THE ASSOCIATION
FOR THE STUDY OF PEAK OIL
"ASPO"

NEWSLETTER No 20 – AUGUST 2002

ASPO is a network of scientists, affiliated with European institutions and universities, having an interest in determining the date and impact of the peak and decline of the world's production of oil and gas, due to resource constraints.

It presently has members in: Austria, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Sweden and the United Kingdom

Mission:
1. ***To evaluate the world's endowment of oil and gas;***
2. ***To model depletion, taking due account of economics, technology and politics;***
3. ***To raise awareness of the serious consequences for Mankind.***

Newsletters on Websites
This newsletter and past issues can be seen on the LBSystemstechnik website http://www.energiekrise.de (Press the ASPONews icon at the top of the page) and the ASPO website www.isv.uu.se/iwood2002

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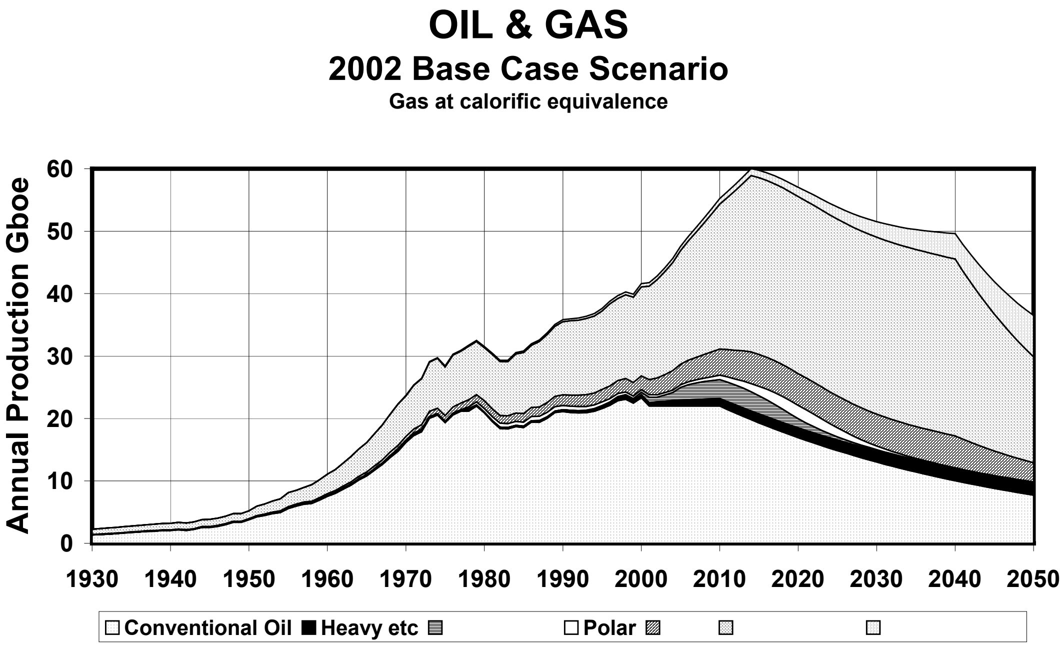
Please note that the present e-mail address is being closed to try to escape from the purveyors of Viagra and worse. The new address is aspoone@eircom.net

Frontispiece – the general depletion picture



ESTIMATED *CONVENTIONAL OIL* PRODUCED TO 2075 IN			
Known Fields		**New Fields**	**All fields**
Past	Future		Total
873	**884**	**143**	**1900**
In billion barrels (Gb), including condensate from oilfields. Status end 2001			

PRODUCTION RATE FORECAST Mb/d	**2005**	**2010**	**2020**	**2050**
Conventional Oil	**60**	**60**	**46**	**21**
US-48	3.5	2.6	1.4	0.2
Europe	4.9	3.6	1.9	0.3
Russia	8.4	9.2	4.8	0.7
M.East Gulf	17	22	21	12
Other	26	23	17	8
Heavy, bitumen etc	2.8	4	5	6
Deepwater (>500m)	5.6	8	4	0
Polar	1.2	2	6	0
Natural Gas Liquids	9.0	11	14	8
Total	**79**	**85**	**75**	**35**
Base Case Scenario: flat demand for conventional oil due to recession; M.East swing role ending in 2010				

83. Country Assessment Series - United Kingdom

The United Kingdom had a strong Neolithic culture, highlighted by the famous astronomical observatory of Stonehenge, long before falling to the Romans in 55 BC. The Roman occupation lasted only a few centuries, but left an indelible mark. It was followed by the dark ages of Viking and Saxon invasions, culminating in the arrival of recycled Danish Vikings from Normandy in 1066, the last military invasion.

General stability brought political and economic progress, including the creation of Parliament, as one of the earlier democratic institutions. The Kingdoms of Wales and Scotland were absorbed into what, in 1801, became the United Kingdom, and Ireland was generally subjugated. Seafarers stimulated trade and exploration throughout the world, paving the way for the British Empire. At its peak in the reign of Queen Victoria, Britain had become the premier world power. Great achievements were recorded in the fields of science, literature and culture.

