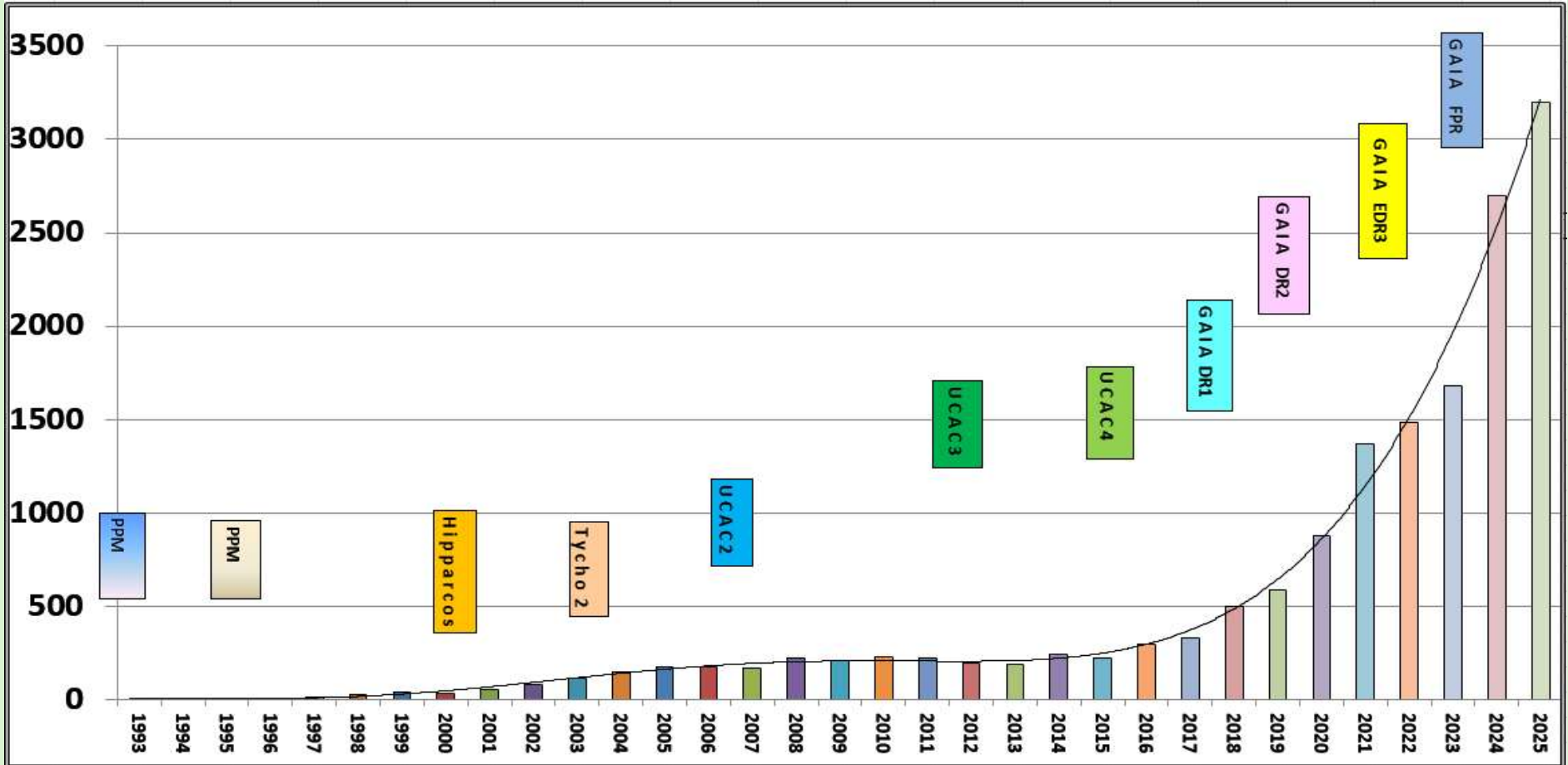


Asteroidal Occultations: Stats, Issues, & Results from 2025

Massive increase over last 18 months



Number of events in 2025 by size & chords

Numbers for diameter range, magnitude drop, and number of chords

Region	Total	By diameter range (km)						by magnitude drop				Number of chords			
		<3km	3-10km	10-20km	20-50km	50-100km	>100km	<0.2	0.2-0.5	0.5-1.0	>1.0	1	2-3	4-9	10+
World	: 2383	74	892	517	442	282	176	20	119	169	2075	1834	430	64	4
Australasia	: 567	10	209	129	107	64	48	7	25	51	484	464	88	3	0
East Asia	: 172	9	42	48	40	24	9	0	4	10	158	108	55	9	0
Europe	: 1086	32	429	221	197	127	80	12	70	75	929	826	197	34	3
Nth America	: 553	23	209	118	98	67	38	1	20	32	500	432	90	18	1
Sth America	: 5	0	3	1	0	0	1	0	0	1	4	4	0	0	0

Small asteroids are now the most common.

