

Welcome to TTSO16
The Sixteenth Trans-Tasman
Symposium on Occultations
June 25 and July 2, 2022

Trans-Tasman Occultation Alliance

Acknowledging our Sponsor

Very grateful for the support of the Wellington Astronomical Society for allowing us to use their Zoom facility over these two weekends.



Rules of the house

- If you are reading this, then you were able to log in.
- Fire alarms, toilets and catering ... I can't help you there ...
- Only one person can speak at a time – usually the presenter.
- Use the Chat channel or 'Raise your hand' to ask questions – everything you type here can be seen by everyone else. Type as the questions come to mind – the presenter can decide to answer on the fly or at the end.
- If you are having technical difficulties, you can put questions in the chat channel but our ability to troubleshoot on the fly will be limited (our experience so far is the problem is often at your end).
- Please be polite and courteous.

Program for TTSO16

Saturday 25 June 2022

UTC	AEST	NZST	Duration	Speaker	Title	Description
			(min)			
6:00:00	16:00:00	18:00:00	0:10:00	S. Kerr	Welcome and Introduction	
6:10:00	16:10:00	18:10:00	0:20:00	S. Kerr	TTOA - Where are we at?	Recent observing statistics and where to next for TTOA and TTSO.
6:30:00	16:30:00	18:30:00	0:20:00	D. Herald	Summary of Recent Planetary Occultations	A round up of interesting and significant planetary occultations over the last 2 years
6:50:00	16:50:00	18:50:00	0:20:00	D. Herald	Pluto Occultation Summary	An insiders view of chasing the June 1 occultation by Pluto
7:10:00	17:10:00	19:10:00	0:50:00	D. Herald	Demonstration of Occult Functionalities	An overview of predicting asteroidal occultation and using Occult star chart functions

Saturday 2 July 2022

UTC	AEST	NZST	Duration	Speaker	Title	Description
			(min)			
6:00:00	16:00:00	18:00:00	0:05:00	S. Kerr	Welcome and Introduction	
6:05:00	16:05:00	18:05:00	0:30:00	M. Forbes	A possible improvement to alignment of spectra in Tangra	
6:35:00	16:35:00	18:35:00	0:20:00	S. Kerr	Upcoming Occultation opportunities	An overview of interesting occultations for the remainder of 2022 and 2023.
6:55:00	16:55:00	18:55:00	0:30:00	J. Bradshaw	Bright Star Occultation Observing	
7:25:00	17:25:00	19:25:00	0:35:00	D. Herald	Demonstration of Occult Functionalities	Asteroidal occultation observations editor – solving for double star events

