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A Newtonian Description of the Time Delay of Radar Echoes from Venus ALAN MARTINEZ, GARY HUNTER, JAMES ESPINOSA, University of West Georgia — After World War II, the advent of powerful radar transmitters made possible a fourth test of Einstein's General Theory of Relativity. I. Shapiro and his research group bounced radar waves off Venus when it was located at its superior conjunction; they found a time delay of 240 μsec compared to the expected Newtonian result. We have developed a modified Newtonian law of gravity that correctly accounts for the classical tests of GR, as well as the time delay. We will show how our result should be interpreted as the bending of the light ray in Euclidean space and the slowing down of the speed of light near the surface of the Sun.

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