



## MPC Reporting Tool (Web Based)

Version 1.2

Created By Don W. Carona ([don@tamu.edu](mailto:don@tamu.edu))

Physics Teaching Observatory, Department of Physics & Astronomy  
Texas A&M University (TAMU)

The MPC Reporting Tool is used to assist in the proper formatting of a report of observations for submission to the IAU Minor Planet Center (MPC). These instructions offer insight into some of the aspects of the reporting tool; however, I cannot stress enough how important it is that you read the Guide to Minor Body Astrometry! You will not know if you've created a valid report without understanding the format of the catalogue codes in the header or the format of the observations, which are extremely important for a successful submission.

### TAMU Students

For students at TAMU, below is the basic header information that should be used in each report:

OBS CODE: H32  
CONTACT NAME: Don W. Carona  
CONTACT ADDRESS: Physics & Astronomy, MS 4242, College Station, TX 77843, USA  
CONTACT EMAIL: [don@tamu.edu](mailto:don@tamu.edu)

You should set the remainder of the details as appropriate. Be certain to add your email address in the "AC2" detail.

It is your responsibility for keeping up with your "Batch" entries. Every new report should use a new batch entry unless you are asked to reference a specific batch or are making a correction to a previously submitted batch (rare). Batch entries for students observing from TAMU should take the form:

*Batch TAM#####-Object\_Designation<space>Observer's Initials*  
i.e.(Batch TAM0001-K14J25O DWC)

When you submit new observations of the same object, simply increment the batch TAM0002-K14J25O DWC. You should be keeping an observing log. The batch information should be included in your logbook with the entry from the night you made the observations. It's not a bad idea to create a new log entry for the date you submit the observations as well.

### Header Detail

When the report is created using the "Create Report" button, the details are submitted to the Observatory server and translated to the proper catalogue codes for submission. You'll notice that a column guide appears at the top of the report by default. **Do Not** copy-and-paste the column

guide into your email for submission to the MPC. It's simply there to help you ensure your report is formatted appropriately. You can turn off the column guide by unchecking the "Show Column Guide" checkbox.

The rule for the header is that each line, which includes the catalogue code, must be 80 columns or less. Note that it is different from observations, which must be exactly 80 columns. The reporting tool automatically formats all lines in the header to 80 columns. If the CON, OBS and/or MEA catalogue codes exceed 80 columns, they will be parsed and written across multiple lines.

When entering a person's name in the "Contact Name", "Observer(s)" or "Measurer(s)" details, you may enter the full name i.e.(Don W. Carona). The reporting tool will convert the name(s) to the proper MPC format i.e.(D. W. Carona). Remember, if there's more than one observer and/or measurer, names must be separated by a comma ",".

### **Observation Detail**

An 80 column observation record must be created for each observation that you intend to report. After entering the appropriate information, use the "Add Observation" button to add the observation to the report. When you add observations, the "NUM" catalogue code is added to the header detail with the appropriate number of observations.

The "Clear Observations" button does exactly what it states...it wipes out any observations you've created for that session.

If the object you are observing has a numbered designation, the "Designation" detail is where you will enter the minor planet number i.e.(A2216); periodic comet number i.e.(0001); or the planet identifier + satellite number if your observation is a natural satellite i.e.(J014). The "Provisional" detail is where you'll enter the provisional designation if the object does not yet have a numbered designation or a temporary designation if you think the object you are reporting is a potential discovery.

If you believe the object you observed is a potential discovery after using the MPCChecker, then you'll create a temporary designation of your own and enter it in the "Provisional" detail. Your designation must be 6 characters in length and start with one or more letters. Change the "Object Type" detail to "Temporary" and check the "Discovery Flag" detail. Note that only one observation per object is expected to have a discovery flag (asterisk). Read about the format for optical astrometric observations!

The "Designation" and "Provisional" details expect a properly formatted value for the "Object Type" that you've selected. If you enter the value in unpacked form, the reporting tool will attempt to pack it correctly assuming you entered it correctly. For instance, if you enter a

provisional designation for a minor planet (2014 JO25), it will be converted to (K14J25O); a comet (P/1994 N2) > (J94N020); or a natural satellite (Jupiter XIV) > (J014). If you enter unpacked codes in the observation detail, it is up to you to ensure they were packed correctly before submitting your report!

