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 2 seconds of each other)
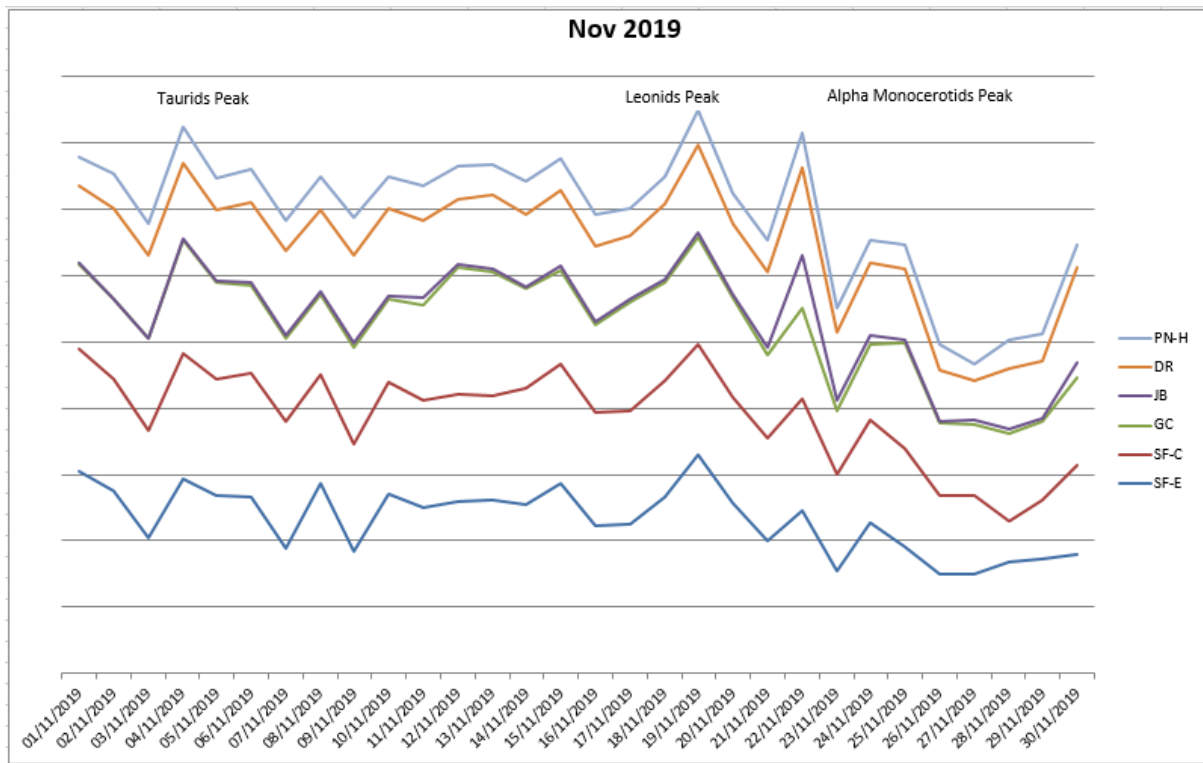
Contributor Locations

Key Meteor showers in Nov 2019

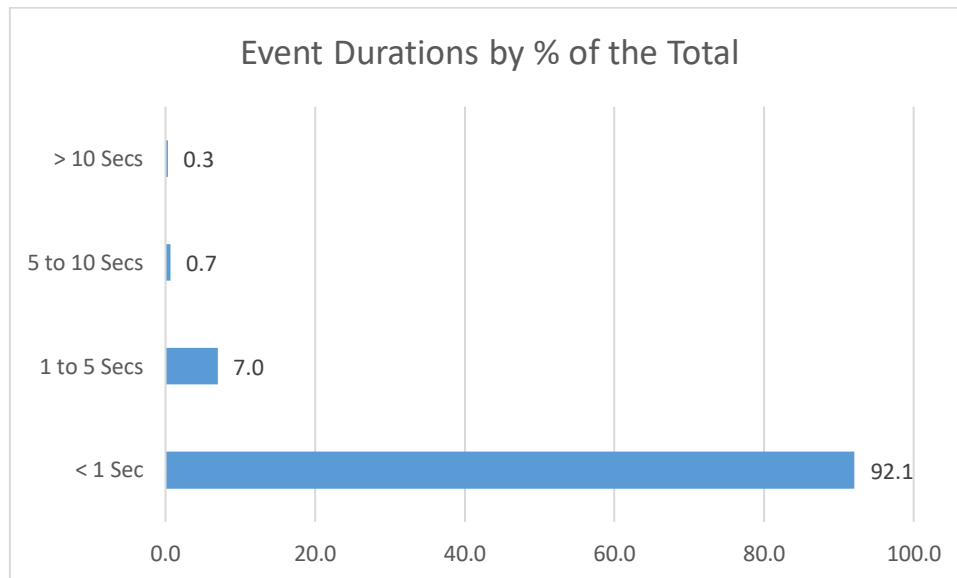| Shower	Dates	Peak
Taurids	5 Nov – 06 Nov	05 Nov
Leonids	6 Nov – 30 Nov	18 Nov
Alpha Monocerotids	15 Nov – 25 Nov	22 Nov

