

Welcome to vTTSO15
The Fifteenth Trans-Tasman Symposium
on Occultations
September 11, 18 and 25, 2021

Trans-Tasman Occultation Alliance
(formerly RASNZ Occultation Section)

Acknowledging our Sponsor

Very grateful for the support of the Wellington Astronomical Society for allowing us to use their Zoom facility over these three 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 TTSO15

Date	UTC	AEST	NZST	Duration (min)	Speaker	Title	Description
11/09/2021	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	W. Hanna	Some Odd Light Curves	
	6:50:00	16:50:00	18:50:00	0:20:00	D. Herald	Summary of Recent Planetary Occultations	A round up of interesting and significant planetary occultations over the last 2 years
	7:10:00	17:10:00	19:10:00	0:30:00	P. Nosworthy	Arecibo	The discovery of a 'moon' of (4337) Arecibo by Dave Gault and Peter Nosworthy and the subsequent confirmation by observers in California
	7:40:00	17:40:00	19:40:00	0:20:00	S. Kerr	Upcoming Occultation opportunities	An overview of interesting occultations for the remainder of 2021 and 2022.
Date	UTC	AEST	NZST	Duration (min)	Speaker	Title	Description
18/09/2021	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	T. George/B. Anderson	An Introduction to PyMovie	
	6:35:00	16:35:00	18:35:00	1:00:00	H. Pavlov	OccultWatcher and OccultWatcher Cloud	An interactive session covering the changes within OccultWatcher and the OccultWatcher Cloud
Date	UTC	AEST	NZST	Duration (min)	Speaker	Title	Description
25/09/2021	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	0:40:00	M. Forbes	Occurec and Tangra	Some time ago Hristo made the source code of OccuRec and Tangra publically available, in the hope that programmers in the occultation community will contribute to the further development of them. This talk is about my contributions – to encourage other people to have-a-go and also to avoid some of the pitfalls I encountered along the way.
	6:45:00	16:45:00	18:45:00	0:45:00	S. Kerr	From Light Curve through AOTA to a report form.	A live demonstration of the automated process of taking a light curve in Tangra through AOTA to the Excel report form.
	7:30:00	17:30:00	19:30:00	0:20:00	D. Gault	Light Curve Archiving	A live demonstration of the process of creating a lightcurve archive record for Occult.

