

UBarU 2017 Dark-Sky Park Annual Report

General

Since receiving its Dark-Sky Park certification from the IDA in November 2015, UBarU has followed its approved Light-Management Plan (LMP) and made progress in serving its purpose as a DSP. We have done so by:

1. Becoming the choice of an increasing number of area astronomers for their dark-sky outings. In 2016 the San Antonio Astronomical Association (SAAA) formally adopted UBarU as their designated dark-sky site, and have been renting one of our cottages as a staging location for their monthly dark-sky outings; this is a club with over 200 members of which some 15-20 members attend these monthly outings. Also, the Hill Country Astronomers (HCA) have been using UBarU for various club, group events, such as their all-night Messier marathon in 2017.
2. Completing a planned special viewing area to view the night sky at an especially well light-protected location at the northwest edge of the campus area within UBarU. This location remains light-protected and separated even when there are other activities within the main campus buildings and grounds.
3. Involving the summer youth camps. Starting with the summer youth camps in 2015 we have integrated a segment on preserving the night skies within our camp curriculum together with a star party in each of the four, age-tiered sessions of summer camp. There were 125 youth who attended their respective sessions of 2017 summer youth camp; 129 youth attended their respective sessions in summer 2016.
4. Obtaining grant support. In January of 2017 we received a grant from the H-E-B grocery chain for cedar eradication to improve our water conservation. We were able to use a portion of this project to clear cedar trees that were encroaching the perimeters of all three areas that we use for star parties and unobstructed viewing of the night skies.

Lighting & Sky Quality

We have installed no new outside lights, and have insured that any replacement elements have met IDA and our own LMP standards. We have not engaged in regular monitoring of the sky quality, but neither we nor the significant number of amateur astronomers who visit UBarU have noticed any lessening of the quality of the night skies. In fact, at the end of a star party that we held for a group of local school children during 2017 spring break, we took Unihedron SQM readings in and around the area of the star party which ranged from 21.67 to 21.86 mag/arcsec**2, which is more than consistent with our Silver-Tier DSP certification. We do not plan to ask for an upgrade in our tier.

Funding

In addition to the H-E-B grant for cedar eradication, in March of 2017 UBarU had an exhibit at the Texas Night Sky Festival which was seen by Mr. Andrew McGown. After seeing what we were doing in educating our youth about the value of preserving the night skies, he made a donation of \$52,500 to UBarU for the purpose of constructing and equipping The UBarU Youth Astronomical Observatory to enhance our efforts in science and astronomy education, primarily for youth 18 years of age and under. We expect the observatory to be completed and operational by the end of September. The observatory will feature a motorized, slide-off roof to provide a 16' x 24' viewing area equipped with a pier-mounted PlaneWave 12.5" primary telescope, plus a movable 16" Sky-Watcher, GoTo, Dobsonian telescope.

We have been offered an opportunity to purchase the 158-acre property that joins UBarU at its southern border. This would allow UBarU to expand its area (and thus the DSP) to a full 300 acres. We have been given first option to make this purchase until January 2018, before the sale is open to the public. We are actively seeking support for this purchase, but have yet to secure a donor or partner for this purchase.

Outreach

We have continued our efforts to influence the city government of Kerrville, Texas (the nearest city of any significance to UBarU) to enact a lighting ordinance, having partnered with the Hill Country Alliance for that purpose. We made a presentation to the Kerrville City Council in August 2016, with regular follow-up contacts since.