

The Petroleum Exploration Society of Great Britain

a report by

Stephen Pickering

President, Petroleum Exploration Society of Great Britain (PESGB)

A small seismic event took place in north-west Europe in December 1964, but it is unlikely that those who witnessed it realised the lasting impact it would have on the development of the North Sea oil and gas industry or, for that matter, on the lives and careers of many thousands of geoscientists and engineers.

What was the event and why was it so significant? Well, in December 1964, the Petroleum Exploration Society of Great Britain (PESGB) was founded by a group of forward-thinking petroleum explorationists to promote the exchange of views and information on the geology and geophysics of the North Sea. This was remarkable since, at the time, the first North Sea discoveries on the UK continental shelf, the West Sole and Viking gasfields, were yet to be made. The significance of this is that the PESGB has had a lasting impact on the development of geoscientists in the region and the subsequent success of North Sea exploration and production.

The first PESGB Chairman was the late Bob Dyk, Managing Director of Hamilton Brothers Oil and Gas Ltd, under whose leadership Hamilton would make a number of famous North Sea discoveries and innovations. These included the Argyll Field, which in 1975 was the first North Sea field to produce oil, and also the world's first floating production, storage and off-loading (FPSO) facility. I was extremely privileged to work as a junior interpreter for Bob Dyk for a short period in 1981–1982 before he retired.

The vision of the PESGB's founders was both inspiring and radical. The PESGB would provide a forum for exploration people to meet each other, and it would hold monthly meetings to which eminent, qualified speakers on the geology of north-west Europe would be invited. Lectures were not published or reported in order to permit speakers to express opinions informally. The Society would be low cost "so that any working geologist could join", and it would have officers who would change annually, with the past Chairman the only *ex officio* member of the new council. Finally, it would not only embrace explorationists from oil companies, but would also encourage membership of service company employees. The Society has remained true to these core values for over 43 years.

Since 1987, the Society has been a registered charity, and its mission statement is: "to promote for public benefit, education in the scientific

and technical aspects of the petroleum industry". The Society achieves this objective through lectures, training courses, conferences and geological field trips for its members, and through charitable donations to universities and public bodies.

Lectures, Conferences and Rocks

The first lecture was held in January 1965 at the Westbury Hotel in Bond Street, London. I cannot tell you who spoke, what he or she spoke of or how many listened, but they must have made an impact. The initial membership was around 40; 43 years and over 1,000 lectures later, the Society is still going strong. Today it has over 5,000 individual members and 75 sustaining company memberships. In order to remain inclusive, membership is just £25 per annum. The minimum sustaining company membership is just £150 for supermajors and small consultancy companies alike.

As the Society has grown and the industry has expanded, it has established branches in Scotland, North Wales and Ireland, all of which hold lectures on a regular monthly or quarterly basis. In addition to monthly lectures, the PESGB hosts conferences, and three are now firmly established in the industry calendar.

With the the digital revolution, the need arose to inform members about interpretation, workstation and exploration geoscience technologies. This resulted in the Petroleum Technology Exhibition (PETEX) biennial series of conferences. PETEX is now the major UK geoscience exhibition, showcasing the latest advances in petroleum technology. It consistently attracts 3,000 delegates and over 100 exhibiting companies. In 2008, the PESGB will host its 11th PETEX conference at the Olympia Conference Centre, London.

Collaboration with other societies has been key to enabling the PESGB to fulfil its charter. In 1974 the PESGB, together with the Geological Society of London and the Institute of Petroleum, hosted the first Petroleum Geology of NorthWest Europe conference at Lancaster Gate in London. The opening address, given by the late Right Honourable John Smith MP, Minister of Energy, was recognition of the importance the Government attached to the event. Planning is now well under way for the seventh conference, which will be held at the Queen Elizabeth II Conference Centre, London in March 2009. The published proceedings of this conference series are the seminal works for anyone wishing to learn about the petroleum geology of the North Sea region.

Recently, the Society has recognised and responded to the interest of some explorationists switching from the maturing North Sea to Africa and beyond. Held in collaboration with the Houston Geological Society, the sixth annual Africa conference was held this year in Cape Town. PetroSA were the hosts, and this year's conference theme was 'Africa's Petroleum



Stephen Pickering is President of the Petroleum Society of Great Britain (PESGB) and a Geophysical Adviser for WesternGeco. Since 2000 he has worked for Schlumberger, where he is Project Manager of the company's Career Management Initiative for over 5,000 senior technical employees. Mr Pickering, a chartered geologist, is a Fellow of the Geological Society of Great Britain and a member of the European Association of Geoscientists and Engineers (EAGE). He has a BSc in geology and an MSc in stratigraphy from London University.

Systems: From Outcrop to Deepwater'. Themes of other conferences held include data management, seismic matters and the annual Production and Development Conference and Exhibition (DEVEX) conference in Aberdeen. The latter, focused on reservoir development and production, is organised in collaboration with the Society of Petroleum Engineers (SPE) and the Aberdeen Formation Evaluation Society (AFES). More recently, the PESGB participated in the annual conference of the European Association of Geoscientists and Engineers (EAGE).

