

Perseids 2004 - results by Image Intensified Video



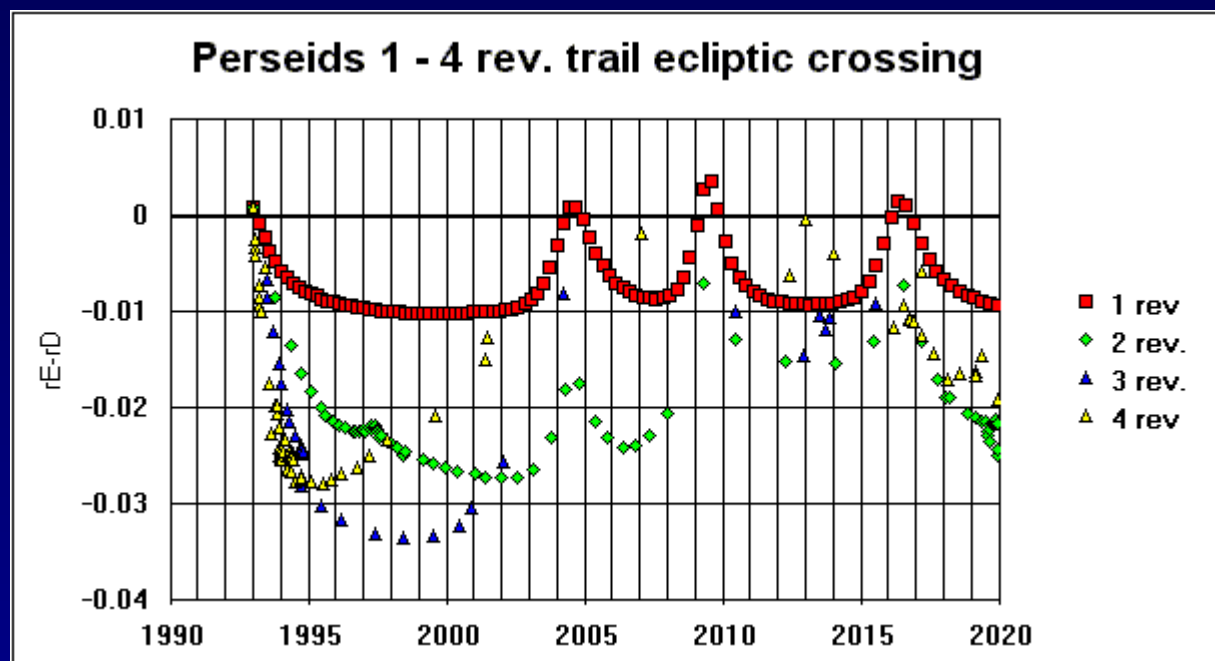
Friday, 24 september 2004

IMC-2004, Vama, Bulgaria

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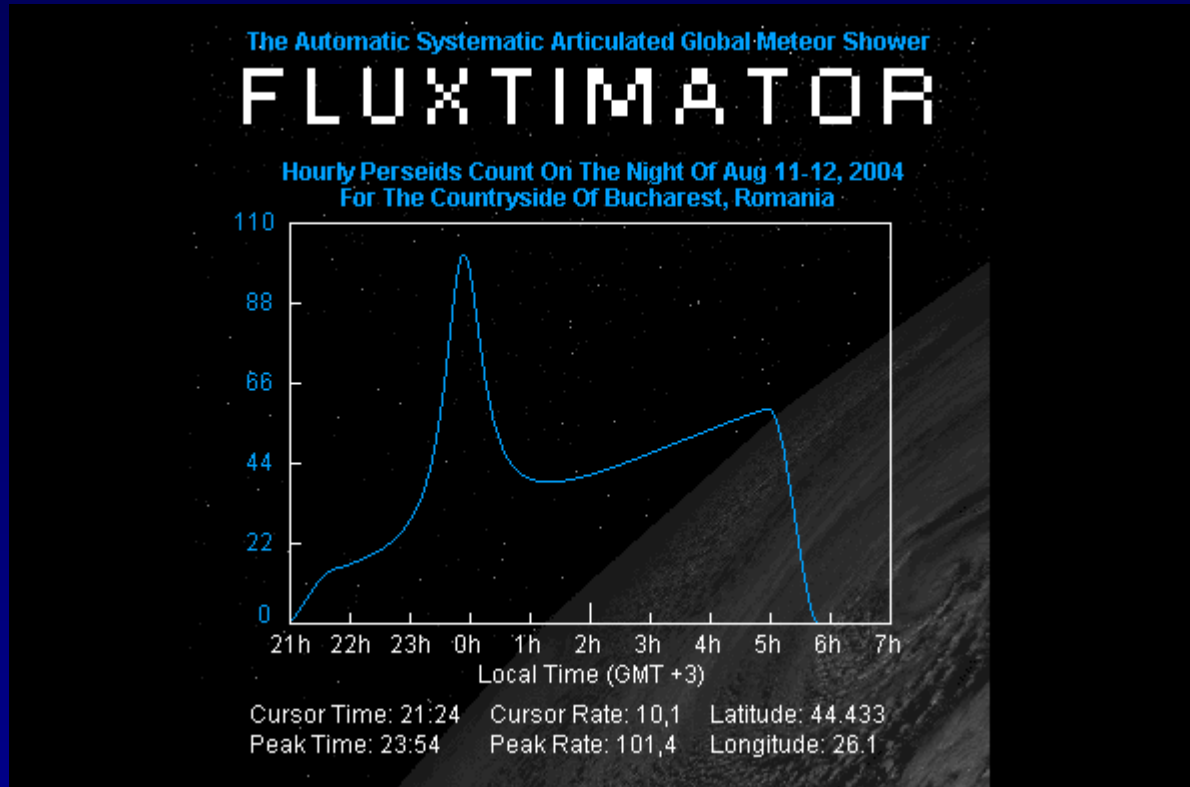
Theoretical Model by Esko Lyytinen



