

Introduction

A number of individuals based around the UK used the Forward Scatter technique (Using BRAMS and Graves) to detect and record Radio Meteor Events, monthly this data is then added to a central database. Given the receiving stations all different in setup and there is little or no standardisation across the stations there are limits to how the data can be used in a scientific context.

We can however plot trends and create matched events (Events with a duration that exceed 10 seconds recorded by three or more different contributors and are + / - within 5 seconds of each other)

Contributor Locations

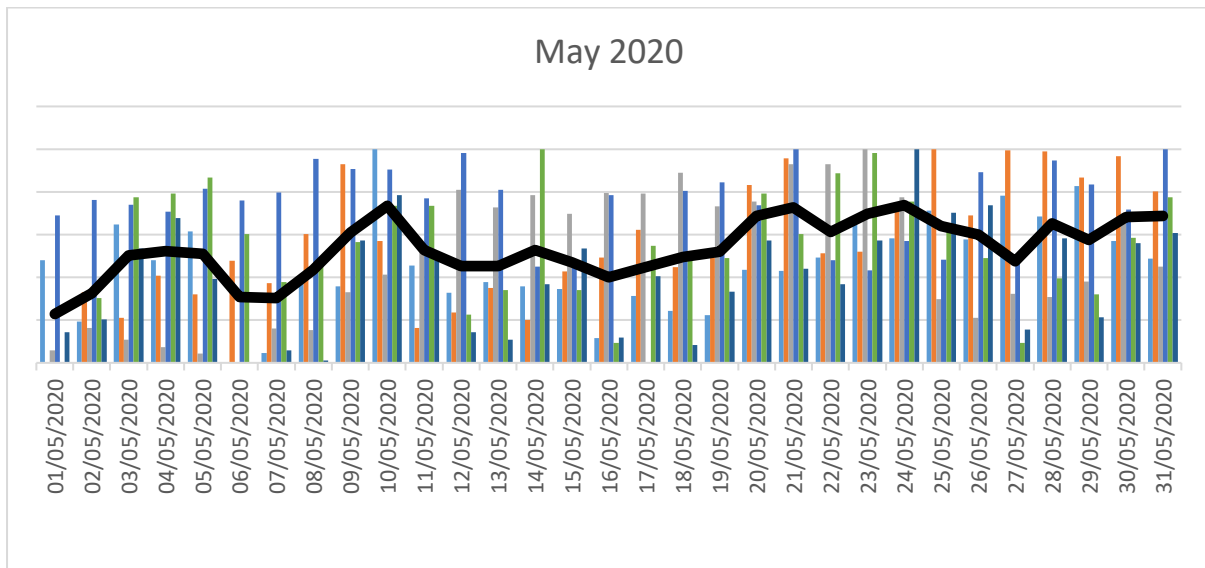


Trend of contributions for May 2020

The graph below shows the trend of contributions over time for the month of April – Counts are not displayed as its simply a trend for the month. You can however see the Lyrids Peak

