



Online Fest

«Images of the Earth from Space»

Event program

Duration: 1 h 20 min

1. Introduction

LoReTT team invites you to the fascinating world of space imagery!

- SPEAKERS: **Vladimir Gershenzon** (Co-founder, Director General of the “LoReTT” LLC),
Olga Gershenzon (Co-Founder and Deputy Director General of the “LoReTT” LLC.)
- CONTENTS: Greetings. Representation.
- DURATION: 5 min



2. Base unit

What is «Earth observation» ?

Let's get acquainted with the general concepts!

- SPEAKER: **Karina Nikitskaya**
(Development Director,
«LoReTT» LLC)
- CONTENTS: A brief description
of the program. Block of input
information (space, satellites,
stations, images of the Earth
from space).
- DURATION: 15 min

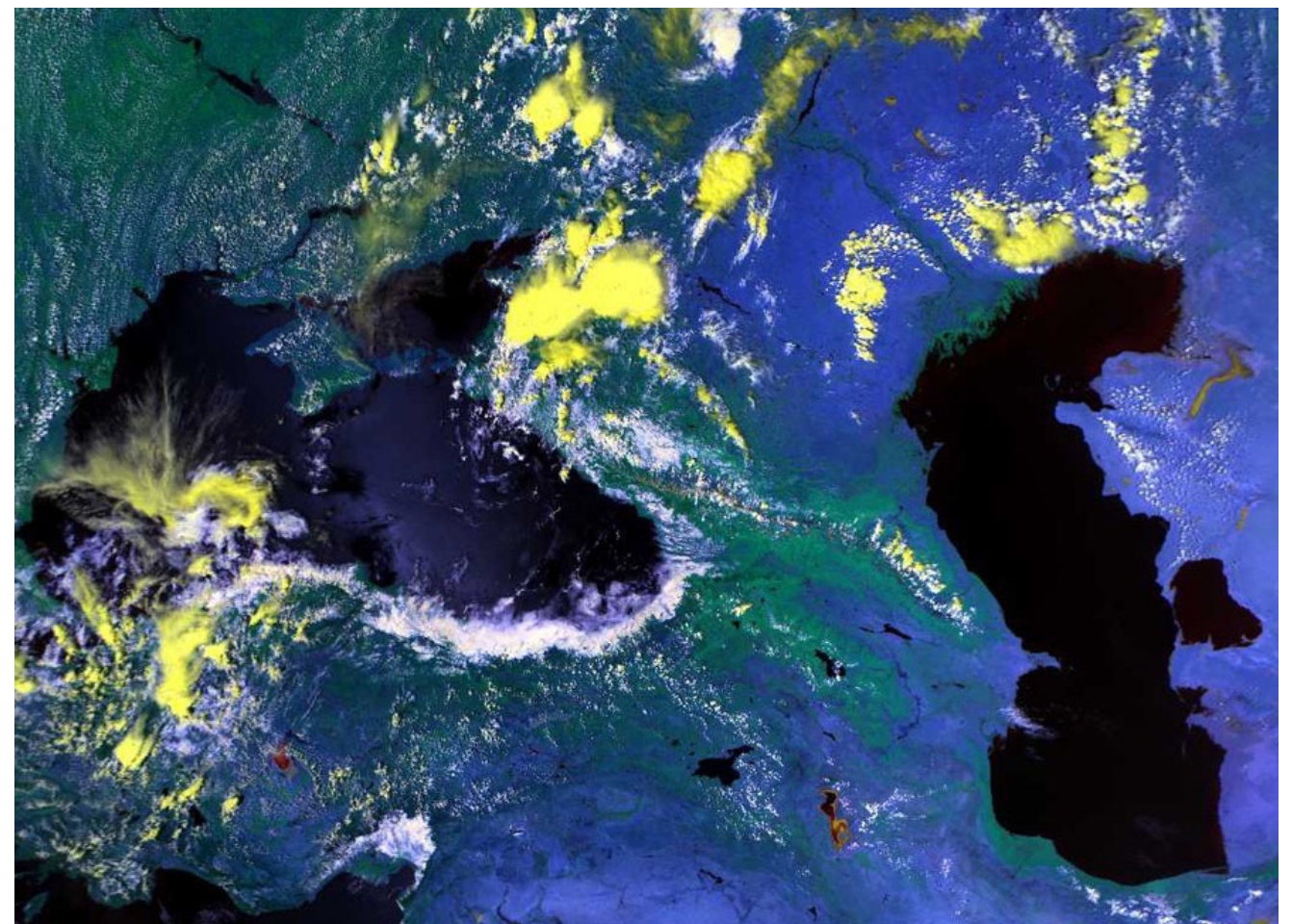


3. Interactive quiz

Can you "read" data from satellites?

Do you know what an urban settlement, field, forest, ice, desert, etc. looks like from space?

