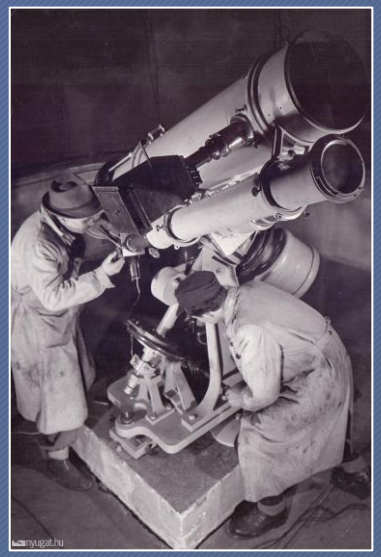
150 éves az ógyallai csillagvizsgáló
Nemzetközi konferencia
Hurbanovo
2021. november 24.

The current collaboration between GAE in Vas County and SÚH in Hurbanovo

Mitre, Zoltán – *presidential adviser*
Péntek, Kálmán - *president*

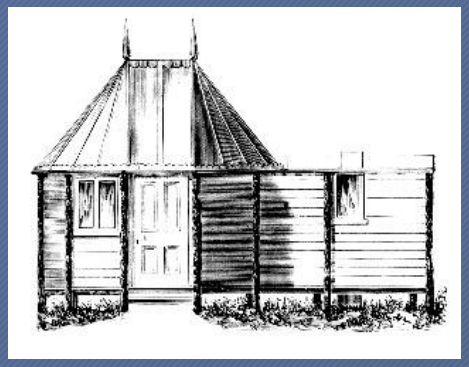
Eugen von Gothard Astronomical Association (GAE)
Vas megye, Szombathely, Hungary

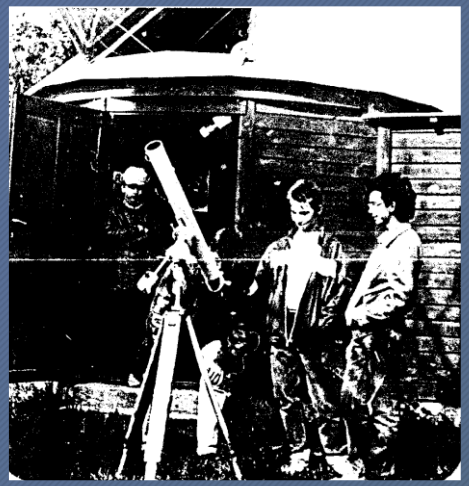
The GAE Association



- From the 1870s: Regular observations by Eugen von Gothard and his brothers in Herény. In the 1880s professional contact with Hurbanovo and Miklós Konkoly-Thege.
- Eugen von Gothard died in 1909, Stephan von Gothard (the youngest brother) died in 1948.
- In January 25, 1948. the Eugen von Gothard Natural Science Group in the Premontrei High School was established.
- In September 22, 1963 the Vas county department of the Club of Friends of Astronomy (CSBK) was established.

The GAE Association





- The motivated and talented young students were taken care by György Tóth director in the 1970s in the Gothard Astrophysical Observatory in Herény.
- Amateur astronomers were gradually motivated to establish a „bottom up” organization specialized to local astronomical values.
- In September 4, 1980. Ernő Vértes emerged an idea about a new astronomy club in Szombathely.
- In September 11, 1980 the new Eugen von Gothard Astronomical Club and Workshop was established.

The GAE Association

- In October 15, 1983. a new observatory was opened.
- 1980-1989: workshops, excursions, trainings.
- After political changes in Hungary, in November 11, 1989. a new independent association was founded: the GAE.
- GAE association is the continuity of the club founded in 1980.
- Main profile is education of astronomy: trainings, exhibitions, professional workshops.

Cooperation, meetings



- GAE supports the astronomical education at the local higher education, university.
- GAE is an intermitter between the professional and educational branches.
- Some thesises of university students in Szombathely were helped by GAE and SUH.
- Excursions were organized for students to Hurbanovo from Vas county.
- Regular professional consulting in Hurbanovo.
- GAE supported the new planned astronomy PhD program of planned earth sciences PhD school in Szombathely in 2011.