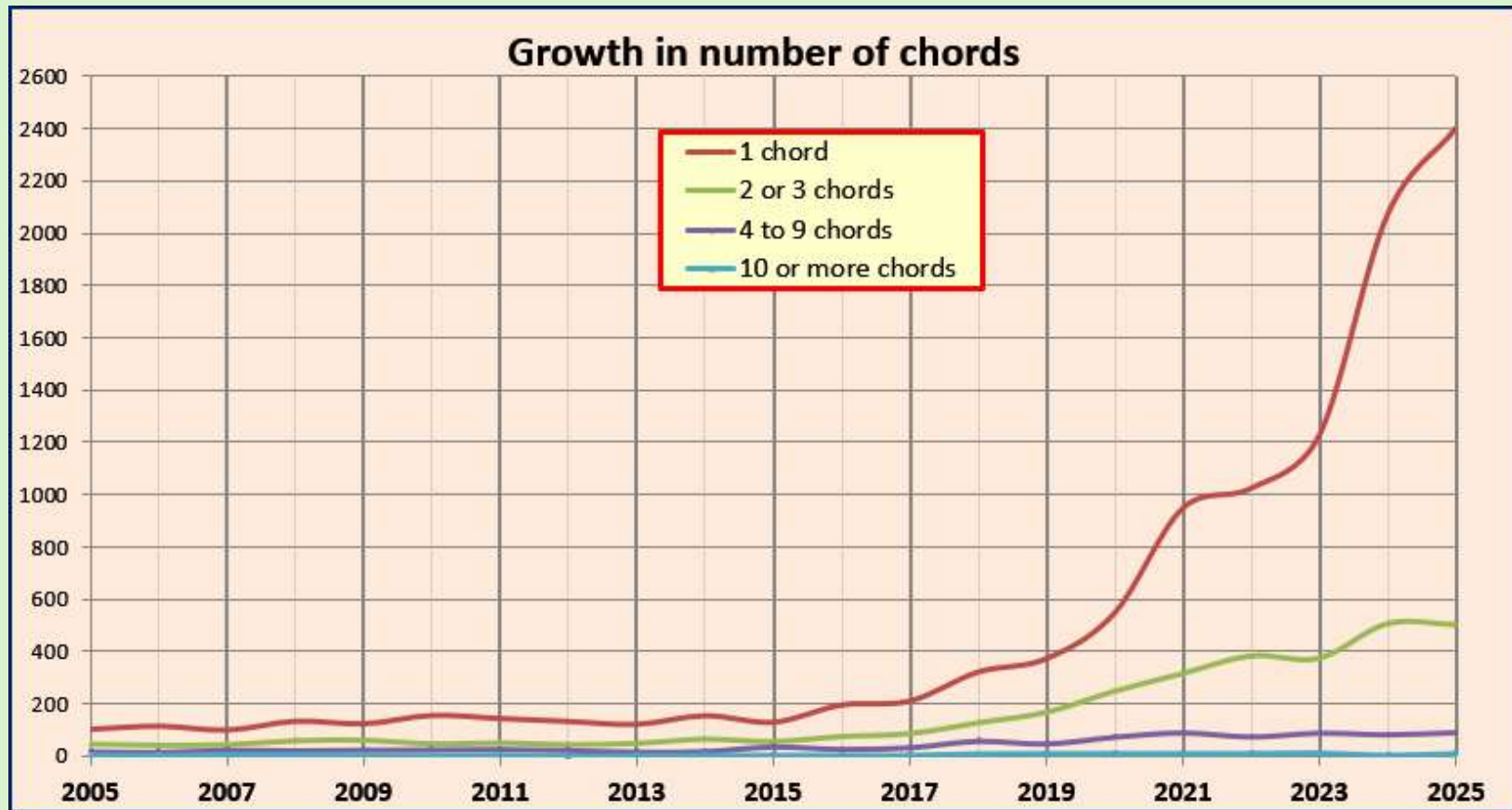
41% < 10km

77% of observations are single-chord events

Total events - 2000 to now

<u>Region</u>	<u>Total</u>
Australasia	: 3107
East Asia	: 1375
Europe	: 5166
Nth America	: 5195 *
Sth America	: 253
Other	: 33
<u>Total</u>	<u>: 15129</u>

