IOTA's 29th Annual Meeting Minutes

Quick Summary

Richard Nugent

The International Occultation Timing Association's Annual Meetings

The Founding of IOTA	Annual Meetings 1983-1997	IOTA Home Page	North American Asteroid Occultation Program

The Annual Homer F. DaBoll Award

Annual Meetings 1998 1999 2000 2001 2002 2003 2004 2005
2006 2007 2008 2009 2010 2011

The Founding of IOTA

A history and beginnings of IOTA is covered in Chapter 12 of the free e-book, "Chasing the Shadow: The IOTA Occultation Observers Manual". IOTA was unofficially started in 1962 by David Dunham, when he made the firs prediction of a grazing occultation of 5 Tau that was successfully observed by another observer Leonard Kalish near Castac Junction, California. Following this observed graze, David Dunham began making predictions of lunar grazing occultations and over the next 12 years began sending them out regularly to hundreds of active observers worldwide who were hungry for these new types of scientifically valuable observations.

By 1974, Dunham's mailing list was so huge that the costs of computing predictions, photocopying instructions, and postage exceeded the budget of either his personal finances or what he felt he could obtain from any institution with which he was affiliated. So after years of resisting a formal structure, in 1974 he was compelled to start a quarterly Occultation Newsletter (renamed Journal of Occultation Astronomy in 2010)for an annua subscription fee, which included the cost of local graze predictions. The first editor of Occultation Newsletter was Homer F. Daboll. Daboll was the person that coined the term "IOTA" as the International Occultation Timing Association. Homer F. DaBoll had a long history with IOTA right up until his death on March 10, 1990 at the age of 69 in Saint Charles, Illinois.

DaBoll was born on May 22, 1920. He was a major observer/expedition leader for numerous grazing occultations in the Chicago area beginning 3 decades, from the 1960's to 1990. He edited Occultation Newsletter for 16 years from its first issu

The International Occultation Timing Association's 29th Annual Meeting

Sierra College, Rocklin, California

July 16-17, 2011

 Radio telescope at Korek Observatory, Iraq	 Damaged domes at Korek Observatory, Iraq	 135 Hertha occultation (colored lines) and inversion model	 11 Parthenope occultation (colored lines) and inversion model	 David Dunham's 1st remote video stations
 1-meter portable telescope	 Dr. Dunham, Eberhard Bredner, Mark Vincent, Dave Kenyon	 Dr. Richard Nolthenius telescope setup for 90 Antiope event	 IOTA-VTI position screen	 IOTA-VTI timing screen
 Portable 10-inch occultation telescope	 IOTA-VTI front and back	 Scotty Degenhardts 2011 Homer F. Daboll award plaque	 10-inch occultation telescope in suitcase	 10-inch occultation telescope with video camera
 David Dunham shows 10-inch occultation telescope	 Walt Morgan demonstrates IOTA-VTI	 Occultation Profile-90 Antiope 2011 July 19	 Steve Preston and Joe Garlitz setting up telescope for 90 Antiope event. Photo courtesy Tony George	 Paul Maley. Photo courtesy Tony George.
 Scotty Degenhardt recipient of the 2011 Homer DaBoll award. Photo courtesy Tony George.	 Meeting attendees. Photo courtesy Tony George.	 Walt Morgan presents the new IOTA-VTI GPS time inserter. Photo courtesy Tony George.	 Dr. Roger Venable and Paul Maley. Photo courtesy Tony George.	 David Dunham setting up Mighty Mini for the 90 Antiope occultation. Photo courtesy Joan Dunham.