Some important professional meetings

- 2008: 19. National Solar Physics Meeting, Papradno (SK)
- 2010: 20. National Solar Physics Meeting, Papradno (SK)
- 2010: International Space Weather Initiative (Egypt)
- 2011: Euro-regional Conference of Natural Sciences, Szombathely (HUN)
- 2014: Conference on the 25th anniversary of GAE.
- 2019: Conference on the 30th anniversary of GAE.

Euro-regional Conference 2011

1. Teodor Pintér (SÚH)

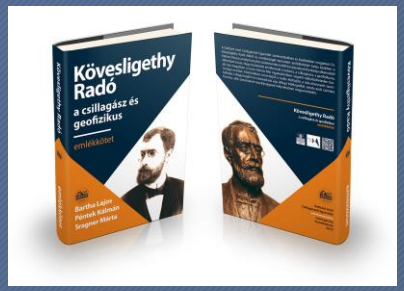
2. Ferenc Szenkovits (BBTE)

3. Kálmán Péntek (NYME, GAE)

4. Ulrich Ott (NYME)

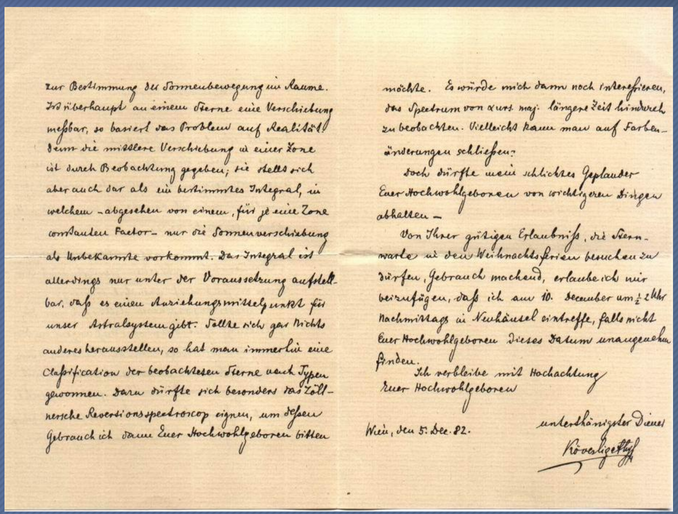
5. Ivan Dorotovič (SUH)

Radó Kövesligethy Observatory and Planetarium



- New observatory (2004) and planetarium (2012) opened at the university in Szombathely.
- GAE helped the professional consulting with SÚH during the planning processes.
- GAE helps the educational and public programs.
- Study of professional work of Radó Kövesligethy. SÚH helped with their documents and records.
- Book of Radó Kövesligethy issued in 2019, written by Lajos Bartha, Kálmán Péntek, Márta Sragner.

Radó Kövesligethy documents from SÚH archives



zur Bestimmung der Sonnenbewegung im Raume. Ist überhaupt an einem Sterne eine Verschiebung meßbar, so basiert das Problem auf Realität! Denn die mittlere Verschiebung in einer Zone ist durch Beobachtung gegeben; sie stellt sich aber auch dar als ein bestimmtes Integral, in welchem – abgesehen von einem, für je eine Zone constanten Factor – nur die Sonnenverschiebung als Unbekannte vorkommt. Das Integral ist allerdings nur unter der Voraussetzung aufstellbar, daß es einen Anziehungsmittelpunkt für unser Astralsystem gibt. Sollte sich gar Nichts anderes herausstellen, so hat man immerhin eine Claßification der beobachteten Sterne nach Typen gewonnen. Dazu dürfte sich besonders das Zöllnersche Reversionsspectroscop eignen, um dessen Gebrauch ich dann Euer Hochwohlgeboren bitten möchte. Es würde mich dann noch interessieren, das Spectrum von α urs. maj. längere Zeit hindurch zu beobachten. Vielleicht kann man auf Farbenänderungen schließen.

