

# Mount Diablo Astronomical Society

## Diablo Moon Watch

December 2014

### GENERAL MEETING

Tuesday December 16, 2014

## MDAS at the Movies

Doors open at 6:45 p.m.  
Lindsay Wildlife Museum  
1931 First Avenue,  
Walnut Creek, CA 94597

Please park East of the  
museum, follow the  
instructions on the last page

Each December:  
Cast your vote on the  
night for one movie from  
a selection of popular  
space and astronomy  
themed movies.

### COME AND VOTE IN THE END-OF-YEAR ELECTIONS, THE ANNUAL STATE OF THE SOCIETY REVIEW.

Here is the slate of candidates for the Board of  
Directors (all currently unopposed, all incumbents):

**President:** Jim Head

**Vice President:** TBA

**Secretary:** Moon Trask

**Treasurer:** Wil Roberge

**Membership Coordinator, Mtg Room:**

Marni Berendsen

**Meeting Program Chair:** Dick Flasck

**Outreach Coordinator, AANC Rep:**

Jim Head

**Publicity Board Member:**

Manuel Kraemer

**Observing Committee Chair, Board**

**Member:** Richard Ozer

**Whats Up Coordinator, Board**

**Member:** Kent Richardson

**Newsletter Editor:** TBA

**Webmaster:** Jon Steel

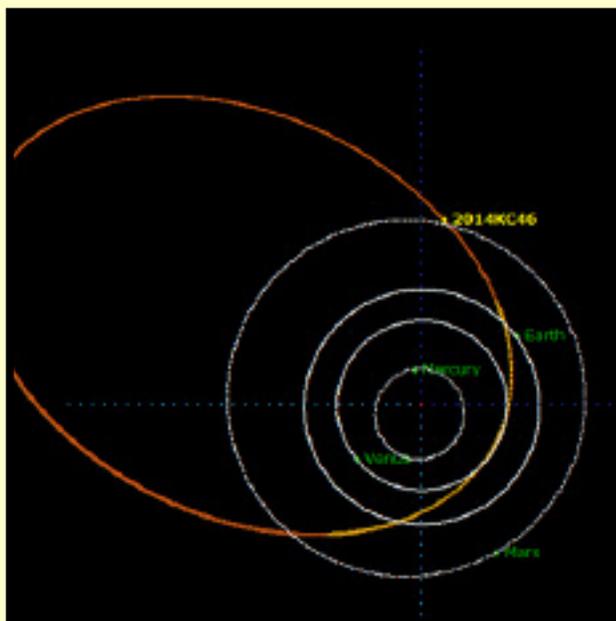
**New Member Steward:** Nick Tsakoyias

## European Astronomers Spot Faint Asteroid

by European Space Agency

European experts have spotted one of the faintest asteroids ever found – a chunk of space rock thought to be about 100 m in diameter beyond the orbit of Mars.

Astronomers at the Large Binocular Telescope in Arizona, USA, spotted 2014 KC46 on the nights of 28 and 30 October. The difficult observations, close to the limits of the telescope, were carried out through a new collaboration between the Italian telescope team and ESA's Near-Earth Object (NEO) Coordination Centre near Rome.



The observations marked the 'recovery' of the asteroid – it had been seen before but then lost. This was one of the faintest recoveries of a NEO ever achieved.

### Spotting a space rock

The telescope, operated by a group of institutes including the Italian National Institute for Astrophysics, spotted the object – which is about as wide as a football pitch – just beyond the orbit of Mars.

# PRESIDENT'S CORNER

## This month's Club News and Commentary

by Jim Head

### *Geminids Meteor Shower*

December 13-14th, Saturday night/Sunday morning is the peak, viewing here might be best before the 3rd Qtr moon rises, around 11:50 PM. read more at <http://earthsky.org/space/everything-you-need-to-know-geminid-meteor-shower>

<http://www.timeanddate.com/astronomy/meteor-shower/geminids.html>

### *Exploring our Solar System*

Do you know someone who would like to try hang-gliding, but without the parachute? Or, how about flying with small wings attached to your arms? Here's a short video showing what might be in store for future space wanderers in our solar system: <http://vimeo.com/108650530>

### *Order your magazines and calendars for 2015:*

<https://www.astrosociety.org/products-page/2015-calendars/>

<http://www.astrosociety.org/magazine/> (logon to NSN for club rate)

<http://www.yearinspace.com/wall-calendar>

### *Upcoming events:*

Movie night! If you have a good video bring it to our General Meeting on the 16th, we'll vote on what to watch. If you saw recently saw the movies "Interstellar" or "The Theory of Everything" let us know how it went.