Trend of contributions for Nov 2019

The graph below shows the trend of contributions over time for the month of Nov – Counts are not displayed as its simply a trend for the month

Nov Event data broken down into durations

	Raw Data				
	Total Count	< 1 Sec	1 to 5 Secs	5 to 10 Secs	> 10 Secs
Nov 2019	82,841	76,276	5,762	541	262

Event Durations as a % of the Total				
	< 1 Sec	1 to 5 Secs	5 to 10 Secs	> 10 Secs
Nov 2019	92.1	7.0	0.7	0.3

Event Durations by % of the Total

Matched Events - Events with a duration that exceed 10 seconds recorded by three or more different contributors and are + / - within 2 seconds of each other
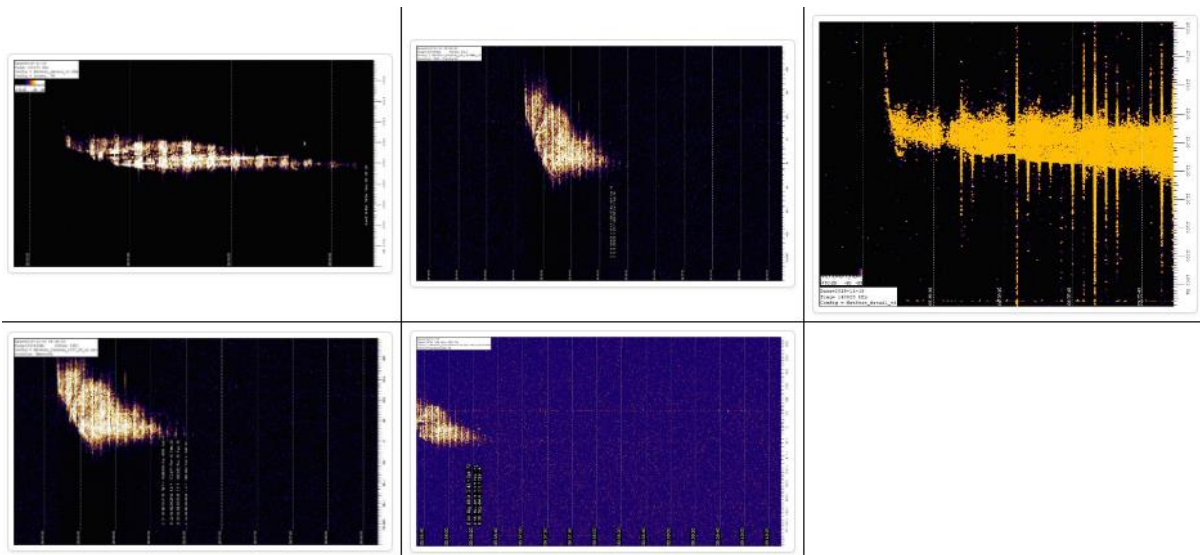
There where 18 Matches in Nov - the notable ones are below

To see all of the Nov Matches please go to:
http://meteor.m81.co.uk/duration_lookup10list.php?order=date&ordertype=DESC
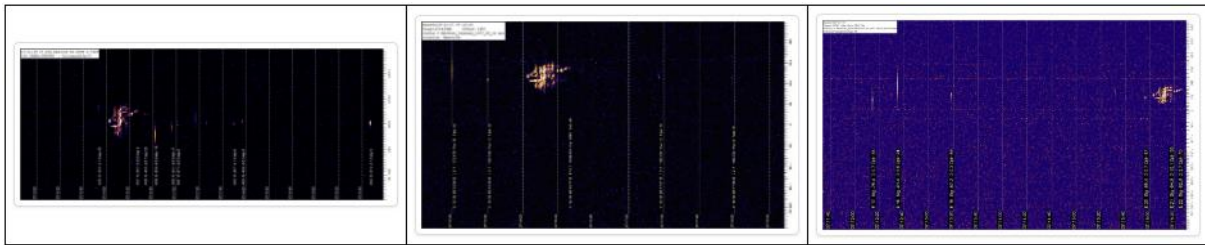
Event at 2019-11-15 at 09:35:26 UTC