The "Observation Date" may be entered in FITS form (yyyy-MM-dd'T'HH:mm:ss.SSS), as a decimal (JD) or in the MPC format (yyyy MM dd.dddd). The reporting tool will format the date for the report. It's often much easier to copy-and-paste the appropriate date value from the FITS header and let the reporting tool worry about the proper format. Regardless of how it's entered, always double-check to be sure it's correct.

Both "RA" and "DEC" can be entered in decimal or sexagesimal form. In sexagesimal form, right ascension and declination may be entered with colons ":" or spaces as separators. Other formats are also acceptable, such as (12h 24m 01.792s) or (-03d 31' 53.214"); however, it's best not to use the degree ° symbol or you may get erroneous results.

### **Importing Existing Reports**

An existing report that is properly formatted can be imported simply by copying-and-pasting it into the report text area and then clicking on the "Import Report" button. The header fields will be filled and observations will be added. If you don't need the observations, either don't paste them into the text area or click on the "Clear Observations" button after the import.

### **Translating an Observation**

It is sometimes easier to read an observation if it is translated. For instance, you may not remember what the "g" represents for Note1. To read in (translate) an observation, select (highlight) all 80 columns of the observation in the report text area and click on the "Read Observation" button. This will update the detail fields in the observation section. *Note: this feature has only been tested in Safari and may not work in some browsers.*

### **Viewing a Report as a Table**

The "HTML" and "ASCII" table buttons below the report text area will open the report as a table in a separate tab or window depending on your browser settings. This is useful for visually verifying that the observations are formatted correctly by column. *Note: if you copy-and-paste an existing report into the report text area to view as a table, you must first uncheck the "Show Column Guide" checkbox.*

### **Summary**

Once you have created your report, it's a good idea to copy-and-paste it into a plain text (ASCII) file and preserve it in the same directory with your observation plates. When you're ready to email your submission, it must be emailed in plain text or it will be rejected! For most email

applications today, you have to specify the character encoding if you want to send something as plain text.

The reporting tool does not submit reports to the MPC at this time. However, if you're not sure that your email application is encoding the email in plain text, you may use the MPC's [Observation Submission Form](#) per the [Guide to Minor Body Astrometry](#). You may also submit via the command line using [cURL](#).

### **Sample Report Submitted to the MPC**

```
COD H32
CON D. W. Carona, Physics & Astronomy, MS 4242, College Station, TX 77843
CON [don@tamu.edu]
OBS D. W. Carona
MEA D. W. Carona
TEL 0.40-m f/10.0 Schmidt-Cassegrain + CCD
NET UCAC-3.0, 2MASS, GSC-1.0
NUM 2
ACK Batch TAM0001-K14J250 DWC
AC2 don@tamu.edu
      K14J250 gC2017 04 22.10585 12 24 01.79 -03 31 53.2          13.0 V      H32
      K14J250 gC2017 04 22.15654 12 23 40.80 -03 45 50.7          13.0 V      H32
```

### **Sample Receipt Using the cURL Method of Submission**

```
Submission 3c06b740-4243-4dea-a80e-951fc2d19ddc received. [Batch TAM0001-K14J250 DWC]
```

### **Sample Email Acknowledgement From the MPC**

The receipt of a message (probably containing observations) is hereby acknowledged.

Your message's ACK identification string is:  
Batch TAM0001-K14J250 DWC

The formatting code returned the following statistics:  
Number of header lines read = 11  
Number of observation lines read = 2

The NUM header keyword reported the number of observations = 2  
This agrees with number of observations read by the formatting code!

-----

FEEDBACK ON COMPLIANCE OF YOUR HEADER'S TEL LINE WITH THE DOCUMENTATION

Your submission contained the following TEL line:

TEL 0.40-m f/10.0 Schmidt-Cassegrain + CCD

This is what our processing software read or converted it to:

TEL 0.40-m f/10.0 Schmidt-Cassegrain + CCD

\*\*\* Your TEL line was formatted correctly \*\*\*

-----

If we need to communicate designations or problems to you, a further message will follow when this batch has been processed.

**\*\*IMPORTANT NOTICE\*\***

Note that at times (particularly near New Moon or during northern-hemisphere fall/winter) it may take 48 hours (or more) to get designations for new objects back to you.

Although your message is being acknowledged now, it is not guaranteed that it will be processed immediately.

Please do not respond to this message!