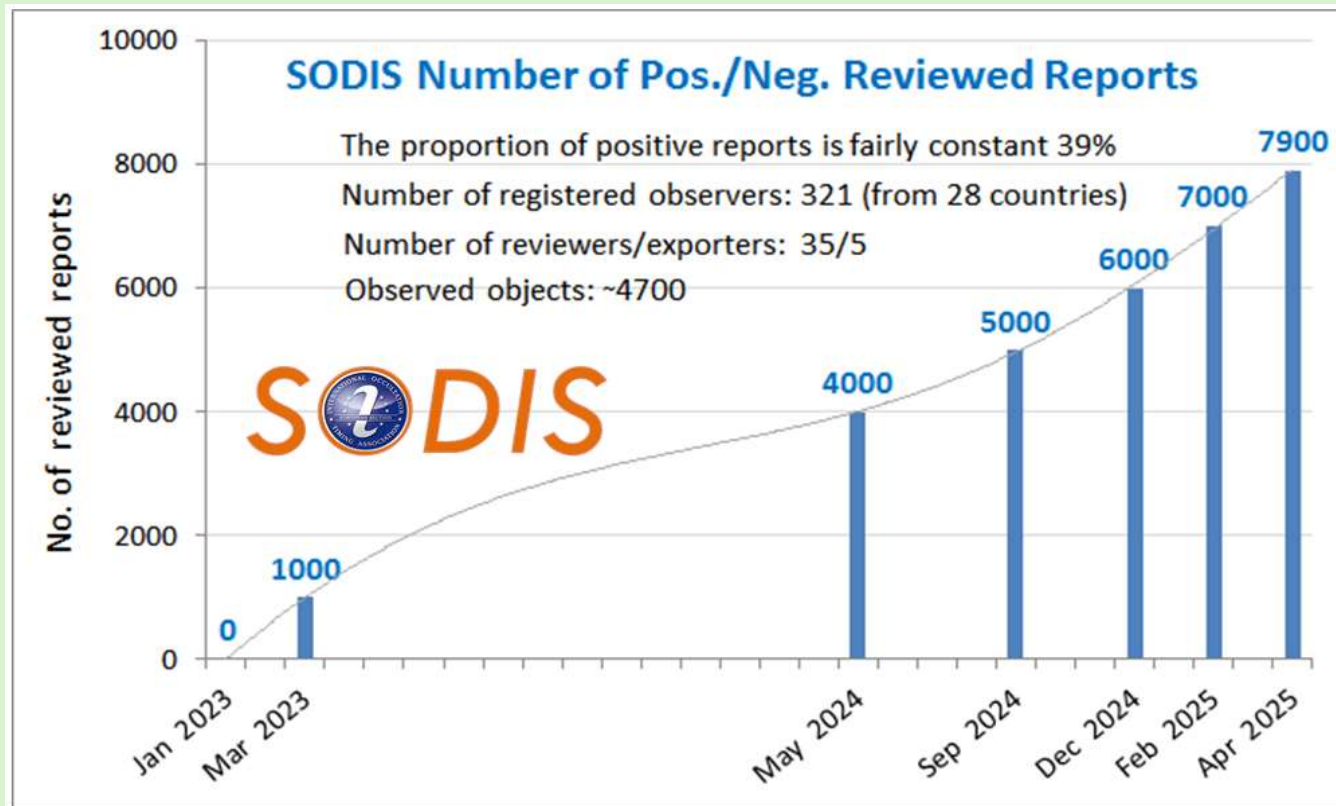
Growth in the number of chords



Growth in number of observations

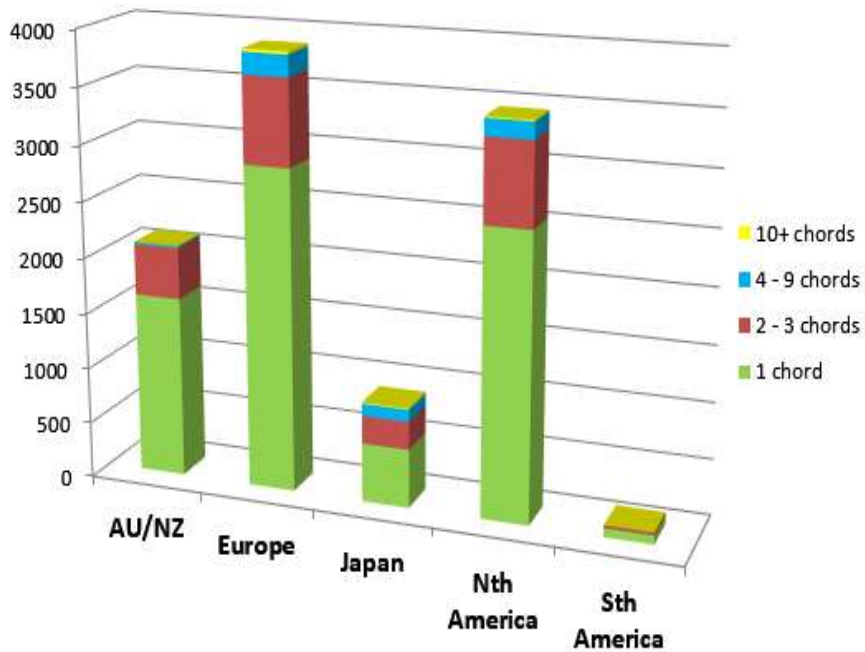
Some statistics from the European SODIS system that began in 2023

Proportion of reports that are +ve : constant at about 40%

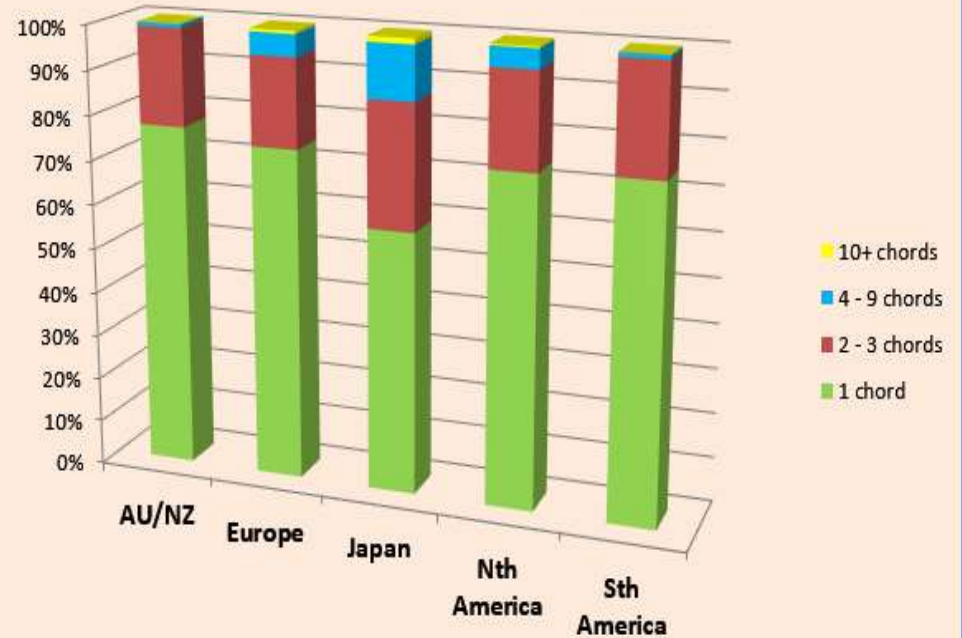


Number of chords, by region

Number of chords - by region 2020 to 2025



Chord ratios - by region 2020 to 2025



Number of Observers per Event



Number of individual observers



Satellite discoveries 2024 → 2026

2024

5370 (10424) Gaillard J. Gout (US, 2024)	5382 (5232) Jordaens M. Simpson, B. Yeung, & G. Schmidt (CA, 2024)
5388 (100624) 1997 TR_28 J. Kubanek, M. Ishida & Y. Ikari, (CZ & JP, 2024)	

2025

5506 (10430) Martschmidt R. Nolthenius & J. Gout (US)	5511 (3927) Feliciaplatt V. Sempronio, K. Getrost & R. Venable (US)
5512 (6326) Idamiyoshi H. Watanabe, H. Yamamura & N. Manago (JP)	5521 (127481) 2002 NB_19 S. Kerr (AU)
5522 (61784) 2000 QL_178 N. Carlson & J. Bardecker (US)	5544 (148358) 2000 SY18 P. Stuart (US)
5552 (31736) 1999 JR_73 D. Smith (ES)	5556 (134421) 1998 QT2 S. Conard, G. Lyzenga (US)
5562 (33956) 2000 NN3 T. Swift (US)	5569 (60050) 1999 TJ 106 D. Gault & P. Nosworthy (AU)
5571 (109013) 2001 QS4 P. Nosworthy (AU)	5582 (67426) 2000 QA98 M. Nelson (US)
5589 (108968) 2001 PE40 J. Kaeser, J. Schenker & M.Gutekunst (CH, DE)	5629 (60186) Las Crucis H. Pavlov, P. Nosworthy & D. Gault (AU)