<http://www.metaresearch.org/solar%20system/perseid/perseids.asp>

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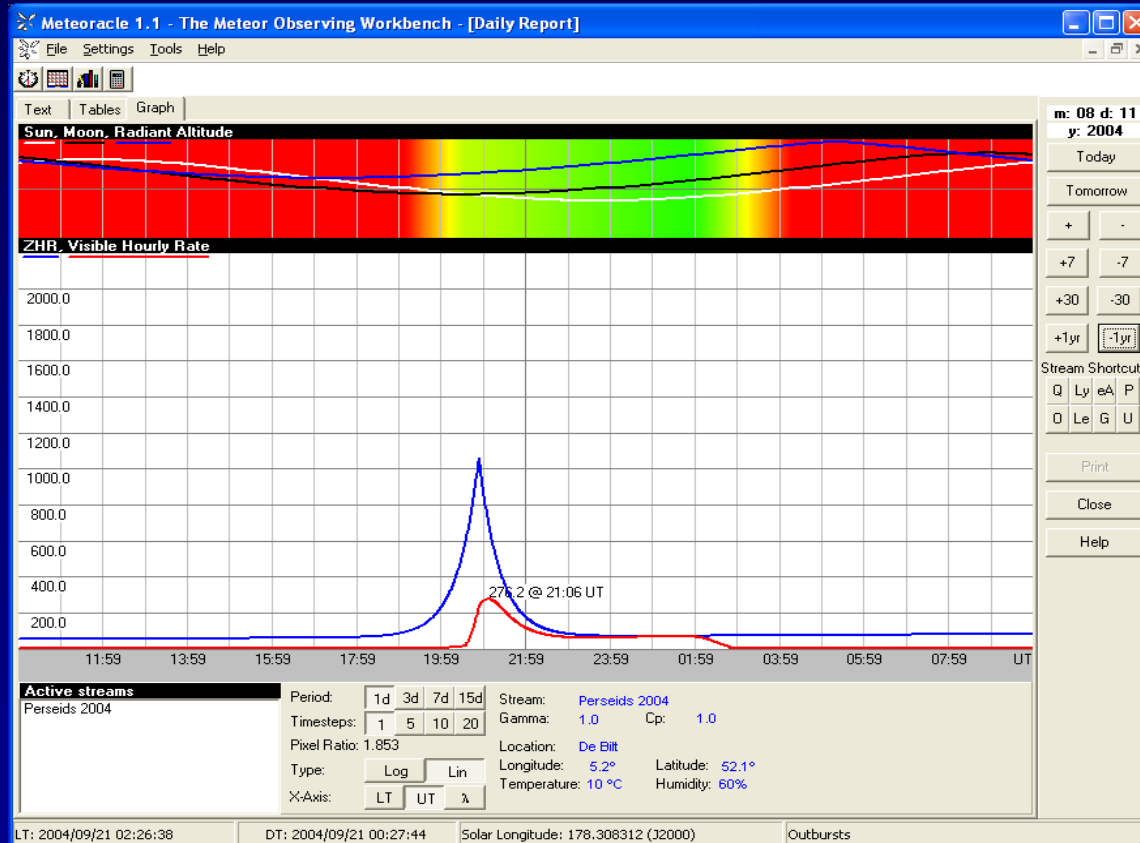
Flux Estimator (Peter Jenniskens)



<http://leonid.arc.nasa.gov/estimator.html>

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Perseids 2004 peak by Meteoracle (Daniel van Os)



<http://www.supercell.nl>

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Favourable observing locations (Carl Johannink)



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Project Perseide 2004 by SARM (Valentin Grigore)

International project:

- Romania
- Netherlands
- Belgium
- Germany

Observing locations:

- Darmanesti
- Corbasca



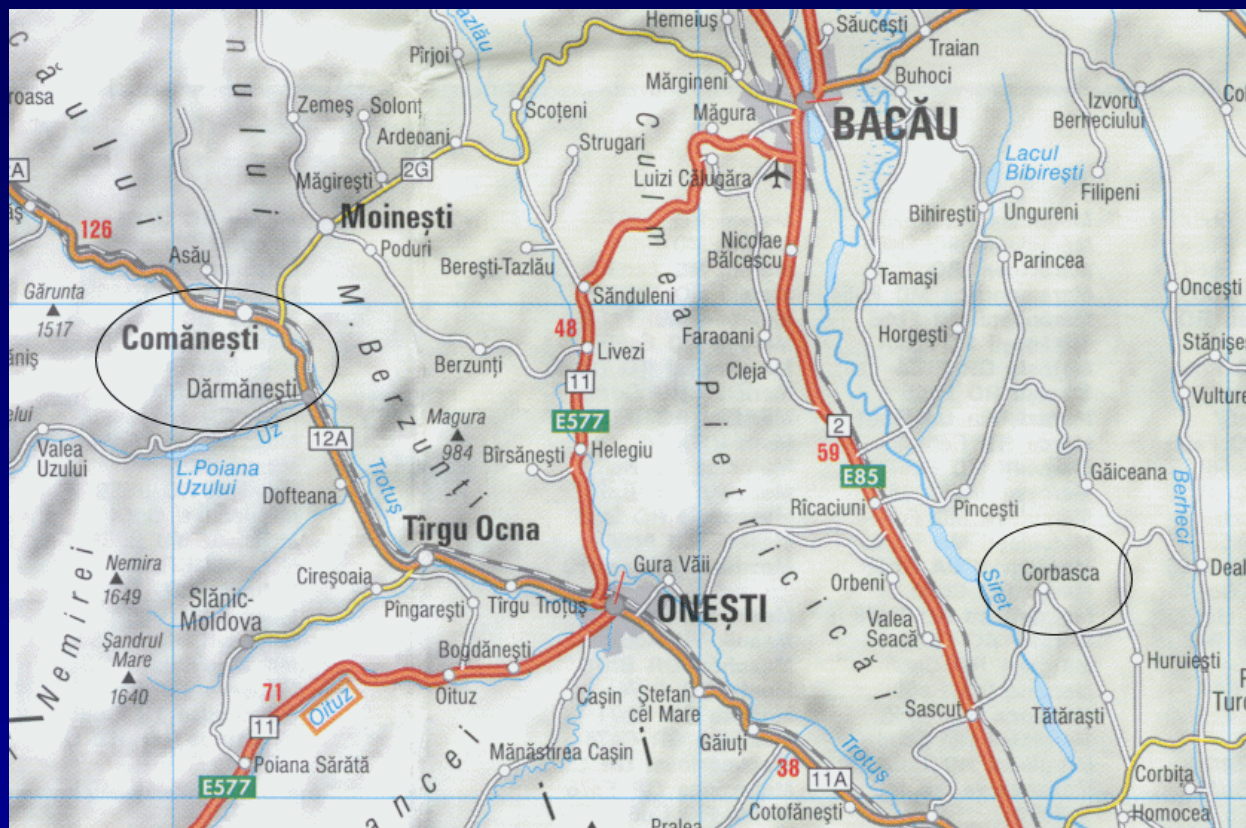
<http://www.sarm.ro/>

<http://www.geocities.com/valentinsarm/Perseide2004/>

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Project Perseide 2004 by SARM (Valentin Grigore)

Multistation video observations at: Darmanesti and Corbasca



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DMS / SARM - Multistation video project at Darmanesti and Corbasca

- Aiming point > Qricht (Marc de Lignie)
- Start at 20 UT ; end at 2 UT
- 4 DV-tapes of 90 minutes

But... that did not work out..

So now we use a different viewpoint...

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Stations: Geographical and Astronomical data

Station	Biddinghuizen	Britzingen	Corbasca
Country	the Netherlands	Germany	Romania
Longitude	52° 27'	47° 50'	46° 16'
Latitude	05° 42'	07° 40'	27° 10'
Civil	19h 49m	19h 23m	18h 03m
Nautical	20h 40m	20h 06m	18h 44m
Astronomical	21h 45m	20h 56m	19h 31m
Radiant elevation 21h UT	29°	29°	33°

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Stations: Video and Visual Observers

	Biddinghuizen the Netherlands	Britzingen Germany	Corbasca Romania
Video	Robert Haas	Romke Schievink	Casper ter Kuile Daniel Fischer
Visual	Marco Langbroek	Carl Johannink Koen Miskotte Rita Verhoef	Alex Conu Alex Tudorica Pavel Tica Andreea Calugaru Dan Mitrut Catalin Paduraru

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Videosystems: Some Technical Characteristics

	Biddinghuizen the Netherlands	Britzingen Germany	Corbasca Romania
Optics	Canon 2.0/135mm FOV = 12°	Sony V-mount 2.8/25mm FOV = 35°	Canon 1.2/55mm FOV = 35°
Image Intensifier	XX1332 2-nd generation Mullard	Delnocta 1-st generation OIDelft Instruments	XX1332 2-nd generation Mullard