<http://www.occultations.org.nz/meetings/TTSO15/TTSO15.htm>

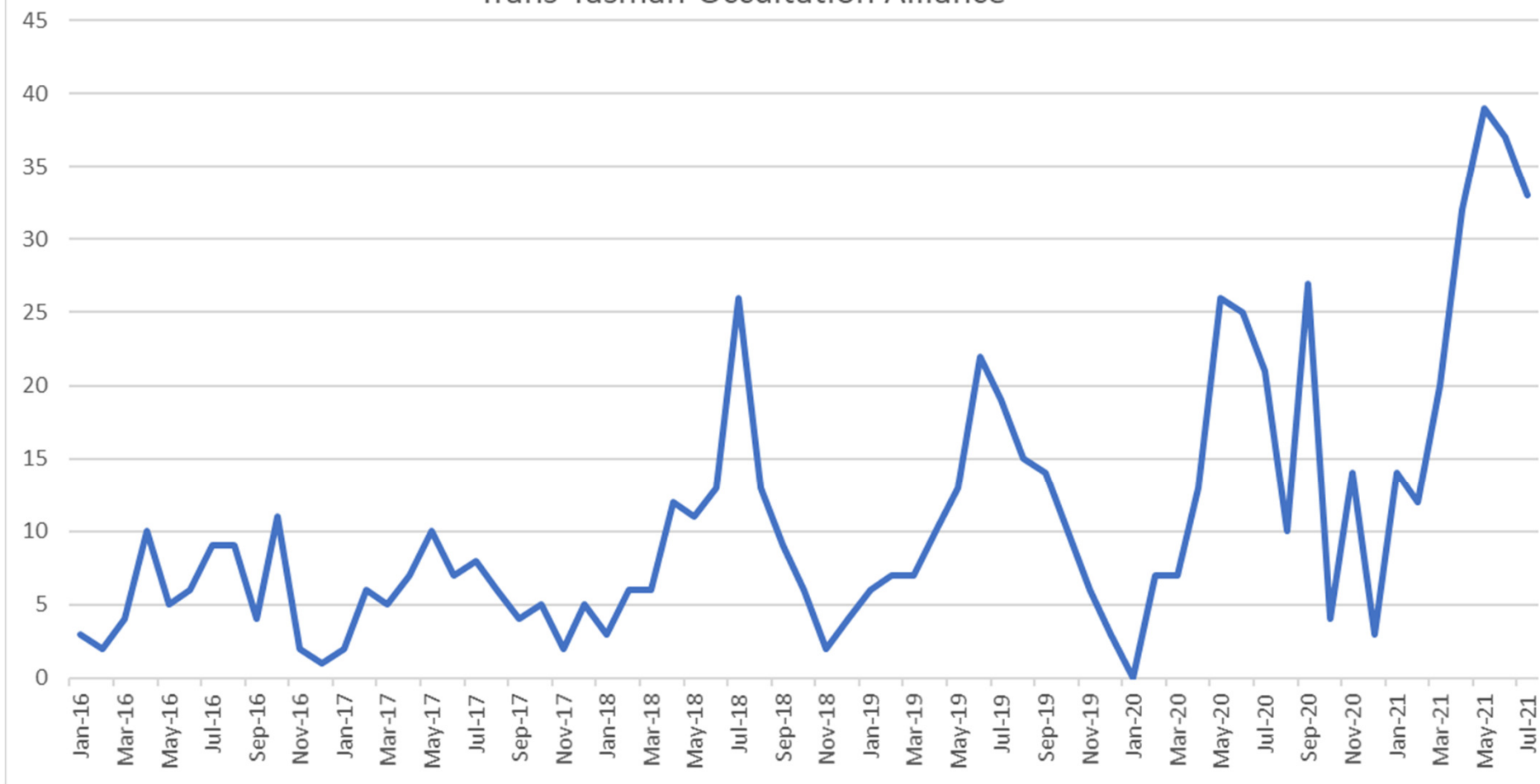
2020 Planetary Occultation Summary

Recent Years Totals

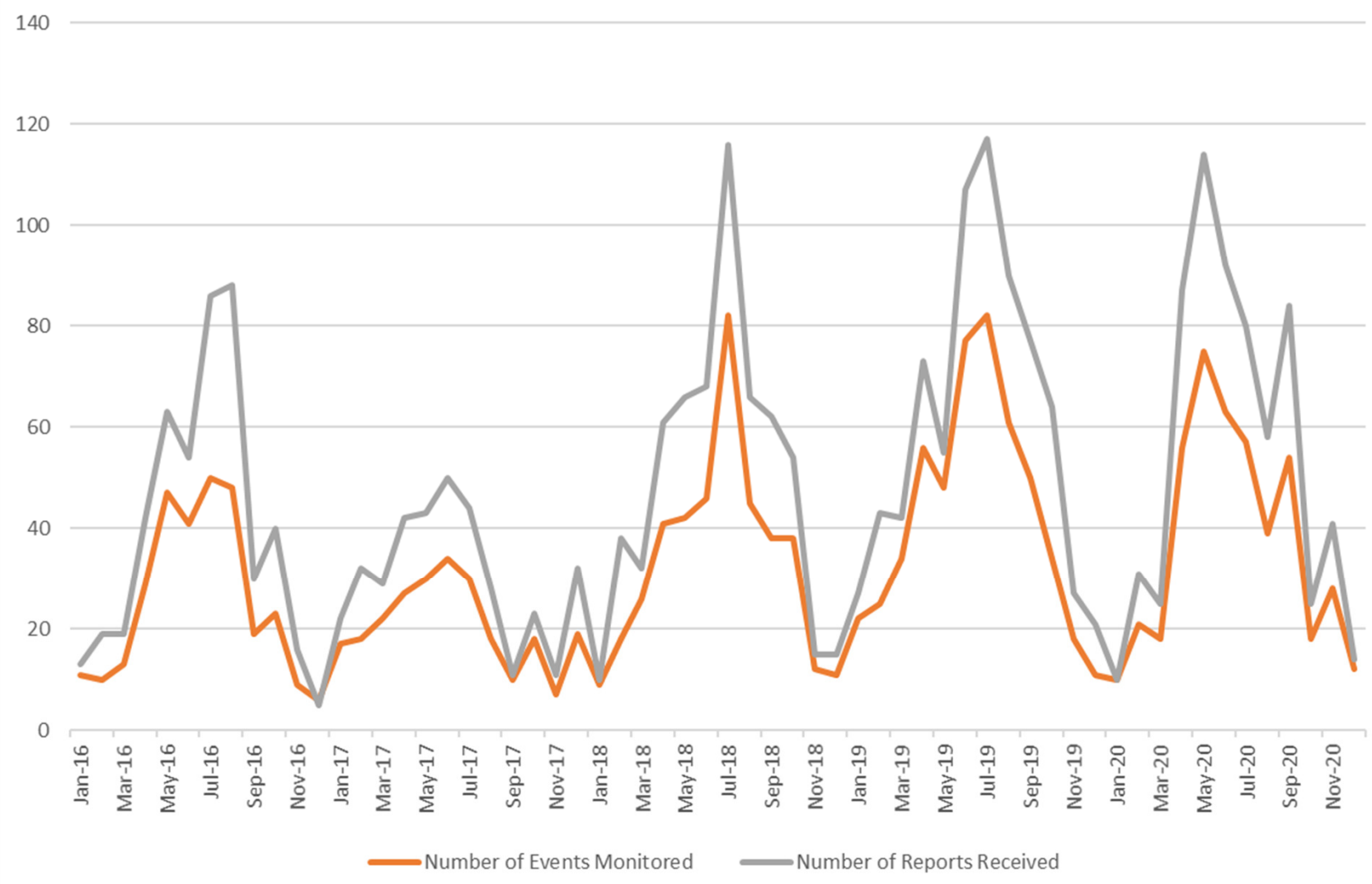
Year	Number of Observers/ Reporters	Reports	Positive Events	Positive Chords Observed
2008	26	280	47	66
2009	29	320	46	75
2010	29	343	50	74
2011	28	289	51	70
2012	34	383	51	77
2013	45	532	56	89
2014	35	542	58	76
2015	29	384*	45	75
2016	27	475	66	88
2017	21	367	67	97
2018	31	603	114	170
2019	21	743	132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

