

Dark Night Sky Report 2016 Death Valley National Park

General

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In 2016, Death Valley National Park hosted 1.2 million visitors. Park staff presented 71 night sky/astronomy programs and eight star parties that included telescope viewing. Approximately 4,500 participated in these programs. The Las Vegas Astronomical Society supported three of our telescope viewing programs.

Lighting

Death Valley National Park continues to maintain compliance with the lighting management plan. Our park neighbors in Death Valley, including Furnace Creek Resorts and the Timbisha Tribe, recognize the value of the night sky and have modified their lighting. Repeat visitors have reported that the hotels, visitor center, and park housing are much less noticeable now than they were a decade ago.

Sky Quality, Conservation and Research

Sky quality data was observed and taken by our Astro VIP – Margaret Berendsen.

Grants

In 2016, Death Valley hosted an Astro Volunteer from the National Park Service Dark Sky Program. This amateur astronomer has returned year after year to train rangers both in how to use telescopes and in how to provide interpretive programming related to the night sky. Additionally, the Death Valley Conservancy funded the purchase of a solar telescope to extend our sky programming to day time hours.

Outreach

The National Park Service celebrated its centennial in 2016. Death Valley National Park's premiere centennial event was the "Celestial Centennial: MarsFest 2016." We partnered with NASA and SETI to sponsor a three-day event that included speakers, field trips, an expo, and a giant star party with both National Park Service rangers and members of the Las Vegas Astronomical Society staffing telescopes. About 2,000 people attended the event.

Staff completed a complete re-design of our park brochure, a coveted item that every visitor receives with the payment of the park entrance fee. Fully half of the interpretive side of the brochure features an artistic rendering of Death Valley at night, with the tag line, "half the park is after dark." The text states that Death Valley has earned the designation of International Dark Sky Park.

Community and Media Relations

Death Valley is renowned for its dark night skies, and this is often mentioned in media accounts and blog posts.

Thanks to the International Dark Sky Association for all your great work!

ADDENDUM: Dark Night Sky Report 2015 Death Valley National Park

Sky Quality

Five sites within Death Valley have been selected to take Sky Quality Meter (SQM) measurements at least annually. These five sites cover the extent of the Park that visitors regularly visit from north to south within the Park.

Site (North to South)	Long	Lat	Elev (m)	Elev (ft)
Ubehebe Crater	-117.45	37.01	791	2594
Mesquite Sand Dunes	-117.12	36.61	-14	-46
Harmony Borax Works	-116.87	36.48	-58	-190
Dantes View	-116.73	36.22	1660	5445
Ashford Mill	-116.68	35.92	-27	-89

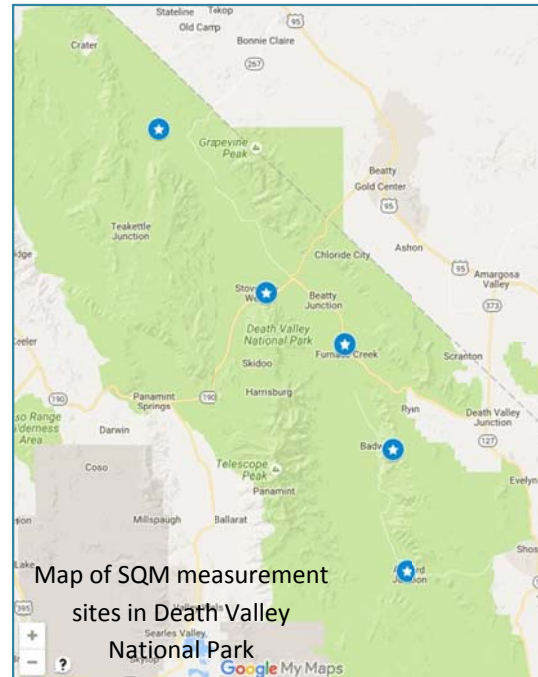


Table of sites and SQM measurements taken in November 2016:

Site	Long	Lat	Elev (m)	Elev (ft)	Local Date	Local Time	SQM at Zenith	Equiv Visual Mag (cal'd)	Temp (C)	Temp (F)	Observer	Weather Notes
Dantes View	-116.73	36.22	1660	5445	22-Nov-2016	19:04	21.51	6.390	15	59	M Berendsen	Clear except for thin clouds on horizon, no wind
Ubehebe Crater	-117.45	37.01	791	2594	24-Nov-2016	18:33	21.68	6.474	8	46.4	M Berendsen	Clear, winds 5 mph
Mesquite Sand Dunes	-117.12	36.61	-14	-46	24-Nov-2016	19:57	21.45	6.359	14	57.2	M Berendsen	Clear, calm
Ashford Mill	-116.68	35.92	-27	-89	29-Nov-2016	18:22	21.61	6.439	15	59	M Berendsen	Clear, calm
Harmony Borax Works	-116.87	36.48	-58	-190	29-Nov-2016	19:48	21.67	6.468	15	59	M Berendsen	Clear, calm