УРАЛГЕОИНФОРМ

РОСКАРТОГРАФИЯ

Phase One 190MP: experience in Russia.

CEO

Pavel Anashkin

FROM IMAGERY TO DIGITAL REALITY:

ERS & Photogrammetry

Crete, Greece 2018

Phase One 190MP

Components:

▪ **PhaseOne IXU-RS1900 aerial camera;**

▪ **PC IX Controller MKIII;**

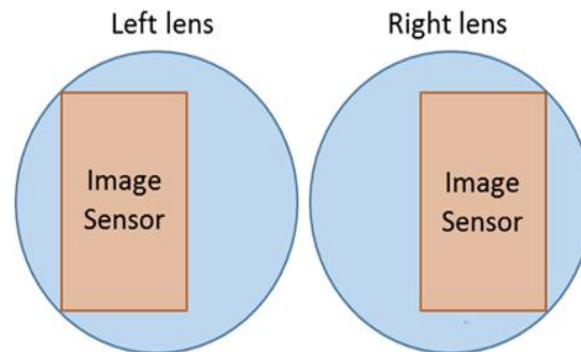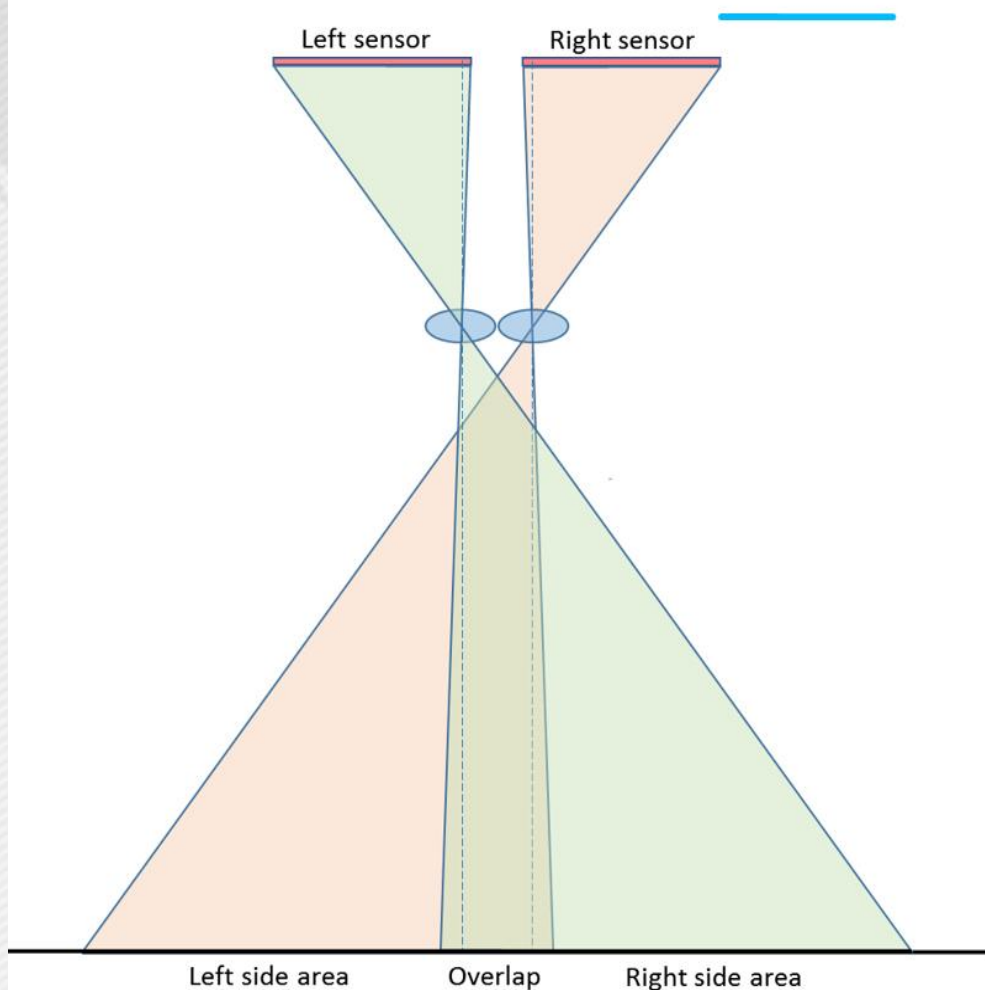▪ **Gyro stabilized platform Somag DSM 400;**