Contributor	RX Lat	RX Lng	TX Source	Time Sync	Time - UTC	Duration in Seconds	S\N Ratio Calculated	Doppler Estimate Calculated
John Berman	51.4	-0.1	Graves	Dimension 4	09:35:26	58.10	47.00	-66
Steve Futcher - Clanfield	50.9	-1.0	Graves	NetTime	09:35:26	57.52 Calculated	17.60	110
Graham Cluer	51.4	-1.0	Graves	Dimension 4	09:35:27	51.83 Calculated	18.70	249
Steve Futcher - Emsworth	50.9	-0.9	Graves	NetTime	09:35:27	58.20 Calculated	27.50	34
Derek Robson	52.7	-1.2	Graves	Dimension 4	09:35:27	42.15	23.60	24

Please go to http://meteor.m81.co.uk/picview10.php?id=819 to see the full size plots
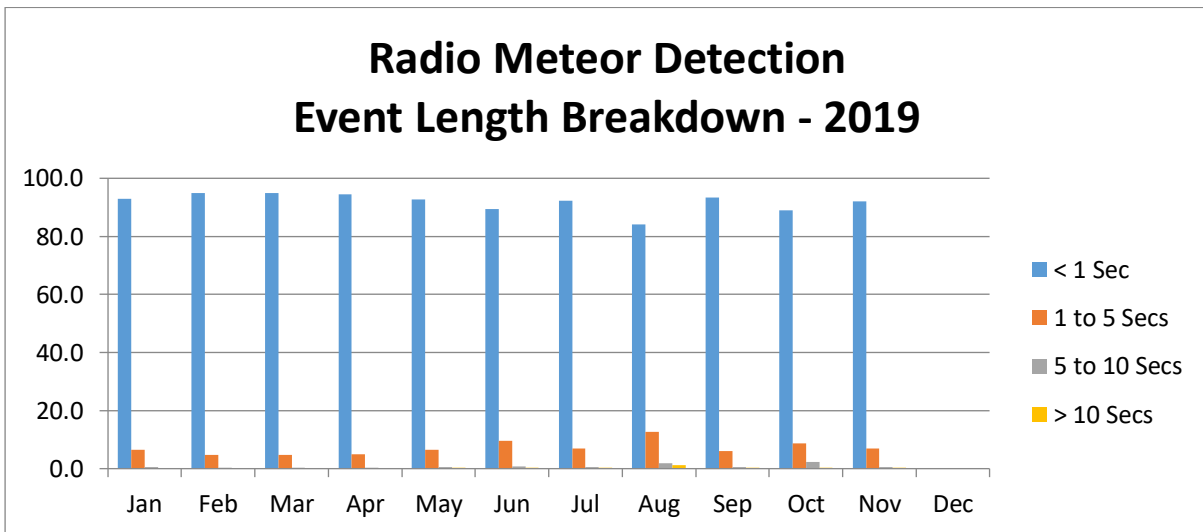
2019-11-17 at 07:16:02 UTC

Contributor	RX Lat	RX Lng	TX Source	Time Sync	Time - UTC	Duration in Seconds	S\N Ratio Calculated	Doppler Estimate Calculated
Martin Rigby - Graves	54.7	-2.6	Graves	Meinberg NTP	07:16:02	22.00	32.00	2
Steve Futcher - Emsworth	50.9	-0.9	Graves	NetTime	07:16:02	17.59 Calculated	20.90	13
Derek Robson	52.7	-1.2	Graves	Dimension 4	07:16:02	10.07	18.30	7

Please go to http://meteor.m81.co.uk/picview10.php?id=820 to see the full size plots

Event data broken down into durations for 2019

Event Durations as a % of the Total			
Month	< 1 Sec	1 to 5 Secs	5 to 10 Secs	> 10 Secs
Jan	92.9	6.5	0.4	0.1
Feb	94.9	4.6	0.3	0.2
Mar	95.0	4.6	0.2	0.1
Apr	94.5	4.9	0.4	0.2
May	92.8	6.5	0.5	0.3
Jun	89.3	9.5	0.8	0.3
Jul	92.2	6.9	0.5	0.3
Aug	84.1	12.6	2.0	1.3
Sep	93.3	6.0	0.4	0.2
Oct	88.9	8.6	2.3	0.2
Nov	92.1	7.0	0.7	0.3

It can be clearly seen that the categorised event durations each month tend to be very aligned. You can see that in August there is an increase in longer duration events which are associated with the Perseids.

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