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Main Observational Results

- Biddinghuizen: 47 Perseids from 20:27:30 until 21:32:30 UT
- Britzingen: 52 Perseids from 20:41:30 until 21:17:30 UT
- Corbasca: 144 Perseids from 19:57:30 until 21:32:30 UT

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Videosystem operated by Robert Haas



Perseids 2004 - results by Image Intensified Video

Videosystem operated by Romke Schievink



Perseids 2004 - results by Image Intensified Video

Videosystem operated by Casper ter Kuile

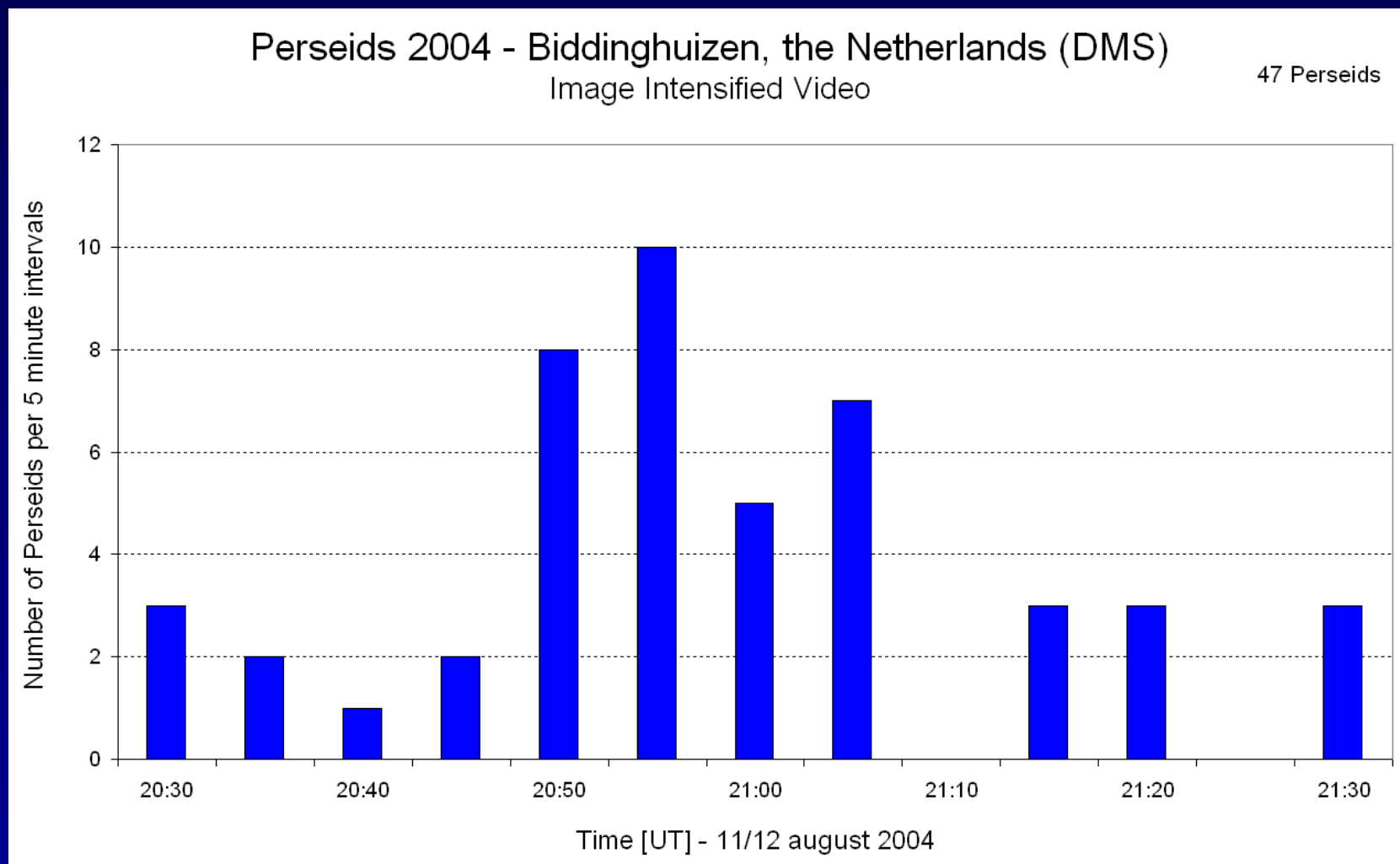


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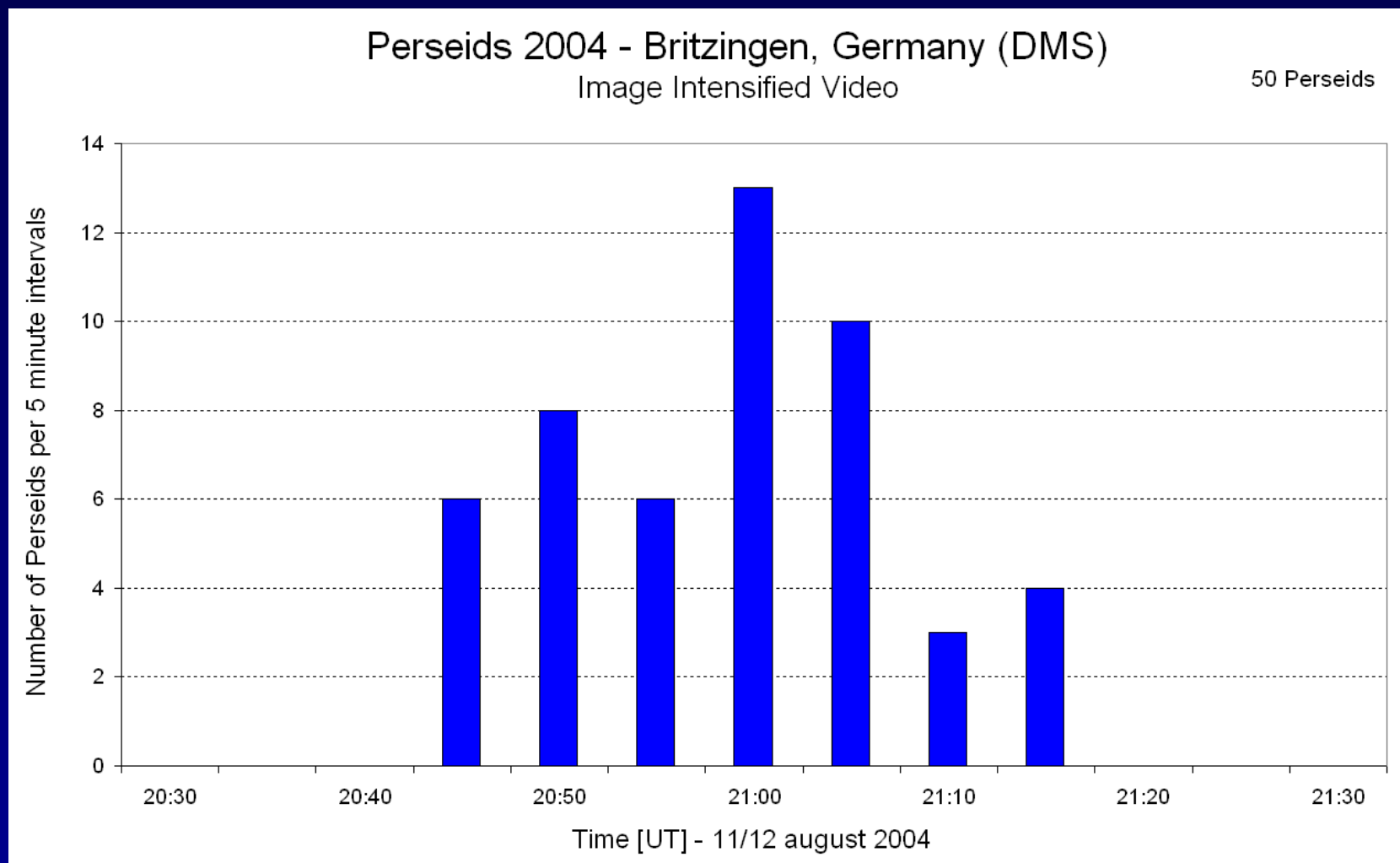
Results

- Stations Biddinghuizen, Britzingen and Corbasca
- Raw data
- 5 minute intervals
- Problems: twilight at Biddinghuizen

