

The Hat Creek 85 foot antenna was dedicated in 1962. During its scientific lifetime, extensive maps of the galaxy in HI were completed. OH masers were discovered with this telescope, and when it later joined the university based VLBI network, unexpected results were obtained by the Hat Creek collaborators. Also in the 1960's a small 6 m telescope operating at wavelengths as short as 3 mm was developed at the HCRO and this instrument led to the discovery of the first polyatomic molecules NH₃ and H₂O in the interstellar medium. The H₂O was clearly maser emission consisting of tiny bright spots, and a two-element interferometer was built to better determine the positions of these sources. The short wavelength program evolved into the ten-element BIMA interferometer, capable of mapping to a resolution a little better than one arc second. This interferometer, along with a similar instrument in the Caltech Owens Valley, were the precursors of the ALMA system now beginning its scientific service in Chile. These two California interferometers have more recently been conjoined into CARMA at a high site in the Inyo Mountains of South Eastern California, where they continue their scientific programs.

This talk will review the innovations that were possible at Hat Creek, and the scientific products that resulted, along with a number of personal and professional lessons learned from a long career of developing and operating a university radio telescope.