2026

5654 (7563) 1988 BC G. Viscome (US)	5656 (50142) 2000 AY129 S. Kidd
5665 (32230) 2000 OP 27(Purple Mt Obs).txt	

Pending

(1045) Michela, (10813) Masterby, (12148) Caravaggio, (36882) 2000 SW155, (92590) 2000 PT13, (130247) 2000 CE85

Double star discoveries

2025 : 83 double star discovered

2026 – so far 5, [3 being single-component-only]

A sample: Nov 2025 → now

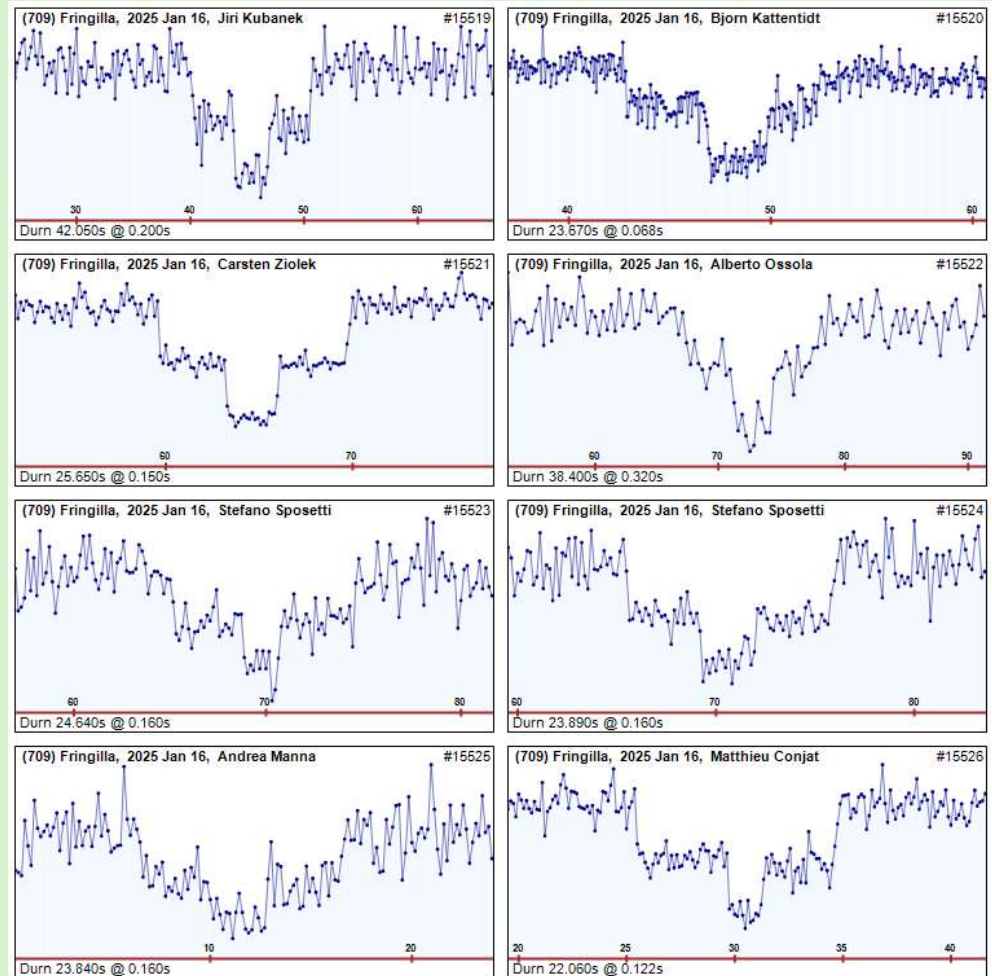
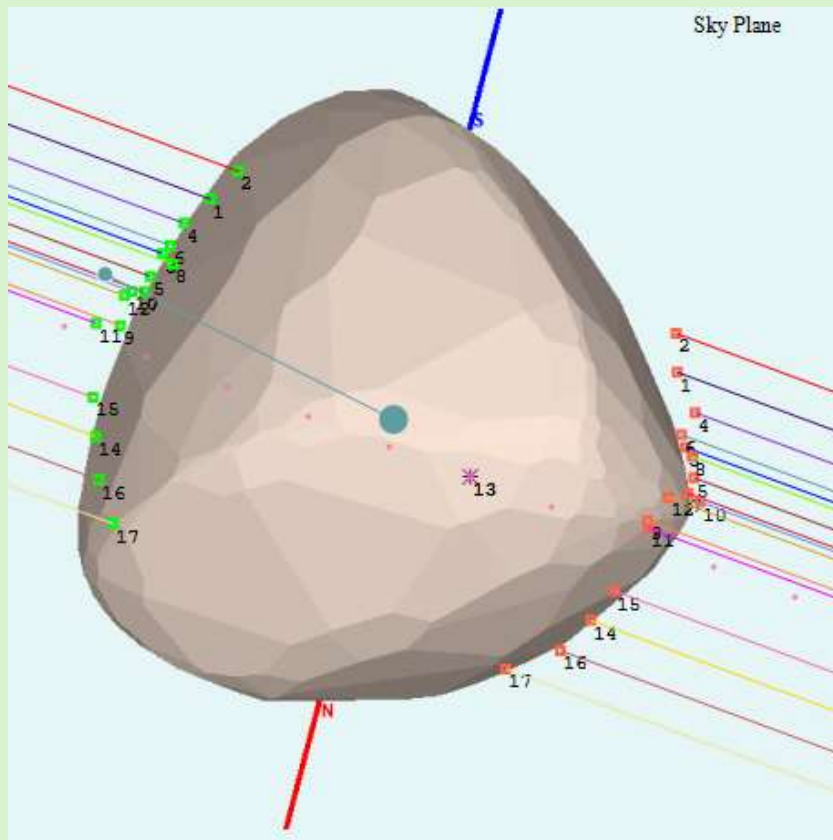
Count	WDS Number	Star number	Mv1	Mv2	SoIn	Sep (masec)	P.A.	RUWE	*dia	Date	Asteroid
1	06528+1828	UCAC4 543-035860	11.9	13.8	#1	2.9	290 ± 0	1.15	0.1	2026 Mar 4	97597 2000 EV50
2	07146+1631	Tycho2 1346-00214-1	10.6	11.6	#1	1.0 ± 0.3	12 ±18	0.95	0.1	2026 Feb 21	82716 2001
3	07106+0506	UCAC4 476-032036	15.5	15.7	#1	>3.8	70 ±45	1.15		2026 Feb 14	53168 1999 CV10
4	06597+2335	UCAC4 568-035958	13.8	14.2	#1	>0.3	20 ±45	0.90		2026 Feb 5	54030 2000 GF105
5	07495+2750	UCAC4 590-043160	14.1	15.6	#1	>1.5	10 ±45	1.05		2026 Jan 18	140689 2001 UW58
6	02275+1639	HIP 11441	7.5	8.5	#1	3.7 ± 1.0	114 ± 6	1.15	0.2	2025 Dec 30	3912 Troja
7	06123+2255	HIP 29450	5.8	6.0	#1	>2.1	0 ±45	1.25	1.7	2025 Dec 25	78707 2002 TY181
8	06044+0610	UCAC4 481-015362	14.4	14.6	#1	>3.1	20 ±45	0.90		2025 Dec 20	84835 2003 AA10