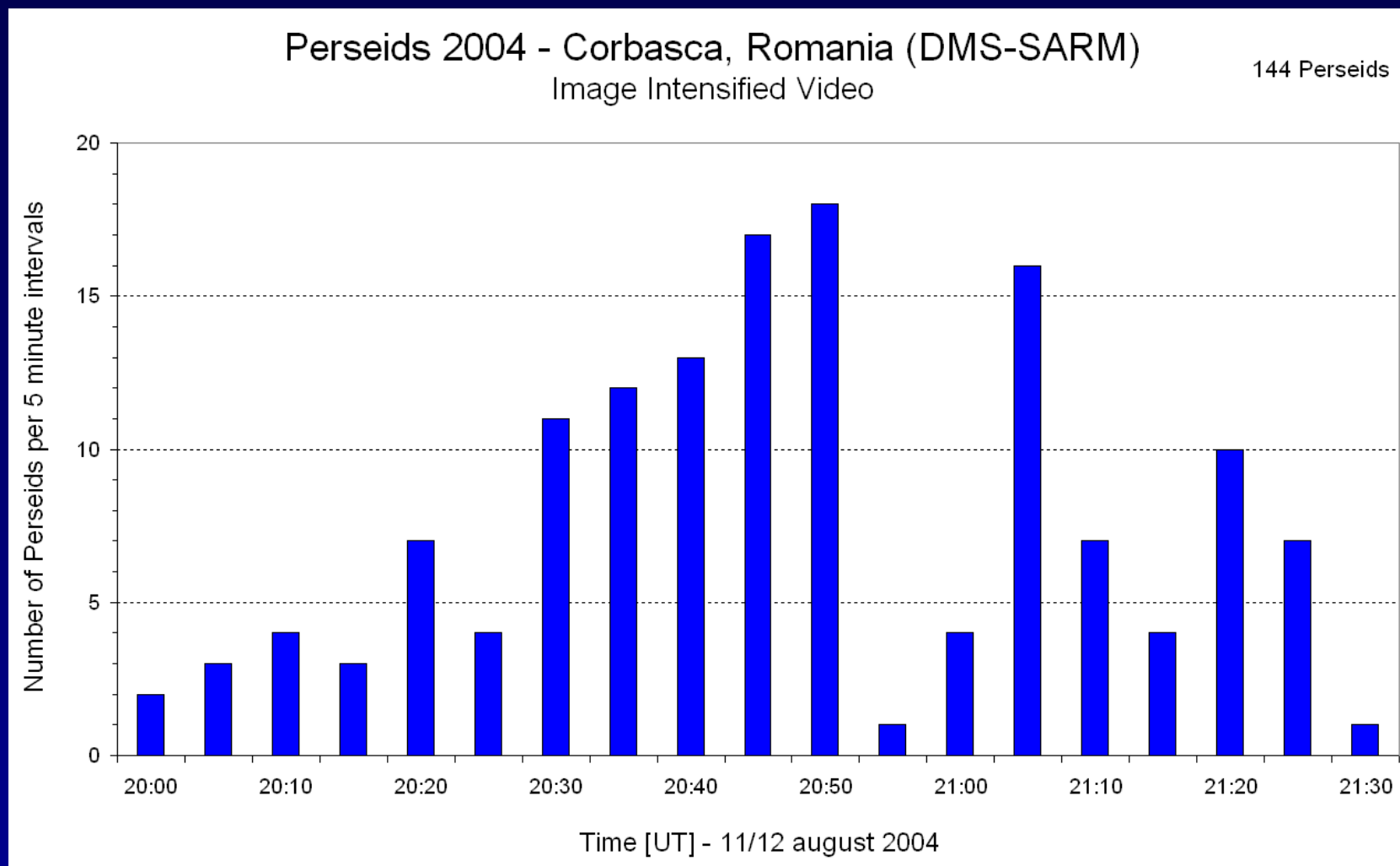
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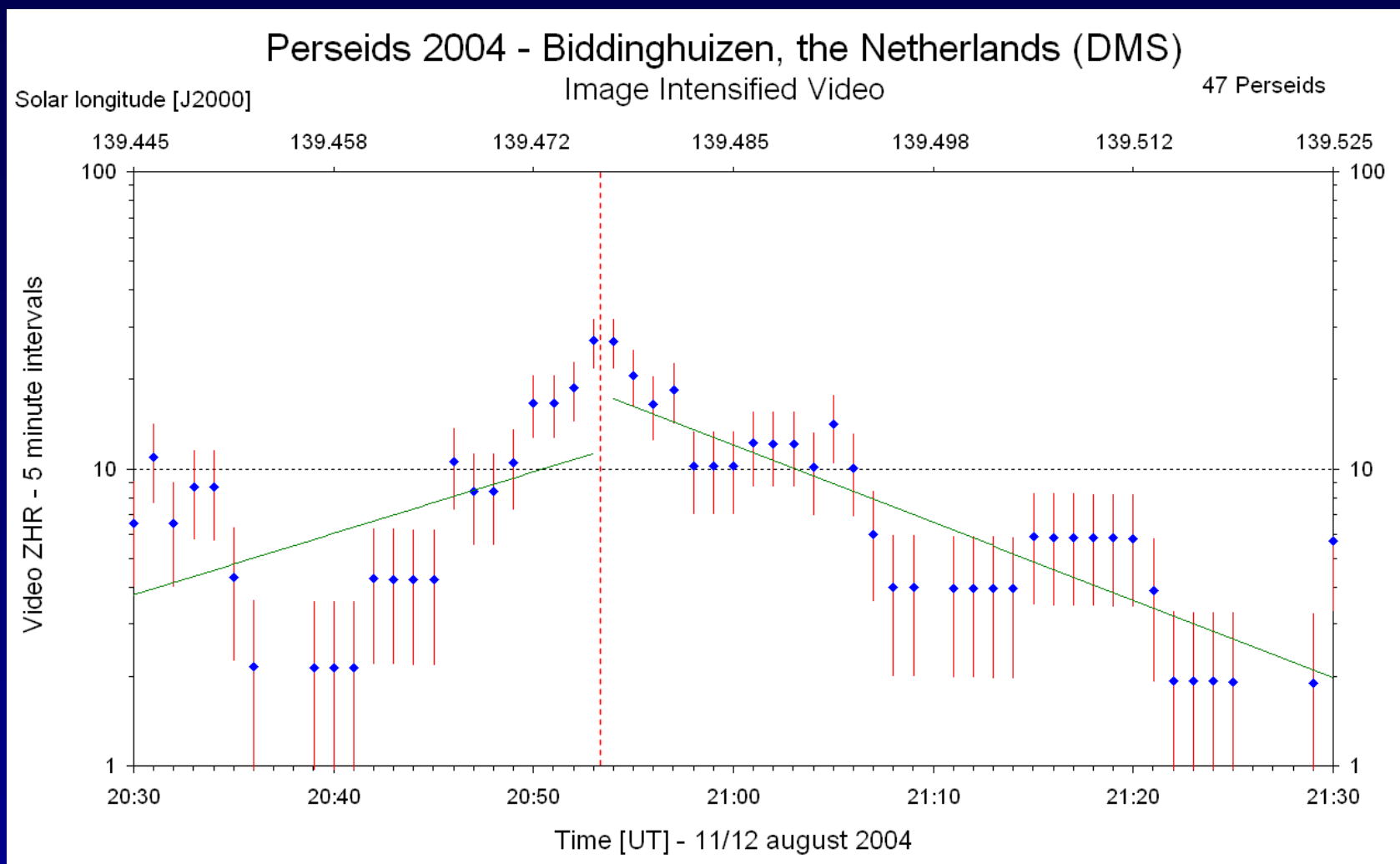


