



DEPARTMENT OF AEROSPACE ENGINEERING AND ENGINEERING MECHANICS
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Rex Ridenoure
Ecliptic Astronautics
1181, E. Howard Street
Pasadena, CA 91104

Dear Rex:

I thank you very much for your letter and the papers. Especially the latest paper from the Dresden meeting. I had misplaced my piece of paper with your name and telephone and I was worried that I had lost contact. In fact, I had already called the AIAA-office to see if they had a copy of your paper.

I have been very interested in the gravity-assist effect for several years now. I will teach about it very extensively next semester here. (I enclose the course outline). I have also collected several references. I will send you my notes soon. I need some time to find them, because this is the end of the semester and I have a hard time keeping my head above water at the moment.

I am well aware of the importance of M. Minovich his work on the subject. It is absolutely very important and powerful work. Among the most important Celestial Mechanics contribution during the Space Age! During my last summer at JPL, (1989), I talked with about 20 scientists about him, and they all agree.

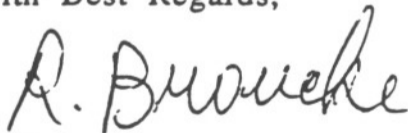
The only remark I would like to make would be on the historical aspect. Some old papers in Astronomy also talk about the gravity-assist phenomenon, whenever a comet passes close to Jupiter.

In relation to your recent paper presented in Dresden, I also would like to mention that I have several older papers on numerical integration of the restricted problem. I enclose a partial list of references. These references are actually taken out of my own Ph.D. Dissertation, written in 1961-1962.

I will send you some more notes soon. Incidentally, I believe I have almost all Minovich papers. (You will get my complete list with

references soon). But I do not have Vic Clarke's first T.R. on Interplanetary trajectories (around 1961). I would like to know what is the first JPL document (TM or TR) describing Interplanetary Trajectories, and who are the authors?

With Best Regards,

A handwritten signature in black ink, appearing to read 'R. Broucke'. The signature is written in a cursive, flowing style with a large initial 'R'.

R. Broucke

RB/trm