

(9) Metis OCCULTATION AND IOTA MEETING September 2008



GENE A. LUCAS
NITE OWL
ASTROPHYSICAL OBSERVATORY
FOUNTAIN HILLS, AZ

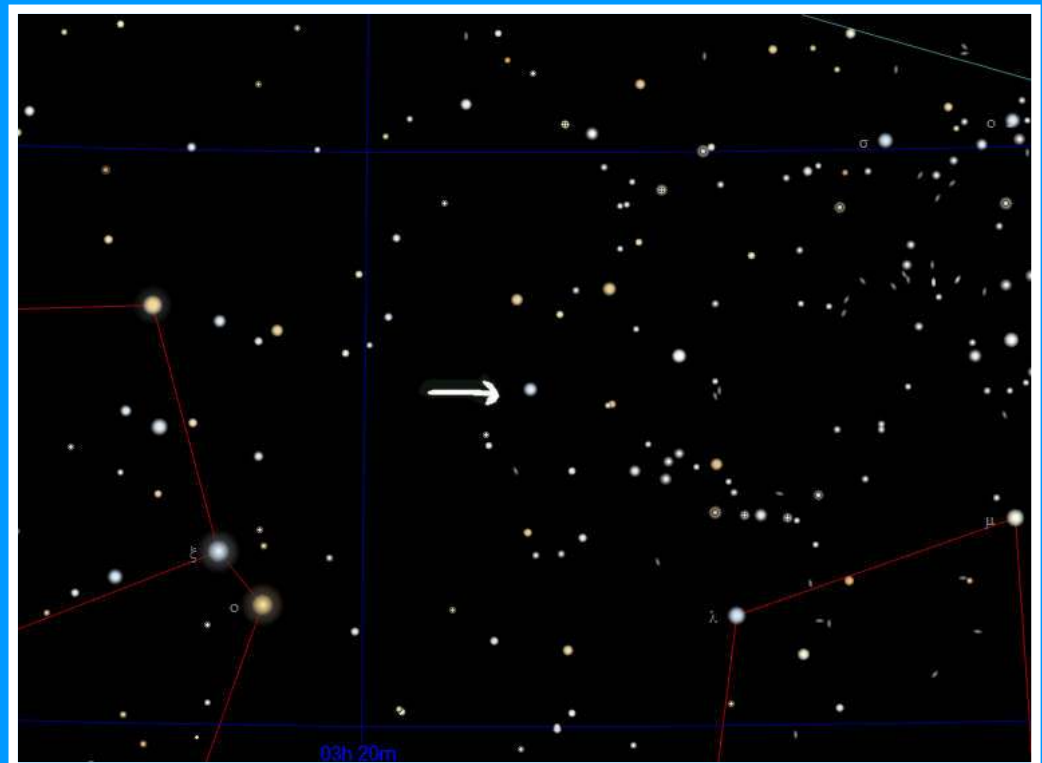


Asteroid Occultation Video Techniques

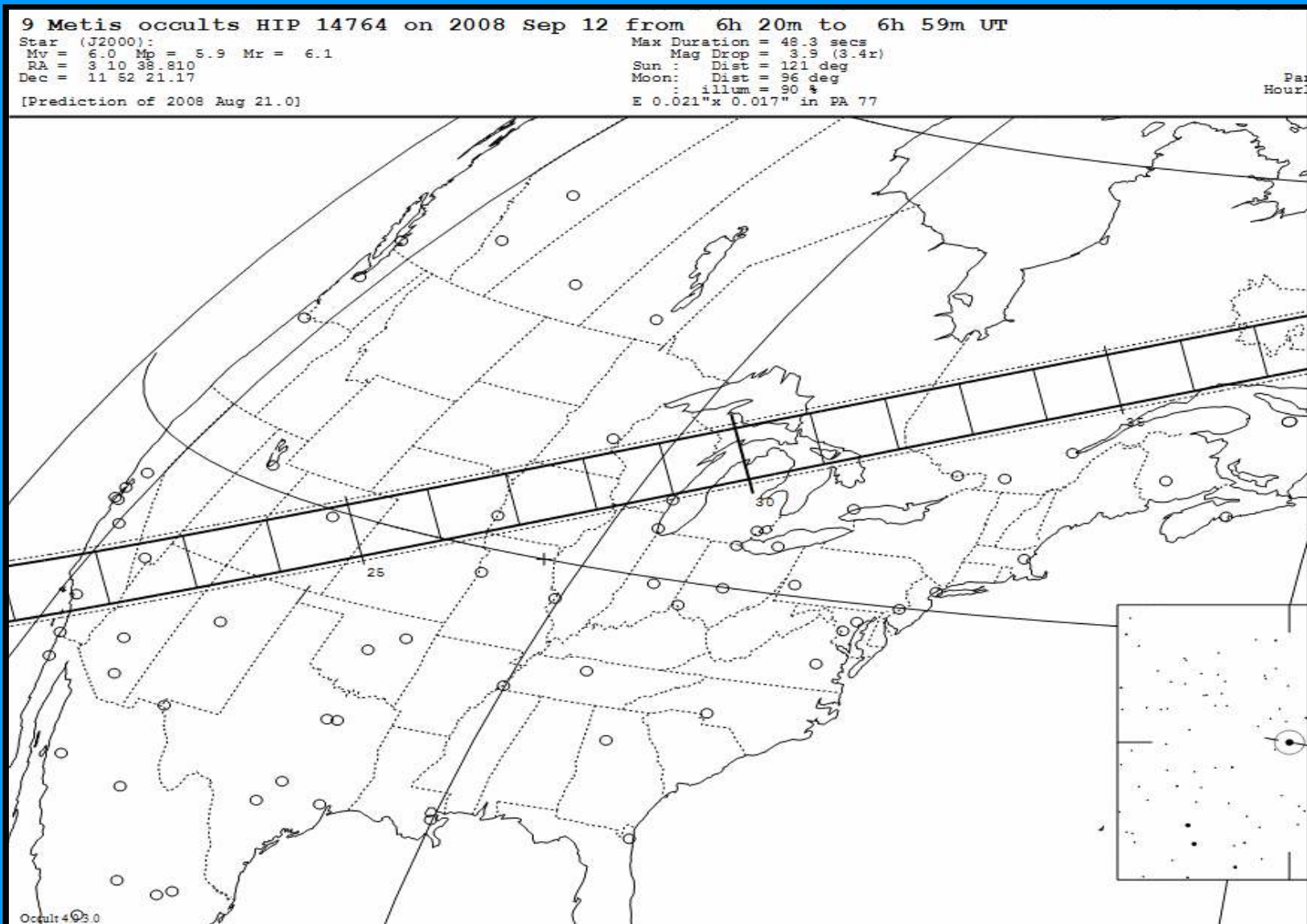
- **(9) Metis Occultation Sept. 11/12 - 06:21 UT**
 - 6th magn. star in Aries - visible in binoculars
 - Details on IOTA web pages and Sept. 2008 Sky & Telescope
 - Track crosses Mojave desert in California
- **IOTA meeting - Victorville - Apple Valley, CA**
- **New Developments in Video Technology and Track Prediction Software, plus Internet Web-Based Planning and Coordination**

(9) Metis Occultation Of 6 Magn. Star In Aries

- Star was visible in binoculars
- Asteroid was ca. 10th magnitude
- Light drop ca. 3 magn. for ~40 seconds