Society Nights December 13 and 20th, General Meeting Tuesday the 16th, Imaging meeting the 18th, Winter Solstice December 21.

There are a few outreach events planned for January, if you wish to learn more about our outreach programs signup for the Outreach Group on your profile page at the Night Sky Network to receive timely email reminders and other notices, or visit <http://www.mdas.net/outreach/outreach.htm> .

### *MDAS Elections!*

We will hold the annual MDAS elections at our December General Meeting. There are a few vacancies we need to fill, and members can run for any position. We are going to need a new Newsletter Editor, Vianney Serriere is stepping down after many years of great service. The Vice President position is available, Mike Harms is moving to Oregon next year. The Current Board lineup can be seen at <http://www.mdas.net/clubboard/clubboard.htm>

Our Bylaws and Resolutions are available from the link is at the bottom of our home page at <http://www.mdas.net>

### *Happy Holidays!*

Jim



## European Astronomers Spot Faint Asteroid *(Continued from page 1)*

### **Asteroid orbit**

The measurement of its position was sufficiently accurate to refine its orbital path and eliminate any possibility that it might hit Earth in the near future.

“This success highlights the importance of quick response and cooperation across the asteroid community in verifying NEO orbits,” says Detlef Koschny, Head of the NEO Segment in ESA’s Space Situational Awareness programme office.

“It also proved the effectiveness of the telescope in detecting faint objects that have large positional uncertainties.”

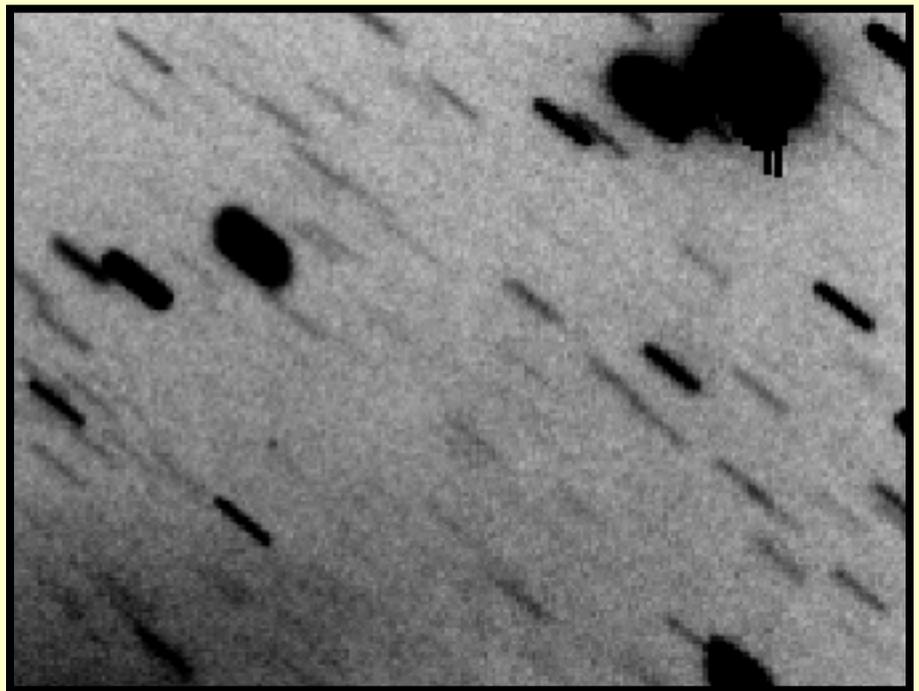
The measurements have been accepted by the International Astronomical Union’s Minor Planet Center, the organisation responsible for collecting data for small bodies of the Solar System.

### **Dual-mirror view of the solar system**

The observation of this asteroid was made possible by the unique performance of the telescope, which features a large field of view combined with the ability to spot very faint objects thanks to the twin 8.4 m-diameter mirrors.

The telescope sits at an altitude of 3200 m on Mt Graham in Arizona and has a light-gathering power equivalent to a single 11.8 m-diameter instrument.

It is a collaboration between the Istituto Nazionale di Astrofisica, the University of



Arizona, Arizona State University, Northern Arizona University, LBT Beteiligungsgesellschaft in Germany, Ohio State University, the Research Corporation in Tucson and the University of Notre Dame.

ESA’s NEO Segment coordinates and combines information from different sources, analyses them to predict possible Earth impacts, assesses the danger and analyses possible mitigation measures, including the deflection of a threatening asteroid.

