

Air and Space this Week

Item of the Week

Harlan J. Smith

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Spring of 1970 was a big astronomical deal for me. I saw my first total solar eclipse, my first planetary transit, and my first good comet (as yet unmatched). April, 1970, was the first month I received my very own copy of the monthly *Sky and Telescope* magazine.

Sky and Tel and I have gone through a few changes in the past half-century! It’s always been a source of information on astronomy history, research, observing, and equipment, and is now owned by the American Astronomical Society.

The cover photograph on the April, 1970, issue was of the then-new Big Bear Solar Telescope, on the shore of Big Bear Lake high in the San Gabriel Mountains above LA. It’s still [in operation](#), now under the management of the New Jersey Institute of Technology. The observatory is on the north side of Big Bear Lake, where the look over the lake water toward the Sun provides good daytime seeing. I remember the story about BBSO well, in spite of it being so long ago.

There was another story in that particular issue I also remember well. It was a small item, not a featured article, about a crazed observatory employee at the McDonald Observatory in west Texas going berserk and firing a pistol at the primary mirror of the largest telescope there, a 107-incher. Who’d want to shoot a telescope, for goodness sake? Fortunately, the damage was slight and the half-foot-wide bullet pits could be blanked over with only a miniscule degradation of performance.

The director of the McDonald Observatory at that time was the Chair of the University of Texas astronomy department, [Harlan J. Smith](#). BTW: McDonald Observatory had originally been established as a partnership between the University of Texas and the University of Chicago, by way of the UC affiliate, the **Yerkes Observatory** I covered with the Four “Greats” in A+StW two weeks ago.

Smith had been the sparkplug behind the construction of the 107” telescope at McDonald, pointing out to NASA the value of Earth-based astronomical observations that could support NASA research efforts. NASA has funded McDonald to make planetary science observations ever since, and Smith’s efforts there led to NASA support for other Earth-based observatories, such as Mauna Kea in Hawaii.

Over the course of his long career, Smith conducted productive research on a number of astronomical topics, including variable stars, variable quasars, and the planetary emission of radiation in radio/radar wavelengths.

But where Smith really excelled was in teaching, mentoring graduate students, and service to the profession.

Smith served on the National Academy's committee on the large space telescope that eventually became the *Hubble Space Telescope* (1966-1970), and he chaired the NASA Space Science Board on space astronomy and astrophysics (1977-1980), where he played a key role in the creation of NASA's Great Observatory program, the four major astronomical observatories (*HST, Compton, Chandra, and Spitzer*) I spotlighted over the past few A+StW installments. (I told you I'd come back to talk more about him!). Smith also chaired a committee that recommended that NASA fund SETI research.

Harlan Smith also was a BIG proponent of astronomy outreach to the public. While at McDonald, Smith developed the widely-distributed [Star Date](#) radio program. He also would develop the award-winning educational film series, *The Story of the Universe*.

Smith's efforts were recognized by his being awarded the NASA Distinguished Service Medal in 1991 and the Masursky Meritorious Service Award by the American Astronomical Society's Division of Planetary Science in 1991.

His final interest was on the return of humans to the Moon, and the use of the Moon as a base for astronomical observation. Toward that end, he took up a temporary residency at the Lunar and Planetary Institute, where I was a post-Doc. He spoke passionately about astronomy research and public outreach, and he took an interest in the work of the young researchers at LPI. We would eat lunch together from time to time, and he was always an enthusiastic source of innovative ideas. He was also one of the kindest and friendliest persons I have ever had the pleasure to meet, and he was a keen observer of everything around him. I recall driving him over to lunch one time. We had stopped at a traffic light, and the next thing I knew, he had hopped out of my car and was tapping on the window of a vehicle two cars over, to tell them they had an under-inflated tire! He was also a keen observer of matters internal, too. He was a runner who ran a set course every day, and he kept close track of his times. When he noticed that his performance had dropped a bit, he went to the doctor, even though he felt as good as ever. Alas, his slowing turned out to be caused by the cancer that would ultimately take his life.

The 107" telescope at McDonald was renamed the [Harlan J. Smith Telescope](#) in his honor. You can read more about it here: <https://alcalde.texasexes.org/2012/05/from-marfa-to-mauritania-the-rise-of-the-mcdonald-observatory>; be sure to read the part about the "Harlan's Globetrotters" and their expedition to Mauritania to reproduce the observations in 1919 by Sir Arthur Eddington of the deflection of starlight as it passes the Sun, thereby confirming predictions of Einsteinian relativity.

Many astronomers working today were aided in their success, directly or indirectly, by [Harlan J. Smith](#). He is sorely missed by all who knew him.

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