October 30, 1989

Charles Kohlhase Mail Stop 264–443 Jet Propulsion Laboratory Pasadena, CA 91109

Dear Charlie:

I want to thank you, and JPL in general, for the kind and thoughtful consideration you gave me during the Voyager 2 Neptune encounter. The special meeting at JPL on August 26 was very enjoyable. I shall always remember it. The excitement reminded me of the early Ranger missions to the moon, and the Mariner 2 mission to Venus launched in August 1962. But the Voyager 2 mission was much better because of the tremendous technical achievement. It was really beautiful. You and your co-workers at JPL did a truly wonderful job. I send my warmest congratulations.

The interest that William Kosemann and Rex Ridenoure showed in uncovering and reporting the true history of the origin and early development of gravity propelled space travel (gravity-assisted trajectories) under your encouragement really surprised me. Chapter 7 "Slingshot Magic" in your book The Voyager Neptune Travel Guide, gave me much personal happiness. It also ment a lot to my family (especially to my mother).

Now that the excitement and the operational work of the Neptune encounter has past, I was wondering if you could do a special favor for me. When we met at JPL during the Neptune encounter, I briefly mentioned the unfortunate personal conflict I had in August, 1971, with Roger Bourke (my JPL supervisor at that time) regarding the invention and significance of gravity propulsion which made the Voyager multiplanet mission, and several other NASA high-energy missions possible. It involved a NASA Exceptional Scientific Achievement Award for the invention that JPL had approved in early August 1971. However, when I stated my acknowledgment and appreciation of the award in IOM 393.1-213, August 11, 1971, and sent a copy to Dr. Pickering, Bourke became very angry and used the occasion to have the award withdrawn. It was replaced with an award having much lower distinction (called the "Exceptional Service Medal) that only recognized my mathematical "formulation" of the concept (whatever that means) and not for actually inventing or conceiving it.

In view of the fact that JPL is now recognizing me in publications as originating the concept in 1961, I would like this recognition to be made official in the form of an appropriate award such as NASA's Exceptional Scientific Award — that JPL was going to give me 18 years ago in 1971. I am enclosing

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some background material, and the original citation write-ups which were previously approved, and which I believe are still appropriate. I made some minor changes in red since I would like the concept to become known as "gravity propulsion" and not "gravity-assisted" or "swing-by" trajectories. Charlie, if you could formally recommend the award with the necessary updated paper work, and send it to the appropriate JPL office, I would be most grateful.

Thank you again for making the Voyager 2 Neptune encounter so enjoyable for me and my family.

Send my regards to William Kosmann, Rex Ridenoure, and Kate for me.

Sincerely yours,

Dr. Michael A. Minovitch

President

MAM/dk Enclosures