HIGH ALTITUDE OBSERVATORY 69 Years • 1940–2009

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February 12, 2009

Bowie Medal Committee
American Geophysical Union
2000 Florida Avenue, NW
Washington, DC 20009 USA

Dear Bowie Medal Committee:

I highly recommend Charles Barth for the 2009 Bowie medal for his enormous contributions to Upper Atmosphere and Planetary Science. I have known Charley since 1969 when I first came to Boulder to work at NCAR but I also developed strong ties with the researchers at the Laboratory of Atmospheric and Space Physics. At that time LASP was a growing laboratory under Charley's leadership and it was at the forefront in investigating aeronomical processes that operate in the Earth's and other Planet's atmospheres. He and his students and collaborators performed very important rocket and satellite experiments and the data obtained from these experiments provided important information for my modeling efforts. Charley was always innovative in instrument design and he encouraged theoreticians and modelers to use and analyze his data to obtain a better understanding of the physical, chemical and dynamic processes that are operating in the atmosphere. At first, it was rocket data, then remote sensing satellite data involving all sorts of ultraviolet emissions that provided information on the aeronomical processes operating in planetary atmospheres.

I not only helped in the analysis and modeling of his various data, but participated on his student thesis committees, working with his post docs and even sponsoring several of his post docs at NCAR as well as working with him and the scientists at LASP. I have the highest regard for Charley, his innovation, his mastery of instrumentation, his insights and his ability to analyze data from his rocket and satellite missions. He has an incredible record of achievement and I am still working with him on analyzing and modeling his SNOE data to the present day – he continues to work on understanding all aspects of NO in the atmosphere even in his retirement.

Over the years LASP has grown tremendously and is one of the premier upper atmosphere and planetary institutes in the world. Dan Baker and Charley's engineers, scientists, students and post docs have not only continued to excel but the laboratory has grown into a major institution that conceives, designs, and builds instrumentation that fly on rockets, satellites, space shuttles, as well as building, managing, controlling and performing data analysis and science with their own satellites managed from LASP. This is an incredible accomplishment for a University laboratory and science department. I am not sure just how many students, post docs, scientific visitors, and colleagues have participated in the engineering and scientific investigations but there must have been an enormous number that are now in a leadership roles in NASA, industry,

government, and university positions. Charley has provided an environment and the leadership to stimulate a large number of space scientists, managers and engineers.

I cannot add much more than what is in the nominating letter and documented in his vita except that I think he is highly deserving of the 2009 Bowie medal for his fundamental geophysical research accomplishments as well as his unselfish cooperation in scientific research.

Sincerely yours,

Raymond G. Roble

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