Some notes on the use of the AID in papers

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The AAVSO website maintains a list of published papers that use AAVSO data.[1] Below are quick statistics of AID-based papers from 2015 to 2018. I have broken down the papers into the following categories:

Light curve
Author uses data to illustrate what a star is at during particular times (often outburst or quiescence), usually while some non-optical observation is taking place. No quantitative role in the paper.

Data used in quantitative analysis
Author uses the data for some kind of significant computation that figures into the paper's conclusions (eg: estimates physical properties or flux).

Epoch photometry
Author is making quantitative use of magnitude information from AID (eg: fit made to light curve or specific magnitude fluctuations quoted).

AID data used for ephemeris purposes
Author calculates an ephemeris from AID data or references one such made by others.

Trigger observations
Data that triggered (or otherwise enabled) professional observations.

Author's own data
The data were collected by the author and subsequently deposited in the AID (so the data are not really "from" the AID).

Example data
The data are used to illustrate some variable star type or a software package. No analytical purpose.

A disclaimer: putting papers into categories is somewhat arbitrary, particularly in distinguishing Epoch Photometry from Data Analysis. There were grey areas. Also, I did not go through each paper in detail, so I may have failed to grasp the full use of AID information.

Creating the original list of AID papers must have been a large and tedious task, and it should not be surprising that some errors crept in. Some papers do not actually reference the AID (eg: they are APASS-based). Hence, the number of papers I itemize here do not add up to the total you will find on the web page.

1 https://aavso.org/aavso-print

The following table summarizes my results. My own takeaway: roughly half the papers put AID data to some quantitative use in their conclusions (first two rows). Some of these uses are quite sophisticated, others are very basic, but all were dependent upon reliable magnitudes, whether photometric or visual.

Data use	**2018***	**2017**	**2016**	**2015**	**cumulative**
Data analysis	18	29	26	7	**26%**
Epoch photometry	30	6	13	39	**28%**
Light curve illustration	10	34	36	14	**30%**
Ephemeris	5	5	3	3	**5%**
Trigger	2	5	4	3	**5%**
Own data	4	2	1	2	**3%**
Example data	4	3	1	1	**3%**
Total	73	84	84	69	**310**

* Through September.

My impression is that cataclysmic variables are, by far, the most common topic of these papers. I will also note that it was common for paper authors to reject photometric magnitudes not accompanied by uncertainties.