- SPEAKER: **Maria Dorofeeva**
(Head of Educational Programs Department, «LoReTT» LLC)
- CONTENTS: We will interpret images of the Earth from space. The quiz is interactive. Participants will be invited to the broadcast (at will and technical capabilities).
- DURATION: 15 min



4. Competition game

**Do you want to try yourself as a real GIS specialist?
Join us, it will be fun!**

- SPEAKER: **Maria Dorofeeva**
(Head of Educational Programs
Department, «LoReTT» LLC)
- CONTENTS: Work with open
Earth imagery data from space
and publicly available geoportals.
Seek information and answer
questions on speed.
- DURATION: 10 min



5. Remote work with ground stations for satellite data reception (engineering unit)

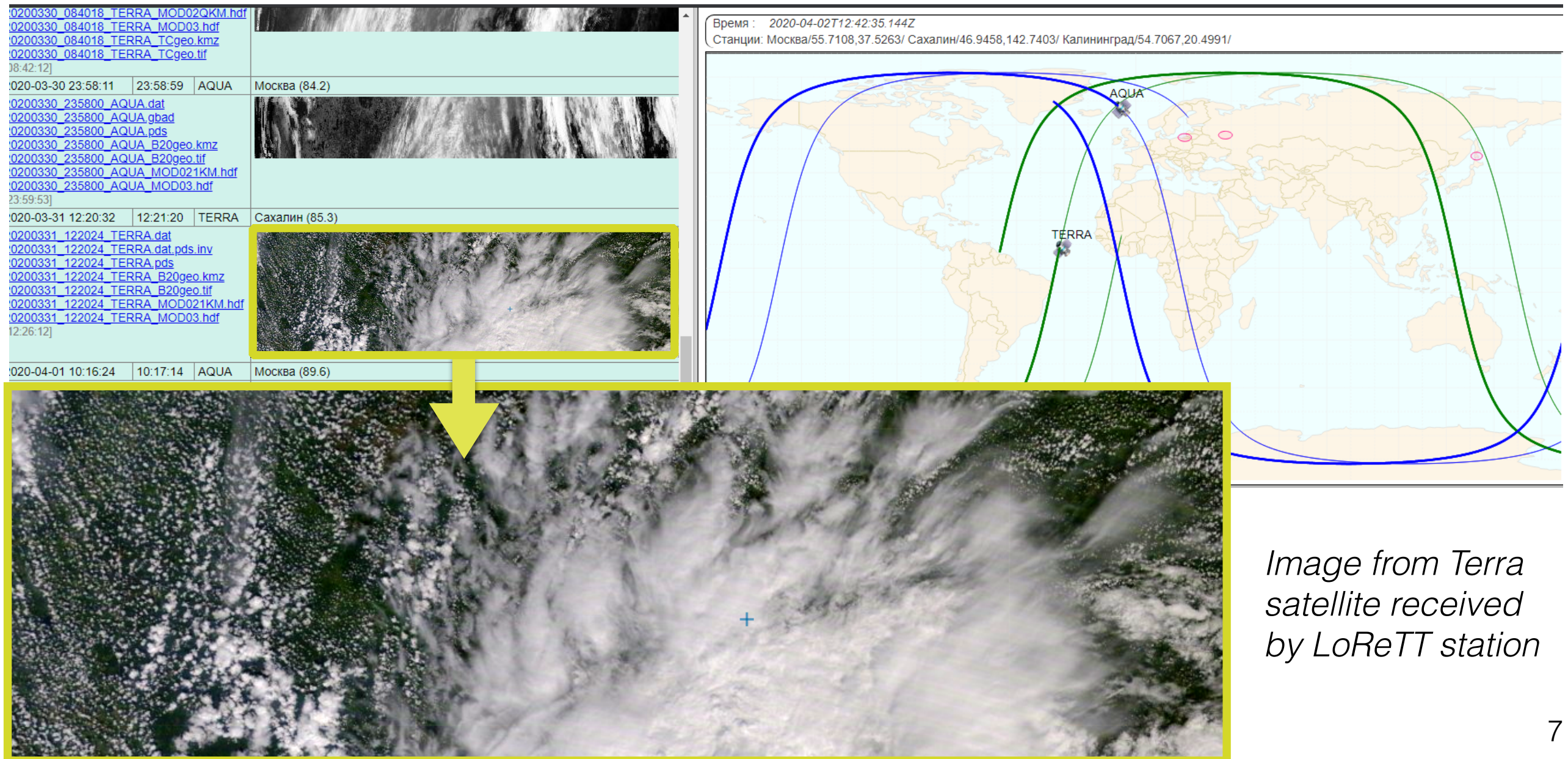
Let's try to receive an image of the Earth from space in real time from real satellite!

