

# Monitoring System

# BridgeWatch®



The World of Load Measurement and Stress Analysis

## System Features

- Data obtained using on site datalogger or PC based system
- Datalogger can be solar powered
- Datalogger equipped with fixed line or GSM modem
- Data automatically transferred to website
- Graphs and reports routinely generated
- Emails sent automatically whenever threshold exceeded or under alarm conditions



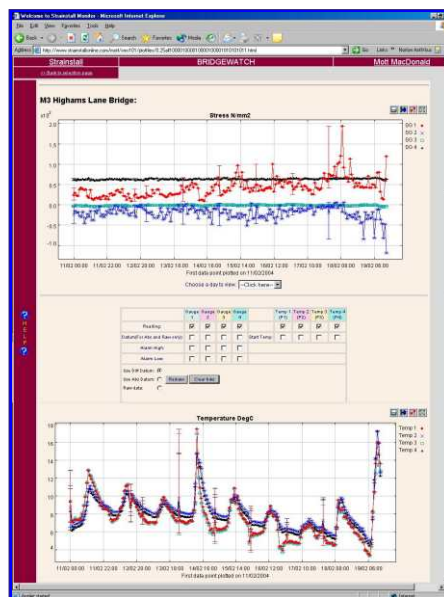
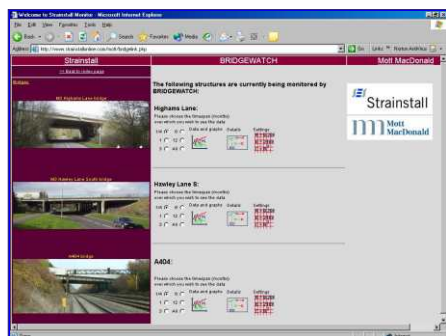
BridgeWatch® is a system developed jointly between Strainstall and Mott MacDonald on behalf of the Highways Agency to monitor the behaviour of highway bridge structures.

Depending on the structural features to be observed, a combination of special sensors are installed in the structure which are able to measure the following:

- Change in strain level of reinforcement or concrete
- Change in crack size
- Variation in stress levels in steel girders
- Displacement in composite structures
- Relative movements or deflections

An on-site data logger records the raw data from the installed sensors. This data is automatically downloaded via a remote telephone access to Strainstall's computer system, where it is processed and posted to Strainstallonline.com for retrieval as BridgeWatch®. Any variation in the measured state of the structure is then immediately available, accessible from the website by username and password.

Where appropriate, 'trigger alarm' levels may be incorporated into the monitoring system, which will provide notice to the Managing Agent when any critical characteristic of the structure varies beyond a pre-determined value.



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