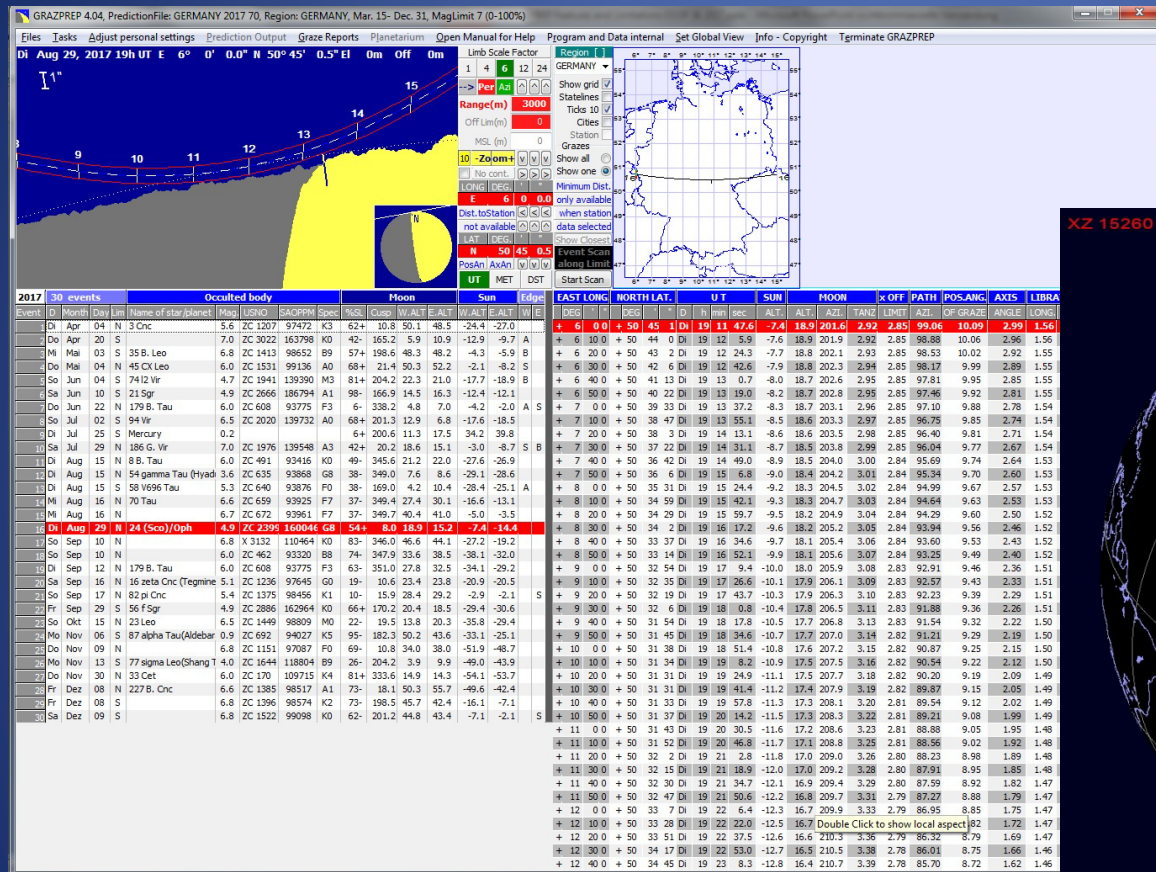
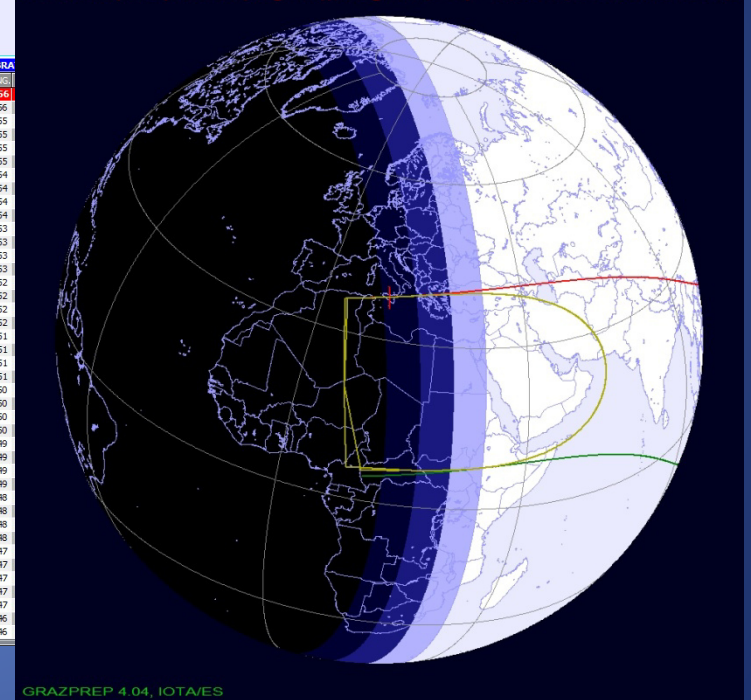