9	09209-1519	UCAC4 374-055814	14.2	14.4	#1	6.6 ± 0.1	130 ± 2	11.20		2025 Dec 18	7167 Laupheim
10	06242+2941	UCAC4 599-032017	12.4	13.3	#1	>1.1	10 ±45	1.15	0.1	2025 Dec 18	35289 1996 TL40
11	07088-0549	Tycho2 4827-01440-1	12.1	13.6	#1	1.7 ± 0.2	237 ±12	1.80		2025 Dec 13	17156 Kennethseitz
12	07574+1523	UCAC4 527-044780	12.1	12.9	#1	1.0 ± 0.1	301 ± 8	1.10		2025 Dec 12	20008 Adacarrera
13	06029+2700	UCAC4 586-024292	13.8	14.2	#1	152.2 ± 3.3	102 ± 1			2025 Dec 8	87 Sylvia
14	04411+1057	UCAC4 505-008240	13.7	14.0	#1	>1.6	150 ±45	1.95		2025 Dec 5	18168 2000 PN28
15	22488-2111	Tycho2 6393-00358-1	11.3	12.8	#1	>3.4	150 ±45	2.45		2025 Nov 29	11394 1998 XL77
16	05013+1621	UCAC4 532-010625	13.3	12.0	#1	4.9 ± 1.0	115 ±13	1.55	0.1	2025 Nov 28	410 Chloris
17	04341+3129	UCAC4 608-014699	14.5	15.3	#1	>3.9	170 ±45	8.70		2025 Nov 18	21557 Daniellitt
18	07343+2314	Tycho2 1911-01482-1	12.8	12.9	#1	0.6 ± 0.3	346 ±39	0.95		2025 Nov 18	61268 2000 OG30
19	10060+2654	UCAC4 585-045388	13.6	13.6	#1	>1.9	180 ±45	1.05		2025 Nov 17	15861 Ispahan
20	05440+4621	UCAC4 682-038696	13.8	14.0	#1	239.6 ± 2.7	151 ± 1			2025 Nov 11	98 Ianthe
21	04425+0422	J044228.34+042217.9	13.0	13.4	#1	>0.6	140 ±45	0.95		2025 Nov 11	110030 2001 SJ75
22	04048+1513	Tycho2 1250-00022-1	12.3	12.7	#1	>0.3	180 ±45	1.85		2025 Nov 5	35130 1992 LQ

