

#### **AUTONOMOUS NON-PROFIT ORGANIZATION «PO KSI»**



# GROUND PROCESSING SYSTEM «OSDCAM»

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# DATA PROCESSING AND RECORDING IN OSDDEF FORMAT SERVER

The processing server was specially designed in accordance with Open Skies Treaty requirements and is intended for converting "raw data", received from the «OSDCAM» family of cameras, into OSDDEF format without recording the intermediate data. Upon completion of processing, the server ensures secure erasure of the initial data from the removable medium.



\* - Processing server has the capability for simultaneous recording of observation flight data in OSDDEF format on five data media (three internal and two external USB 3.0 data storage-devices) with an average speed approximately 60 MB/sec for each data medium.

#### **REMOVABLE DRIVE FOR RECORDING ORIGINAL DATA**



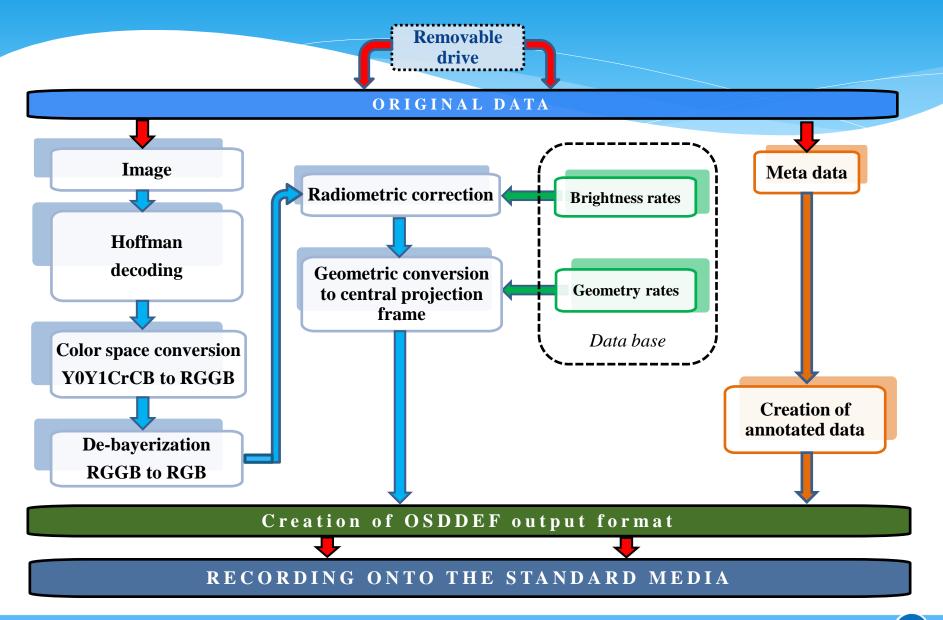
Original observation flight data is recorded on removable medium. In addition, the algorithm of the original data recording on removable medium includes recording of non-displaced reduced (preview) images, which are simultaneously displayed on the operator's monitor during an observation flight.

The removable drive for recording original data is designed as a fivechannel solid-state FLASH drive with 1.2TB capacity, using 5 x SATA 2.0 interface and original file system, designed by ANO "PO KSI".

The case for the removable drive can be sealed, which prevents unsanctioned data copying during transportation of removable drives in the course of ground processing.



#### **ORIGINAL DATA TO OSDDEF CONVERSION ALGORITHM**



АВТОНОМНАЯ НЕКОММЕРЧЕСКАЯ ОРГАНИЗАЦИЯ «ПО КСИ»

#### **ORIGINAL DATA TO OSDDEF CONVERSION PROGRAM**

To convert the original data into OSDDEF version 1.0, 1.1, or 1.2 format, use KSIOPENSKYPROCESSOR version 1.0, which was specifically designed in accordance with Open Skies Treaty requirements.

This program's unique feature is that the original data processing algorithm and open skies digital video product generating algorithm are carried out without generating intermediate results in the form of a digital video product. This algorithm greatly reduces conversion time into OSDDEF, and helps to save much time by skipping unnecessary erasure of intermediate data.

#### **ORIGINAL DATA ERASURE PROGRAM**

Erasure of data from removable medium is carried out after the results of the conversion into OSDDEF have been checked and data saved to standardized exchange media have been verified.

For data erasure Parted Magic program is used, which is based on Linux recent versions, GParted Manager, and related components for proper work with all file systems. Parted Magic program does not require installation and provides guaranteed total erasure of data from the removable medium.

## **OSDCAM OUTPUT FORMAT FEATURES**



Example of an Open Skies digital imagery product from low altitude channel, consisting of six sub-frames.

# STANDARDIZED EXCHANGE MEDIUM



As a standardized exchange medium Seagate 2 TB external drive Backup Plus Portable is used. It is made in the form of upright standing package, and uses the USB 3.0 interface. The standardized exchange medium is already formatted to the NTFS file system.

**Observation flight data can be recorded on the standardized exchange medium in OSDDEF version 1.0, 1.1 and 1.2.**