

The difficulties of circumnavigating the Aleutian island chain has held the number of ships which visit western Alaska per year to approximately half a dozen. The canal on the Kra Isthmus will cut almost a thousand miles from the sea route between Japan and India, a project which would be most rewarding but would also be quite expensive. We estimate the cost of the Aleutian canal at \$20 million, while the Malay canal will need almost a billion-dollar investment. But for that money a sea-level canal can be constructed while conventional methods will produce either a very much less satisfactory lock canal or a terribly expensive sea-level installation.

Apart from harbors and canals which are so important to navigation, nuclear explosions can contribute to regulating rivers and to the increase of water supply. The most outstanding example of such an enterprise is probably to be found in Australia. The eastern Pacific Coast of that continent is well watered, but beyond the coastal range precipitation becomes exceedingly sparse. Compared to the Australian desert, our arid Southwest is like the Garden of Eden. The Australians are already engaged in the herculean labor of deflecting rivers from the eastern slopes of their coastal range toward the west. In an enterprise of this kind nuclear explosives, by the help of closing canyons or opening new outlets, will become most economic tools.

The first and simplest application of nuclear explosives in the Australian desert might be the use of big craters as catchment basins for water in the western desert itself. Like in the arid regions of the United States, torrential rainfalls occur occasionally in the Australian desert.\*

\*As I write this (January 1963) I read with satisfaction that the decennial downpour in West Australia has just recurred. Having wrongly ascribed our hard winter to nuclear testing, the news media have rightly refrained from using the same explanation for the Australian cloudburst. It seems to be axiomatic in public discussions that nuclear explosions can have only ill effects.