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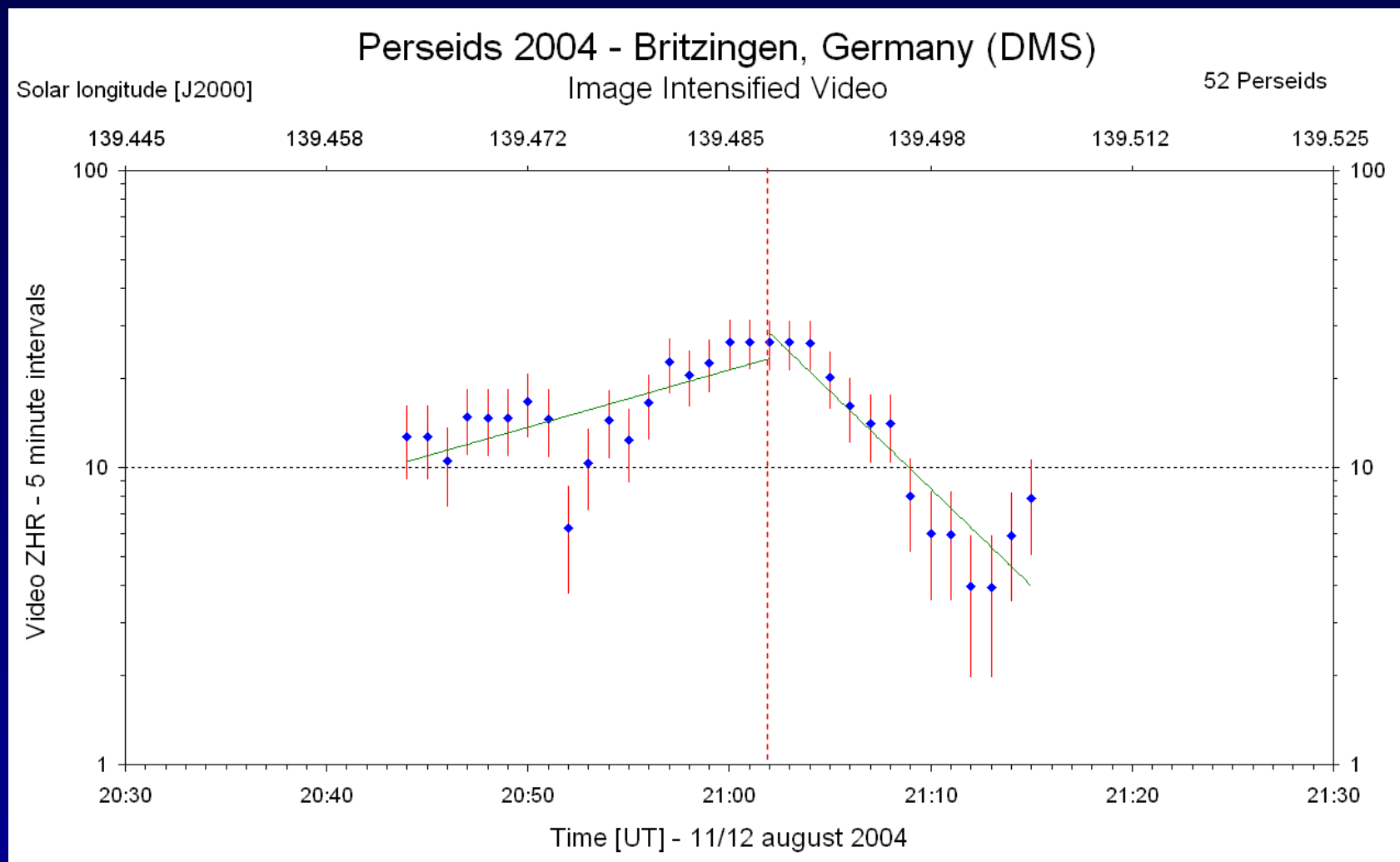
Results after Analyses

