LEARNING THE ROPES

MICHAEL NUGENT – MANAGING DIRECTOR OF THE CONCRETE AND CORROSION CONSULTANCY PRACTICE LTD looks at the advances and important role roped access plays in the industry today.

In the Beginning

The origin of abseiling is attributed to Jean Charlet, a mountain guide who lived in Chamonix in the French Alps from 1840-1925. Charlet originally devised the technique of the abseil method of roping down during a failed solo attempt to climb Petit Dru in 1876. Techniques have developed hugely since then, but the basis is the same.

The Main Difference

There is a fundamental difference between abseil and industrial roped access in that industrial roped access uses two ropes for ascent and descent – a working line and a secondary safety back-up line as opposed to the one rope used for abseiling.

The System Today

Industrial roped access today is a tried and tested form of work positioning initially developed from techniques used in climbing and caving, which applies practical rope work to allow technicians to access difficult to reach locations without the use of other costly and time consuming forms of access such as under bridge units, scaffolds and cradles.

Industrial roped access technicians ascend, descend and traverse ropes for access to a vast range of structures above and below ground while connected via. an industrial harness.

There are so many applications where industrial roped access can be used at a fraction of the cost of other forms of access and in a fraction of the time. Inspection, testing, surveying, maintenance and repair can be carried out to bridges, dams, tunnels, tower blocks, office buildings, jetties and many many more .....

Safety

Today the industry is a very safe and professional one with reputable companies investing much time and money in the latest equipment, training and on-going training/ evaluation. Industrial roped access technicians can access all areas of the structure quickly and remove dangerous concrete leaving the structure safe to pedestrians and vehicles below.

Service at its Best

The best service and deliverables are often achieved by specialist companies that employ their own trained staff – in the case of inspection, testing and reporting on buildings and structures, professional practices with trained staff not only in industrial roped access, but in the tasks required are the best way forward for a successful project.

Unfortunately, in recent years (probably as a result of the economic downturn) roped access people from such fields as maintenance and window cleaning have attempted to make the move into specialist areas such as surveying, inspection and diagnostic testing and whilst their roped access skills may be adequate they are not likely to have the technical knowledge required to report on a structure and it defects together with technically correct remedial measure advice and budget costings, not to mention professional indemnity insurance.

Only consulting engineers and surveyors who are trained and experienced in the disciplines required to inspect, test and report as well as having their own in-house roped access teams are recommended for a quality service.

Reports should include test results, CAD drawings and defect schedules as well as remedial measure advice with budget costings – all the companies who train their staff to IRATA standards offer a quality assured service with in-house and external training schemes with independent assessors carrying out the evaluation of technicians for the three levels of training certification.

Who Uses It

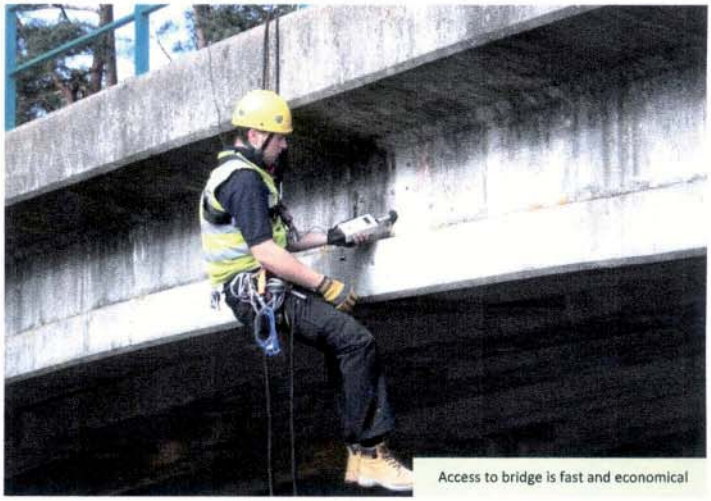
Industrial roped access is an excellent tool for consulting engineers and surveyors as it allows fast and cost effective access to a huge range of structures in order to allow inspection and diagnostic testing at touching distance.

The system has been used for many years now in health and safety related surveys where for example dangerous concrete is spalling from high-level buildings and structures and requires make-safe removal – fast! A condition survey and diagnostic survey can be carried out at the same time.

Tasks to give the required information for this are easily achieved using roped access techniques.

Technicians carrying out high rise block inspection

Roped access technician carrying out make-safe removal



Access to bridge is fast and economical

Procedures/Equipment

When working, a technician will always be attached to two separate points – each having an independent anchorage. Technicians should always be in teams of at least two with each member being trained in rescue techniques.

All equipment used is dated and has its own conformity certification with technician equipment inspection and conformity logs forming an integral part of the process, ropes for example are thoroughly checked prior to each use and are discarded after a set duration.

Carefully refined codes of practice and training/experience systems form an important part of the day to day tasks.

The equipment has become ever more sophisticated with a number of companies such as Petzl, DMM, and Black Diamond to name a few specialising in industrial roped access equipment.

An experienced technician will wear, carry and use on average in excess of 80 items of equipment at any one time during a normal ascent, descent or traverse.

The UK has a very good reputation for industrial roped access standards.

The writer travels extensively throughout the world and it is clear that few other countries have the dedication to the high levels of training and competence that is found in UK trained technicians

For many years if one was to mention the fact that you was going to access a clients building or structure using industrial roped access techniques they would turn pale and look visibly shaken, many meetings with health and safety managers would follow and eventually permission would be given, but by no means every time.

This fear of the process was borne out of lack of knowledge because the process was not widely known about and to the layman sounds dangerous.

It is only as the years have gone on that more people have become aware of the method and its excellent safety record together with the high levels of training, certification and quality equipment that clients and health/safety managers now accept it as the safe and credible access system that it is.

The entire training ethos for a roped access technician from day 1 revolves around total safety and unlike other forms of access i.e. a scaffold or cradle can have many people's input from start to finish and so more elements of risk of failure, either human or equipment – a roped access technician and team mate have total responsibility for themselves, their equipment and each other.

From surveying to maintenance to window cleaning and on to military use and charity drops – roped access has become widely known of and accepted throughout the UK and worldwide and will grow in use in coming years.

The writer is the Managing Director of The Concrete & Corrosion Consultancy Practice Ltd – Consulting Engineers with directly employed industrial roped access teams carrying out inspections and testing of buildings and structures across the UK and Worldwide.

He would welcome discussion on the topic and can be contracted via. michaelnugent@concorr.co.uk

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