- SPEAKER: **Sergey Urvantsev**
(Lead Engineer of «LoReTT» LLC)
- CONTENTS: Work with ground receiving stations for satellite data reception in real time mode. Data reception from Earth observation satellites according to the current local schedule.
- DURATION: 15 min



THEORY & PRACTICE:

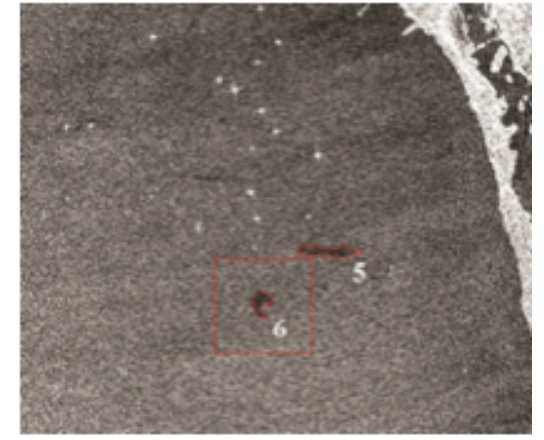
- Open scientific and meteorological spacecrafts.
- General characteristics of satellites and images.
Terra and Aqua satellites. MODIS.
- «LoReTT» X-band ground receiving station.
- Calculation of the schedule of satellites.
- Satellite flight track.
- Processing received data.
- Demodulation and decoding of the received data.
- Reception of a signal from a satellite through a network of «LoReTT» stations.
- Demonstration of the received image in Google Earth Pro.



6. Application of the Earth images from space

What kind of problems can we solve using Earth observation technologies?