**Selection of six
multi-chord events in
2025**

(709) Fringilla 2025 Jan 16

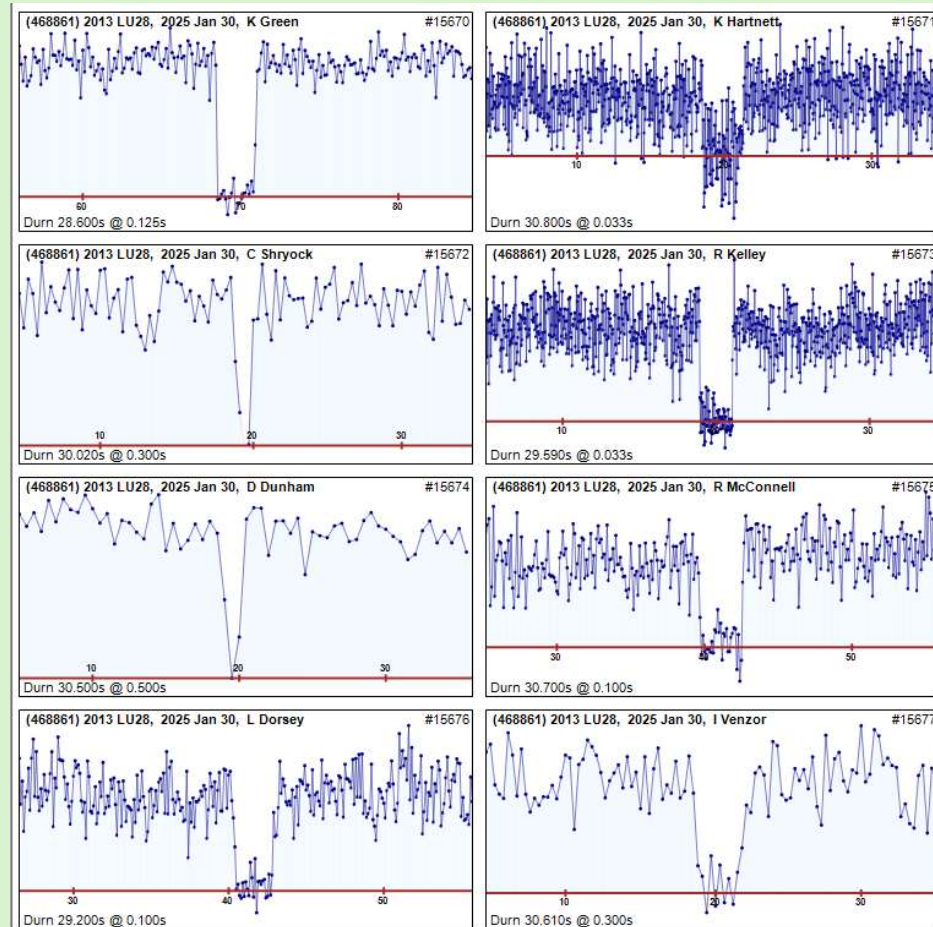
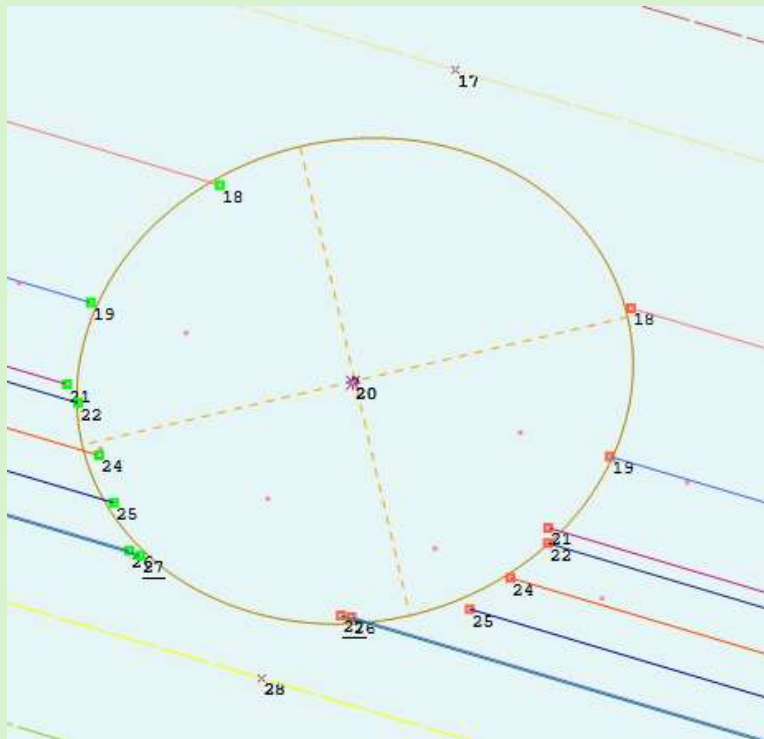
Double star, 16 chords

Europe

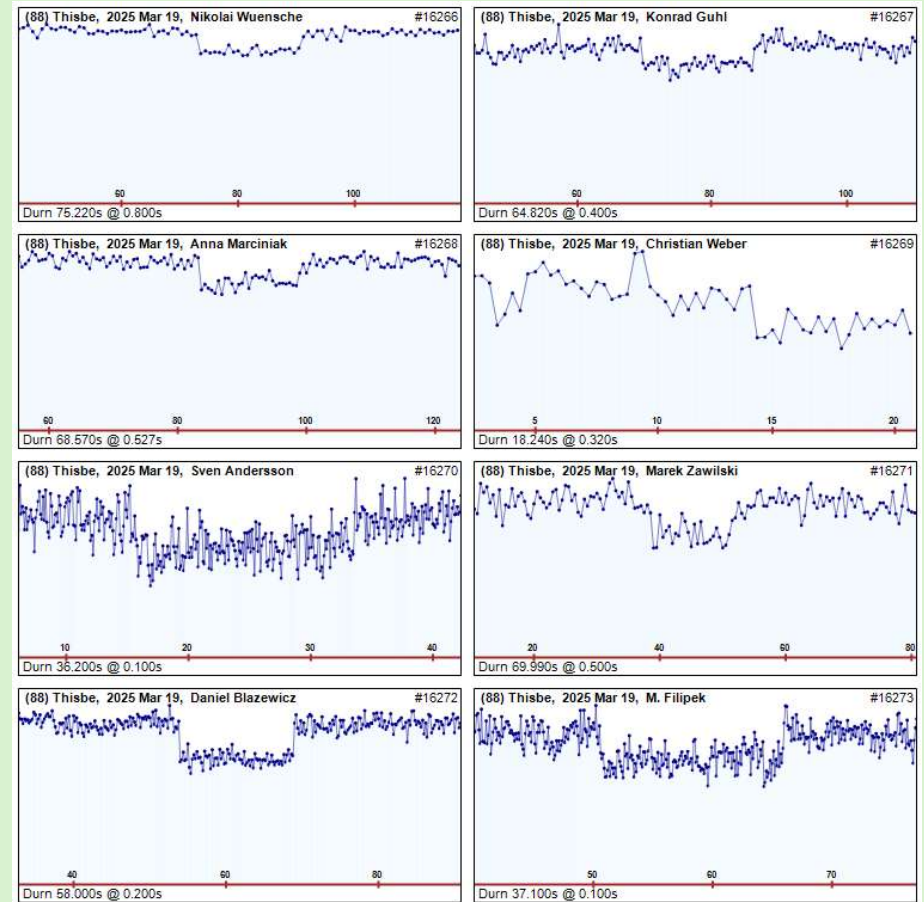
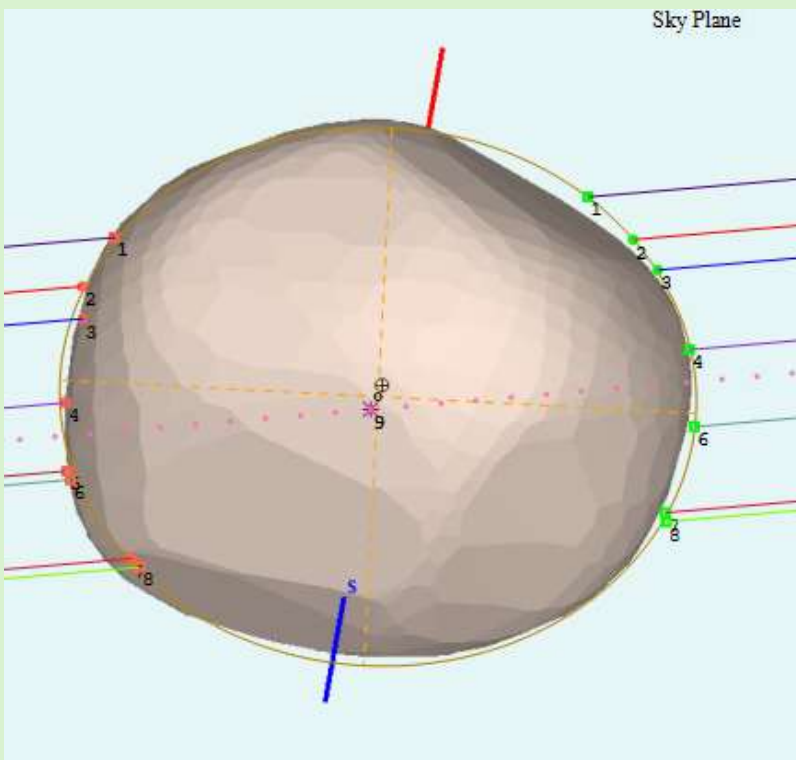