GRAZPREP: Features and Limitations



XZ 15260 (32 alpha Leo (Regulus)), Mag. 1.4, Sep 18, 2017, 3h 26m 59.4s UT, N



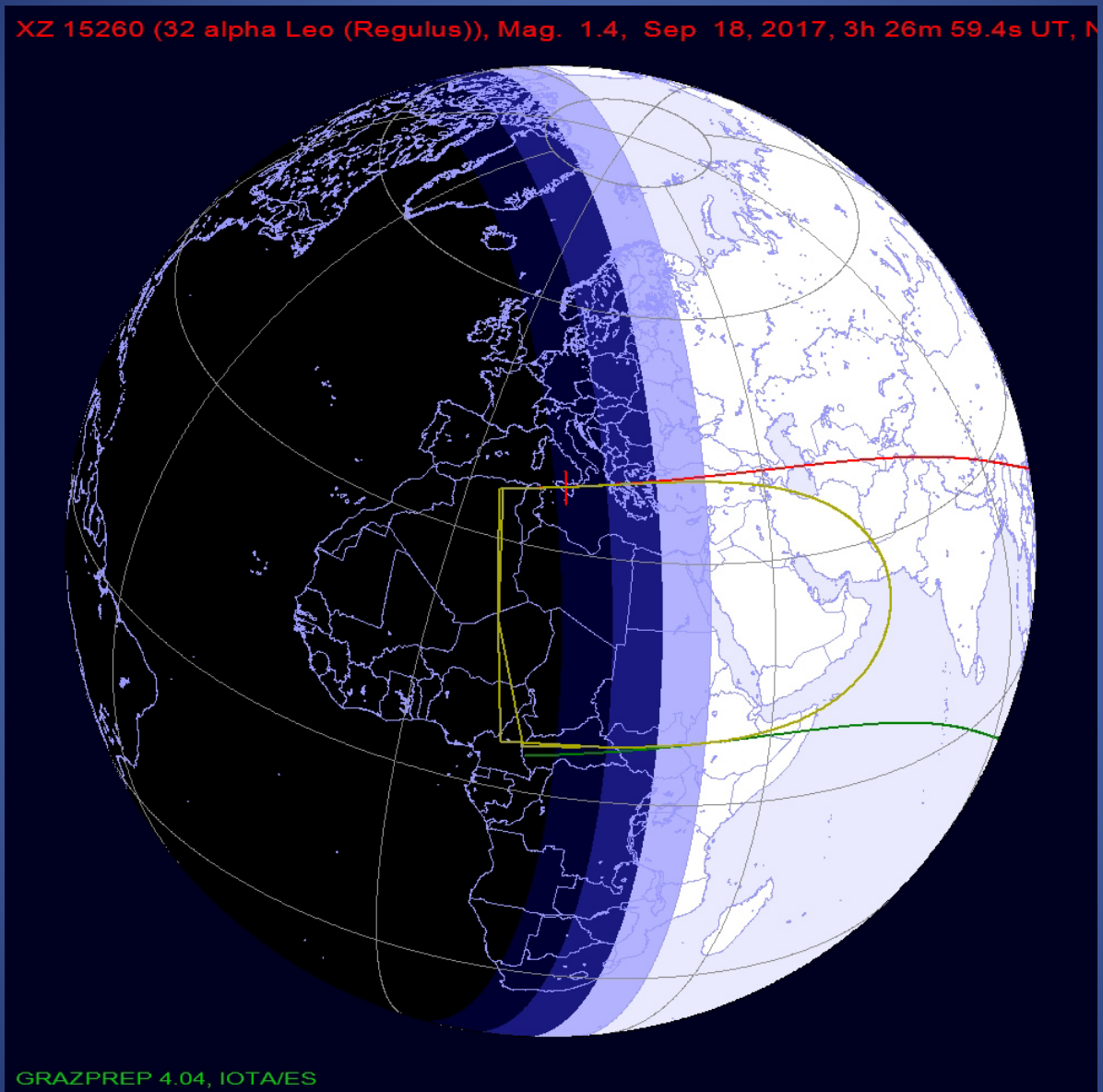
GRAZPREP 4.04, IOTA/ES

Dr. Eberhard Riedel, IOTA/ES, Munich, Germany

1

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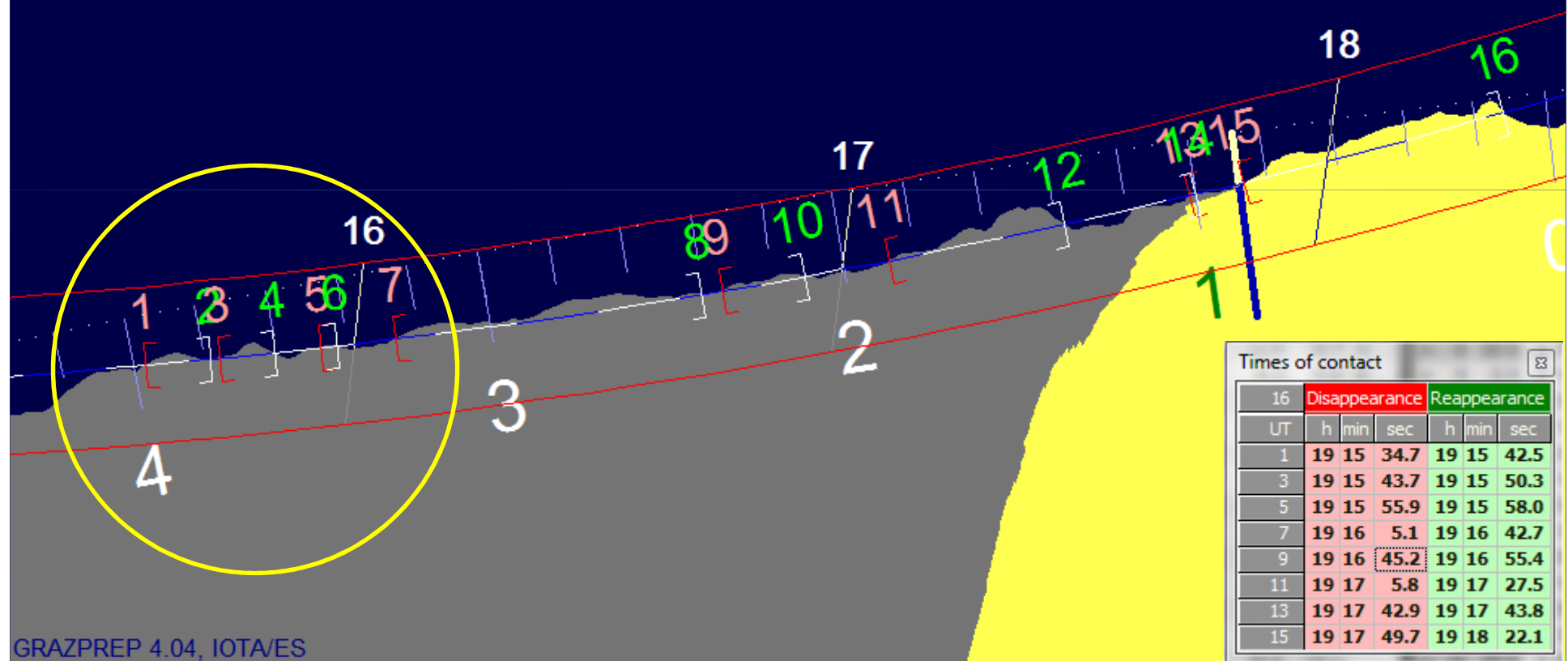
GRAZPREP: Features and Limitations



GRAZPREP: Features and Limitations

Graze-Report ZC 2399 (24 (Sco)/Oph, 4.9 mag.):

Aug 29, 2017 19h UT E 8° 42' 18.1" N 50° 30' 25.1" EI 266m, Off -4984m

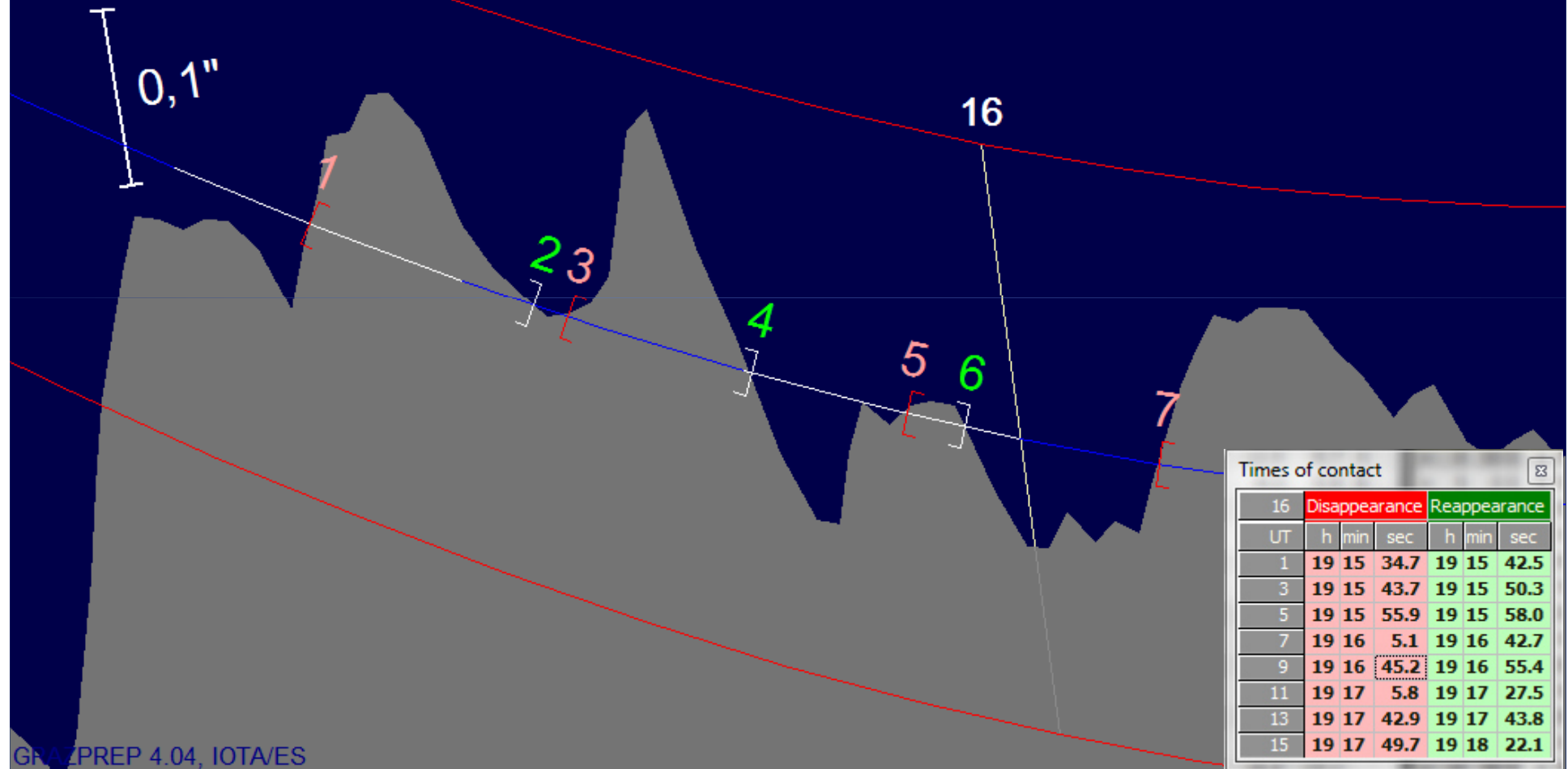


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GRAZPREP: Features and Limitations

Graze-Report ZC 2399 (24 (Sco)/Oph, 4.9 mag.):

Aug 29, 2017 19h UT E 8° 42' 18.1" N 50° 30' 25.1" El 266m, Off -4984m



ESOP XXXVI, Freiberg, 16.09.2017

GRAZPREP: Features and Limitations

Occultation Report (IOTA 2008 Report format for lunar occultation observations (VERSION 1.0 1 September 2008))

Header

Place name: Limes-Occult Representative: AstroAG Heuchelheim, Germany

Optional Message: Email address: Klaus@spruck.net

Station data

Number of stations

6

	SC	TT	Mo	Dr	Ap.	FocLe	E/W	Deg.	Min.	Sec.	N/S	Deg	Min.	Sec.	HD	Altitude	VD	OC	Observer's Name	E-Mail-address
1	A	R	A	M	6	91	E	8	42	23.2	N	50	30	46.7	10	279	M	A	Reiner Euler	
2	B	N	A	M	20	100	E	8	42	15.2	N	50	30	40.4	10	280	M	B	Joerg Kroll	
3	C	R	E	D	8	50	E	8	42	24.7	N	50	30	34.5	10	276	M	C	Josef Graef	
4	D	R	A	M	15	75	E	8	42	39.9	N	50	30	30.6	10	269	M	D	Dirk Raatz	
5	E	N	A	M	20	100	E	8	42	56.0	N	50	30	26.3	10	269	M	E	Tobi Ahrens	
6	F	N	E	D	45	200	E	8	42	18.1	N	50	30	25.1	10	266	M	F	Klaus Spruck	

Observation data

Total number of contacts to be reported

74

	Year	Mo	Day	h	min	sec	OC	Obj.	D	Ph	Li	Ty	PEq	PE	Ti	T2	TS	TimAcc	Ce	StN	DE	Durat.	LI	Ss	St	Re	Tem	SC	OC	Comment line optional
1	2017	8	29	19	15	33.88	R	2399		D	D	G			V		R		1									F	F	
2	2017	8	29	19	15	50.12	R	2399		R	D	G			V		R		1									F	F	
3	2017	8	29	19	16	14.92	R	2399		D	D	G			V		R		1									F	F	
4	2017	8	29	19	16	16.36	R	2399		R	D	G			V		R		1									F	F	
5	2017	8	29	19	16	20.24	R	2399		D	D	G			V		R		1									F	F	
6	2017	8	29	19	16	44.40	R	2399		R	D	G			V		R		1									F	F	
7	2017	8	29	19	16	44.48	R	2399		D	D	G			V		R		1									F	F	
8	2017	8	29	19	16	46.56	R	2399		R	D	G			V		R		1									F	F	
9	2017	8	29	19	16	46.60	R	2399		D	D	G			V		R		1									F	F	
10	2017	8	29	19	16	47.52	R	2399		R	D	G			V		R		1									F	F	

Show timings on lunar limb Save Reportfile (*.TXT) Cancel

GRAZPREP: Features and Limitations

Occultation Report (IOTA 2008 Report format for lunar occultation observations (VERSION 1.0 1 September 2008))

