

## THE NEW LARGE BLAST SIMULATOR OF REITERALPE PROVING GROUND PART I AND PART II

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In 1982/83 a new large Blast Simulator at Reiteralpe Proving Ground was planned and constructed. The simulator consists of a tunnel system dug into hard rock. The first part of the is the structural support for the practical test work. The tunnel has a length of 110 m and a cross section of 76 m<sup>2</sup> for testing large military equipment such as tanks or vehicles.

The second part describes the function of the blast simulator- It is driven by 144 generators. Each generator has a length of 6 m, an outer diameter of 0.3 m and a volume of nearly 400 l. The loading pressure depends on the needed peak overpressure. The maximum loading pressure is 200 bars. The generators are shut by hard-Paper diaphragms and started by explosives. With a 16 channel instrumentation device it is possible to store pressure time histories at different points in the blast simulator. A computer prepares the data and plots, the necessary tables and graphics.

The blast simulator will be demonstrated by pictures and graphs- Some results will be discussed by pressure time histories and by computed graphs of the simulation area. The influence of the blast wave on the proving ground site will also be discussed, because the proving ground plants are not far away from the tunnel end.

Some results will be compared with those of the model blast simulator of the Ernst Mach Institut.