(9) Metis Predicted Track



Track Crossed Mojave Desert

- 43 Sites Designated with *Occult Watcher*

[IOTA Updates] (9) Metis occults HIP 14764, Thu 11 Sep, 23:21, 16° @86°

Map data ©20

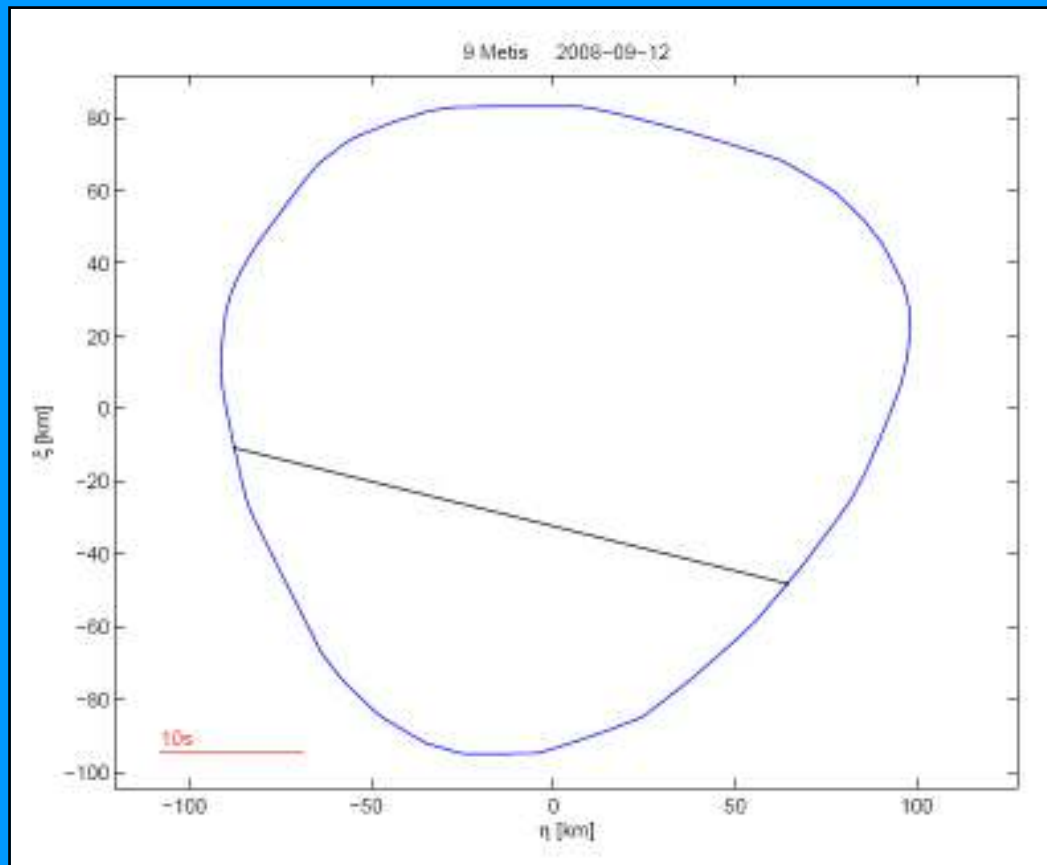
9	98	32532112456224	6	58441	567	33	69397	2	6	4	72368	387	3	3	4	3	6	8	
5	65	117	9536	859	2	03347	995	37	39284	8	8	84466	571	6	9	0	8	7	2

Observing locations currently announced by other observers:
 2 = BajaKerry Mobile, Lance Benner Mobile; 3 = Scotty mobile #12, Scotty Mobile #13; 4 = Scotty Mobile #05, Scotty Mobile #06; 5 = Scotty Mobile #04; 6 = Scotty Mobile #03, Russ
 Scotty Mobile #08, Scotty Mobile #09; 15 = Scotty Mobile #10; 17 = wmorgan mobile C; 21 = Scotty Mobile #15; 22 = Timerson B Home; 24 = Jones B Mobile; 25 = Scotty mobile #0

Right click on the map to define another observing site or click on your already announced observing site to edit it.

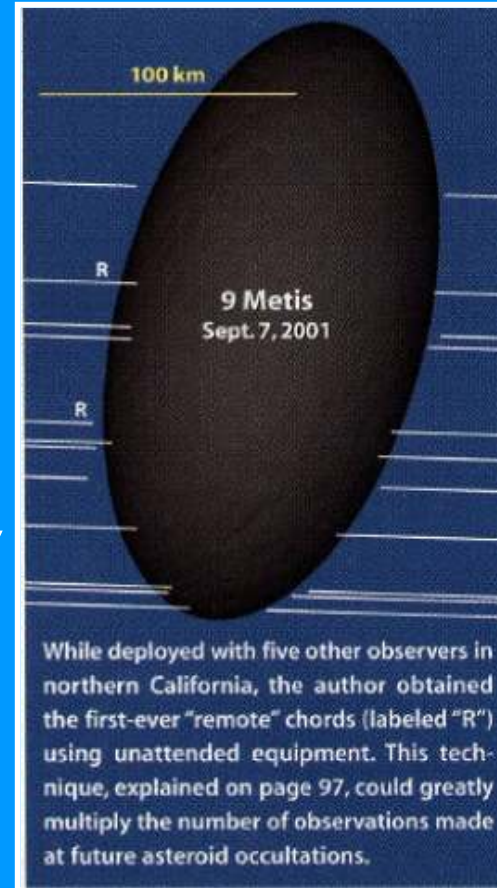
(9) Metis is Approx. 200 km (124 mi) Diameter

