



# Technical Simulation Consultants Ltd Newsletter

## TSC CLASSROOM SIMULATION SYSTEM SUPPLIED TO WAHA OIL



A complete classroom system for ten trainees and an Instructor has been supplied to the Waha Oil Company in Libya. Each workstation is able to run both the TSC SIM675 Oil Production System model or the TSC SIM676 Gas Production System model. These models can be run as stand alone models on each machine or as a network.

The DCS based models include all the major components of a typical oil and

gas production facility, including well heads, separation, compression, water treatment, gas dehydration, tank storage, pipelines and jetty loading.

The networked system is under the control of the Instructor's PC, which can remotely monitor all of the trainees' actions, and print or save any event log from any of the PCs.

A team of engineers from Waha Oil recently spent a week at TSC to approve the system before shipping to the Waha training facility in Tripoli. On arrival, the classroom will be commissioned by TSC engineers with full instructor training.

The contract followed a successful visit by engineers from the Waha Oil Company to the TSC office suite in Tripoli, which was reported in the March 2007 Newsletter.

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## TSC IN 'THE CHEMICAL ENGINEER'



TCE Website: <http://www.tcetoday.com>

TSC's Simulation Engineer Sam Jago featured in a double - page report in the Institute's monthly publication 'The Chemical Engineer'. It outlined the use of TSC simulators in the training and development of engineers and process operators.

With the declining number of engineering graduates and fewer people working in the process industry, personnel training

and development is becoming increasingly important. In the report, Sam explains how simulations at all levels can be used in the training and assessment of process plant personnel. Simple models of unit operations can be used to teach the basic principles of chemical engineering, whereas site specific DCS emulations can be used to teach the full complexity of a real process plant before it has even come on line. In virtual reality control rooms, TSC Simulations can be used to practise emergency procedures. This can help to prepare the operators to deal with the stress involved with the situation, whilst also helping to make communications with the emergency services more efficient.

A copy of the article can be found at <http://www.tscsimulation.co.uk> under News Headlines. For a hard copy contact: [I.done@tscsimulation.co.uk](mailto:I.done@tscsimulation.co.uk)

## TSC DEVELOPS A USB- CONNECTED SHUTDOWN PANEL

TSC has developed a cost effective USB connected Shutdown Panel for use with its emulated training simulators.

The panel uses standard push-button, key-switch and lighting components that would normally be found in the control room. The internal USB interface for a standard PC running a Windows operating system allows the panel's interactive use with the major TSC models. First supplied for the BP Shah Deniz simulator in Baku, Azerbaijan, the unit provides a cost effective interface for activating and displaying emergency shutdown, blow-down and key-switch activation procedures as a part of the training exercise. The panel is configured and built for each particular application, on a site by site basis.

Mounted on a standard Flat Screen Monitor with an adjustable stand, the shutdown panel is a flexible addition to all our major DCS emulated models.

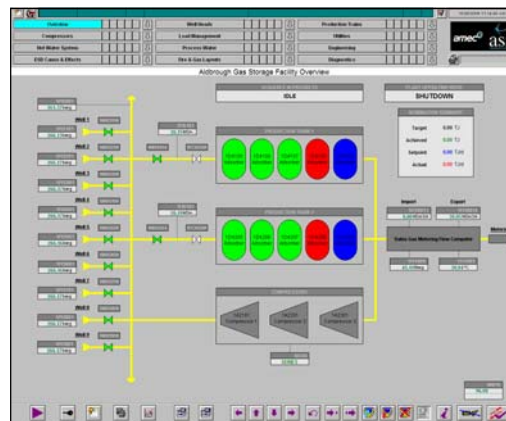


USB connected Shutdown Panel

For further information contact: [enquiries@tscsimulation.co.uk](mailto:enquiries@tscsimulation.co.uk)

*'TSC simulations have been used to test and validate aspects of the Aldbrough system at many times during the design process'*

## TSC TRAINING SIMULATOR FOR ALDBROUGH



Aldbrough Screen graphic

TSC is providing AMEC Group Ltd at Darlington with a training simulation for the Aldbrough Gas Compression and Storage Facility.

The training simulator includes a full emulation of the Aldbrough DCS system, including the alarms, trending and emergency shutdown systems. The simulation includes all of the major processes of the Aldbrough facility. It can be used to practise all start up and shutdown conditions as well as testing the response of operators to unexpected conditions on the plant.

The training simulator will be able to provide the plant with less downtime as operations that are not carried out regularly can be practised to familiarise operators with the system. The simulator will also be used as part of the on-going operator assessment carried out at the Aldbrough plant.

The training simulation is provided as part of an on-going project with AMEC. TSC simulations have been used to test and validate aspects of the Aldbrough system at many times during the design process, from the initial design of the compressor system through to the implementation of the control of the hot water system.