▪ **GNSS Applanix POS AVX 210**

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Comparison of characteristics
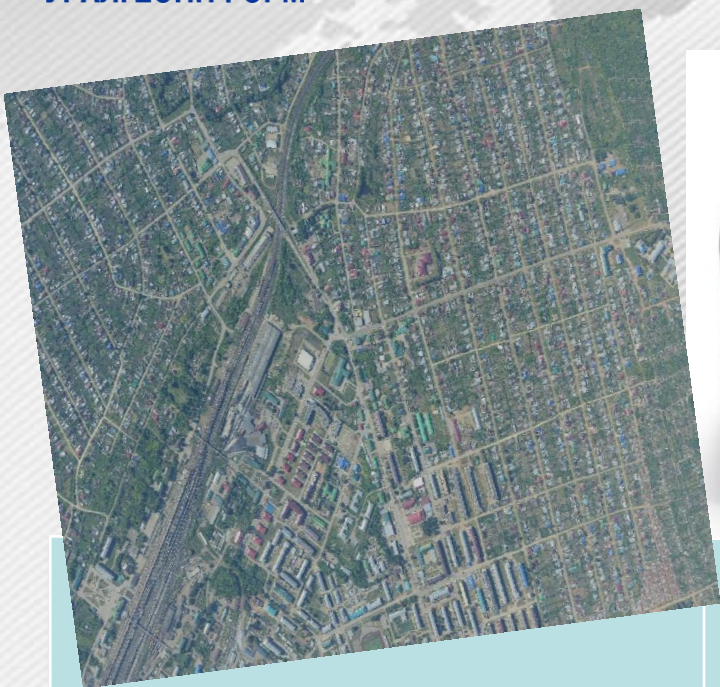
	RCD 30, Medium format	DMS II 250, Large format	PhaseOne IXU-RS1900, medium format
Frame size, pix	8 956 x 6 708	16 768 x 14 016	16 470 x 11 540
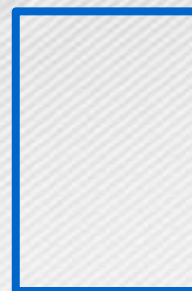
Surveying in 2018

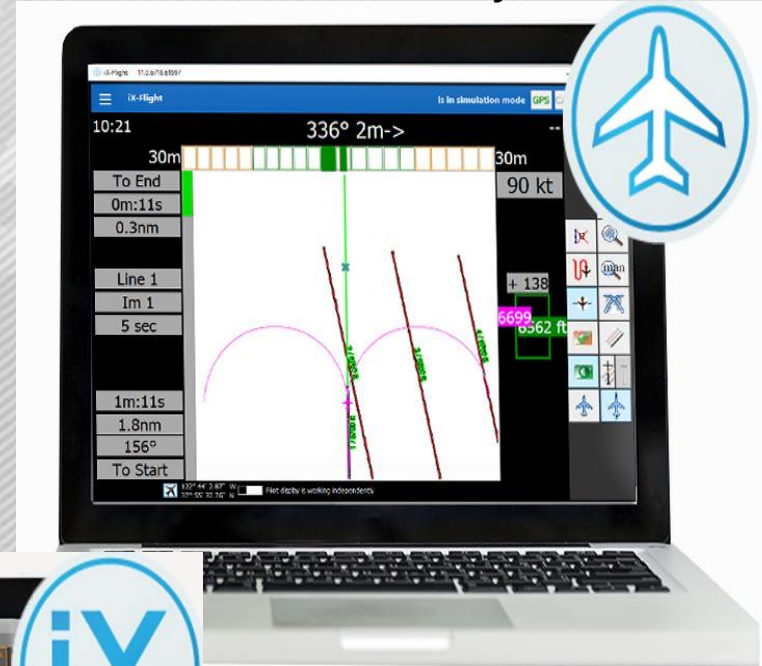| Aerial surveying tasks	GSD, см	Overlap, %	Area, sq. km
Topomapping stereo survey of cities with > 1 mln. citizens	10	80x40	**2 069**
Orthophotomaps of urban and rural areas	15	60x30	**9 654**