Header

Place name: Limes-Occult Representative: AstroAG Heuchelheim, Germany

Optional Message: Email address: Klaus@spruck.net

Station data

Number of stations

6

	SC	TT	Mo	Dr	Ap.	FocLe	E/W	Deg.	Min.	Sec.	N/S	Deg.	Min.	Sec.	HD	Altitude	VD	OC	Observer's Name	E-Mail-address
1	A	R	A	M	6	91	E	8	42	23.2	N	50	30	46.7	10	279	M	A	Reiner Euler	
2	B	N	A				E	8	42	15.2	N	50	30	40.4	10	280	M	B	Joerg Kroll	
3	C	R	E				E	8	42	24.7	N	50	30	34.5	10	276	M	C	Josef Graef	
4	D	R	A				E	8	42	39.9	N	50	30	30.6	10	269	M	D	Dirk Raatz	
5	E	N	A	M	20	100	E	8	42	56.0	N	50	30	26.3	10	269	M	E	Tobi Ahrens	
6	F	N	E	D	45	200	E	8	42	18.1	N	50	30	25.1	10	266	M	F	Klaus Spruck	

Observation data

Total number of contacts to be reported

74

	Year	Mo	Day	h	min	sec	Oc	Obj.	D	Ph	Li	Ty	PEq	PE	Ti	T2	TS	TimAcc	Ce	StN	DE	Durat.	LI	Ss	St	Re	Tem	SC	OC	Comment line optional
1	2017	8	29	19	15	33.88	R	2399		D	D	G			V		R		1									F	F	
2	2017	8	29	19	15	50.12	R	2399		R	D	G			V															
3	2017	8	29	19	16	14.92	R	2399		D	D	G			V															
4	2017	8	29	19	16	16.36	R	2399		R	D	G			V															
5	2017	8	29	19	16	20.24	R	2399		D	D	G			V															
6	2017	8	29	19	16	44.40	R	2399		R	D	G			V															
7	2017	8	29	19	16	44.48	R	2399		D	D	G			V															
8	2017	8	29	19	16	46.56	R	2399		R	D	G			V															
9	2017	8	29	19	16	46.70	R	2399		D	D	G			V															
10	2017	8	29	19	16	47.52	R	2399		R	D	G			V															

Method of timing and recording

G Video with time insertion, times extracted by frame analysis

V Video with other time linking, times extracted by frame analysis

M Video with other time linking, times extracted by replay

S Stopwatch (visual)

T Tape recorder (visual)

E Eye and ear

P Photoelectric

K Key-tapping - including computer keyboards

X Chronograph

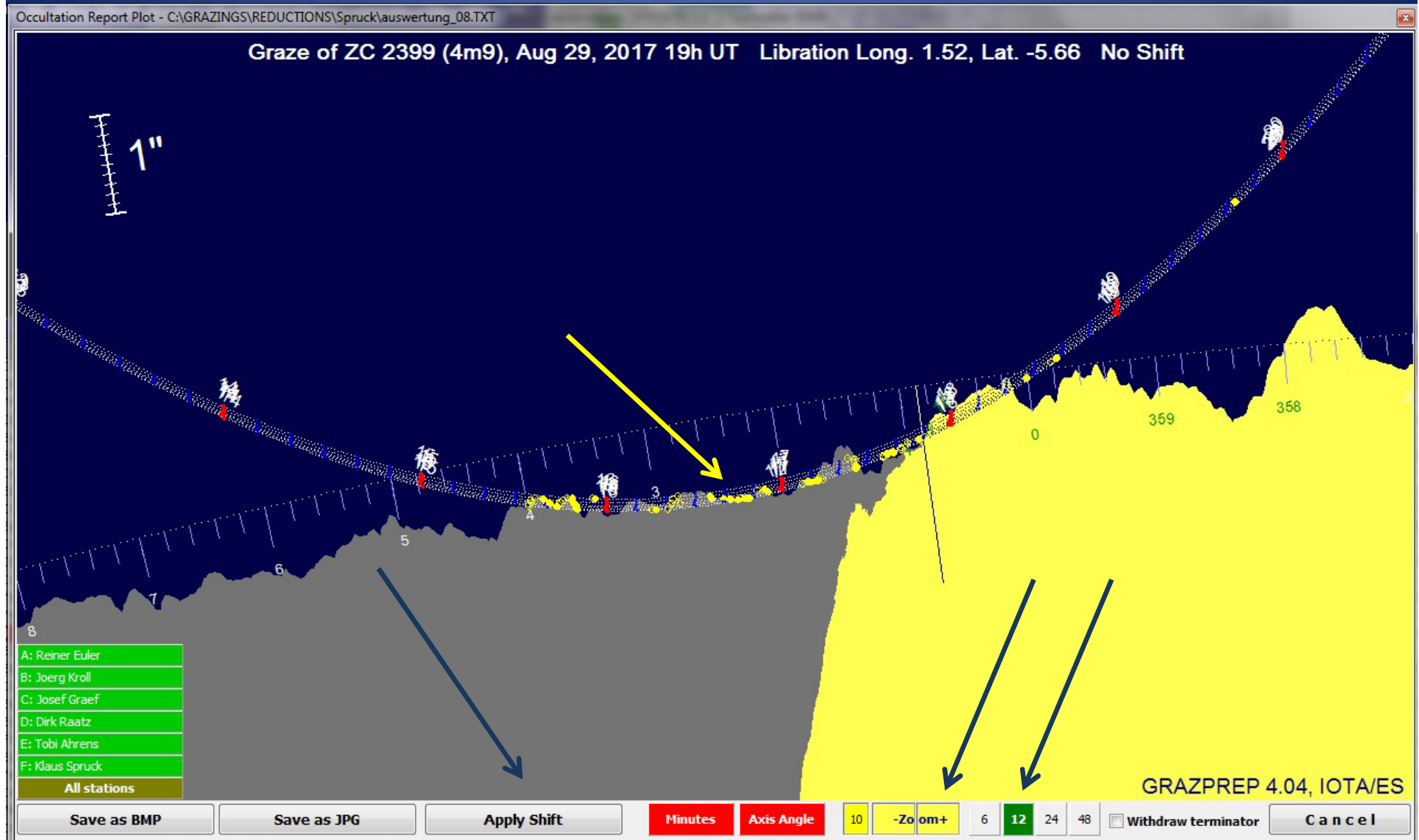
C Camera and clock

Show timings on lunar limb

Save Reportfile (*.TXT)