IOTA's Annual Meetings

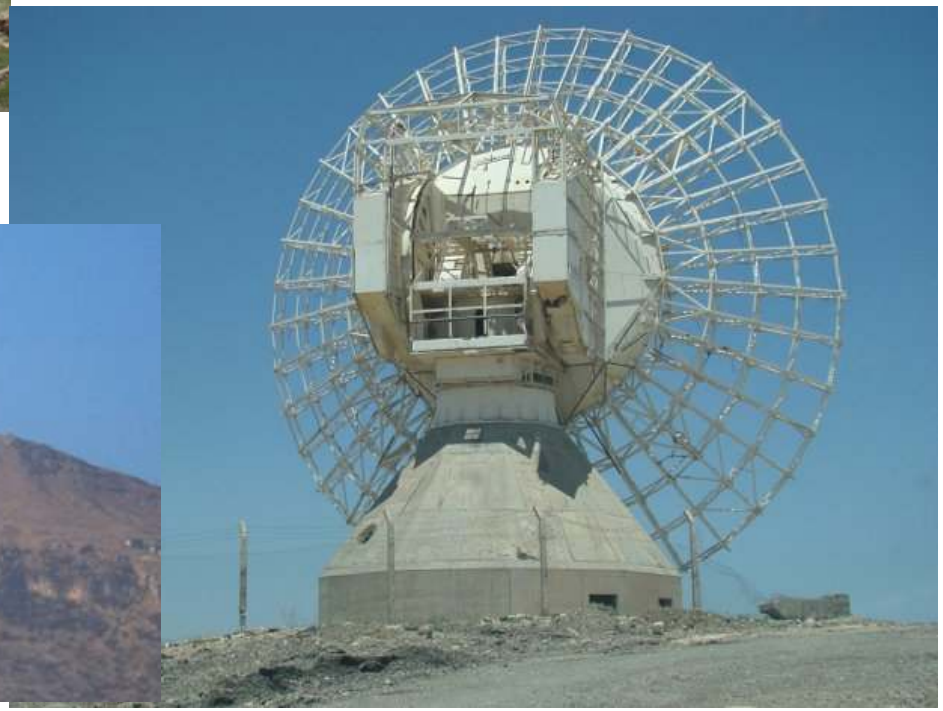
Scotty Degenhardt, 2011 Homer F. Daboll Recipient

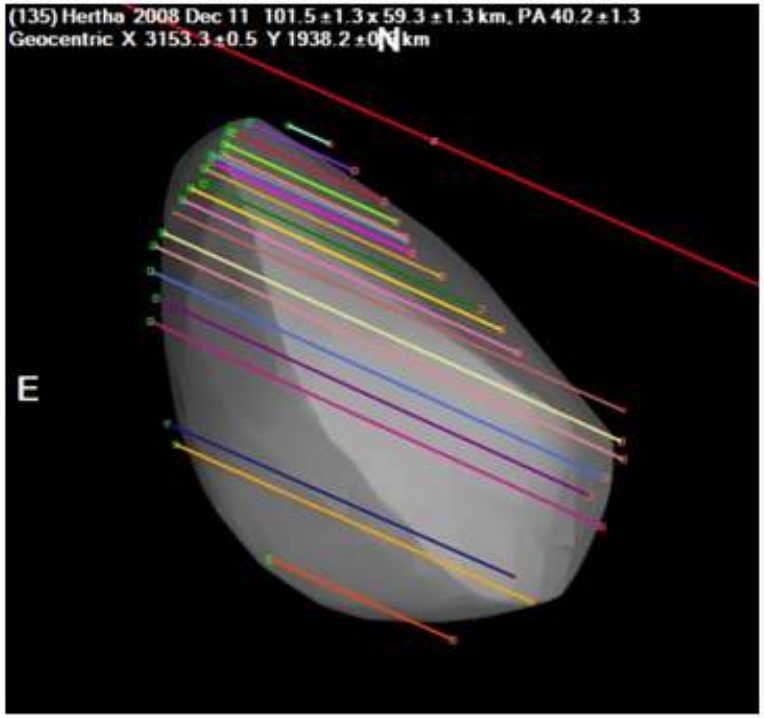
First ever recorded asteroid occultation from Iraq:

2011 April 1, 554 Peraga

Observers: Paul Maley, Ashy Hasan, Rojgar Hamid

Korek Observatory

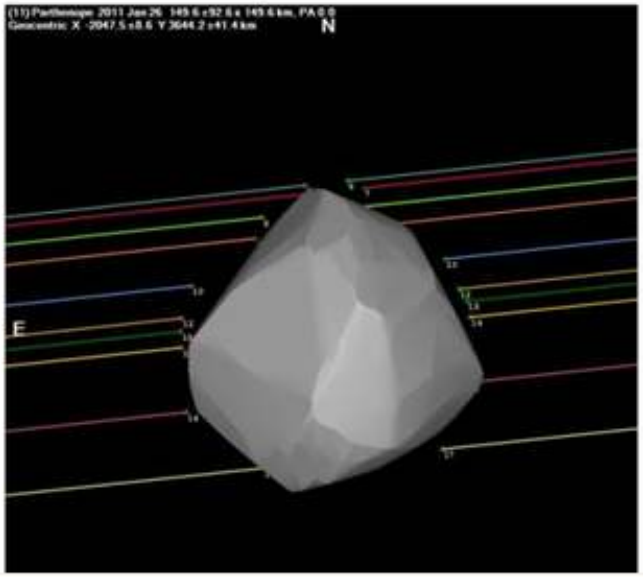




Icarus, Vol 164, Issue 2
Aug 2003

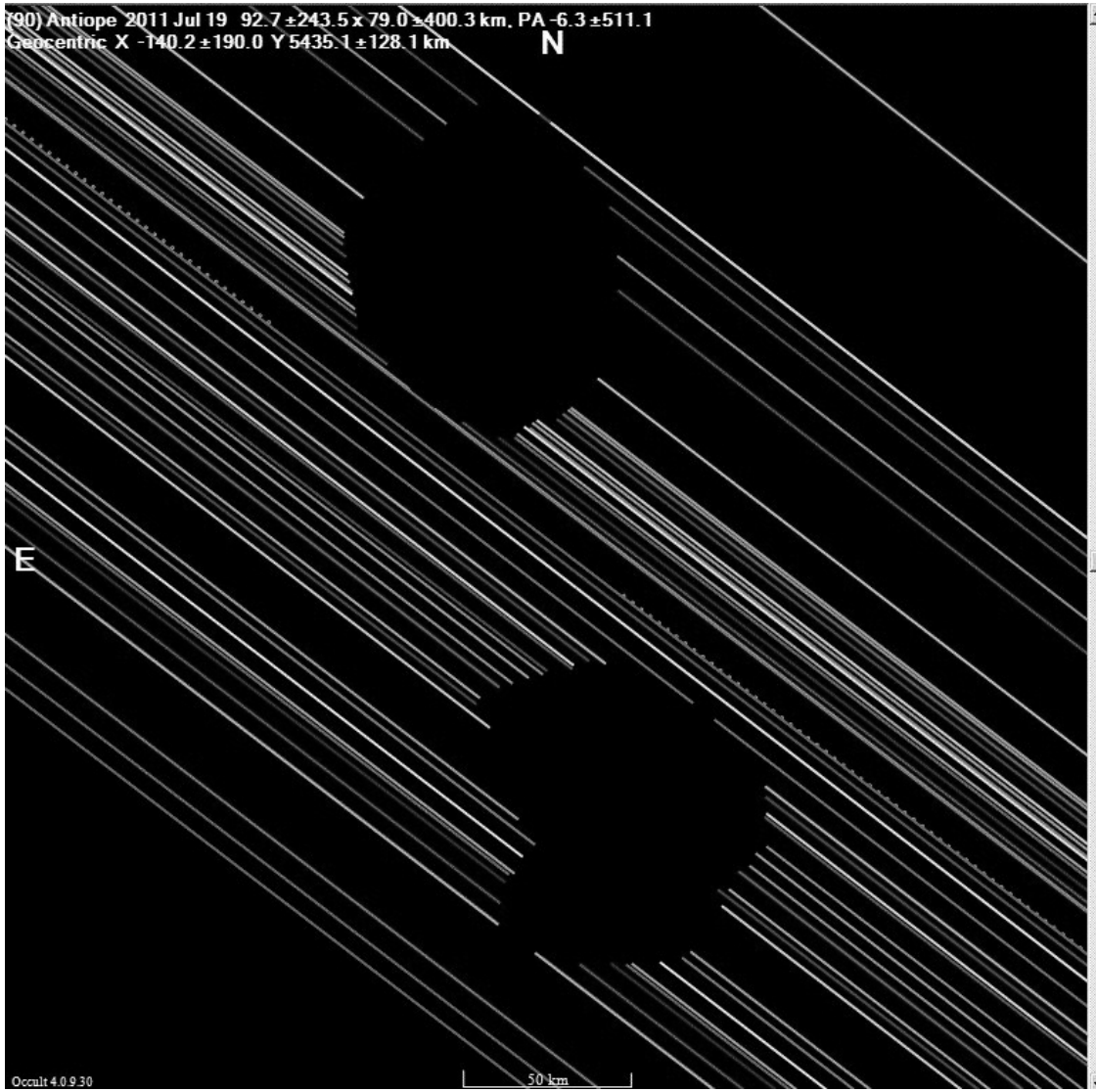
thenope comparison had matching issues at the 10 o'clock and 2 o'clock positions (chords 10, 12-14, 17):