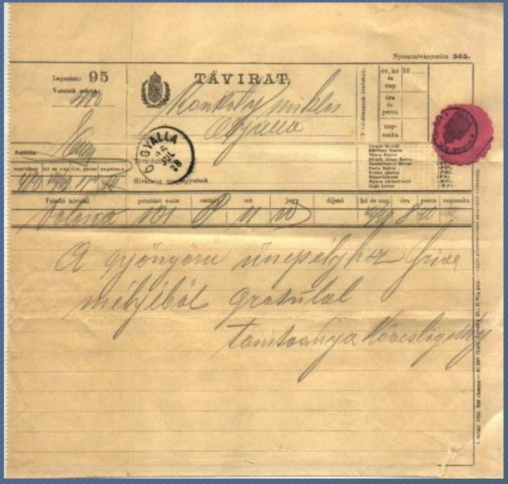
Doch dürfte mein schlichtes Geplauder Euer Hochwohlgeboren von wichtigeren Dingen abhalten –

Von Ihrer gütigen Erlaubniß, die Sternwarte in den Weihnachtsferien besuchen zu dürfen, Gebrauch machend, erlaube ich mir beizufügen, daß ich am 10. December um ½ 2 Uhr Nachmittags in Neuhäusel eintreffe, falls nicht Euer Hochwohlgeboren dieses Datum unangenehm finden.

Ich verbleibe mit Hochachtung
Euer Hochwohlgeboren

Wien, den 5. Dec. 82.