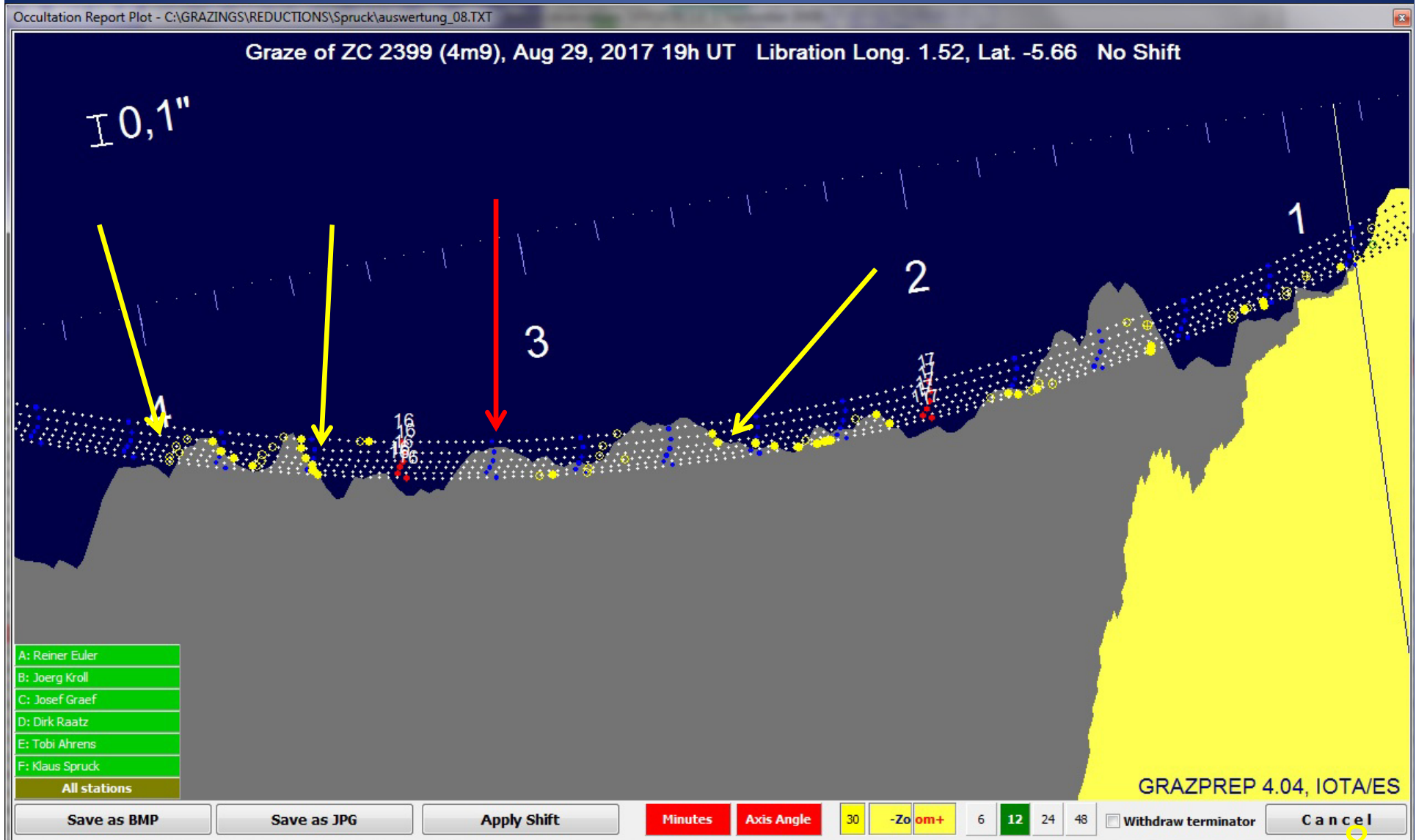
Cancel

GRAZPREP: Features and Limitations



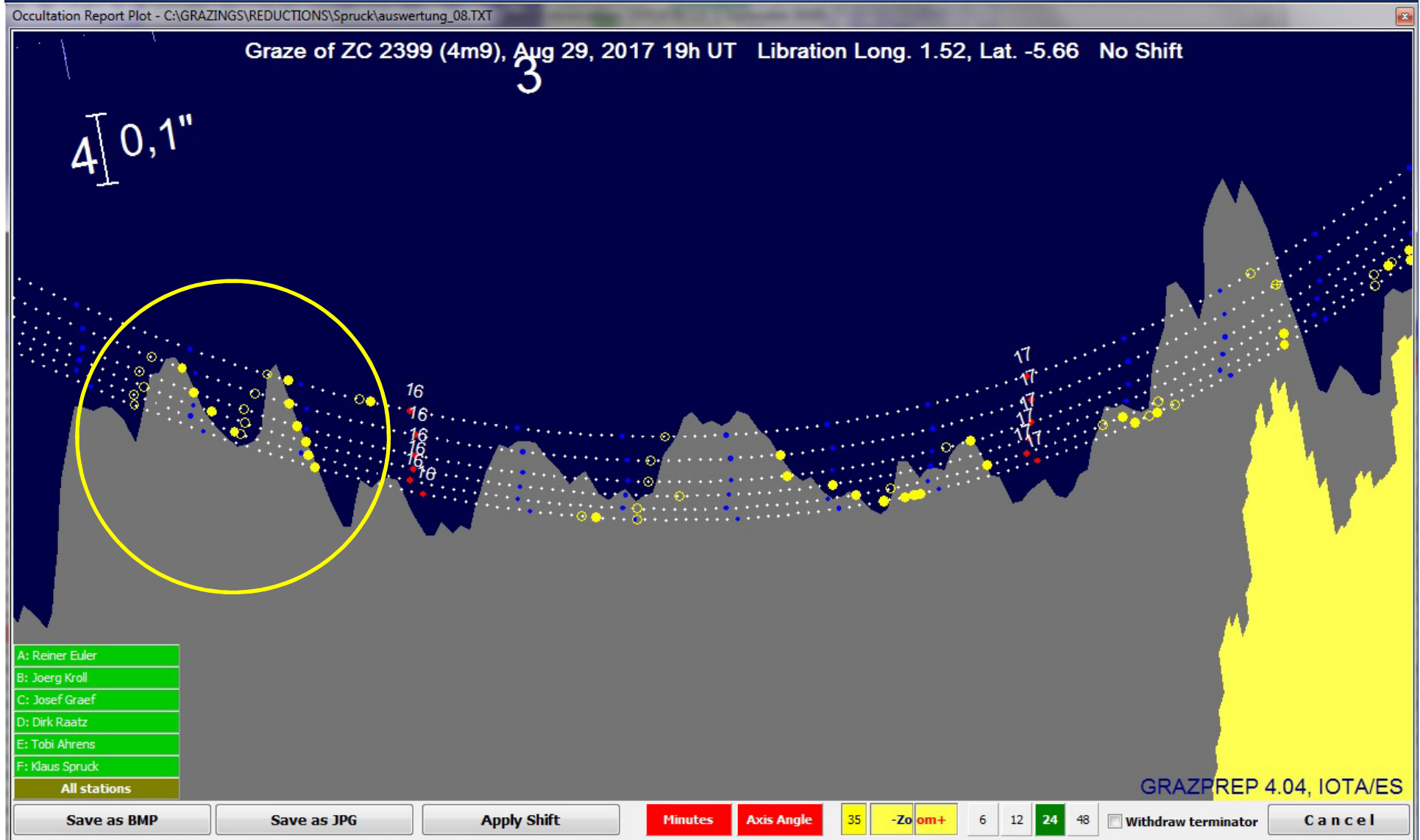
ESOP XXXVI, Freiberg, 16.09.2017

GRAZPREP: Features and Limitations



ESOP XXXVI, Freiberg, 16.09.2017

GRAZPREP: Features and Limitations



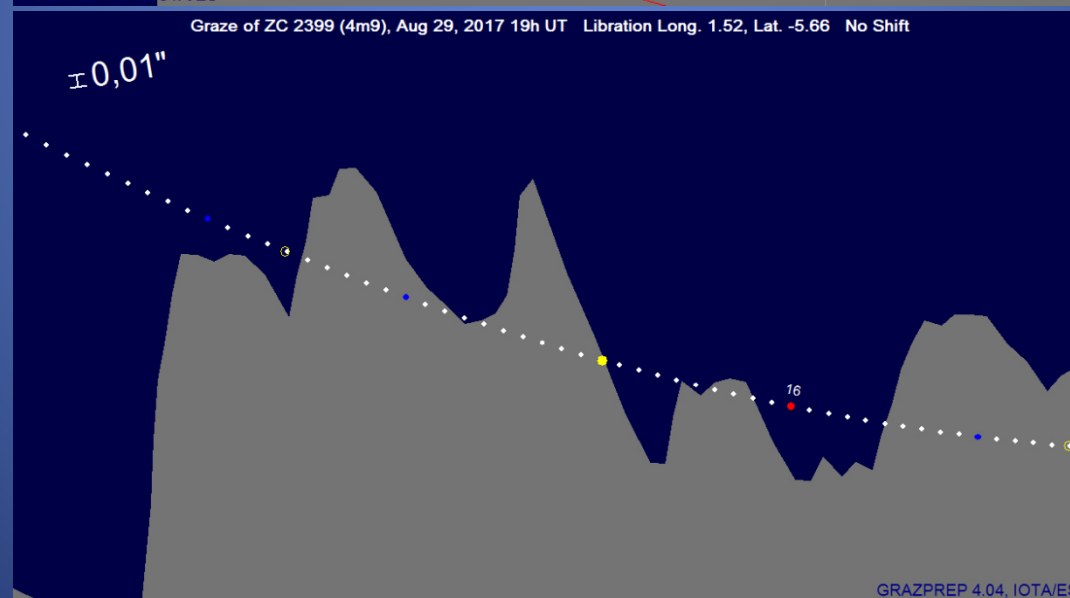
ESOP XXXVI, Freiberg, 16.09.2017

GRAZPREP: Features and Limitations

Prediction:

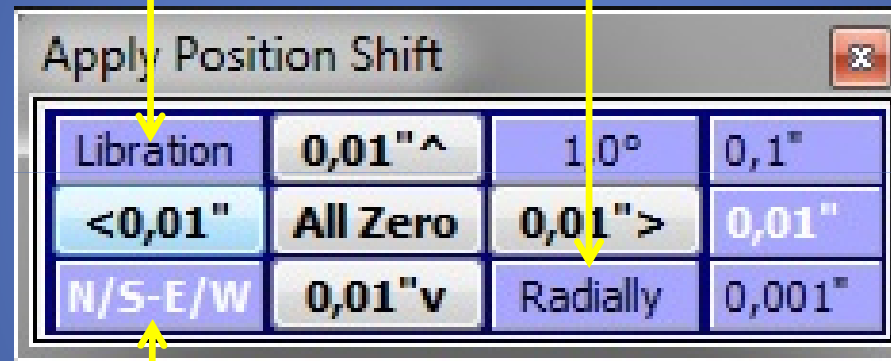


Observation:

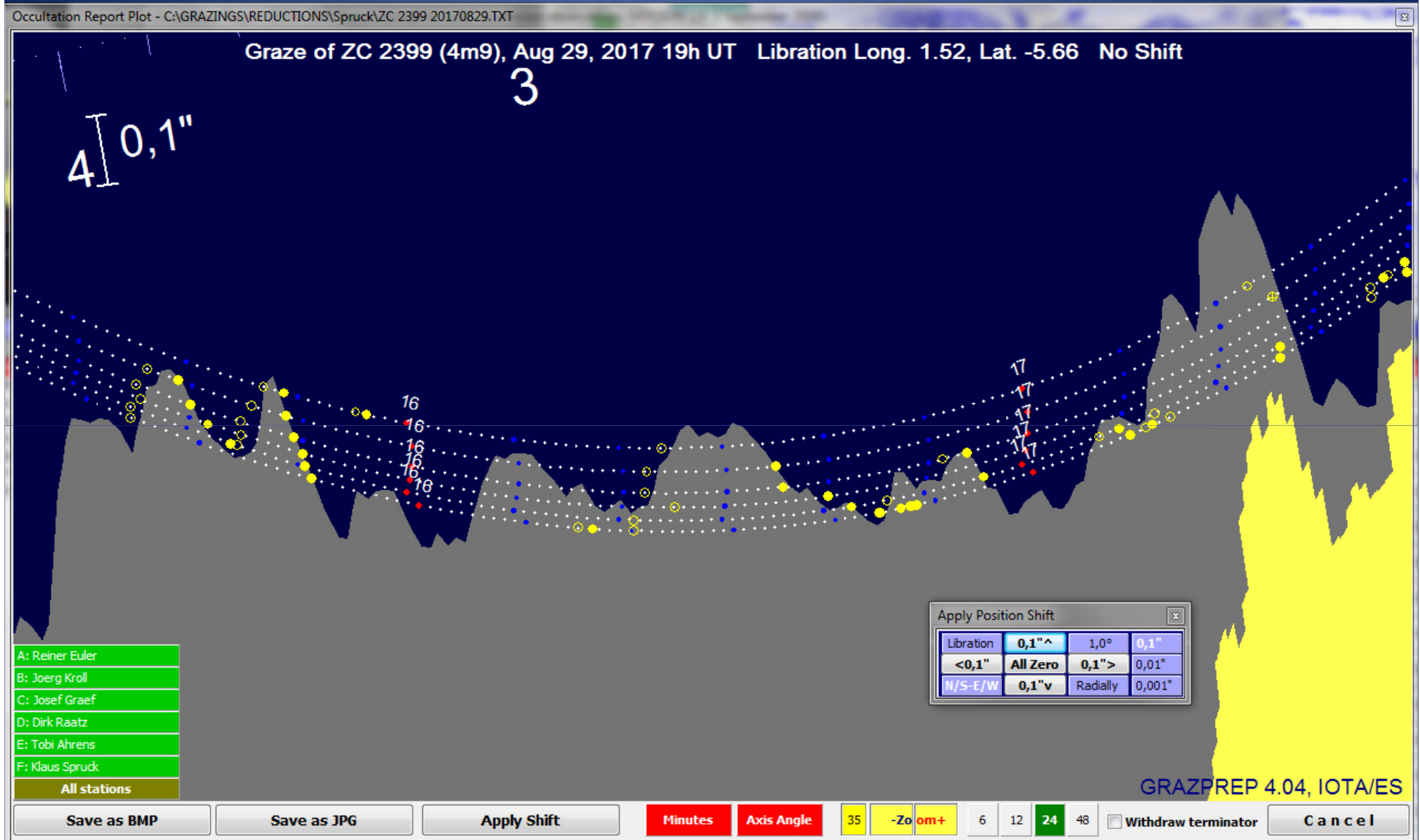


Times of contact						
16	Disappearance			Reappearance		
UT	h	min	sec	h	min	sec
1	19	15	34.7	19	15	42.5
3	19	15	43.7	19	15	50.3
5	19	15	55.9	19	15	58.0
7	19	16	5.1	19	16	42.7
9	19	16	45.2	19	16	55.4
11	19	17	5.8	19	17	27.5
13	19	17	42.9	19	17	43.8
15	19	17	49.7	19	18	22.1