<http://www.occultations.org.nz/meetings/TTSO16/TTSO16.htm>

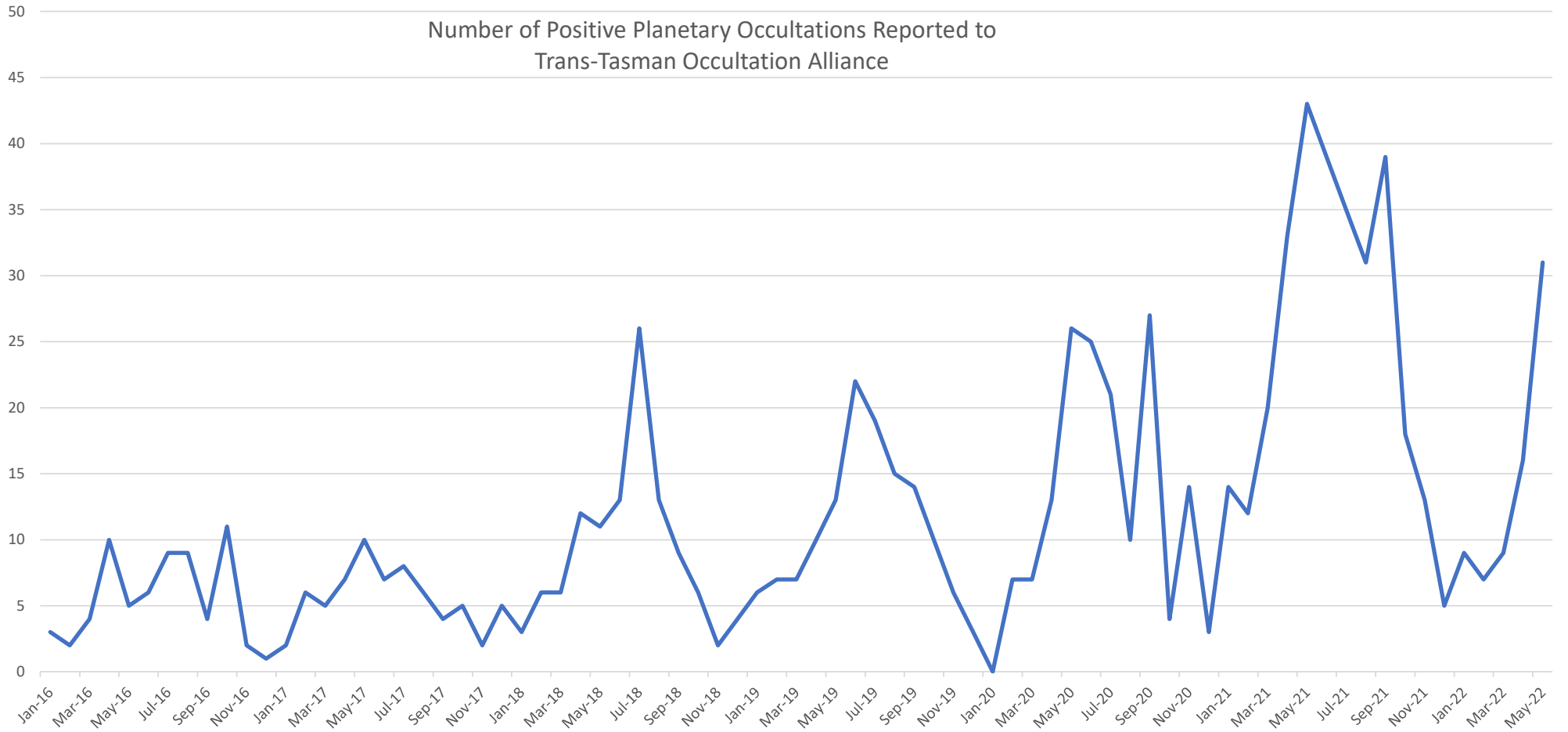
2021 Planetary Occultation Summary

Recent Years Totals

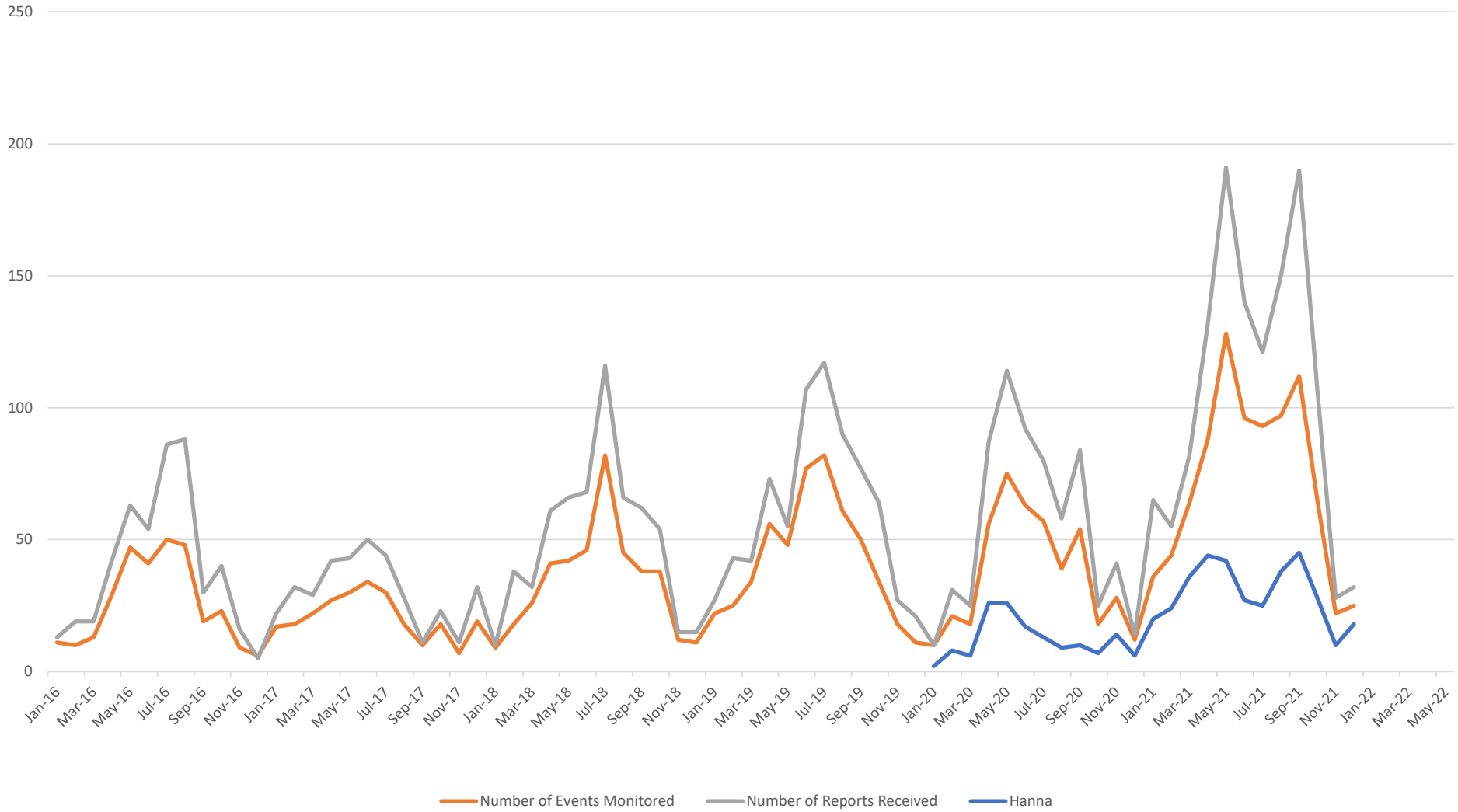
Year	Number of Observers/ Reporters	Reports	Positive Events	Positive Chords Observed
2008	26	280	47	66
2009	29	320	46	75
2010	29	343	50	74
2011	28	289	51	70
2012	34	383	51	77
2013	45	532	56	89
2014	35	542	58	76
2015	29	384*	45	75
2016	27	475	66	88
2017	21	367	67	97
2018	31	603	114	170
2019	21	743	132	180
2020	21	661	157	223
2021	21	1293	302	369

