

“Operation Plowshare”, the civil engineering applications of atomic bombs, was fully described at the United Nations Conference for Peaceful Uses of Atomic Energy by two American scientists, Dr Gerald W. Johnson and Garry H. Higgins, of the Lawrence Radiation Laboratory in California. ‘Plowshare’ was the second great dream of atomic scientists that would prove to be an illusion, never to come true. If the panic was effective to forbid nuclear propelled ships to enter foreign ports through environmental pressure by fearful politicians, how much greater would be the atomophobia for bombs exploded in the countryside for simple engineering projects? Such logical deductions of ‘atomophobia’ were not discussed at Geneva.

Plans for Operation Plowshare were well advanced and even costs were for the first time fully released by Johnson and Higgins. ‘Project Carryall’ was a plan to use atomic bombs to blast two ditches through the Bristol Mountains in California for railway tracks and motor ways. The ditches were to be 3.2 km long, 100 m wide and 100 m deep, 22 bombs would be used, producing an equivalent explosive force of 1.73 million tons TNT. The US Atomic Energy Authority estimated £ 125 000 for a 10000 ton bomb and £ 210000 for a 2 million ton bomb. Workmen could resume their activities after one week and residents in nearby areas would be evacuated, but could return after one year with complete safety, it was stated. These figures were based on long experience with American underground atomic bomb tests in Nevada.

Plowshare had also been considered for a second Panama Canal, and Johnson and Higgins reported that the US House of Representatives had approved a feasibility study only a few days before the Geneva Conference. They had allowed 5 years for a survey, 2 years for blasting and 2 years for clean-up operations.

Another application of Plowshare was discussed at Geneva, a 100 km long canal from the Mediterranean to the Qattara Depression in north-west Egypt, lying below sea level. First proposed and surveyed by a British engineer G. Ball in 1925, such a canal would produce hydro-electricity and create a large inland lake. Its evaporation in the desert Sun was projected to create clouds, which in turn were to produce rain and thus open large desert areas for agriculture. This project was urged by M. Hedayat, the United Arab Republic’s Minister for Science, who stated that his engineers had already made extensive preliminary surveys.

I was glad that a day later I could file a report to London that Francis Perrin, the High Commissioner of the French Atomic Authority, had offered to provide atomic explosives to Egypt for the Qattara Canal, but that he preferred to do this through a new International Authority. Another dream!