## CME assignment three **ANSWERS**

For the CMEs listed below, follow the SWPC\_CAT CME analysis procedure described in the lesson and also submit answers to the following questions for each CME:

HW≠	#3 CMEs starting at
1)	2014-06-24T06:12Z
2)	2014-07-01T12:39Z
3)	2013-04-11T07:36Z

4) 2015-03-15T02:00Z

Resources & iSWA layouts

- \* 40 Frame coronagraph and EUV movies <u>http://go.nasa.gov/16bTvzK</u>
- \* Where is STEREO? <u>http://stereo-ssc.nascom.nasa.gov/cgi-bin/make\_where\_gif</u>
- \* <u>http://cdaw.gsfc.nasa.gov/movie/</u>
- \* Solar Images with grid overlays <u>http://www.solarmonitor.org/</u>

Fill out the form: <u>http://bit.ly/2015cme3</u>

a) What is the source location for this CME? (list the location e.g. N15E20, instrument/ wavelength, and time of the observation).

b) Describe the EUV lower coronal signature for this CME (e.g. flare, post eruption arcade/loops, rising loops, dimming, filament eruption).

c) Is the CME a halo in any of the coronagraphs? If so, is it moving away from or towards the observer?

d) Which coronagraph instrument first observed the CME at the start time?

e) What are your final CME parameters (radial speed, half width, longitude, latitude, and time at 21.5 Rs (solar radii)).

f) Compare your EUV source location obtained in (a) with the parameters obtained in

- (e). Discuss why they might be different.
- g) Export your measurements from SWPC\_CAT

1) 2014-06-24T06:12Z



5 07

08

09

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Export Analysis

Reset Analysis





## 3) 2013-04-11T07:36Z



yielding a triangulated speed of  $850 \pm 200$  km s<sup>-1</sup>,  $-5^{\circ} \pm 5^{\circ}$  latitude,  $-15^{\circ} \pm 10^{\circ}$  longitude,  $50^{\circ} \pm 5^{\circ}$  half width

## 4) 2015-03-15T02:00Z

