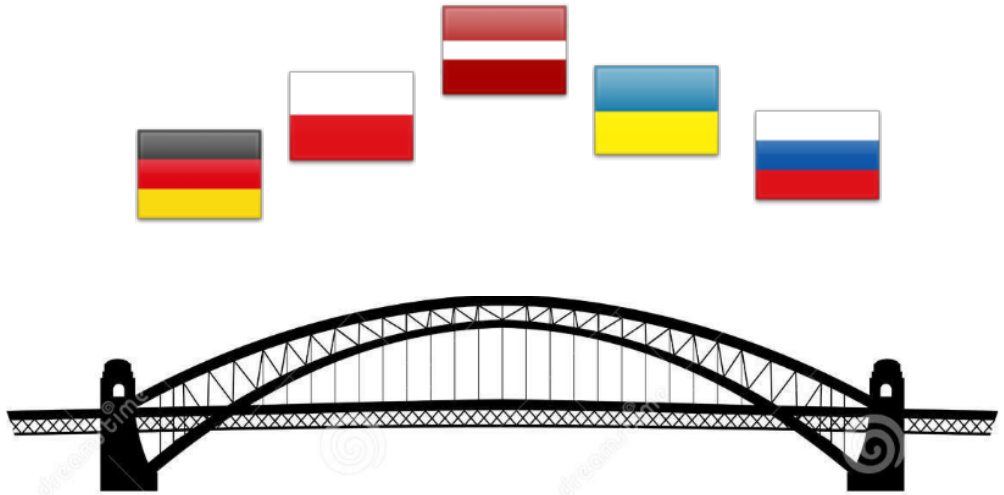
Future plans

- Let's learn from POLFAR (GLOW) colleagues how to make the most of our station in LOCAL-mode.

- Let's bring a postdoc from east and west to work with our station on both LOCAL-mode and ILT.

- Develop a new interdisciplinary doctoral study programme in “Astrophysics”

Thank you



VIRAC as a technological, educational and scientific “bridge” between West and East