Key Meteor showers in May 2020

Shower	Dates	Peak
Eta Aquariids	18 April – 27 May	04/05 May

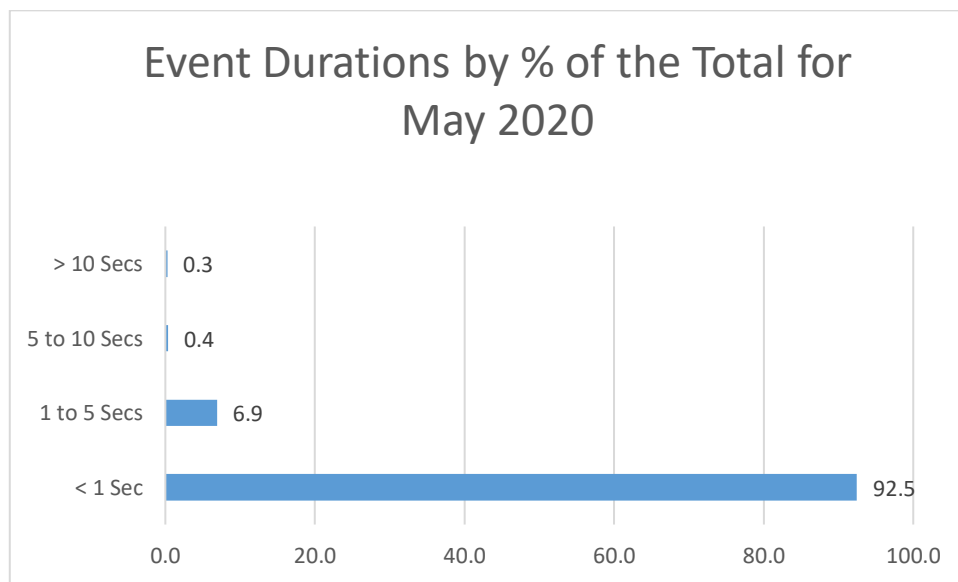


The graphs show Radio Meteor Events by contributor and the Mean of the Norm is then calculated and plotted as the black line going across the month

May Event data broken down into durations

	Raw Data				
Month	Total Count	< 1 Sec	1 to 5 Secs	5 to 10 Secs	> 10 Secs
May	78,789	72,847	5,439	298	205

Event Durations as a % of the Total				
Month	< 1 Sec	1 to 5 Secs	5 to 10 Secs	> 10 Secs
May	92.5	6.9	0.4	0.3



Matched Events - Events with a duration that exceed 10 seconds recorded by three or more different contributors and are + / - within 5 seconds of each other

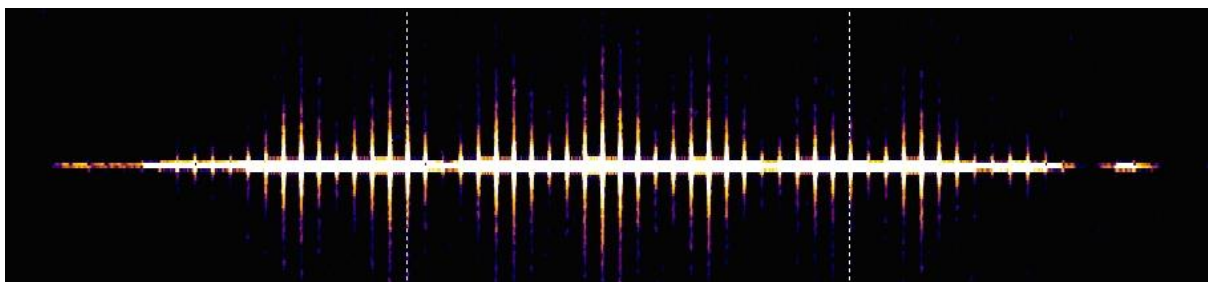
There were 31 potential matches in May 2020

Event at 18:07:00 (approx.) UTC on 29 May 2020

Whilst the times of this event vary they are grouped into the same coincidence, as this unusual event was probably the result of sporadic E (Es) affecting propagation and went on for a number of minutes.