The NEO Coordination Centre at ESA’s establishment in Frascati, near Rome, provides data and services on NEO hazards and coordinates follow-up astronomical observations.

## Mount Diablo Astronomical Society Event Calendar—December 2014

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 7:30 PM Board Meeting (Private)	2	3	4	5 ●	6
7 sunset: 16:49	8	9	10	11	12	13 ● 4:30 PM Society Observing (Private)
14 sunset: 16:50	15	16 7:15 PM GenMtg: Movie & Elections	17	18 7:00 PM MDAS Imaging Meeting (Private)	19	20 4:30 PM Society Observing (Private)
21 ● sunset: 16:53	22	23	24	25	26	27 5:00 PM Observatory Maintenance (Private)
28 ● sunset: 16:57	29	30	31			

● observing event   ● club event   ● community event

Mount Diablo Astronomical Society Event Calendar—January 2015

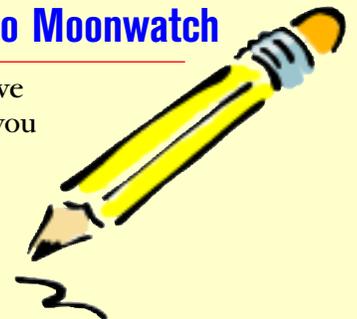
				1	2	3
4 sunset: 17:09	● 5	6	7	8	9	10 5:00 PM Observatory Maintenance (Private)
11 sunset: 17:09	12	● 13	14	15 7:00 PM MDAS Imaging Meeting (Private)	16 6:30 PM Parkroad Science Night (Private)	17 4:30 PM Society Observing (Private)
18 sunset: 17:18	19	● 20	21	22 8:30 PM Space Night (Private)	23 7:30 PM Laurel Elementary Astrono (Private)	24 5:00 PM Society Observing (Private)
25 sunset: 17:24	26	● 27 7:15 PM Gen Mtg: Spooky Action	28 7:30 PM John Swett Elementary (Private)	29	30	31

Share your news with other members through the Diablo Moonwatch

We are always looking for new articles, images or photos and content. If you have astronomical perspectives or experiences to share with your fellow members that you would us to consider, please feel free to contact me Jim ([planetmatter@gmail.com](mailto:planetmatter@gmail.com))

Clear skies!

Jim



## Board Members & Address

### **President**

Jim Head - planetmatter@gmail.com

### **Vice President**

Mike Harms - cmbarms2@gmail.com

### **Membership Coordinator, Mtg Room**

Marni Berendsen - berendsen@aol.com

### **Meeting Program Chair**

Dick Flasck - rflasck@aol.com

### **Outreach Coordinator, AANC Rep**

Jim Head - planetmatter@gmail.com

### **Publicity**

Manuel Kraemer - mkraemer@pixar.com

### **Observing Committee Chair, Board Member**

Richard Ozer - rozer@pacbell.net

### **Whats Up Coordinator, Board Member**

Kent Richardson - kayarind@sbcglobal.net

### **Treasurer**

Will Roberge - wil@donabue.com

### **Newsletter Editor, Board Member**

Vianney - veloroute@botmail.com

### **Webmaster**

Jon Steel - jonlee0483@aol.com

### **Secretary**

Moon - Moonglow6@hotmail.com

### **New Member Steward**

Nick Tsakoyias - claytonjandl@aol.com

### **Mailing address:**

MDAS

P.O. Box 4889

Walnut Creek, CA 94596-3754

### **General Meetings:**

Fourth Tuesday every month,  
except on the third Tuesday in  
November and December.

Refreshments and conversations at 6:45 pm;

Meeting begins at 7:15

### **Where:**

Lindsay Wildlife Museum

1931 1st Avenue

Walnut Creek, CA 94597

(925) 935-1978

[wildlife-museum.org](http://wildlife-museum.org).

### **Directions to facility:**

From the North: Take 680 South to Treat Blvd.  
exit. Turn left at light onto North Main St. Turn  
right on Geary Road. Turn left on Buena Vista.

Turn right on First Avenue. The museum is  
halfway up the block on the left.

From the South: Take 680 North. Take the Treat  
Blvd./Geary Road exit and turn left over free-  
way. Go three more lights and turn left on  
Buena Vista. Turn right on First Avenue. The  
museum is halfway up the block on the left.

### **Parking:**

The museum is located in a residential area.  
There are no parking fees nor meters. Please  
park only in the museum parking lots on the  
east side of the museum, the Friends Church lot  
across the street (except Sunday mornings) or  
on Buena Vista Avenue. Please do not park on  
First Avenue in front of our neighbors' homes  
— you will get a parking ticket.