GRAZPREP: Features and Limitations

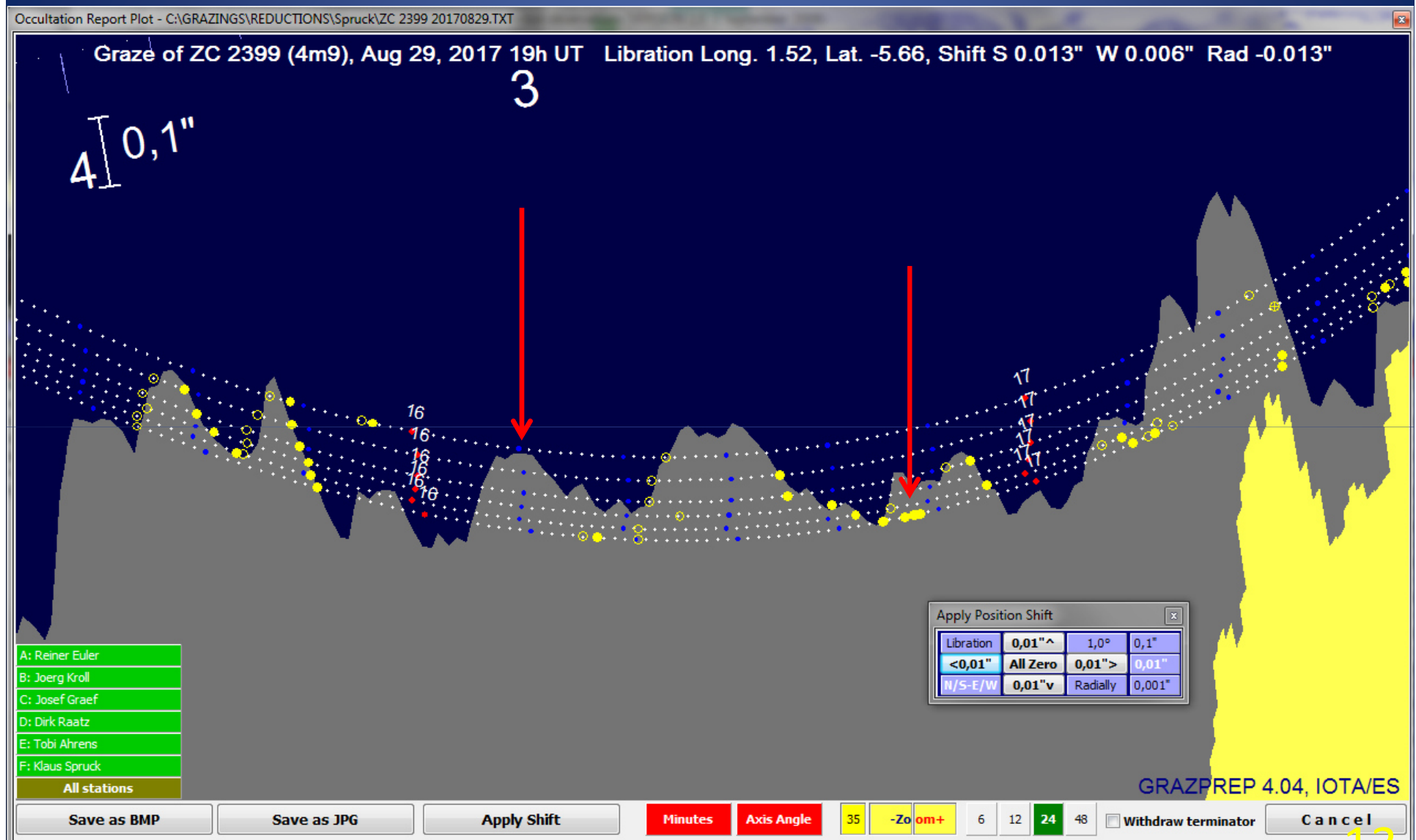


GRAZPREP: Features and Limitations

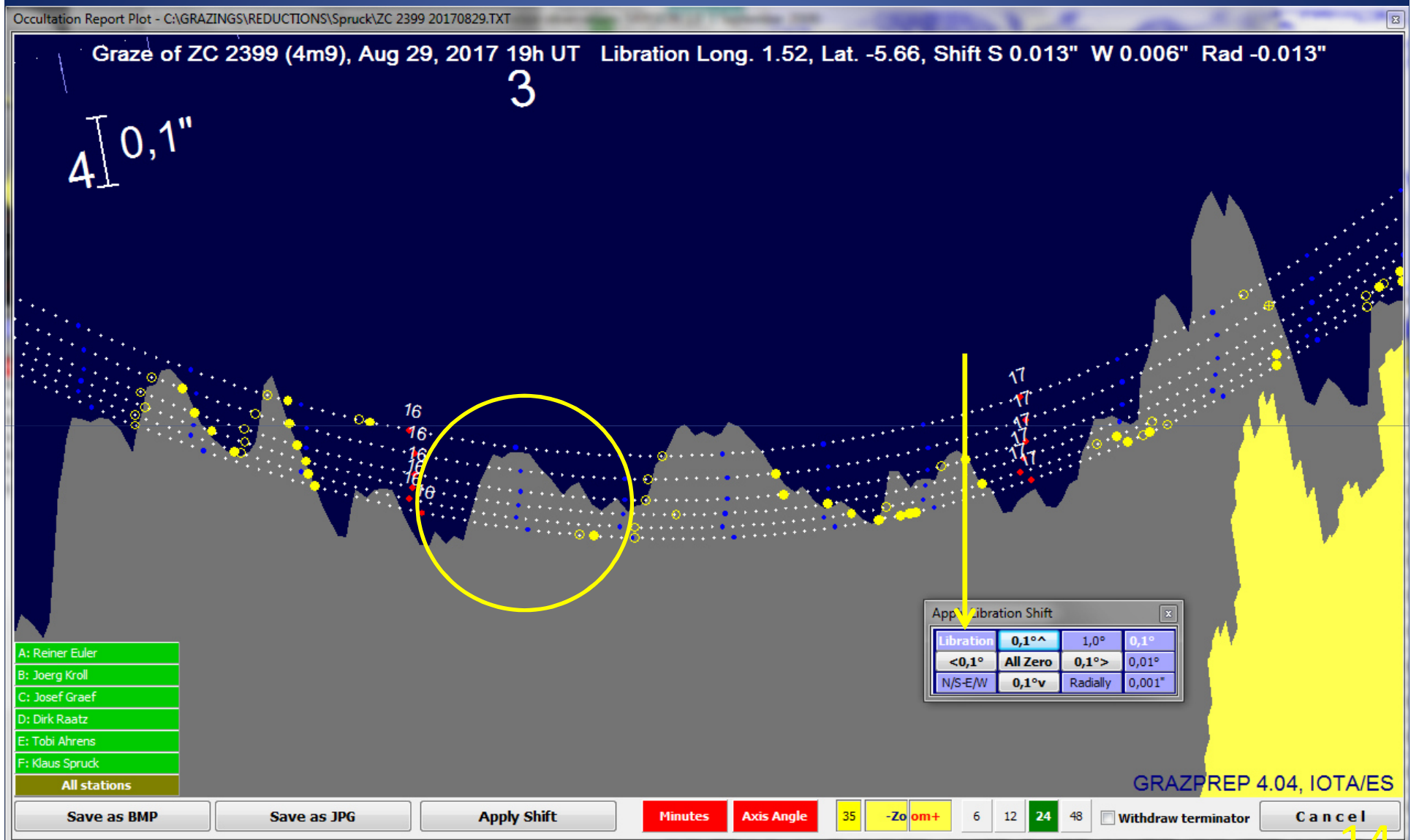


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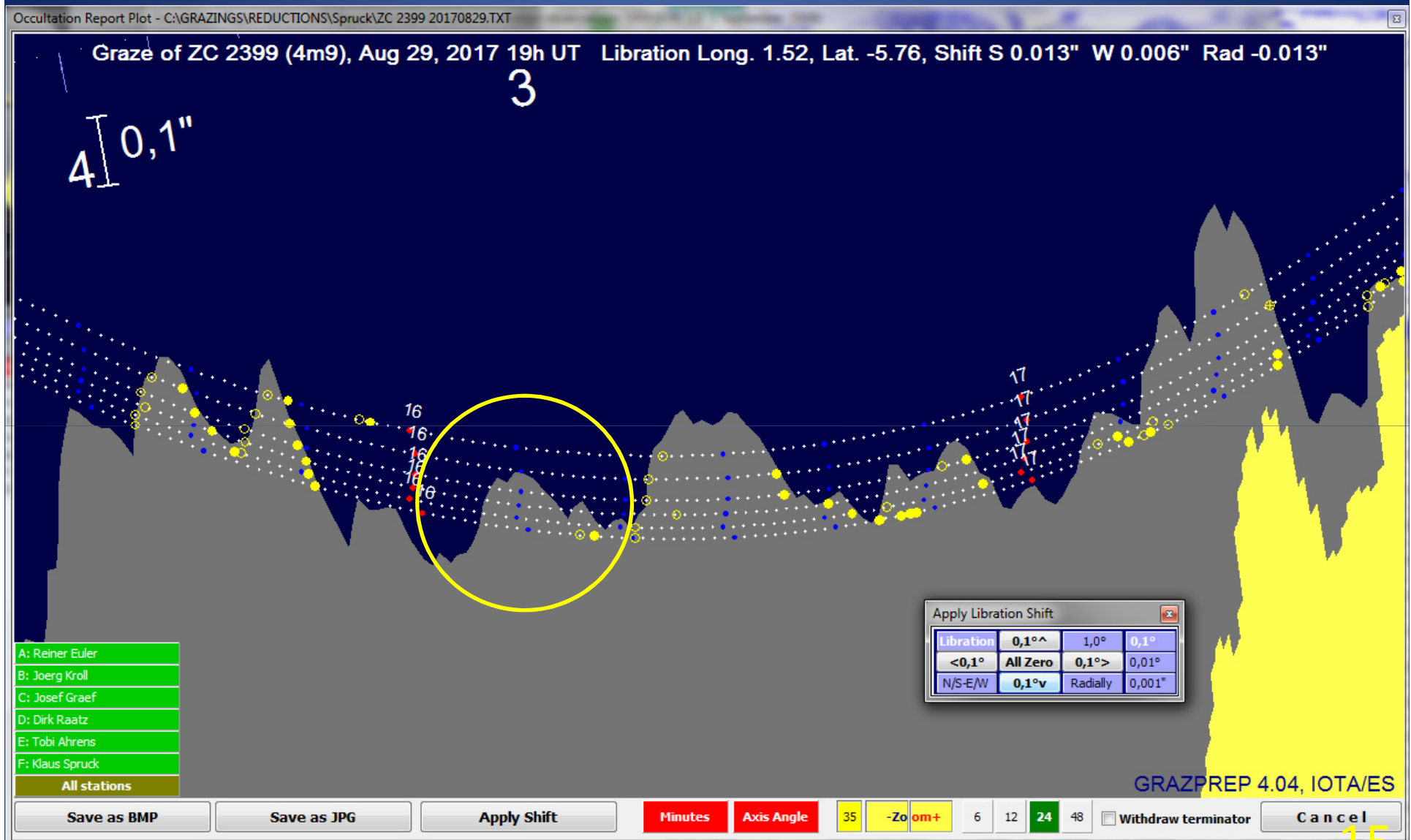
GRAZPREP: Features and Limitations