(468861) 2013 LU28 2025 Jan 30

8 chords, Nth America

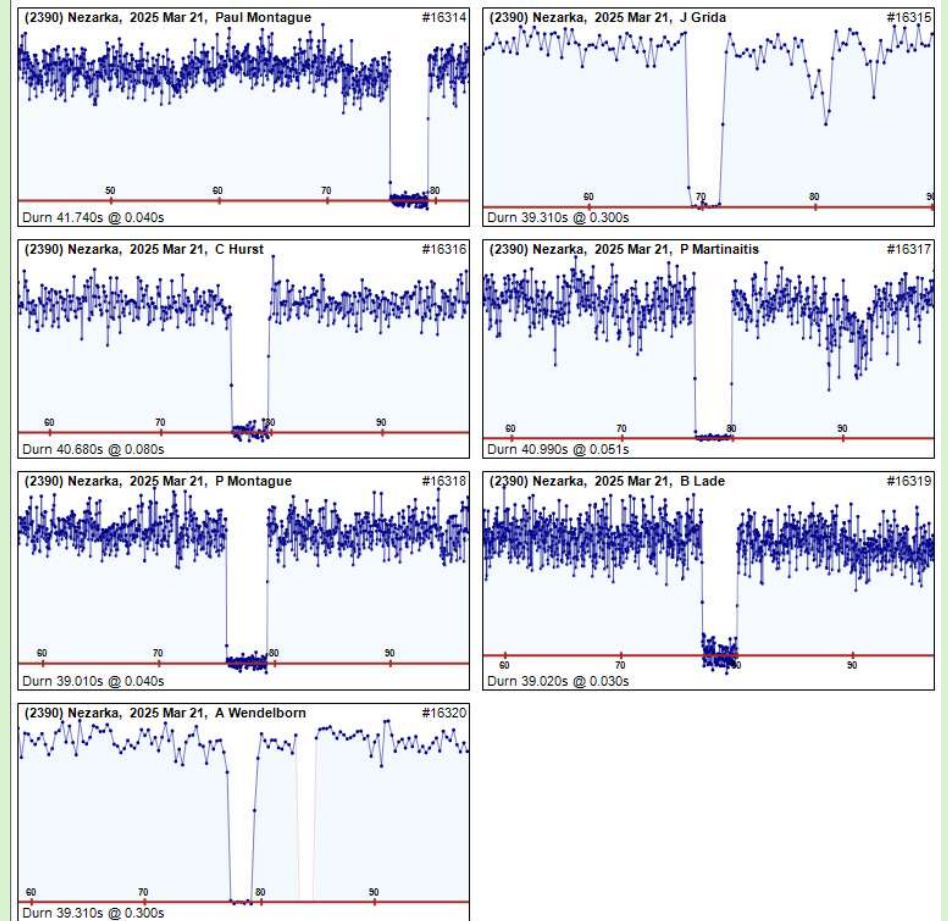
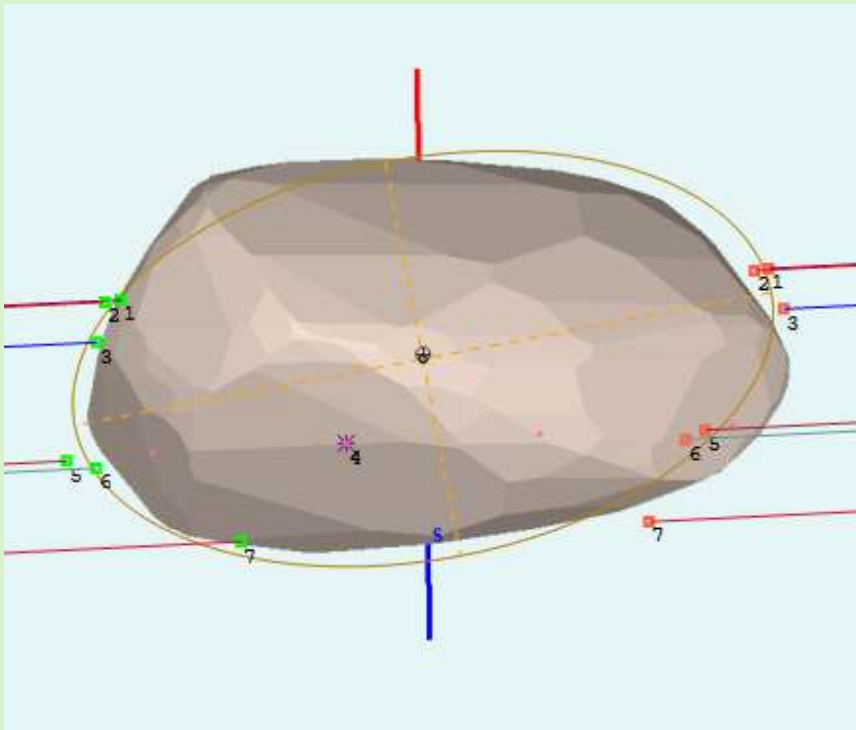


