function of the lift coefficient squared). The effect is less pronounced at elevated speeds. So far the drag depends on C_L irrespective of whether it is produced by the glider's mass at g = 1 or by a lower mass accelerated at elevated g-numbers during a pull-up maneuver. Clearly, energy losses due to the drag will lower the total energy reservoir of the glider accordingly; but the total energy available is proportional to the mass of the glider. The total energy consists of the potential energy which is the glider's mass times the earth's acceleration, times the height above the landing field, and the kinetic energy. The latter is the mass times the ground speed squared divided by two. Hence, the sailplane which carries water ballast will have a larger energy reservoir available compared to a light glider at the same height and speed. Therefore the accelerated empty plane will suffer more height loss compared to the heavier plane when the same distance is crossed at similar drag. This is the reason why different polars are used. In order to describe accelerated flight as it is executed during circling, the circling polar holds. A full account of the mechanics of accelerated flight was given by Frank Irving in his paper on "The energy loss in pitching maneuvers," T.S., V/4, 39-45, 1980. Dr. Mozdyniewicz should have made use of that analysis.

As far as his experiments are concerned, we know from measurements conducted by the DFVLR in Germany and by Dick Johnson that the evaluation of the sink rates is tedious work where many sources of error exist. In my opinion the author did not sufficiently discuss his methods nor have possible errors been analyzed. Therefore, his conclusions do not convince me.

Although no g-related analysis of flight modes through moving air masses was presented, Mozdyniewicz "observed here that the optimum results with these techniques should be obtained by flying through the downdraft portion (in the high wing loaded condition - positive g mode) before encountering the lift area...". Furthermore, he noted "the results upon entering the core of a strong thermal, or other strong lift area, at minimum speed in the zero g mode...". This is just the opposite of what a mathematical analysis of the mechanics of flight through vertically moving air masses would predict to be optimal.

For reference see the article in the same issue of Technical Soaring, by Justyn Sandauer. For further references see my paper "Load variation flight style and its implications to the theory of soaring," Technical Soaring, VII/1, 36-42, 1981, our paper (together with Lee Collins), "Dolphin-style soaring - A computer simulation with respect to the glider's energy balance," Technical Soaring, V/2, 16-21, 1978, and my technical note on "Energy gain in pitching maneuvers," Technical Soaring VI/3, 34-35, 1981.

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Send manuscripts to: TECHNICAL SOARING, c/o Dr. John McMasters, Rt. 4, Box 955, Vashon, Wa. 98070, USA. Papers should be typed, dual column, on 8½ by 11½ paper (see Technical Soaring format) if possible. Equations and symbols may be handwritten or typed. Figures should be capable of being reduced to single column width without loss of legibility. Photographs should be glossy prints, not matte. Each figure and table must have a caption. Papers should be accompanied by a 100-200 word abstract summarising, in a single paragraph, the subjects treated in the paper and the principal observations or conclusions of the investigation.