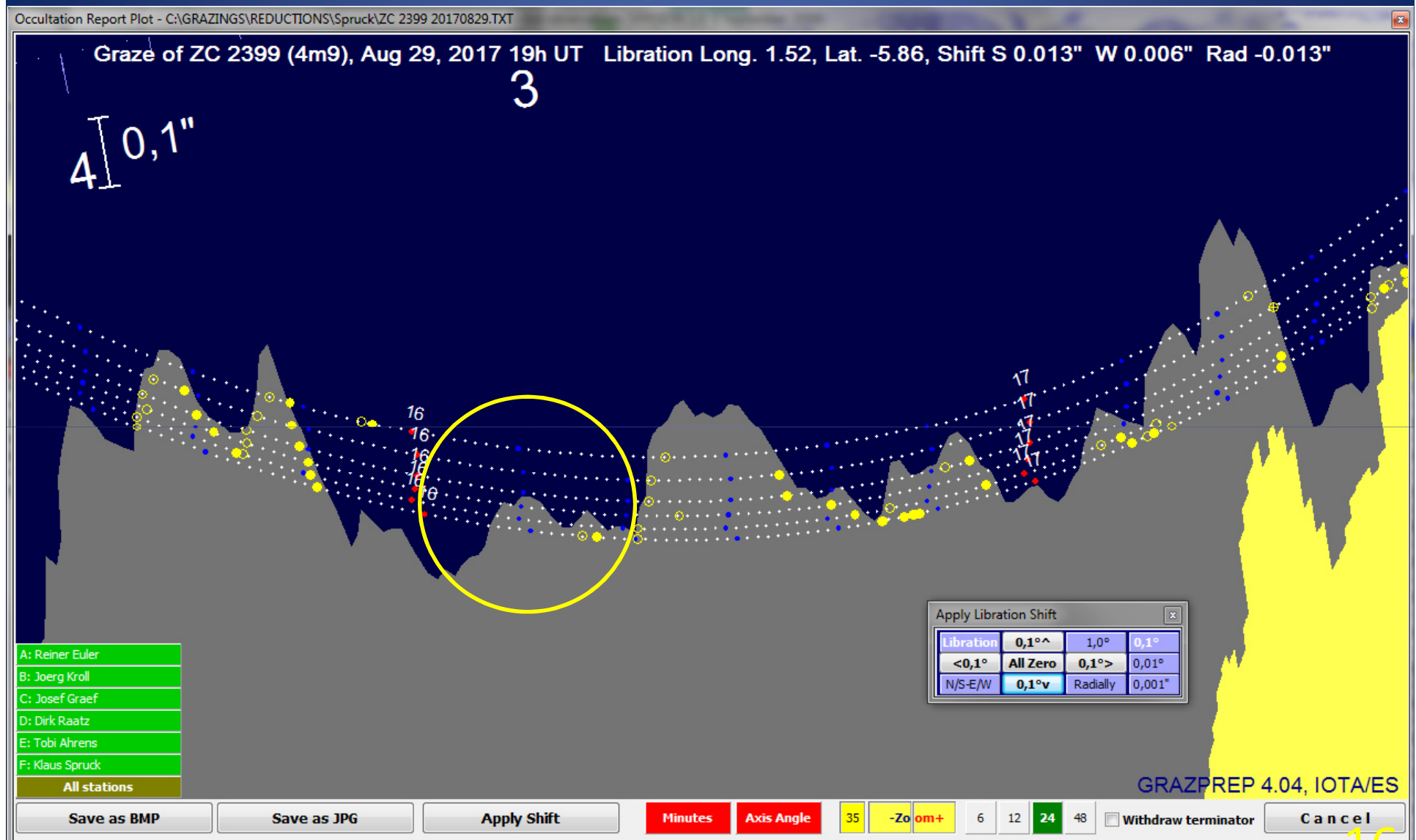
GRAZPREP: Features and Limitations



GRAZPREP: Features and Limitations



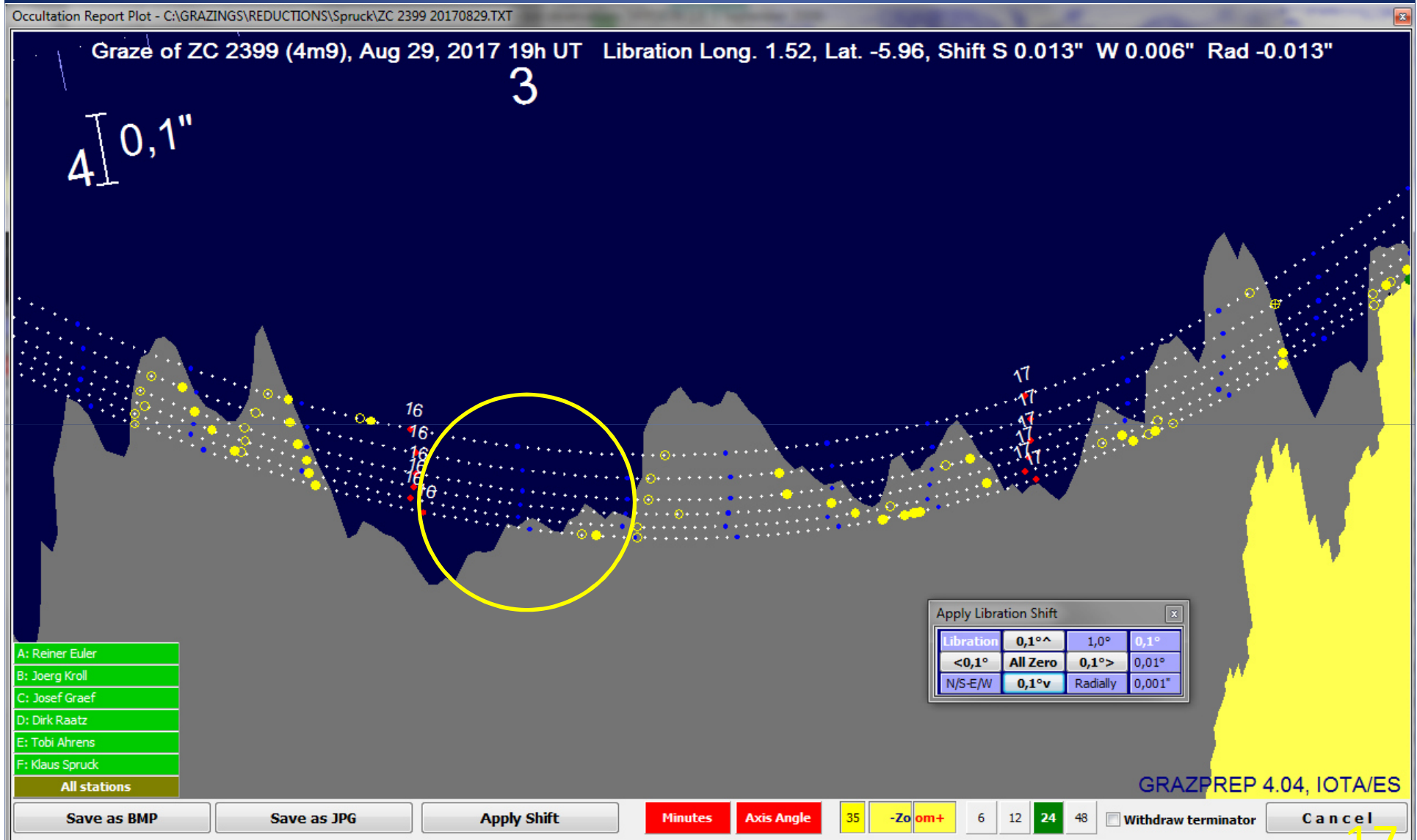
GRAZPREP: Features and Limitations



16

ESOP XXXVI, Freiberg, 16.09.2017

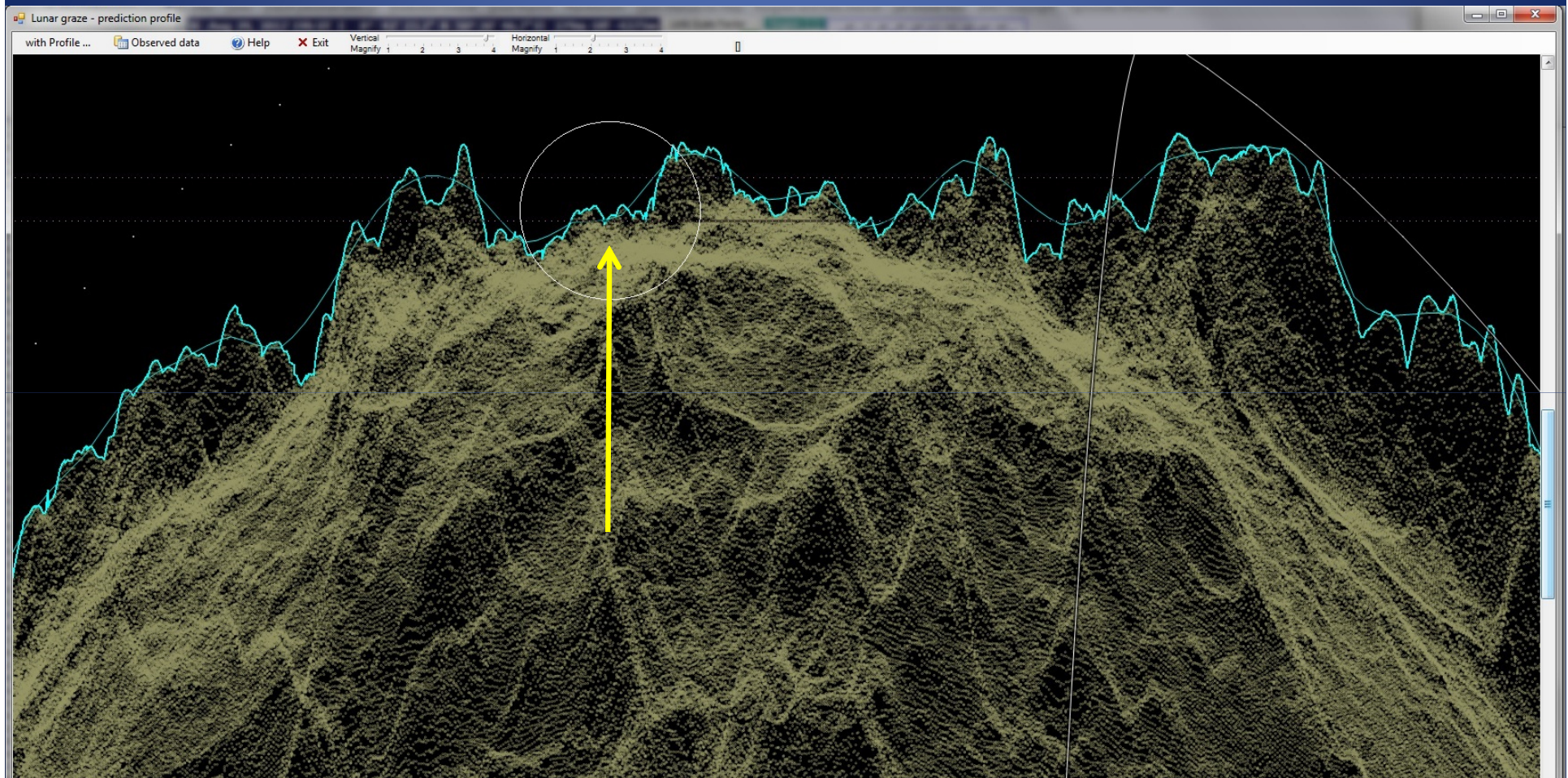
GRAZPREP: Features and Limitations



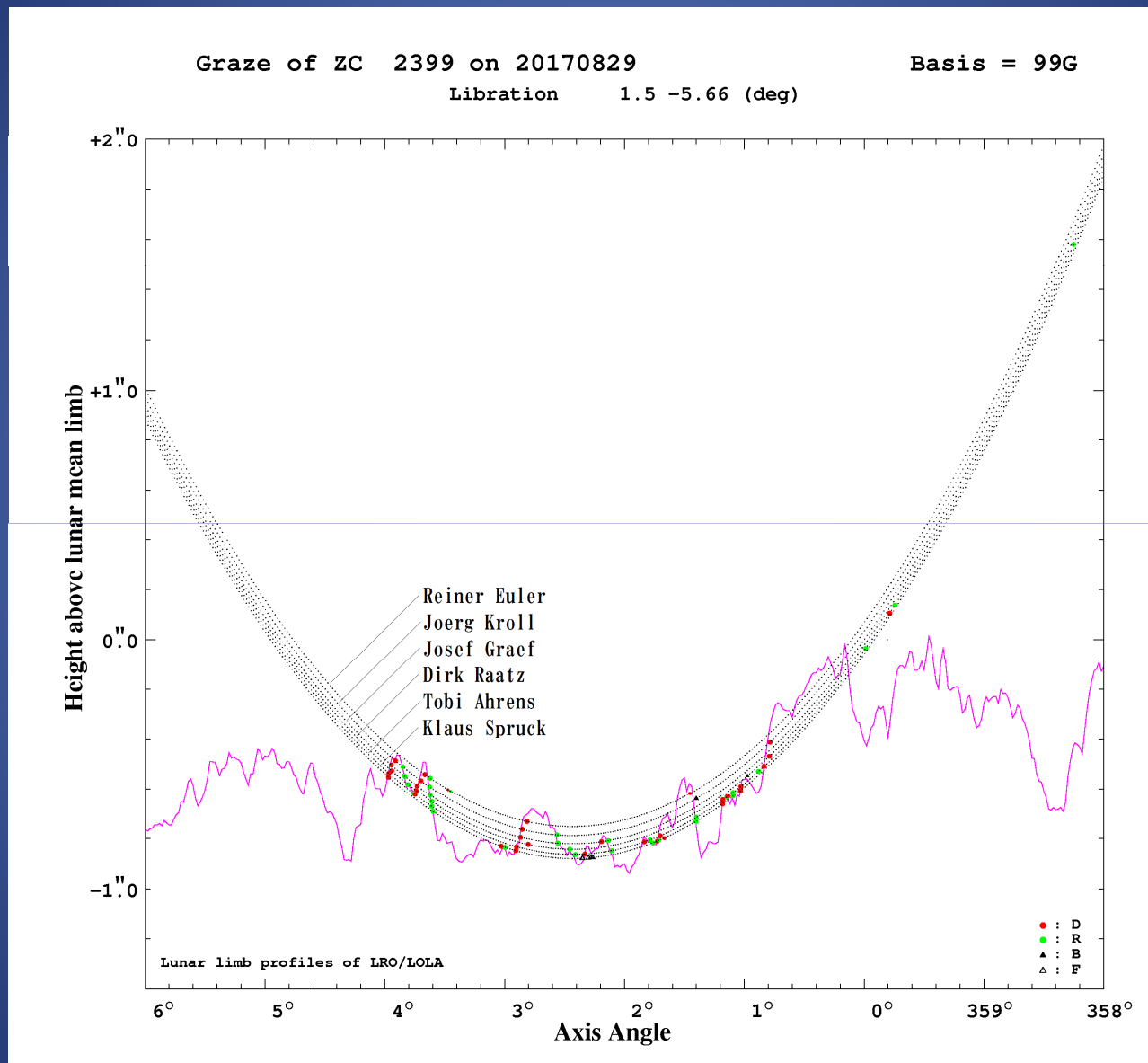
17

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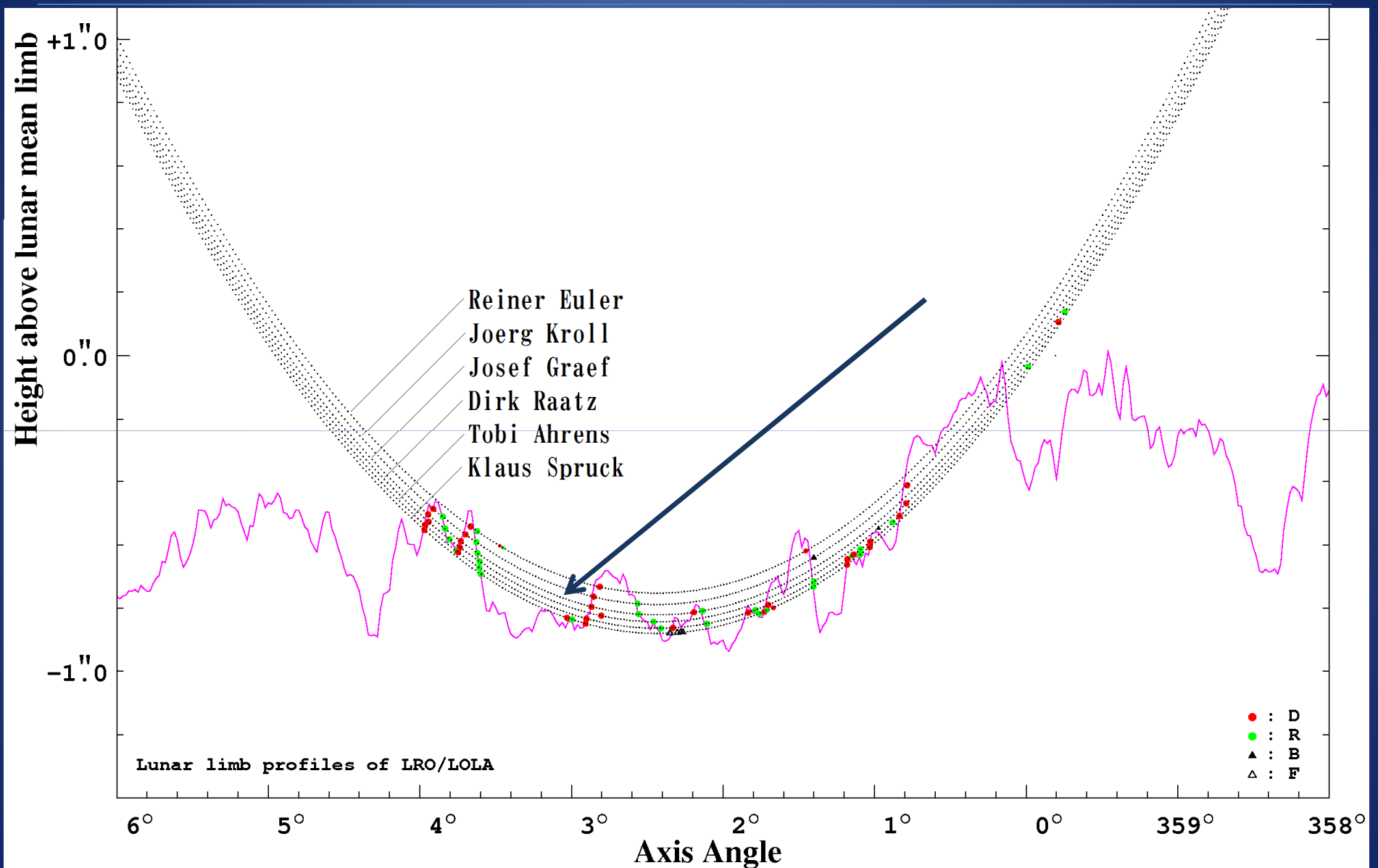
GRAZPREP: Features and Limitations



GRAZPREP: Features and Limitations

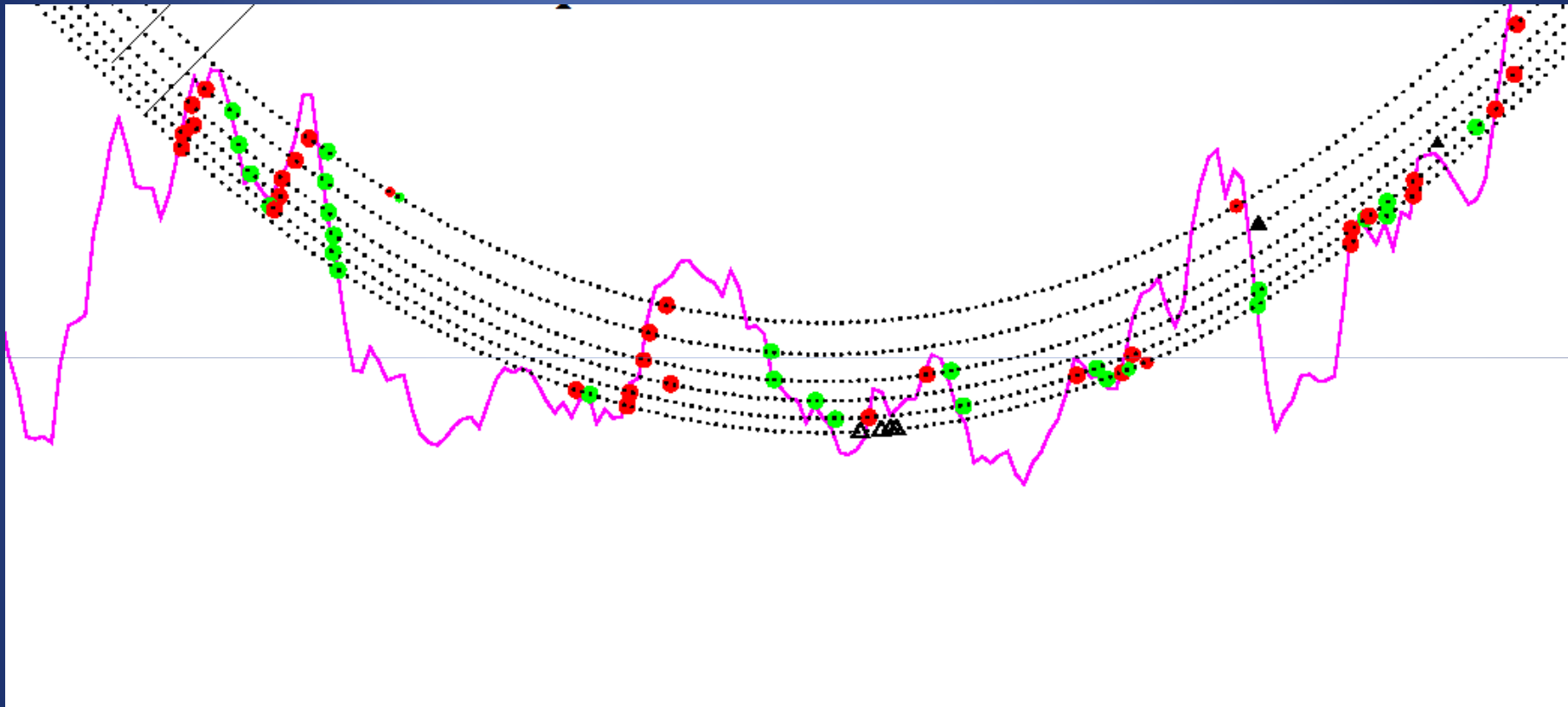


GRAZPREP: Features and Limitations



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GRAZPREP: Features and Limitations



Video observations of fadings and blinks of the starlight reported
(Giant star G8 II/III)

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GRAZPREP: Features and Limitations