- Correcting for Radiant Elevation
- Using shifting mean technique - statistics
- Included errorbars
- Included trendline to find peak
- Included solar longitude
- Using log-scale

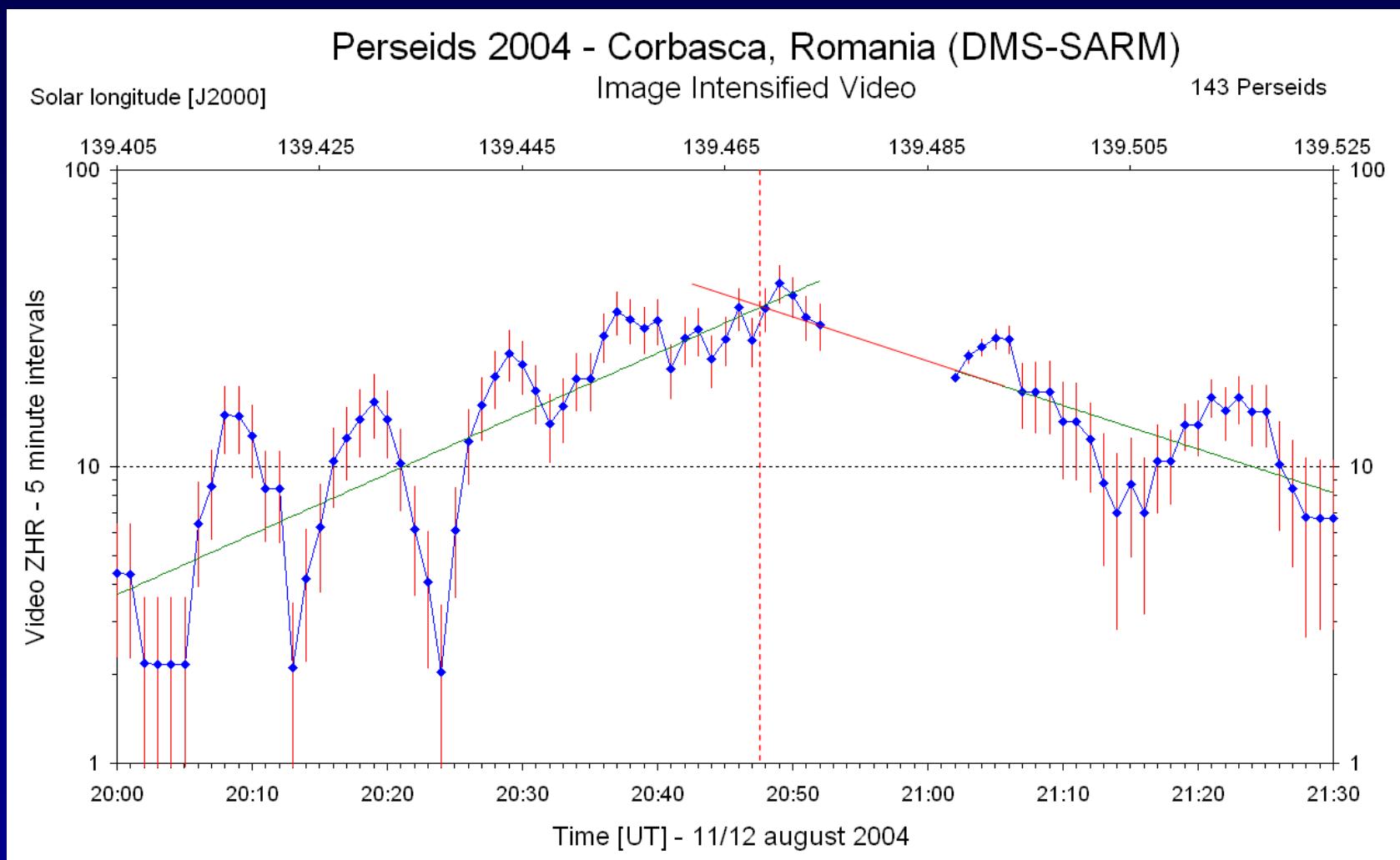
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Some comments

- Twilight and Radiant elevation
- Different observing locations
- Different observing conditions
- Different techniques: optics and intensifier
- Differences in analysing techniques
- Problems with videosystems
- Compare with results by visual observers

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Some other comments

- Image intensified video is future
- Technique can be very sensitive
- Take care of setting up the equipment
- Do some work of analysing your tapes
- Try multistation work if possible

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Many thanks to our Romanian friends!!!