* Likely to be a severe underestimate.

Number of Positive Planetary Occultations Reported to
Trans-Tasman Occultation Alliance



Observer Effort



Busy People in 2021 – Observers with more than 20 reports

Observer	Total Reports	Total Positive Chords
Bill Hanna	357	95
Dave Gault	147	41
Dave Herald	145	46
Peter Nosworthy	132	33
John Newman	120	28
Ash Pennell	91	16
Ron Paine	53	11
John Broughton	43	28
Steve Kerr	42	18
Brian Loader	37	15
Martin Unwin	30	7
Peter Shottle	26	13

Reporting

- Please use the MS Excel report form. Best of all, use the prefill functionality out of Occultwatcher ... even better if you use AOTA to generate the times and uncertainties.
- Post your results to MPObservations@occultations.org.nz
- If it is a miss, just send the Excel form. If you get a positive, send the .lc file out of Tangra as well as a graphic of the light curve (PNG, JPEG or GIF).
- Share your successes (and failures and embarrassing stories) on the TTOA IO Group or on Facebook (W4N2H).



WARNING!



The following slides are **CONTROVERSIAL**



Data Management and Workflow

- Presently, observations are manually filtered and processed and only processed observations go into the archive/database – very labour intensive.
- Looking at other situations where large amounts of data are processed – AAVSO observation database.
- Onus of getting data into the database placed on observer with data qualification (e.g. asteroid, date/time, star ID, observer location) automated. We already have a reference source ... OWCloud.
- Stitching together observations to make up a profile will still need human interaction and critique ... but data cleansing is automated or shifted back to the observer.
- Overcomes inter-regional challenges ... one database for the whole world.
- Might look a lot like the Occultation Portal that Lucky Star observers use except it will show the results.

... but

- Would require a substantial re-structure of current data. Occult might be a browser for the database rather than containing the database.
- Who is going to host it and pay for its hosting?
- I don't know anything about IT so feel free to ignore it all ...

TTOA

Trans-Tasman Occultation Alliance

Where are we at?

Our Mission

- Promoting the observation of occultations across AU/NZ. Emails and Facebook.
- Act as observation collection system from AU/NZ in wider global network. Should this still be a regionalised activity?
- Collection point for knowledge and experience to improve everyone's participation in occultation astronomy - TTSO

Website

- What are we using it for now?
 - Publication of small number of predictions
 - Listing and linking to asteroidal occultation results
 - Meeting material (TTSO's)
 - Static content for public/new observers etc.
- Needs a refresh into something a bit more modern – I need to follow up on some plans there ...

The Future of TTSO's

TTSO's

- Initially started as a training forum for the then emerging video observing techniques.
- Has morphed into a general conference/forum as the technology change process has slowed down.
- Historically a physical meeting but with some remote presence (relatively crude though). Allowed a focussed regional perspective that duplicated messages seen in other forums.

TTSO's online only.

- No links to a physical meeting that other amateur astronomers are attending ... so not so much appeal to non-involved people.
- A bunch of people who reliably attended physical TTSO's have not been involved in the virtual ones.
- Geography is now irrelevant. But time zones are important. We have never had so many people at TTSO but we are preaching to the converted.
- Three major meetings now – TTSO, ESOP and IOTA NA – a lot of content in common. Should there be more coordination of timing and content (I am not aware of any at the moment)
- No idea how TTSO17 will happen – future of travel for physical meetings uncertain. Would like a volunteer to pull together a program and coordinate with other meetings.

Thanks

Questions ?