(88) Thisbe 2025 Mar 19 8 chords, Europe Light drop 23%



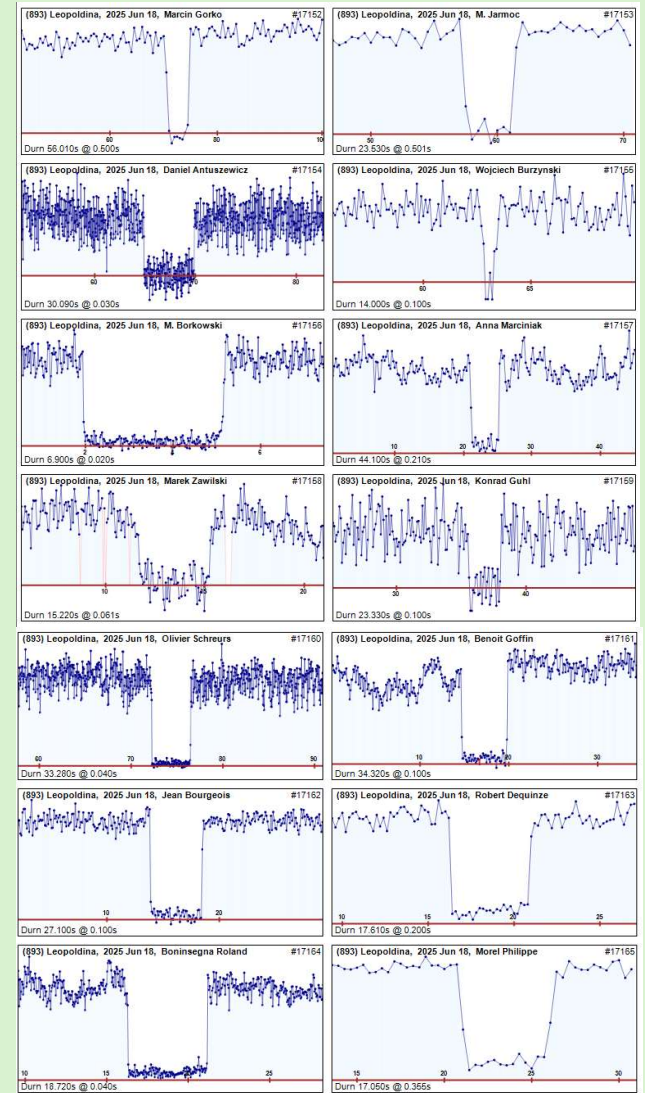
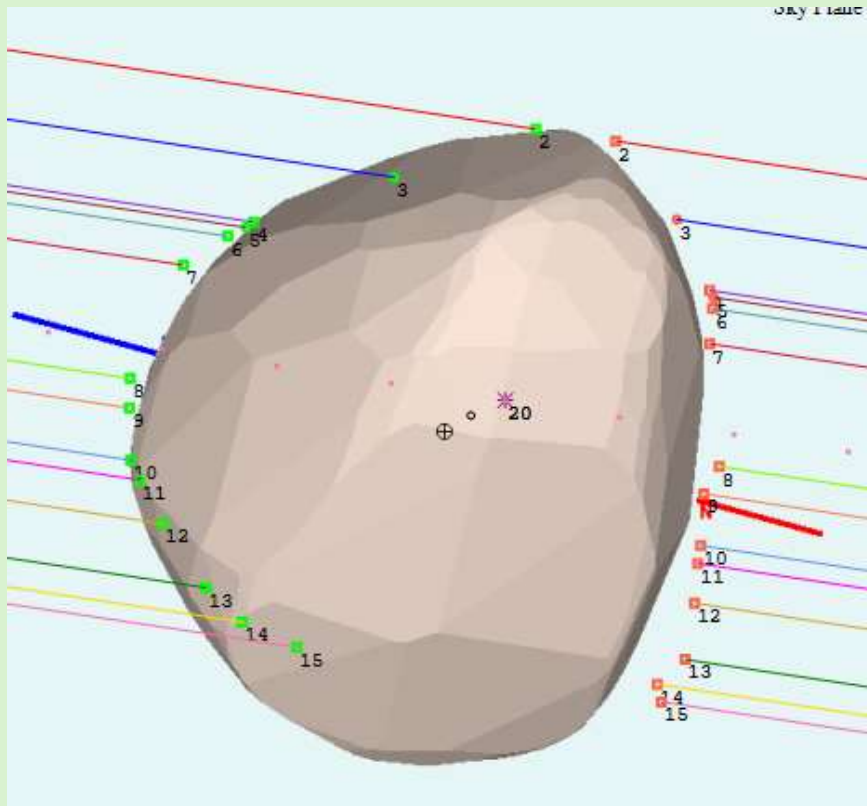
(2390) Nezarka 2025 Mar 21

6 chords, Sth Australia



(893) Leopoldina 2025 Jun 18

14 chords, Europe



(426) Hippo 2025 Sep 13

12 chords, Europe

