

Instrumentation

John Dunnicliff

Introduction

This is the sixteenth episode of GIN. A brief episode this time, because of my focus on moving my office and home across the Atlantic.

Future Articles

I have promises of two future articles, which should be ready for the December issue of *Geotechnical News*. First, an article by colleagues in Switzerland describing the motorization of digital lev-

els and total station systems, and the integration of the instruments into an automatic data acquisition system. This development has significant application for the monitoring of landslides. Second, an article describing the instrumentation used during construction of the new Chek Lap Kok airport in Hong Kong, a huge reclamation built in the ocean to replace Kai Tak International Airport, and now operational. It will seem strange to fly into Hong Kong and

not to have that alarming right hand turn just before landing!

New Book

Following on from the above message about an article on Chek Lap Kok instrumentation, a very worthwhile new book is available, titled "Site Preparation for the New Hong Kong International Airport". The book is subtitled "Design, construction and performance of the airport platform", and is edited by Graham Plant, Craig Covil and Robin Hughes, practitioners who played key roles in the successful completion of the project. The nearly 600 page book is comprehensive, practical, well illustrated, and should be of major interest to engineers involved in the planning, design and construction of marine reclamations. It is very impressive to find such a book, written by 'the people who did it' so soon after completion of the project (the first commercial plane landed at the airport on July 6, 1998 (the book was published on July 1). The book is published by Thomas Telford Publishing Ltd. in London (E-mail: ttpubs@ice.org.uk, fax: +44-171-538-4101) and is also available from ASCE Press in Reston, Virginia.



Chek Lap Kok airport in Hong Kong. Photo courtesy of Cathay Pacific Airlines

Training Courses in Geotechnical and Foundation Engineering

I've received the following information from George Munfakh of Parsons Brinckerhoff, New York.

A two-day training course on geotechnical instrumentation for surface transportation projects is offered by the National Highway Institute (NHI) of the Federal Highway Administration (FHWA). Upon completion of the course, the participants should be able to plan an instrumentation program, select the proper monitoring equipment, and understand the general role of instrumentation as related to the

construction of soil slopes and embankments, deep foundations, earth retaining structures, ground improvement and rock slopes. They should also understand the installation and calibration of instruments and the processing, presentation and interpretation of the collected data. John Dunnicliff is the instructor.

This two-day course is Module 11 of a comprehensive training course in Geotechnical and Foundation Engineering prepared and being implemented on behalf of NHI by Parsons Brinckerhoff, New York (PB). The four-

week course is divided into 12 modules (see page 31).

Each module is prepared as a stand-alone module, but is compatible with the others so that combinations of modules can be presented jointly. For Module 12, Practical Applications, a training manual will be developed and will include the practical application of design and construction issues, that are discussed in each module, to a fictitious comprehensive highway project. This manual will be used in conjunction with the other modules.

The training sessions for each module will include class lectures, interactive workshops, demonstrations of field and laboratory investigations and construction activities, discussion of case histories, student exercises and extensive use of microcomputers. A practical 'how to do it' reference manual will be prepared for each module.

The course is prepared for training of NHI and other FHWA staff, state and local department of transportation personnel, college and university faculty, consulting engineers, and engineering geologists who are involved with the design, construction and maintenance of surface transportation facilities.

Modules 1, 5, 6, 9, and 11 are being offered at the present time. Modules 3 and 7 are in preparation and will be available in Winter 98. The remaining modules will be completed next year. The full four-week course is tentatively planned for the fall of 1999.

For additional information or to request a course, please contact Lynn Cadarr of NHI at (703) 235-0528 or the Principal Investigator for the course, Dr. George Munfakh of PB, at (212) 465-5205.

Being There

While driving through Exeter in August I passed St. David's Station, built by Brunel as part of the Great Western Railway. Nearby were streets with the following names: Brunel Close, Isambard Parade, Telford Road. Gave me a warm fuzzy feeling!

Closure

Please send contributions for GIN to me at the following address:

Beaumont,
Mill Street,
Chagford,
Devon TQ13 8AW,
England
Tel: +44-1647-432209,
Fax: +44-1647-432379
E-mail: johndunncliff@ibm.net
(send as an E-mail attachment in msword please).

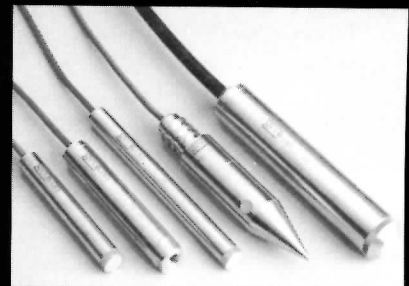
Down the hatch! (England)

Modules	Topic	Duration
Module 1	Subsurface Investigations	3.0 Days
Module 2	Contracting and QA/QC	0.5 Day
Module 3	Soil slopes and embankments	2.5 Days
Module 4	Ground Improvement	3.0 Days
Module 5	Rock Slopes	2.0 Days
Module 6	Earth Retaining Structures	3.0 Days
Module 7	Shallow Foundations	2.0 Days
Module 8	Deep Foundations	3.0 Days
Module 9	Geotechnical Earthquake Engineering	2.5 Days
Module 10	Geotechnical Aspects of Pavements	1.0 Day
Module 11	Geotechnical Instrumentation	2.0 Days
Module 12	Practical Applications	

Vibrating Wire Instruments

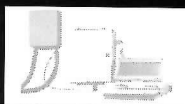
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- ▶ High resolution
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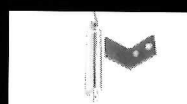
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Web: <http://www.solinst.com> E-mail: instruments@solinst.com