Britain also led the Industrial Revolution during the 18th Century with mills powered by water to make cloth for export to its colonial markets. The wealth, so created, led to the rapid growth of capitalism, banking, usury, investment and a financial economy. Self-sufficient peasants became wage-earners, consumers and tax payers, many working in gruesome industrial slums. Mechanisation based on iron and steel took many directions. Iron smelting made new demands for energy, at first from firewood, but later from sea-coal, namely detrital coal that had been washed from cliff outcrops and could be collected on beaches. Coal mining followed, at first from shallow pits. The development of steam driven pumps made it possible to deepen the mines below the water table. The pumps were later adapted to provide a steam locomotive for transport, opening the age of the railway that further stimulated trade. The internal combustion engine, using gasoline refined from crude oil, was an evolution of the steam engine with its pistons turning wheels.

Britain successfully resisted and eventually defeated an epoch of French expansion under Napoleon, but during the 19th Century found itself increasingly threatened by a newly united Germany that was overtaking it in industrial prowess and was seeking its own colonial markets. These pressures eventually led to two world wars during the 20th Century, in which the United States intervened to its own advantage, especially in regard to accessing Middle East oil, that was previously a British and French sphere of influence. Although victorious, Britain was mortally weakened by the wars and voluntarily gave up its Empire, retreating to its island to live in the shade of its former glory. It half-heartedly joined a newly united European community, preferring to retain its particular links with the United States, which eventually replaced the old empires of France and Britain with a new global economic, and now military, hegemony driven by, and for, the dollar.

Massive immigration from the former Empire followed the last War, being permitted at first in a sense of colonial responsibility, but later exploited as a source of cheap labour. The indigenous population aged from falling fertility due to affluence, but the overall population expanded to 60 million with the immigrants and their descendants making up more than ten percent.

Most of Ireland had seceded in 1922, with 26 counties becoming a republic in 1947, leaving a form of civil war to continue in the remaining six counties of northern Ireland. Scotland and Wales are now recovering earlier autonomies with independent legislatures; and various regions within England are heading in the same direction. Various immigrant cities have developed, some becoming almost small replicas of Karachi and Kingston, Jamaica. Britain has moved far from its grand imperial past, although echoes remain.

Britain has had a long oil history, both within its own territory, and through the early prominence of its oil companies in the Middle East, Mexico and Venezuela. BP was the flagship with major holdings in Iran, Iraq and Kuwait, while Shell, an Anglo-Dutch enterprise, had a strong position in the western hemisphere. BP was once almost a national oil company with a 51% government shareholding and corresponding responsibilities, but Mrs Thatcher disposed of that. Formerly the world's largest vendor of crude oil, it now relies more on merger and acquisition, exemplified by the recent successful take-overs of Arco and Amoco. Its Chairman and Chief Executive now sit on the board of Goldman Sachs, underlining its transition to a financial institution. It claims that BP stands for *Beyond Petroleum,* but cynics are wont to say it stands rather for *Blair Petroleum*, alluding to its impressive political influence (see Evening Standard 19.07.02).

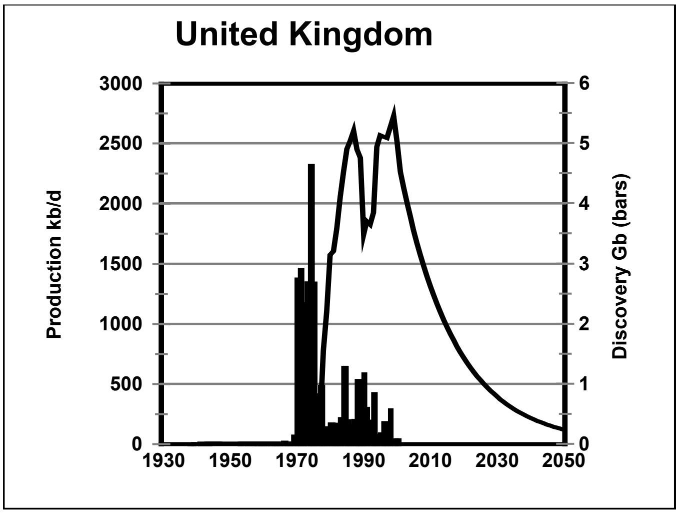
Non-conventional oil shale had been mined in Scotland in the 19th Century, leading to pioneering refinery processes, and minor oilfields had been found onshore in and before the Second World War. But the great thrust came during the 1960s, with the development of the offshore extensions of a prolific belt of gas fields, derived from deeply buried Carboniferous coal measures, that had been discovered in Holland in 1957. Exploration moved northwards in the North Sea to be rewarded by the discovery of Jurassic rifts, containing prolific source rocks, deposited 150 million years ago, which yielded one giant field after another.