unterthänigster Diener
Kövesligethy



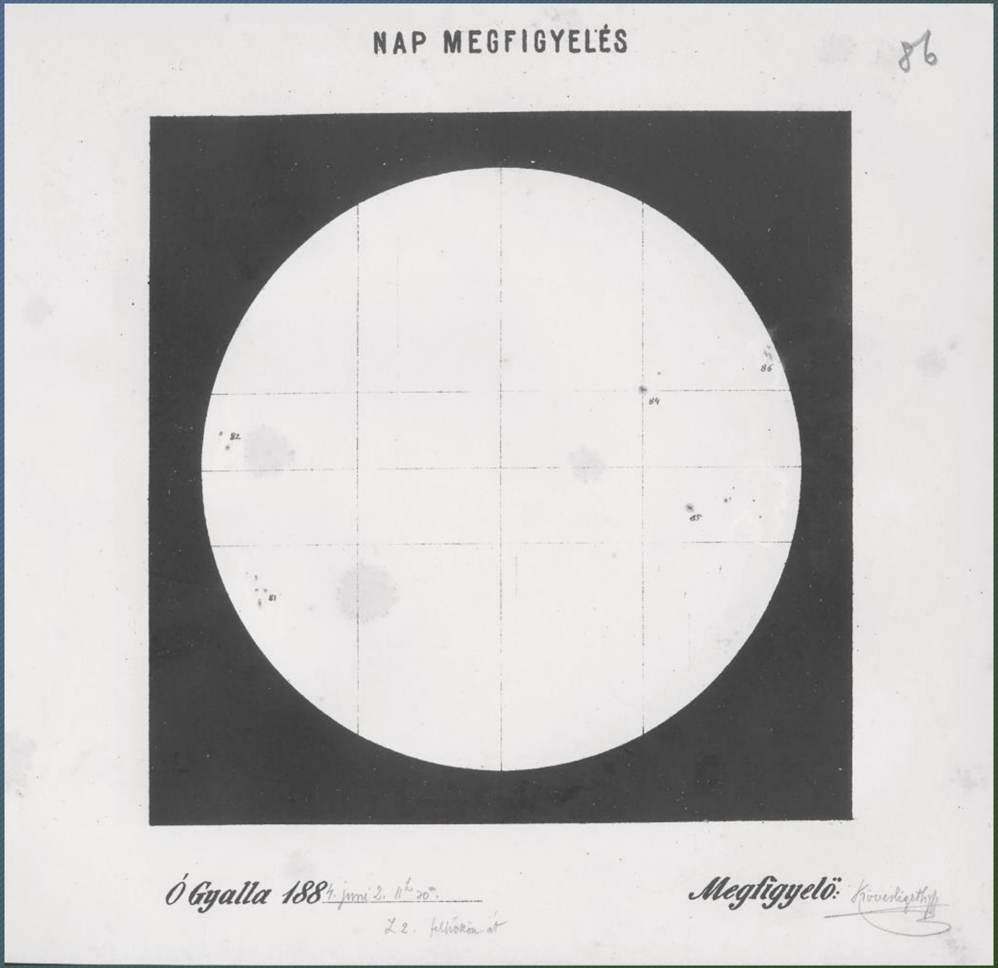
TÁVIRAT

Lapszám: 95

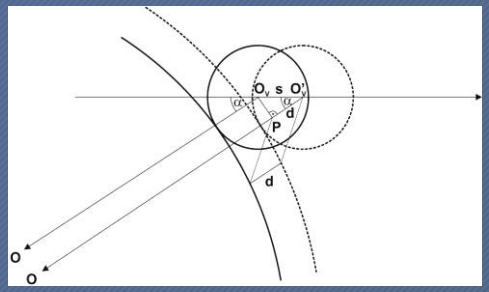
Nyomtatványszám 365.

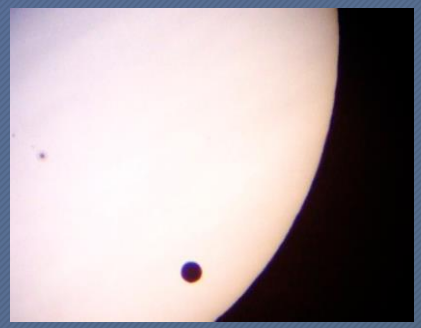
Konkoly Miklós
Ógyalla

A gyönyörű ünnepélyhez szíve mélyéből gratulál
tanítványa Kövesligethy



Professional work – Venus transit





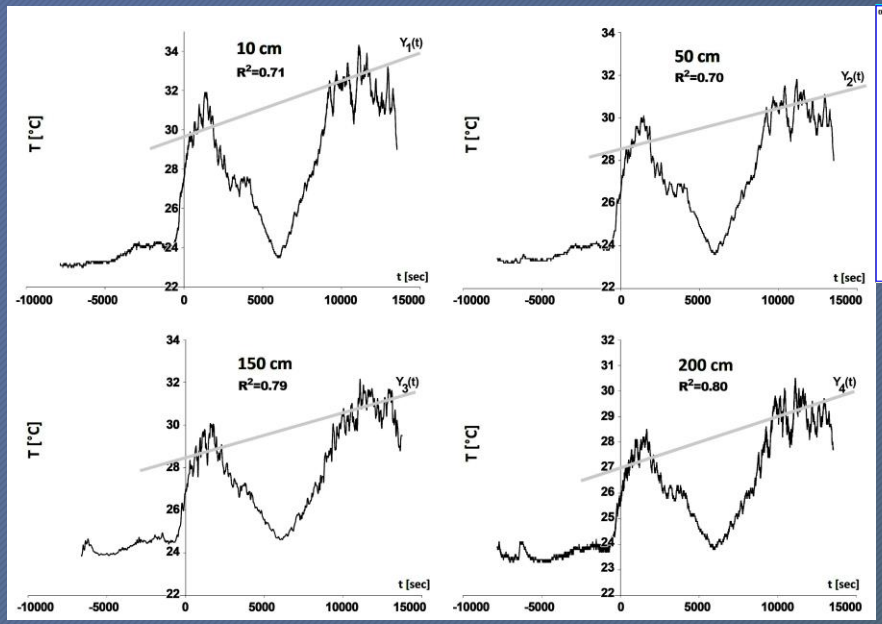
- 2004: Observation of the Venus-transit in Vardo (Norway). A telescope of 180/910 mm was carried to Vardo. Telescope was assembled in the SÚH.
- Solar parallax measurement was unsuccessful.
- Detailed survey about the memories of Maximilan Hell and János Sajnovics.
- 2004-2007 discussion with the SÚH about experiences.
- 2012: solar chromosphere measurement (ca. 2593 km) consulting with SÚH.
- In progress: a new book from Maximilan Hell of Lajos Bartha and Zoltán Mitre.

