



## Observing Special Interest Group Session 6 – January 20, 2021

### INTRODUCTION

Welcome to all. I hope you had nice holidays and are healthy, wealthy and wise. Tonight we will cover several topics related to observational astronomy.

A quick word on the Dark Site rules of courtesy. Please read and reread these rules that you get when you ask for your password to enter the gate. Most importantly, note the white light rules. Does your vehicle's lights come on when you open the door? If so, what must you do? Do you plan to stay all night or will you leave early. First time visitors should make it a point to arrive early. Knowing how to get there and what is available to you is a real help.

1. First we had a member of our group earn an Astronomical League observing award. Michael Harang has completed the Constellation Hunter-Northern Skies certificate #255. Congratulations to him, I hope he is with us tonight.

I would like to see more people follow his lead and bring forward materials for certificates.

2. Astronomy questions and answer session.

3. Let's have a word from our man in the "Waz Up" department to tell us the interesting things that can be seen in the next few weeks. Chaz Hafey, take it away.

4. Now it is time to present our guest speaker. John Wagner is a very long time member of our club. He is a Master Observer, and in fact John created eight of the Astro League observing programs. Tonight he will discuss observing program and tell you a bit about the Astronomical League and how it benefits you as a TAS member. If you have questions about the League there is nobody better to ask than John, since he is the Southwest Representative to the Astronomical League. John.

5. Holiday toys. How many people have received new astro equipment in the last few weeks? I think we should do a show and tell. I will be glad to show you my new telescope to lead this off. Please go the box where you raise your hand. I will try to take you in order and I intend to call on everyone who wants to speak.

Best Regards,  
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## MEETING NOTES

# TAS ObSIG Meeting Notes 1/20/2021

First order of business was to recognize the achievement of Michael Harang who was recently awarded the certificate of completion for the Constellation Hunter – Northern Skies #155.

Next we took general questions on observing and equipment.

First there was a question about extended objects/ surface brightness. “The apparent magnitude given for extended objects, i.e. galaxies, nebulae, star clusters, etc, will appear dimmer in your instrument’s field of view than that of a single star with the same stated apparent magnitude. For example, a galaxy's magnitude is defined by measuring all the light radiated over the entire object, treating that integrated brightness as if it were the brightness of a single point-like or star-like source. It is for this reason that when one interprets stated magnitude values given for an extended object, one must also take into consideration with the angular size of the extended object.”\* In short, one can not always rely on the posted visual brightness of an object. Also remember, that when observing from urban skies, that extended objects are often overwhelmed by the light pollution of the background sky. Might I suggest, Cartes du Ciel, is a free internet download program whose data includes surface brightness for many common objects. This program does not take into account sky pollution ratings.

Second, the question of “field of view” came up again. We suggested that observers get Sky Safari on their phone or the free program Stellarium on their computer. Both of these can calculate the “true field of view” based on your particular telescope and eyepieces and will show you the field as it should appear. Very handy.

Next Chaz gave us his Wuz Up (this month) talk. He went over things like planets and occultations. Our new people learned that an occultation occurs when one object passes in front of another thereby covering or occulting it. The moon being closer to earth occults both planets and stars but sometimes a planet can also occult a star.

John Wagoner spoke on the Astronomical League observing programs. He showed people where to find these programs on the Internet. John also explained how using these programs could make budding astronomers into great observers. If one

follows a structured program by levels of difficulty he or she can build their observing skills. Also, John pointed out the value of the Astronomical League's Reflector magazine. All members of TAS are members of the AL, so you should receive this magazine.

Finally, we did a show and tell of new "astro" toys that we received for Christmas. I showed off my new 6" SCT and Angela & Sean showed off their new equipment. It is a 115mm Astro-Tech refractor, on an iOptron equatorial mount, with a ZWO ASI1600MM Pro 16 MP CMOS Monochrome Astronomy Camera. Very nice & good luck!

Clear skies to all and good hunting! If you have something to share, be sure to let me know. We are always open to folks willing to share their observing experiences.

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\*Gary Carter gave us this detailed explanation of surface brightness.