



March 28, 2023

Dear IAWN Steering Committee,

As the founder and operator of the Mind's Eye Observatory, I would like to request membership and participation in the International Asteroid Warning Network (IAWN). Mind's Eye Observatory (MEO) was constructed in 2019 and has been participating in science almost from its inception. It is sited just off the Saint Sebastian Preserve in Vero Beach, Florida U.S.A., affording it dark skies. While sky transparency can suffer, seeing conditions can be very good due to our southerly location. MEO utilizes two main instruments at this time, a highly modified Schmidt Cassegrain .3 meter telescope operating at F3.3 and a wide field Schmidt Cassegrain .2 meter operating at prime focus F1.9. Both use very high Q.E. CMOS cameras.

In June of 2022 MEO was granted IAU observatory code W42 and has been conducting observations and astrometry on Near Earth Objects (NEO's). I have been concentrating on followup observations for objects in need of orbit improvement and new object confirmations (NEOCP's).

In 2020 MEO participated in research for satellite positional awareness with Ph.D students at Embry Riddle Aeronautical University Daytona, Florida, concluding in an AAS paper 20-679. An important aspect in this research was the use of affordable off the shelf equipment in interesting new ways for better results. This relationship continues and has garnered my interest towards more partnerships and outreach with schools and students. I hope to continue MEO's minor planet programs with their involvement.

MEO also conducts timing occultations, supernova imaging-photometry and deep sky imaging. I continue to refine my techniques and learn new ones so MEO's observations are scientifically rigorous of which good data can be extracted.



I also continue to make equipment improvements and modifications for the best results possible while thinking outside of the box. Future projects at MEO include increasing computational power, synthetic tracking software and operating a second astronomical imaging system (AIS).

MEO has communications with other observatories performing the same research and can consult with astronomers that have successful minor planet programs. One such astronomer I consult with is Ron Dyvig at the Badlands Observatory (IAU 918) in Quinn, South Dakota U.S.A.

Personally, I have 30 years experience in astronomy with my education in the field mostly self-tuition. My interest in becoming a member is to contribute in the effort to characterize NEO threats, participate in campaigns and share data with other researchers. Participation in communicating that research is an interest as well. Many recent NEO events and close approaches in the media have shown the importance of accurate and proper communication of this science to the public.

It is my intention to join the IAWN if my contributions are of use to its efforts. I have read the statement of intent and I understand the obligations of IAWN members.

Regards,

A handwritten signature in black ink that reads "John T. Grage". The signature is written in a cursive style with a prominent loop at the end of the last name.

John T. Grage
Mind's Eye Observatory
IAU W42



Projects current and past can be seen for both observatories at these links:

<https://www.mindseyeobservatory.org/>

https://en.wikipedia.org/wiki/List_of_astronomical_observatories

<https://newton.spacedys.com/neodys/index.php?pc=2.1.2&o=W42&ab=0>

<https://www.badlandsobservatory.com/>

https://en.wikipedia.org/wiki/Badlands_Observatory

<https://newton.spacedys.com/neodys/index.php?pc=2.1.2&o=918&ab=0>