- Shape from previous occultations
- 40 seconds chord length



Sky-Plane Plot of (9) Metis Occ'n Sept. 7, 2001

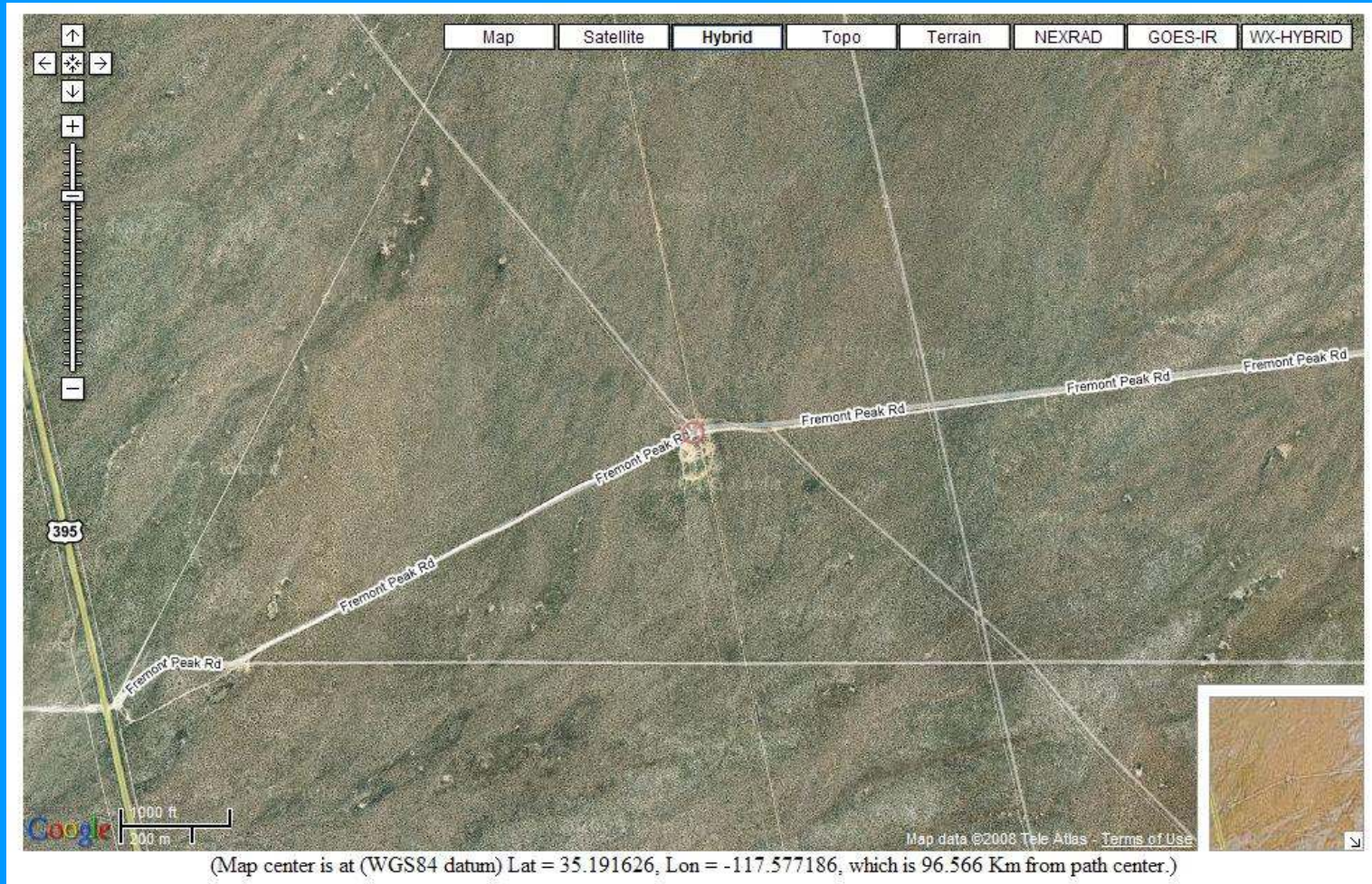
- 5 Observers, 12 Chords
 - Star was double
- Additional Chords Acquired by D. Dunham using Unattended Remote Video Equipment!
 - Remote Chords Marked "R"
 - A "*First*"!