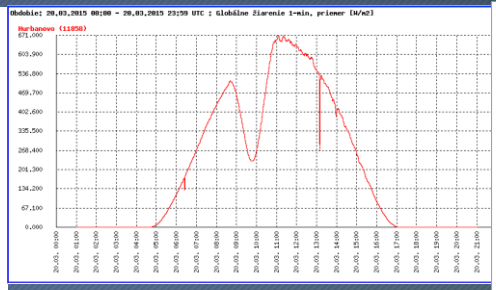
Solar eclipses and environment

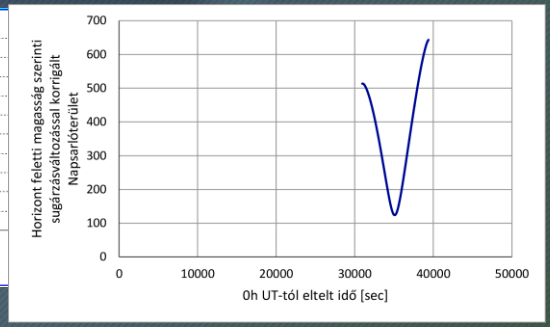



- 1999: Szombathely (GAE)
- 2006: Antalya, Turkey (GAE, SÚH)
- 2009: Tianhuangping, China (SÚH)
- 2010: Argentina (SÚH)
- 2011, 2015: Szombathely (partial) (GAE)
- 2017: USA (SÚH)
- Measurement of temperatures of environment.
- 2015: detailed environmental survey in Szombathely.
- Temperature decrease depends on the quality of the environment.

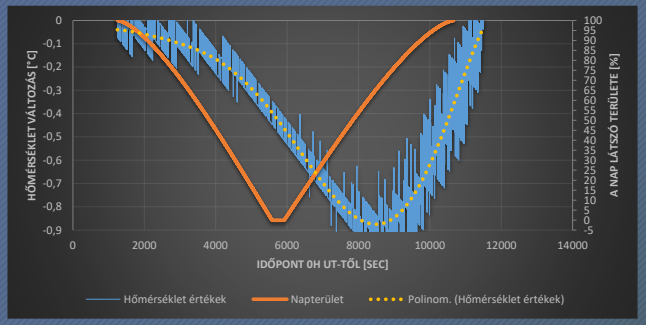
Solar eclipses and environment

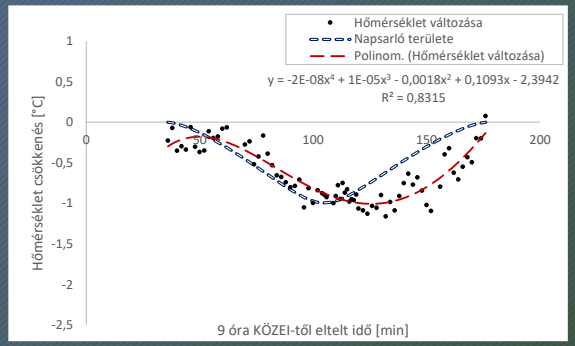


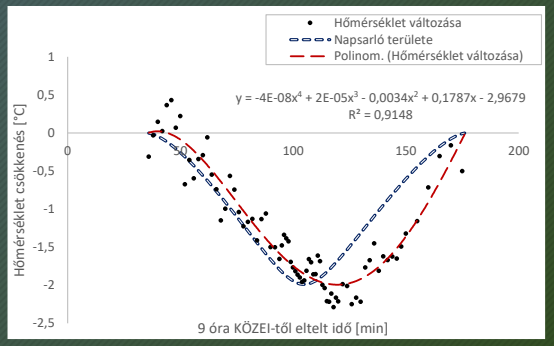




- Measurements received from SÚH in China (soil and atmosphere in cooperation with Observatory Stara Zagora, Bulgaria).
- Global radiation measurements from SHMÚ (Oliver Bochníček) provided by SÚH.