Software

Flight operation

iX Plan
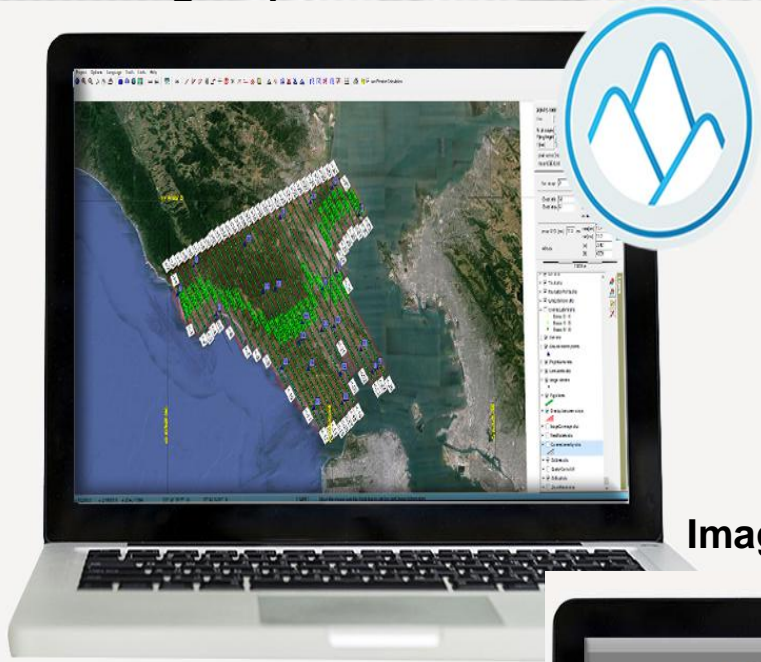
Aerial survey

iX Flight

Image processing

iX Capture

Aerial survey

Flight planning

Raw data processing
iX Capture software

Raw data processing
color correction:
typical histogram and tonal curves for RGB images

typical histogram and tonal curves for RGB images

Easily interpretation of:

- linear objects (road marking, etc., coastline, pipelines, etc.);

- local objects (supports and poles of transmission lines and shadows from them, hatches, details of roofs, crosswalks marks, etc.).

Photogrammetric data processing
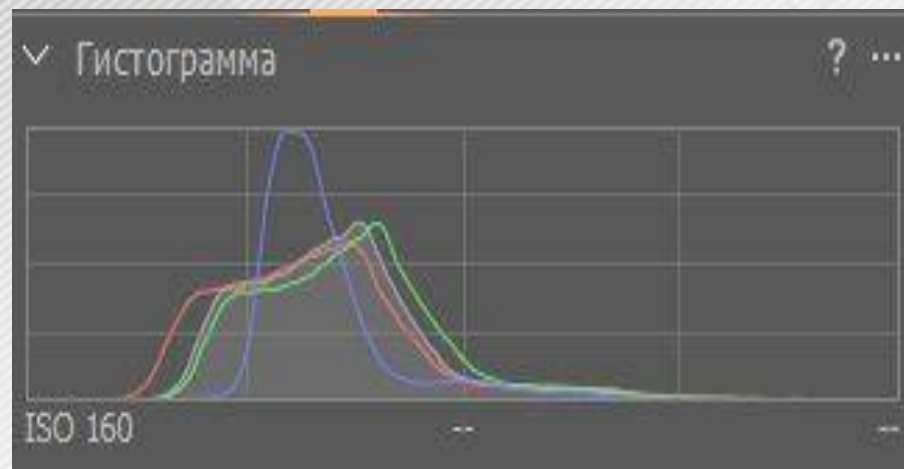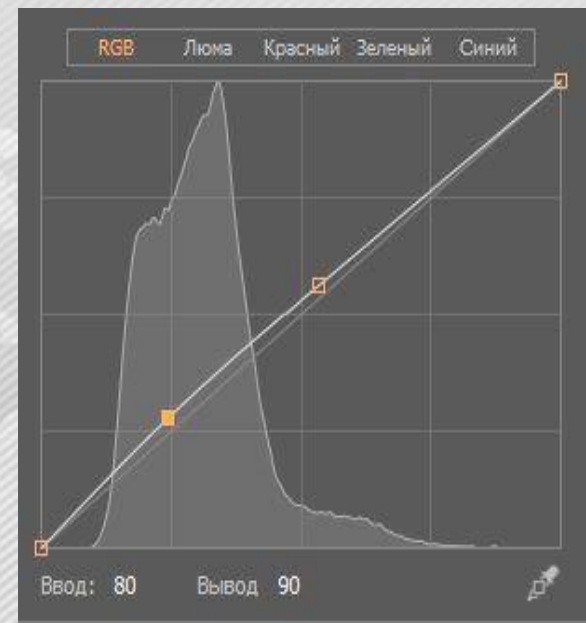
## Hardware and software tests and experiments

