

# UPGRADE HARDWARE & SOFTWARE GOLOSIIV STATION 1824

M.Medvedsky<sup>1</sup>, D.Sovgut<sup>2</sup>

<sup>1</sup> Main astronomical observatory of NAS of Ukraine, Kyiv, Ukraine, E-mail: medved@mao.kiev.ua

<sup>2</sup> University of Illinois Urbana-Champaign, Urbana-Champaign, USA, E-mail: dsovgut2@illinois.edu

NEW



- epoch gate 40ns step
- GPS synchronisation time
- internal watch 40ns resolution
- control SAT/target
- there are using interval & epoch timers
- USB/UART interface



- Event timer  
resolution 1ps  
LPT interface

HARDWARE

OLD



- Interval gate 2mks step  
parallel interface  
DOS operation system  
(needs ISA-bus)



- Time interval counter A033  
resolution 35ps  
GPIB/COM interface

- Automation positioning system  
for internal calibration  
Remout control  
(1s < switching time)



- Manual positioning  
system for internal  
calibration

Switching time ~1min

LOCAL NETWORK +

PC1  
EPHEMERIDES  
FILTERING & SENT  
NPT

PC2  
A033 CONTROL

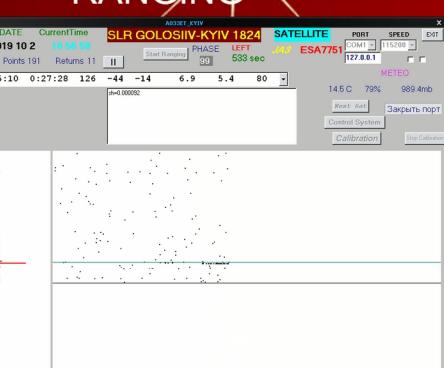
PC3  
METEO SERVICE

PC4  
LASER CONTROL

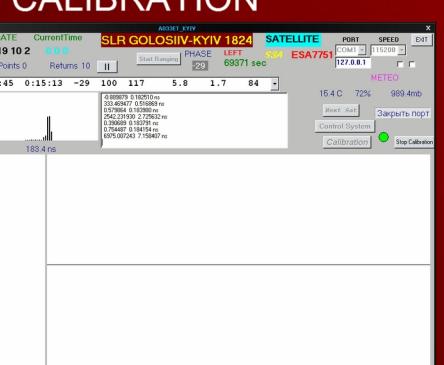
PC5  
TELESCOPE  
CONTROL

RANGING

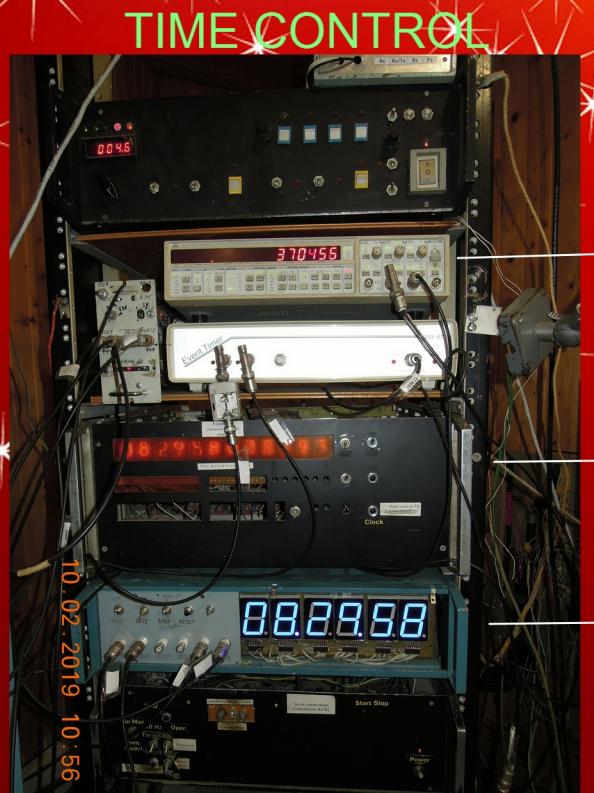
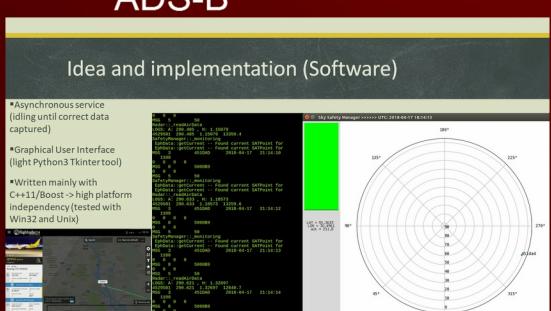
TIME CONTROL



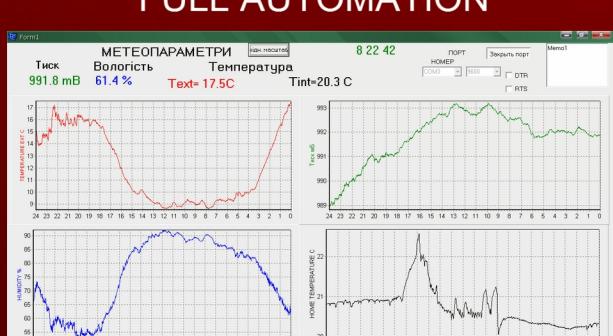
CALIBRATION



ADS-B



NEW METEO SERVICE  
FULL AUTOMATION



CONTROL THE  
DIFFERENCES  
BETWEEN TWO CLOCKS

TIME FOR  
TELESCOPE

TIME FOR  
RANGING  
GATE

TWO  
INDEPENDENT  
CLOCK

OLD METEO SERVICE  
DATA WRITTEN FROM  
SCREEN MANUALLY

