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Large amplitude neutral density waves in the thermosphere, effect of meteor trails?

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Large amplitude neutral density waves has been detected in data of the DB1 accelerometer on board of the Italian satellite San Marco V. Study of the temporal distribution of these large amplitude waves indicated that both the annual and the diurnal variation of their occurrence frequency shows a course similar to that of meteoritic activity with extreme values at the same time. Two different types of these waves have been distinguised. One type would occur behind the meteorite not far from it along its path, where the meteorite penetrating into the atmosphere pushes out the air, its trail producing a density minimum. At the same time increased density appear at the flanks of the density minimum due to the piling up the air. The other type would occur behind the meteorite far from it along its path, where the density gradient directed from the flanks to the center of the tail a density maximum is produced with density minima at the flanks. These effects of the meteoritic tail in the thermosphere have been modeled to prove the agreement of the assumed meteoritic origin of large amplitude density waves.