Many of the safety systems through the plant were also given rigorous testing through the TSC simulation. The process safety times and response times were tested for each of the major HIPPS systems of the plant under many different conditions. This ensured the plant could be run safely from a very early stage in the design.

For more information please contact: [enquiries@tscsimulation.co.uk](mailto:enquiries@tscsimulation.co.uk)

## LATEST VISITS NEWS -

### HOUSTON, TEXAS



Houston downtown– from our office window

The TSC office in Houston was in the eye of the storm as Hurricane Ike passed through the city on September 13<sup>th</sup>. On level 22 of the 33-floor Phoenix Building at Southwest Freeway, the views of the city and downtown are amongst the best around. TSC's Managing Director, Michael Bolton visited the office a couple of weeks later for a meeting with members of the ExxonMobil team responsible for training in Sakhalin.

As with the Tripoli facility, the office is co-located within the Training Partners Limited offices. It includes a full Trainer – 4 Trainee computer suite with a complete installation of the whole range of TSC simulation models for training. It may be used for local short-term training as well as providing a full trials and demonstration facility

During the visit, first discussions were held in the office with Fluor, in connection with future training simulator projects. Whilst in town, Michael also met with the AMEC Paragon team who work closely with the AMEC team in UK. Much of the TSC expertise in specific process and control/ESD system modelling for new plant validation is also of value to the AMEC Paragon team. After many years of support for the AMEC team in Darlington, it is hoped that this will also start a relationship for the future with AMEC in USA.

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### MOUNTAIN X RACE - MONT BLANC



Phil and the team before the race.

Last time we promised an update on how senior engineer **Phil Westmorland** and the team got on in June at the Mountain X Race in the

Savoie region of Mont Blanc.

The six-day race proved quite gruelling as the team had to endure extreme physical challenges at high altitude resulting in some low moments which included dehydration, altitude sickness and severe physical fatigue. However, the team recovered quickly and by the last day they had completed their first ever adventure race!

The boys were sponsored by a local company, Alpkit, who provided the team with race reports and support in the weeks and months leading up to the race.

I think it's safe to say the team found it very challenging - but worth the effort.

A full report on how the guys got on can be found online:

<http://www.alpkit.com/daring-deeds/saab-solomon-final-report/>

*'It may be used for local short-term training as well as providing a full trials and demonstration facility'*



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## TSC PEOPLE



TSC said farewell to Marketing Executive **Alison Bolton** at the end of August.

Alison, who had been with TSC for more than 2 years, had marketing responsibility for the TSC JaSim brand,

Including the launch of the JaSim website and for the Leonardo Project.

Lyndsey Done will now take over responsibility for all marketing aspects at TSC. We wish Alison all the best as she leaves to start training as a teacher.



**Ginny Morris** joined the team on 8th September as our new administrative assistant. She starts with a wealth of experience and TSC is very pleased to have Ginny on board.

She will take over main responsibility for the clerical and admin duties within the company, supporting the marketing and sales activities.

Ginny said: "It's lovely to be working with such great people and I'm very much looking forward to the challenges ahead."



**Hannah (centre) at the awards**

The National Shell STEP Programme is aimed to link students and employers with high-quality summer projects, and this year TSC was awarded a STEP placement for **Hannah Phipps**, a third-year Chemical

Engineering student from Loughborough. With only 35 places from the 200 applying, we were delighted when Hannah gave an outstanding presentation to the Awards panel covering the project she had undertaken for TSC. We wish her well for the final year of her degree, and perhaps we will meet her again in the future?



TSC are pleased to welcome **Jessica Guzzetta King** who joined this month as a simulation engineer.

Jessica, who studied for her Chemical Engineering degree at

UCL (University College London), worked for a year with BP at Wytch Farm, Dorset.

Not only does Jessica play water polo for the national league, she has also taken up ice skating lessons at the National Ice Arena since moving to Nottingham.

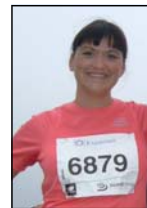
Jessica said: "I'm enjoying the variety of work and projects that I am currently involved with. Also I'm pleased that the team have given me a warm welcome."

## STUDENT PLACEMENT

TSC welcomes University of Loughborough student **Luke Johnson** this month, who joins us for 45 weeks as part of his DIS (Diploma of Industrial Studies) qualification in Chemical Engineering.

His initial project is to assist with our latest upgrade on the Generic Basic Model range. After his placement, Luke will return to University to complete his Master's Degree.

## ROBIN HOOD MARATHON



Marketing Executive **Lyndsey Done** completed her first half marathon this month in an heroic 2 hrs 25mins. She said even though it was very hard work it was worth it. Lyndsey

raised over £300 for the Maggie's centre, Nottingham. The centre helps people adjust to living with cancer and offers a pioneering support programme. For information: [www.maggiescentres.org/](http://www.maggiescentres.org/)