

An algorithm to determine future VHF-UHF Field Day dates

Roger Harrison VK2ZRH

The three VHF-UHF Field Days, of Summer–Winter–Spring, have been held on various dates that have differed over the years. For example, it is known that the Spring event was sometimes chosen to avoid clashing with other events, rather than determined by any calculable method. Each event has always been held in the same month: January for the Summer Field Day, June for the Winter event, and November for the Spring event.

In Australia and New Zealand, the seasons have defined dates, as set out in Table 1¹.

Table 1.

Spring			Summer			Autumn			Winter		
Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1 September – 30 November			1 December – 28 February			1 March – 31 May			1 June – 31 August		

The Summer event began in 1989, held over the Australia Day weekend in January that year and through 1990-91⁴. In 1992, it was moved forward to 11-12 January, in part to coincide with the last weekend of the annual Ross Hull Memorial VHF-UHF Contest. Since then, the event has been held as early as 9-10 January and as late as 17-18 January⁴. See [Appendix 1](#).

The Spring event was first held in 1998, over 14-15 November⁴. This falls late in Spring, chiefly to take advantage of improving weather at this time of year and with it, improving propagation conditions (although, in a few notable years, atrocious weather prevailed). The Spring event has been held as early as 1-2 November and as late as 28-29 November, just days before the official start of summer⁴. When held this late, the Summer event may be only 6-7 weeks hence. See [Appendix 1](#).

The Winter event was introduced in 2008, running over Saturday 21 and Sunday 22 June⁴. Sensibly, the event was 'tied' to the June solstice and event dates have varied the least. The solstice that year was on 21 June¹. In 2009, the solstice fell on the Sunday of the event. Since then, the event has been on the weekend falling closest to the solstice, twice in the weekend before the solstice (2010 and 2011), and since then on the weekend following it⁴. See [Appendix 1](#).

Generally, then, the weekend of the Winter event has been the third weekend in June. But, if the June solstice falls on a Wednesday, what then? In 2017, the June solstice falls on a Wednesday. And again, in 2023, 2034, 2040, and so on^{2,3}. Will there be VHF-UHF Field Days in seven years' time, or beyond? Never mind. That's a question to answer further down the log.

The algorithm

Winter:

- When the June solstice is on a weekday (Monday through Friday), the weekend *following* shall be the weekend of the event.
- When the June solstice falls on a Saturday or Sunday, *that weekend* shall be the weekend of the event.

Spring – Summer:

- When the December solstice falls on a **weekday**, count back four weekends into November and *that weekend* is the Spring event; count forward four weekends into January and *that weekend* is the Summer event.
- When the solstice falls on a **weekend**, that weekend **is not** counted – count back four weekends into November and *that weekend* is the Spring event; count forward four weekends into January and *that weekend* is the Summer event.

Refer to [Appendix 2](#).

Determining the Spring and Summer events this way places them seven weeks apart in most years; eight weeks apart in years when the December solstice is the 22nd and on a weekend. This enables the contest manager sufficient time to receive logs, prepare and publish results for the Spring contest, mindful that the Christmas-New Year season falls in this time; the break also allows sufficient time for Spring contestants to submit logs, recover, regroup and prepare for the Summer event.

2016 Spring Field Day: Determined by the method described above, it will be on 26-27 November.

Five-year forecast of dates

Table 2 is a forecast of all dates over 2017 to 2021 for the VHF-UHF Field Days, derived by means of the above algorithm.

For the sake of simplicity, dates for all equinoxes and solstices are the UTC (GMT) dates.² This avoids the complication of calculating and accounting for when they occur in Australian time zones (ie. at Australian longitudes).

Year	Summer	Winter	Spring	Year	June Solstice	December Solstice
2017	14-15 Jan	24-25 Jun	25-26 Nov	2017	Wednesday 21	Thursday 21
2018	13-14 Jan	23-24 Jun	24-25 Nov	2018	Thursday 21	Friday 21
2019	12-13 Jan	22-23 Jun	23-24 Nov	2019	Friday 21	Sunday 22
2020	18-19 Jan	20-21 Jun	28-29 Nov	2020	Saturday 20	Monday 21
2021	14-15 Jan	26-27 Jun	26-27 Nov	2021	Monday 21	Wednesday 21

Table 2. Forecast dates for VHF-UHF Field Days to 2021. Solstice days and dates at the right.

References

1. <https://museumvictoria.com.au/discoverycentre/infosheets/planets/the-sun-and-the-seasons/>
2. Solstices and Equinoxes: 2001 to 2100 Greenwich Mean Time, at www.astropixels.com/ephemeris/soleq2001.html
3. Google – eg. 'what day is june 21 2019'
4. <http://www.wia.org.au/members/contests/vhfuhf/>

APPENDIX 1

Dates of VHF-UHF Field Days since the year of the inaugural event, 1989. ⁴

Summer					
Year	January				
1989	28-29				
1990	27-28				
1991	26-27				
1992	11-12				
1993	16-17				
1994	14-15				
1995	15-16				
1996	13-14	Spring			
1997	11-12	Year	November		
1998	10-11	1998	14-15		
1999	9-10	1999	13-14		
2000	15-16	2000	4-5		
2001	13-14	2001	3-4		
2002	12-13	2002	2-3		
2003	11-12	2003	1-2		
2004	17-18	2004	6-7		
2005	15-16	2005	12-13		
2006	14-15	2006	11-12	Winter	
2007	13-14	2007	17-18	Year	June
2008	12-13	2008	15-16	2008	21-22
2009	17-18	2009	28-29	2009	20-21
2010	16-17	2010	20-21	2010	19-20
2011	15-16	2011	26-27	2011	18-19
2012	14-15	2012	24-25	2012	23-24
2013	12-13	2013	23-24	2013	22-23
2014	11-12	2014	22-23	2014	21-22
2015	10-11	2015	14-15	2015	20-21
2016	9-10	2016	26-27	2016	18-19

APPENDIX 2

Determining the dates of the Spring and Summer VHF-UHF Field Day weekends when the December solstice is on a weekday (A, B, C), or weekend (D, E, F).

	November							December							January												
A	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
B	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13
D	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
E	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
F	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

M T W T F S S M T W T F S S

Spring: from the day of the solstice (blue), count *back* four weekends. The event is over the dates in yellow in November.

Summer: from the day of the solstice (blue), count *forward* four weekends. The event is over the dates in yellow in January.

When the solstice falls on a weekend, do **not** count that weekend.

Examples

- A:** Monday solstice, for Nov/Dec 2020 – Jan 2021.
- B:** Wednesday solstice for Nov/Dec 2016 – Jan 2017; and Nov/Dec 2022 – Jan 2023.
- C:** Friday solstice for Nov/Dec 2018 – Jan 2019; and Nov/Dec 2024 – Jan 2025.
- D:** Saturday solstice for Nov/Dec 2024 – Jan 2025.
- E:** Sunday solstice for Nov/Dec 2025 – Jan 2026.
- F:** Sunday 22nd solstice for Nov/Dec 2019 – Jan 2020.