- **Aerial images processing in PHOTOMOD** (500 m altitude, 5 cm GSD) for 3D model creation (point cloud)

- **Analysis of the increase in labor costs** of photogrammetric aerial images processing with a longitudinal overlap of 80% and a side overlap of 40% compared with the work performed in 2017.

- Testing the speed and quality (accuracy) of the adjustment with an overlap of 80% by 40% in comparison with the thinned block with an overlap of 60% by 40%.

- Testing the capabilities of PHOTOMOD software for TrueOrtho creating based on aerial survey with longitudinal overlap of 80%.
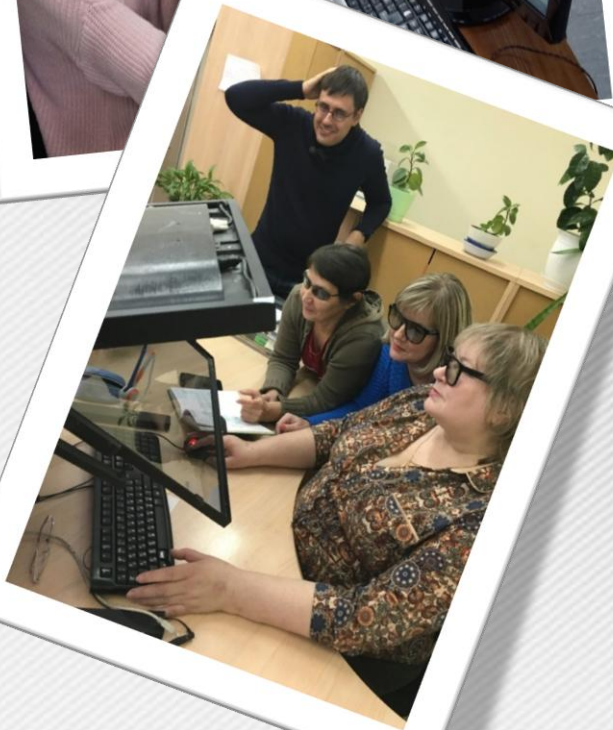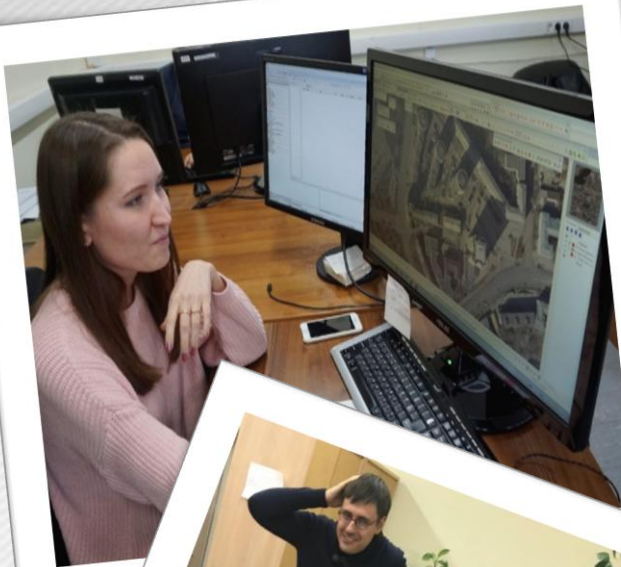
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