Contributor	RX Lat	RX Lng	TX Source	Time Sync	Time	Duration in Seconds	S\N Ratio	Doppler Estimate
Derek Robson	52.70	-1.20	Graves	Dimension 4	18:07:15	23.55	20.10	4
Philip Norton - H	53.10	-0.50	Graves	Dimension 4	18:07:21	230.89	74.20	0
Philip Norton - V	53.10	-0.50	Graves	Dimension 4	18:07:25	215.56	63.00	0
John Berman	51.40	-0.50	Graves	Dimension 4	18:07:39	35.50	-77.60	
Graham Cluer	51.40	-1.00	Graves	Dimension 4	18:07:46	22.50	20.10	69
Derek Robson	52.70	-1.20	Graves	Dimension 4	18:09:12	89.94	19.90	6
Graham Cluer	51.40	-1.00	Graves	Dimension 4	18:09:51	23.64	17.20	68
John Berman	51.40	-0.50	Graves	Dimension 4	18:09:52	24.50	-72.50	
John Berman	51.40	-0.50	Graves	Dimension 4	18:10:24	49.90	-57.20	
Graham Cluer	51.40	-1.00	Graves	Dimension 4	18:10:29	45.45	17.10	68
Steve Futcher - Clan	50.90	-1.00	Graves	NetTime	18:10:43	20.99	20.80	0
Derek Robson	52.70	-1.20	Graves	Dimension 4	18:10:51	119.13	21.50	6

You can get more detail by going to: http://meteor.m81.co.uk/duration_lookup10list.php and looking at Report 932



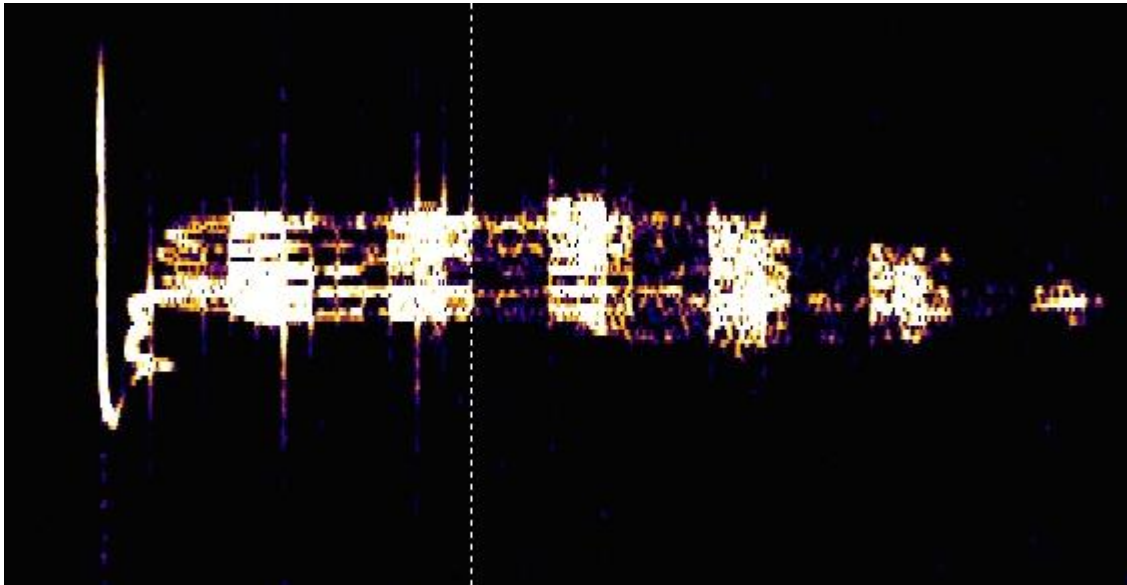
or go here to see all the screen captures:

http://meteor.m81.co.uk/v_picturelist.php?x_groupm=932

Event at 07:38:48 UTC on 14 May 2020

Contributor	RX Lat	RX Lng	TX Source	Time Sync	Time	Duration in Seconds	S\N Ratio	Doppler Estimate
John Berman	51.40	-0.50	Graves	Dimension 4	07:38:48	30.30	-55.90	
Graham Cluer	51.40	-1.00	Graves	Dimension 4	07:38:49	40.68	39.90	-9
Steve Futcher - Ems	50.90	-0.90	Graves	NetTime	07:38:50	21.51	23.40	-29
Steve Futcher - Clan	50.90	-1.00	Graves	NetTime	07:38:51	24.92	26.80	-41
Philip Norton - V	53.10	-0.50	Graves	Dimension 4	07:38:52	14.89	38.90	-7
Philip Norton - H	53.10	-0.50	Graves	Dimension 4	07:38:53	29.33	53.10	-13