Conclusions and demands:

The precision of the prediction still lacks from:

- Uncertainties in the general stellar position
- Uncertainties about double- and multiple star systems
- Uncertainties in the lunar limb terrain

GRAZPREP: Features and Limitations

Demands concerning GRAZPREP:

Further improvements only after the final Gaia-release

Finding a standardized method to display the lunar profile at different libration angles

GRAZPREP: Features and Limitations

Outlook for GRAZPREP:

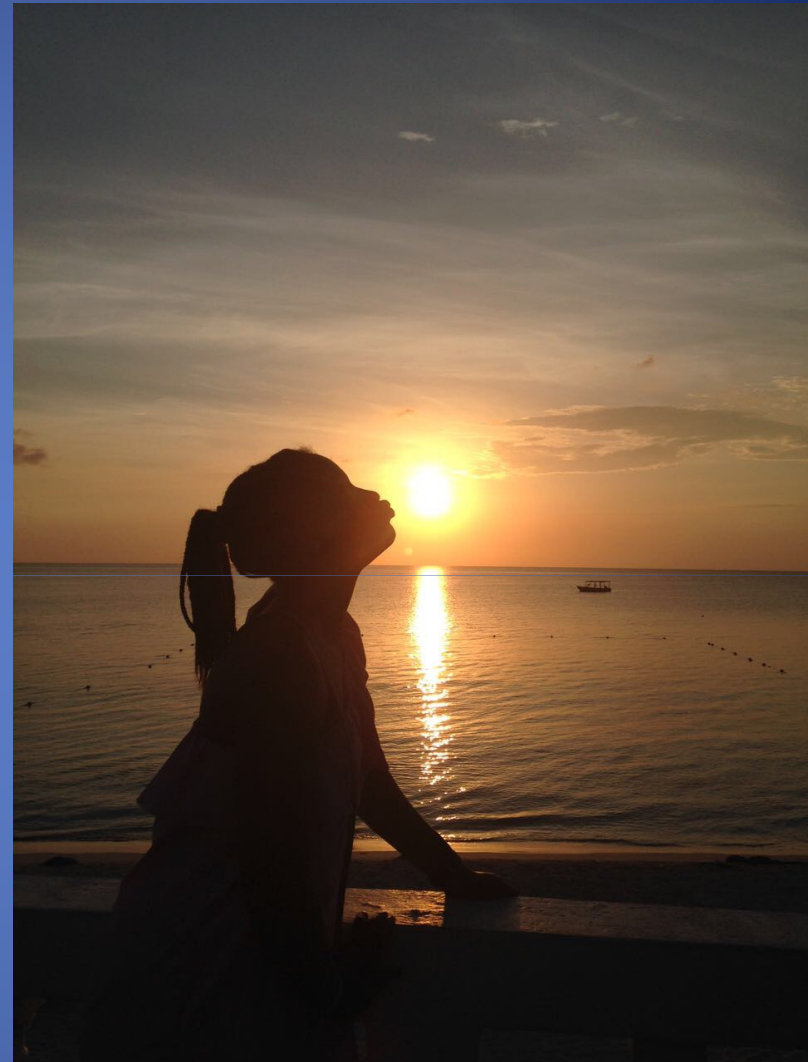
Display of apparent stellar paths of double and multiple systems

Improvement of the lunar profile display for reductions

Inclusion of total occultation predictions (Planetarium function)

GRAZPREP: Features and Limitations

Thanks for listening !



Only an occulted star is a lucky star!

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