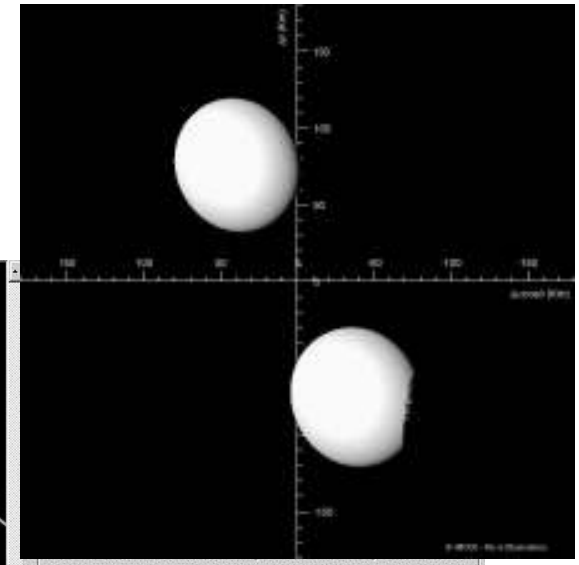
Parthenope Inversion Model



Occultation chord resolution is ~ 200 meters/video frame

90 Antiope, 2011 Jul 19





Circular
Include Miss events
Plot scale
Quality Not fitted
RMS fit 23.7 ±21.8 km

22		P Maley/B Merline,
23		S Degenhardt,Honcu
24	(M)	J Berthier/M Allai
25	(P)	Predicted Centerli
26	(M)	E Bredner, Woodlan
27	(M)	P Maley/W Hopkins,
28	(M)	R Venable,Standish
29	(M)	S Maximoff,Vacavil
30		M Vincent,Woodland
31		T Swift,Davis, CA
32		R Sumner/R Bardars
33		P Dunckel,Grass Va
34		R Venable,Doyle, C
35		R Venable,Doyle, C
36		D Kenyon,Rocklin,
37		D Machholz,Colfax,
38		T Case,Walnut Cree
39		D Becker,Boise, ID
40		R Venable,Chilcoot
41		R Venable,Chilcoot
42		F Vachier/E Enriqu
43		F Vachier/J Fixell
44		Vachier/Cooper/Mel
45		D/J Dunham,Mountai
46		T Beard,Reno, NV
47		D/J Dunham,Tracy A
48		J Albers,San Jose,
49		D/J Dunham,San Joa
50		F Colas, IMCCE - D
51		F Colas, IMCCE - D
52		F Colas, IMCCE - D
53		D/J Dunham,Westley
54	(M)	D/J Dunham,Newman,
55	(M)	D/J Dunham,Ingomar
56	(M)	D/J Dunham,Santa N

The meteors that arrive late in this shower tend to be brighter than the early ones. Minor activity has been reported as much as a week before and after the peak date; this needs to be monitored too.

the Quadrantid meteor shower start to rise high. (And don't expect to see several at once!)

Asteroid Occultations

Among the asteroid occultations that will cross North America in January, just waiting for you to time them, three stand out for the brightness of the stars that will wink out:

- On the evening of January 8th, the faint asteroid 75 Eurydike will cover up an 8.3-magnitude star in Auriga for up to 5 seconds along a track from North Carolina through Texas.
- On the morning of January 19th, 911 Agamemnon will occult an 8.0-magnitude star in Lynx for up to 9 seconds along a track from the Washington, D.C. region northwest across most of the Great Lakes.
- On the evening of January 29th, 1746 Brouwer will occult a 7.0-magnitude star in Aries for up to 4 seconds along a path from Oregon through the Minneapolis/St. Paul area to Massachusetts. ✦

For finder charts, path maps, and further information, see asteroidoccultation.com/IndexAll.htm. Here you'll also find many more asteroid-occultation predictions worldwide.