You can get more detail by going to: http://meteor.m81.co.uk/duration_lookup10list.php and looking at Report 925

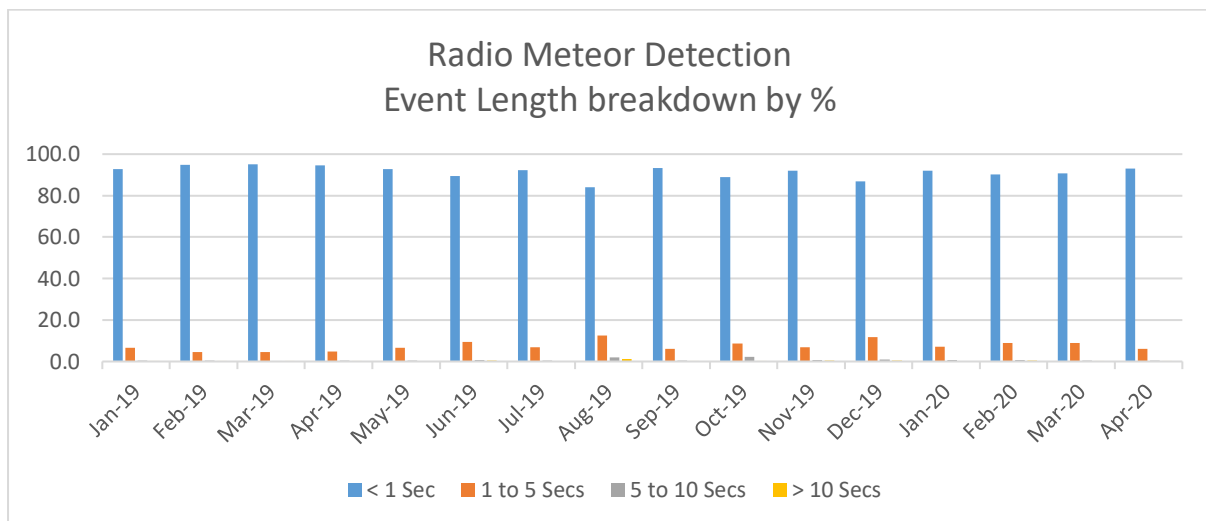


or go here to see the screen captures: http://meteor.m81.co.uk/v_picturelist.php?x_groupm=925

To see all of the May Coincidences please go to:
http://meteor.m81.co.uk/duration_lookup10list.php

Event data broken down into durations for 2019/20

Event Durations as a % of the Total				
Month	< 1 Sec	1 to 5 Secs	5 to 10 Secs	> 10 Secs
Jan-19	92.9	6.5	0.4	0.1
Feb-19	94.9	4.6	0.3	0.2
Mar-19	95.0	4.6	0.2	0.1
Apr-19	94.5	4.9	0.4	0.2
May-19	92.8	6.5	0.5	0.3
Jun-19	89.3	9.5	0.8	0.3
Jul-19	92.2	6.9	0.5	0.3
Aug-19	84.1	12.6	2.0	1.3
Sep-19	93.3	6.0	0.4	0.2
Oct-19	88.9	8.6	2.3	0.2
Nov-19	92.1	7.0	0.7	0.3
Dec-19	86.9	11.8	0.9	0.4
Jan-20	91.9	7.1	0.7	0.3
Feb-20	90.2	8.9	0.6	0.3
Mar-20	90.7	8.8	0.3	0.2
Apr-20	93.1	6.2	0.5	0.2
May-20	92.5	6.9	0.4	0.3



It can be clearly seen that the categorised event durations each month tend to be very aligned.

Please do feedback with any comments and or suggestion as to how we may make more us of this data – Jberman44@googlemail.com