Geological field trips to view reservoirs and source rocks at outcrop and reservoir and trap analogues are core to the PESGB educational programme. Within months of the Society's formation, the first PESGB geological field trip to the Jurassic outcrops in Dorset took place, led by Professor Scott Simpson of Exeter University and Geoff Brunstom of BP. To date, there have been over 140 PESGB field trips, including to locations such as the Caspian Sea and Morocco, as well as the classic British locations. Dick Selley, Emeritus Professor of Geology at Imperial College London (who was recently made an honorary member of the Society), led his first field trip in 1974 and his most recent to the now classic Denbies Vineyard in 2006. I went on a recent PESGB field trip a few months ago to the outcrop of rocks in north-west England that forms the reservoir in the nearby oil and gas fields of Liverpool Bay, an area in which I worked as a geophysicist in the late 1980s.

Public Benefit and Education

Historically, there have been close ties between the PESGB and universities. I recently attended the annual 'Barrel Awards' at Imperial College London, one of the most enjoyable tasks required of the President of the Society. The Barrel Award, sponsored by the PESGB, is a team prize given as part of the MSc in petroleum geology to the best assessment of petroleum resources in a frontier basin. I never managed to ascertain whether the Barrel Award refers to a barrel of oil or a barrel of beer, although my personal experience is that most geologists are equally adept at finding either.

Listening to the excellent presentations, I recalled my own post-graduate studies a decade after first graduating in geology. The science of stratigraphy had radically changed with new theories and knowledge, including sequence stratigraphy, chemostratigraphy and seismic facies analysis, subjects unheard of in my days as an undergraduate. This recognition that knowledge has a 'sell by' date reminded me of the importance of continuously developing professional learning and skills throughout our careers.

The PESGB recognises that to find new resources in previously 'explored' basins, education is critical to providing new insights; despite what anyone says, it is not a matter of luck or intuition. In 1981, the PESGB formed the Joint Association for Petroleum Education Courses (JAPEC), a venture with the Geological Society of London and Imperial College. For nearly 20 years, JAPEC fulfilled the Society's objective of public education, presenting many courses, including the acclaimed 'Introduction to the Petroleum Geology of the North Sea' by Ken Glennie, Shell, and 'Introduction to Petroleum Geology for Non-geologists' by Professor Bob Stoneley, Imperial College. The latter had over 1,000 attendees, and books for both courses are still available from online bookshops.

In the late 1990s I was briefly a trustee of JAPEC, before it folded, a casualty of declining demand in a low-oil-price world where training

was a by-word for waste and staff levels were vigorously pruned. However, things have changed: with high oil prices the industry is once again recruiting. The industry is facing a dual crisis with the imminent 'big crew change' and 'peak oil'. The demand for people that can be satisfied only by overall lower levels of experience can be offset by accelerating learning. The Society is actively considering how we can once again support the provision of selected classroom training for the benefit of the membership and the public, and in 2008 will run a new North Sea Petroleum Geology course – hopefully the first of many.

The Society also has a role in educating not just those who work today in the industry, but in encouraging students to take up earth sciences in the future. In recent years this has meant supporting a variety of good causes, including the Earth Science Teachers' Association (ESTA) with their website and annual conference, a virtual seismic atlas project at Leeds University, preservation and giving public access to copper mines on Alderley Hills, Cheshire and supporting various small museums.

However, education is not all about classrooms and field trips, but also about experience. Experience is gained through meeting people and exchanging information, and the PESGB facilitates this through its newsletter, www.pesgb.org.uk and a number of key events. Since 2003 the PESGB has hosted an annual Prospect Fair. In the beginning, the original intention was to give fledgling oil companies a forum to market their prospects. Four years later, a number of prospects shown at the original Prospect Fair have already been successfully drilled. Hopefully, the Society has had a significant impact on the personal success of geologists and many start-up oil companies, as well as contributing to maximising recovery of national economic resources. A healthy flow of high-quality prospect opportunities continues to be created, and the 'prospects' for the 2007 Prospect Fair at the Business Design Centre, London are looking great. The final event in the year, and certainly the highlight for me, will be the President's Evening, an opportunity to look back, renew friendships and plan for the future.

Today and Tomorrow

The PESGB today has a permanent office and an eager staff of four, who brilliantly organise and administer the Society on behalf of Council. The Society is sustained not just by membership fees, but also through the diligence of the Council, the enthusiasm and loyalty of the membership, the many volunteer lecturers and field trip leaders and the generosity of the oil and service companies (including my own, Schlumberger) who willingly contribute people and sponsorship. Consequently, nearly all the courses and conferences the PESGB runs are provided to the membership at cost through this generosity.

The crisis in experience caused by the 'big crew change' and demand for exploration caused by the threat of 'peak oil' are such that in future the PESGB will continue to have a significant role in our industry, as the need to educate has never been greater. The Society's objective to "promote for public benefit, education in the scientific and technical aspects of the petroleum industry" will be achieved through adhering to the core values of its founders of inclusiveness, openness and collaboration.

The PESGB has a long and distinguished history, and for me it has been a considerable honour to be entrusted with maintaining this heritage as the Society's President in 2007. ■