

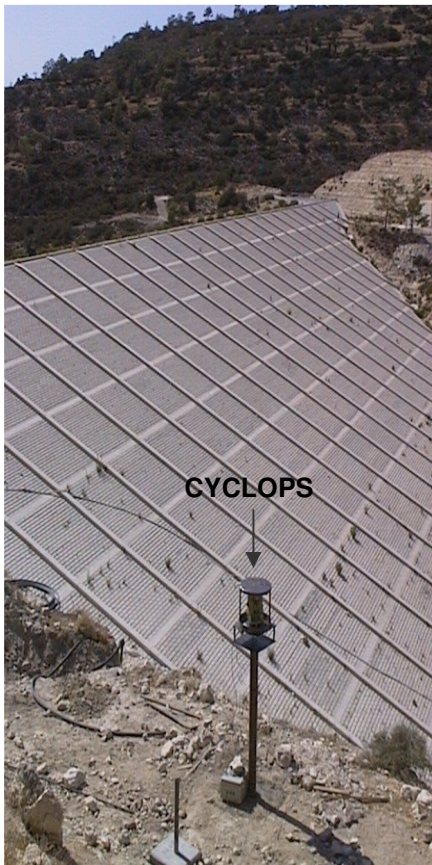
# ROCKFILL DAM

CYPRUS

## Real time monitoring of dam deformation during grouting works



Above : Rockfill Dam



Above : CYCLOPS monitoring upstream face

The earth dam of Rockfill is located in Cyprus, 20 miles west of the city of Limassol. Built in 1980, the construction of the dam was stopped because of increasingly large water seepage, and the appearance of springs downstream.

Following extensive investigations it was decided to enlarge the watertight upstream blanket, create a new section of grout curtain, and deepen the existing grout curtain.

To monitor the movements of the dam during the grouting process, Sol Data installed a real-time monitoring system, using CYCLOPS ("CYCLic OPTical Surveyor").

The CYCLOPS was placed on the abutment at the left bank and was operational throughout the grouting period. The upstream face of the dam was monitored using 54 prism targets. The results were displayed in real-time to the grouting engineer, with two sets of alarms activated when preset trigger values were breached.

<b>PROJECT DURATION :</b>	3 MONTHS IN 1998
<b>SCOPE OF WORKS :</b>	
<ul style="list-style-type: none"><li>• Installation of CYCLOPS on the bank and 54 prisms on the upstream face of the dam.</li><li>• Real-time monitoring and alarms.</li></ul>	