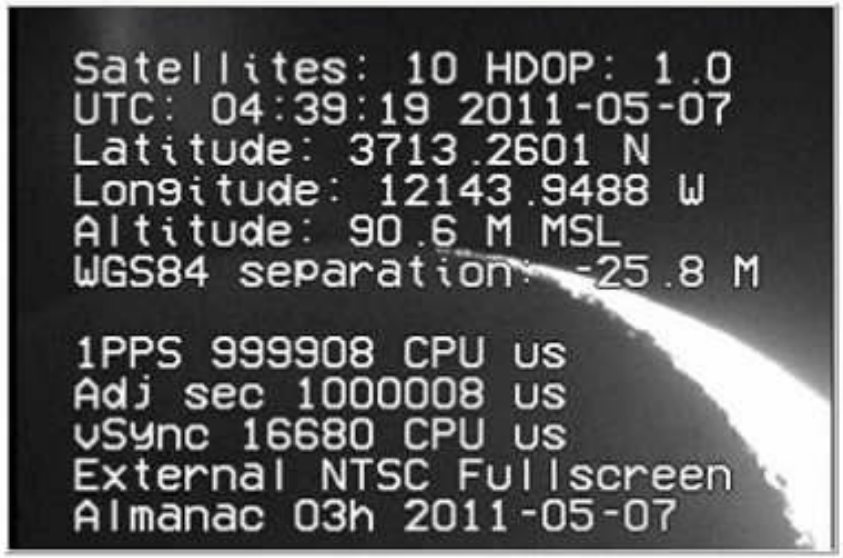
For all about observing and timing these events, see asteroidoccultation.com/asteroid_help.htm.

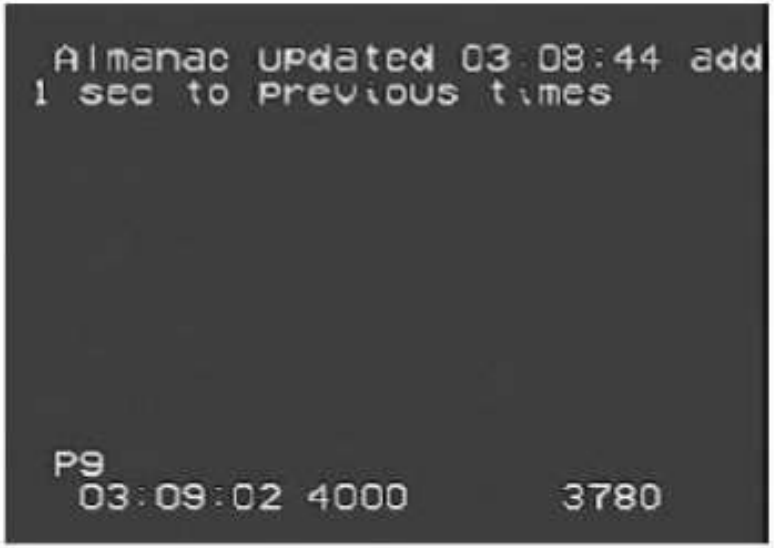
For more past results, see asteroidoccultation.com/observations/Results.

Two for one! Last July 19th, 24 people timed the binary asteroid 90 Antiope occulting a 6.7-magnitude star in Aquarius as seen from 56 different locations. Most observers used video timing setups on small telescopes. Some placed automated setups several miles apart along the sides of roads. Each line is the star's path with respect to the asteroid as seen from one site; north is up. The line vanishes and resumes at the points corresponding to when the star winked out and back on. The campaign resolved the silhouettes of Antiope A and B in stunning detail. Both components are seen to be about 90 km (55 miles) wide, and a huge crater makes one look like Pac-Man.

IOTA-VTI

http://www.videotimers.com





Bruce Berger, **John Broughton and David Dunham** presented the design and specifications of the “Ultra-Portable Telescope for Occultation Expeditions” i.e., suitcase telescope

IOTA Officers Meeting Agenda

- 2ND IOTA AWARD
- BAILY'S BEADS SCIENCE CONTINUATION
- FUNDING EFFORT FOR FUTURE HARDWARE NEEDS
- TRANSITION OF OLDER OFFICERS TO BOARD OF DIRECTORS
- COMBINE WEB SITES TO MAKE A SINGLE SITE