(Sky & Telescope March 2002 Diagram
Courtesy David Dunham and Sky Publishing)

Fremont Peak Rd. Site

13 mi N. of Kramer Junction, California



Video Stations at Fremont Peak Rd. Site



G. Lucas and E. Wilson Video Setups

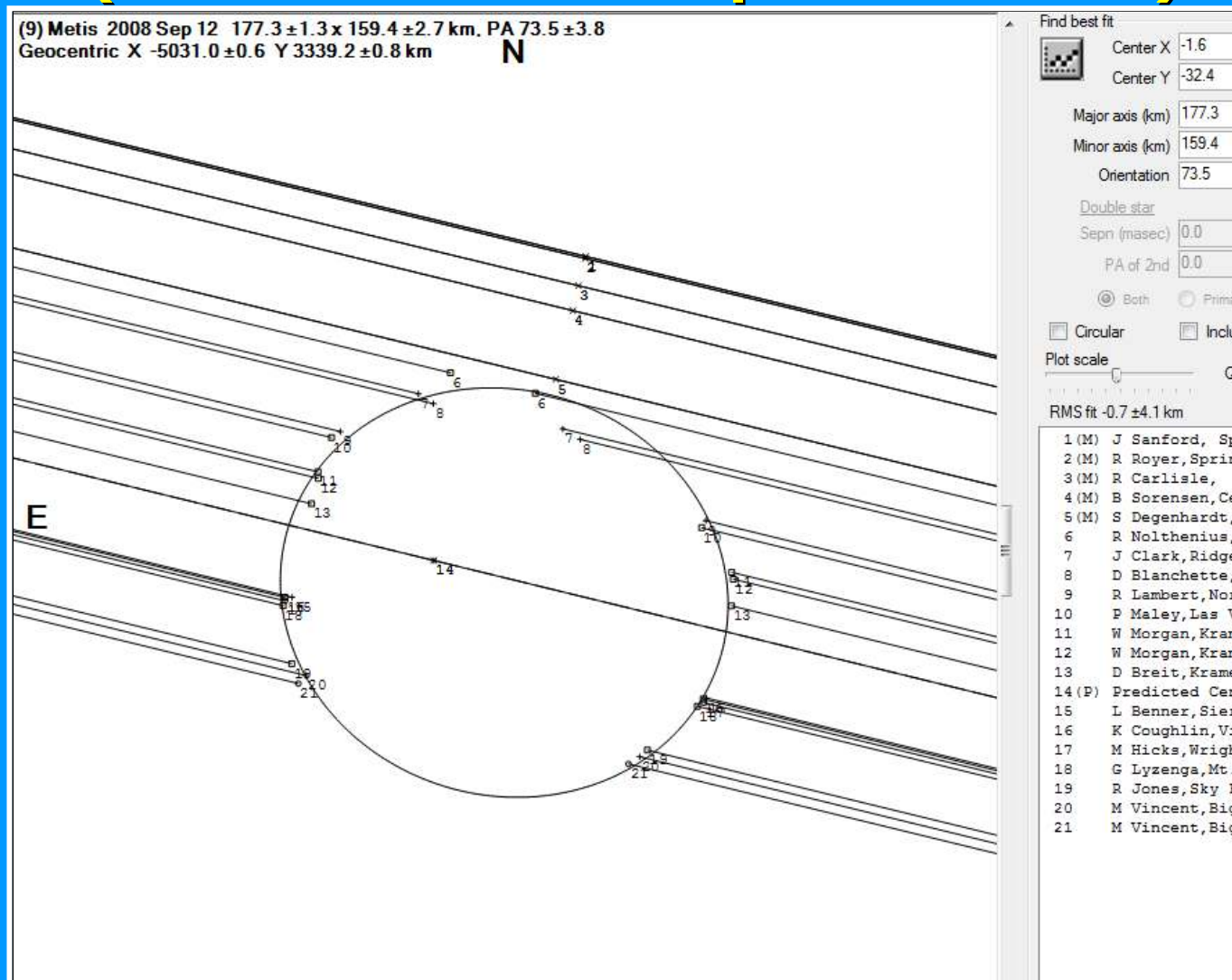


New Developments

- **Track Predictions now Based on HIP/TYC Star Databases, using PC Software**
 - *Occult* and *Occult Watcher* software
 - Web-based planning and coordination tools
- **GPS-Based Video Time Inserters**
 - KIWI-OSD with Garmin-18 GPS
- **High Sensitivity, Low Cost Video Cameras**
 - PC164 from SuperCircuits
 - Same Sony CCD chipset as in Meade DSI, Orion Star Shoot, and others
- **New Lightweight Setups with Simple Lenses**

Preliminary Results

(Not All Observers' Reports Included)



2008 IOTA Annual Meeting

- Victorville - Apple Valley, CA
- Lewis Research Center - Luz Observatory
– (Same venue as in 2004)
- Interactive Internet participation



IOTA 2008 Annual Meeting

Apple Valley, CA



Lewis Center - Dr. David Dunham



Video Camera Tests



Scotty Degenhardt and "Mighty Minis"



Good Night, and Have a GREAT Tomorrow !!



(17250) Genelucas