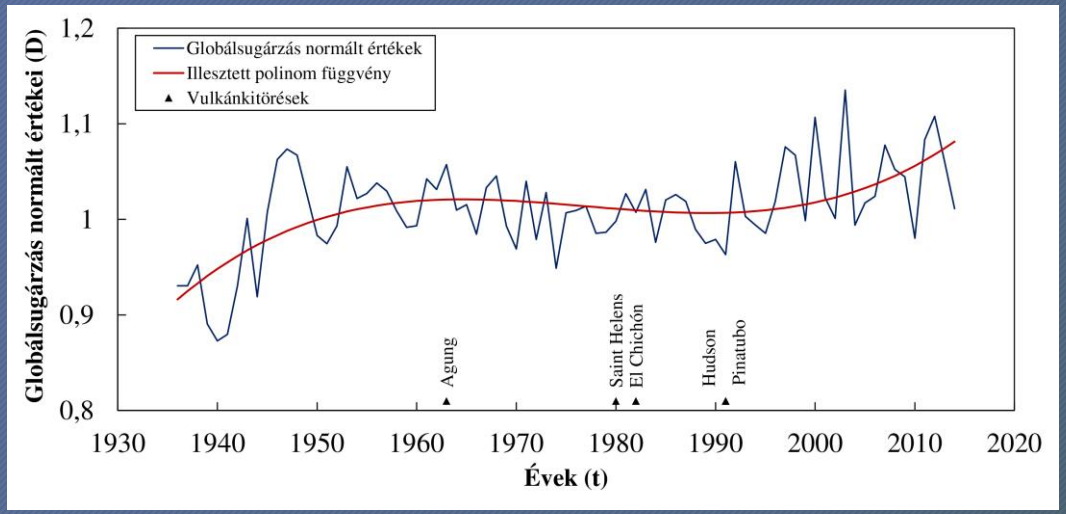
Solar eclipses and environment

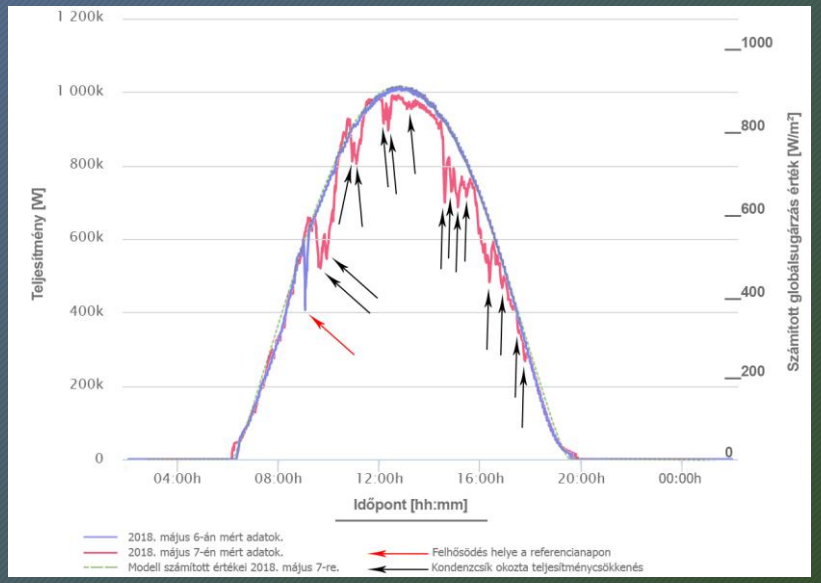
- 2008-2010: National Solar Meetings in Papradno.
- 2015-2016: International Summer Schools (NYME).
- 2017: Fizikai szemle (Physics review journal).
- Temperature decrease analysis was referred by Murillo, MA & Pasachoff, JM in JASTP journal.

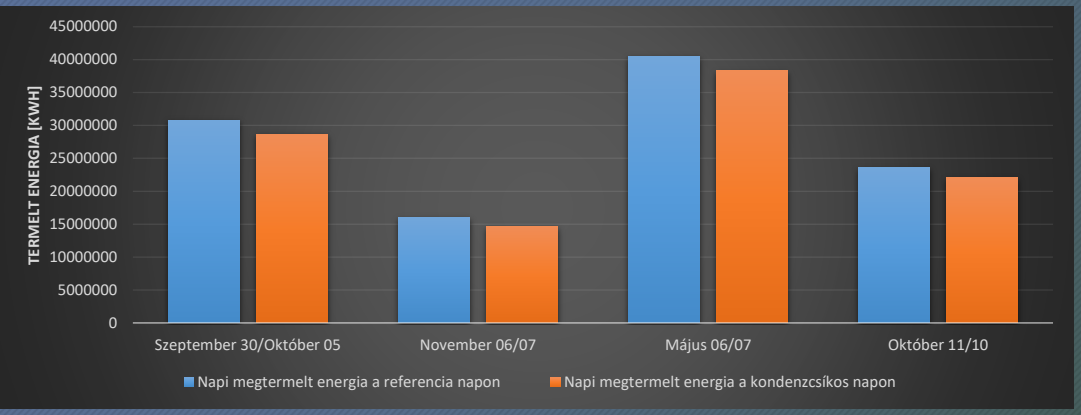
New research project in 2018-2019 at EKE University, Eger:

- Effects of global dimming: use of solar eclipse experiences.
- 2019: International Climate Protection book chapter.