* Likely to be a severe underestimate.

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



Observer Effort



Busy People in 2019 – Observers with more than 20 reports

Observer	Total Reports	Total Positive Chords
Bill Hanna	144	35
Peter Nosworthy	78	19
Dave Gault	74	19
Dave Herald	73	28
Brian Loader	47	17
Steve Kerr	43	17
Ash Pennell	42	7
Dean Hooper	35	16
John Broughton	32	22
Martin Unwin	22	8
Peter Shottle	21	8

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. Watch my session on September 25.
- Report forms need to change to accommodate digital imaging systems... not a trivial process but we are starting that process in cooperation with IOTA.
- Post your results to MPObservations@occultations.org.nz
- If it is a miss, just send the Excel form. If you get a positive, send a graphic of the light curve (PNG, JPEG or GIF) as well. The .lc file out of Tangra is a good idea too.
- Share your successes (and failures and embarrassing stories) on the TTOA IO Group or on Facebook (W4N2H).

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.
- Collection point for knowledge and experience to improve everyone's participation in occultation astronomy - TTSO

Website

- Structurally unchanged since first launched in late 90's.
- Needs a refresh into something a bit more modern – probably a Wordpress based site. This is a potentially huge body of work ... so it hasn't happened.
- Need some hard thought on what content is really needed to be there. Do we only update some of it?
- Consolidation of planetary occultation reporting processes into website – paper/pdf newsletters discontinued.
- <http://www.occultations.org.nz/planet/2021/results/plnres21.htm>

Website cont.

- Predictions – Are they needed?
 - Very useful reference point for new observers (i.e. people who don't have OccultWatcher)
 - Does OccultWatcher Cloud change this ... I'll have to wait till next weekend to find out.
- Video Occultation Observers Guide
 - Needs an update to include digital – we DO have the experience now.
 - Needs to appeal to amateurs and the gear they already have.

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 cont.

- COVID-19 changes everything
 - Online only – no links to a physical meeting that other amateur astronomers are attending ... so not so much appeal to non-involved people.
 - Geography is now irrelevant. But time zones are important.
 - 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)
 - A bunch of people who reliably attended physical TTSO's have not been involved in the virtual ones.
 - TTSO16 is nominally in April 2022 in Melbourne, VIC, AU with NACAA. Probably a hybrid physical/virtual.

Help Needed

Help Needed

- Peter Litwiniuk and John Sunderland continue to update the predictions on the website. Do we need to keep doing this?
- Dave Gault has taken over the processing of planetary occultation results although I am acting as the initial filer/sanitizer and website upkeep – in winter, this is typically 4 to 6 hours per week. Less in summer.
- Website needs a rebuild
- TTSO's need proper planning (not what it got this year)
- Changes in my career have taken a lot of time away and it may be time to step down (or at least greatly reduce).

Thanks

Questions ?