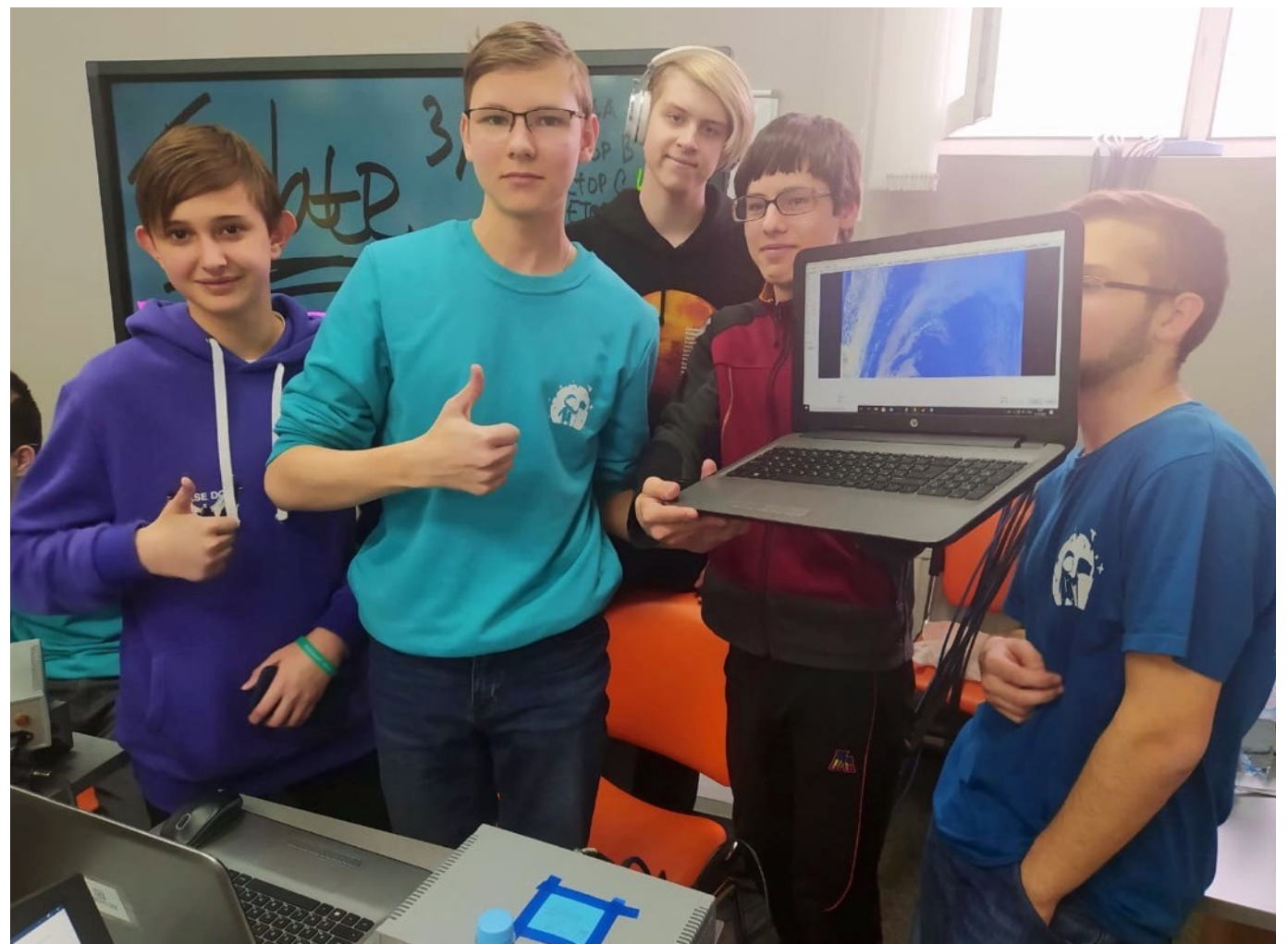
- SPEAKER: **Dmitriy Aksenov** (Director of NGO «Transparent World»)
- CONTENTS: Examples of projects based on images of the Earth from space.
- DURATION: 15 min



7. Final part

What's next? We will tell you about the opportunities to develop in this direction!

- **SPEAKERS: Karina Nikitskaya, Maria Dorofeeva, Olga Gershenzon, Vladimir Gershenzon**
- **CONTENTS:**
Announcement of educational intensity. Sources of information on the topic. Invitation to participate in events. The final word..
- **DURATION: 5 min**





Online Fest can be held as an independent event, or as the opening part of the educational intensive, including a series of «space lessons» in general school subjects (geography, physics, computer science, social studies, etc.)



**THANK YOU FOR YOUR ATTENTION!
WE INVITE YOU TO COOPERATION!**

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Transparent World