Global dimming

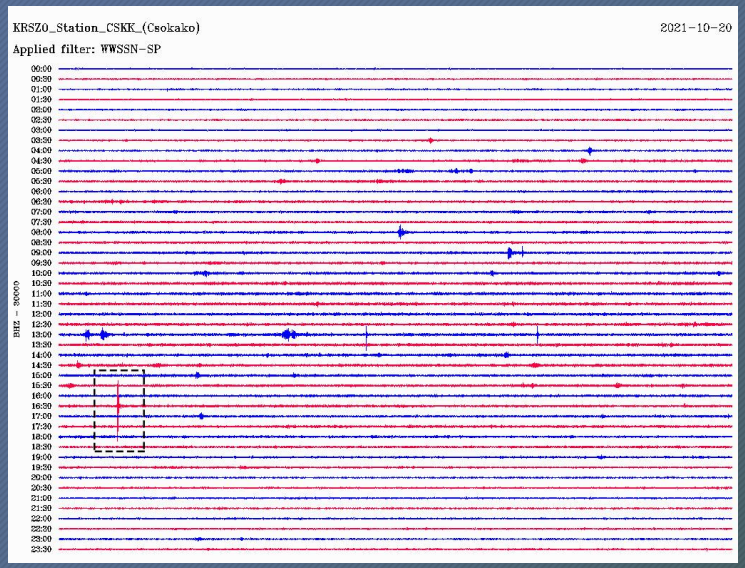


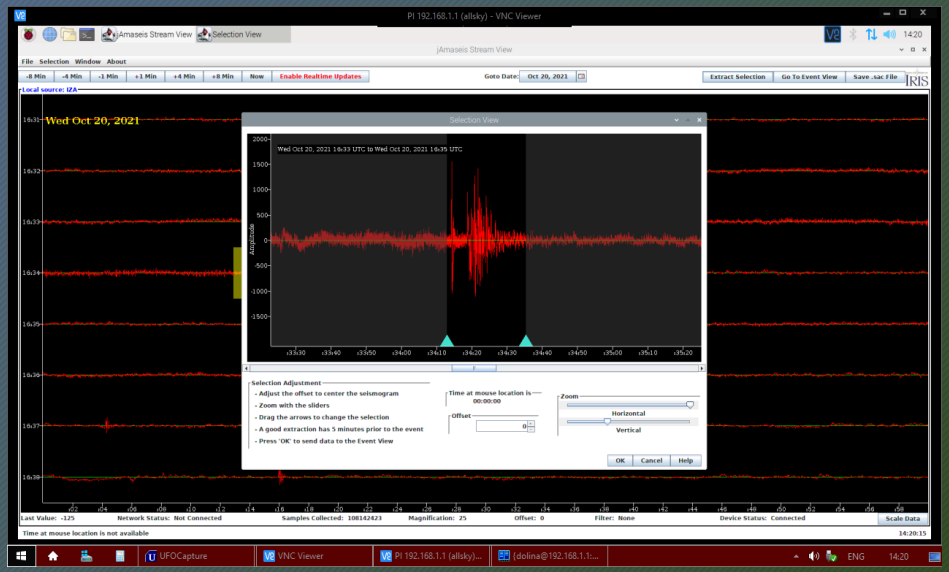




Present and future

- Continue the ongoing collaboration (Ivan Dorotovič).
- Solar eclipses.
- Education of astronomy.
- Bolides and their effects. Bolide of October 20, 2021: infra sound was recorded by Peter Dolinsky (SÚH) and seismic effects were recorded in Hungary.





Thank you for Your attention!