Britain entered a phase of socialist government after the War, such that the early stages of its oil boom were dominated by state entities : the British Gas Council and the British National Oil Company. That ended with a reaction to excessive Trade Union demands, especially from the coal workers, leading to an eruption of new capitalism under Mrs Thatcher, who was able to undermine the miners' control of energy by the new indigenous oil supplies that were coming ashore. The state entities, which could have managed long-term depletion to the national interest, were disbanded, and the major international oil companies, along with many small independents, were given every encouragement to deplete the resources as fast as possible.

Production soared as the giant fields were brought on stream with the help of impressive advances in offshore engineering. An early peak was reached in 1987 at 2.6 Mb/d, before production fell as a consequence of a major accident at Occidental Petroleum's substandard Piper Field that called for widespread revisions to operating practices and installations. Production growth later resumed, reflecting a second cycle of smaller discoveries, to reach its overall peak in 1999 at 2.7 Mb/d.

Although the rich deposits of the North Sea dominated production, some other lesser finds were made elsewhere. Lower Jurassic source-rocks gave a solitary large field in Dorset in the otherwise barren English Channel and Western Approaches, and a Carboniferous gas field was found in the Irish Sea. Efforts to find another oil play on the Atlantic margin continue but are likely to be doomed, because the essential prolific Jurassic source-rocks, if present at all, are now too deeply buried to generate oil. The isolated large deposits West of the Shetlands are effectively freak occurrences depending on unique re-migration from earlier accumulations. The scope for gas in this province is more promising, but it will not be cheap.

United Kingdom		
Rates Mb/d		
Consumption	2001	1.65
Production	2001	2.26
	Forecast 2010	1.31
	Forecast 2020	0.72
Discovery 5-year average (Gb)		0.27
Amounts Gb		
Past Production		18.78
Reported *Proved Reserves*		4.93
Estimated Future Production to 2075		
	From Known Fields	11.1
	From New Fields	2.1
	Future Total	13.2
Total Production to 2075		32
Current Depletion Rate		6.1%
Depletion Midpoint Date		1998
Peak Discovery Date		1974
Peak Production Date		1999



Britain's brief oil age is in decline. The major companies are withdrawing to be replaced by smaller companies, mopping up small satellites and step-outs, as well as scavenging tail end production from ageing platforms.

Oil production is set to decline at about 6% a year on the basis of current depletion rate, falling to about half its present level by 2010 and ten percent by 2037. Some departure the long-term trend may however be expected, as production in many of the small fields, which currently hold up production, will come off plateau in a year or two and fall precipitately. Britain currently consumes 1.65 Mb/d, making it a net exporter. With flat demand, consumption will exceed production around 2007, with the percentage of imports set to rise to 20% in 2010, 50% in 2020, and 95% in 2050. Falling demand from recession would however reduce these import needs.

Gas production is more difficult to forecast due its very different depletion profile. About 3360 G m3 have been discovered, of which about half have been consumed. Production stands at 106 G m3; with consumption at 95 G m3. Making some allowance for new finds, it might be argued, taking a plateau model, that production can be maintained at around this level til about 2015, to decline thereafter at about 20% a year to exhaustion in 2035. However Transco, the pipeline company, makes a more dire forecast with a peak in 2000 followed by a decline of 2%, while demand is rising, such that the country will have to import as much as half its needs by 2010.

It is difficult to imagine the condition of the country fifty years hence. Its own oil and gas will have been substantially exhausted. Failure by the government to recognise natural depletion until too late will have left the country unprepared. Concerns about safety and the environment will have likely delayed the development of nuclear power. Re-commissioning old abandoned coal mines will prove difficult and costly. The growing contribution of solar, wind and tide power will be useful but insufficient.

Soaring energy prices from around 2010 (or sooner in the event of a US attack on Iraq) will, it may be supposed, finally lead to falling demand as recession bites in earnest. Even if financial control of semi-slave labour in distant lands, ameliorates the internal stresses, it is difficult to avoid the conclusion that the country will find itself unable to support anywhere near its present population: a population, which by then will be, in large measure, of immigrant and mixed extraction. The iron-grip of oil depletion will have left its claw marks.

84 Soaring cost over-runs on Non-conventional oil production

Several reports stress that the costs of expanding *Non-conventional* oil production in Canada are running far over budget. The Edmonton Journal of July 26th for example reports that Shell's Athabaska oilsand project is now expected to cost $5.7 billion compared with a budget of $3.8. Shell Canada's second quarter's earnings fell in parallel to $73 million, down from $314 last year. Suncor's production costs have risen to $16.25 a barrel, far above a targeted $9.

Extraction also makes heavy demands on water, with as much as 26% of Alberta's underground freshwater being used in oil recovery, with even more needed to support expansion (see Platts Oilgram). The government is considering making a charge for this water, which will lift oil extraction costs further. As much as 4 barrels of water are used for every barrel of oil extracted, with conventional waterflood and enhanced recovery making even more demands. Apparently it is not only the cost of the water that is of concern but its availability.

The resources of *Non-conventional* oil may be huge, but they are no substitute for *Conventional* oil in terms of cost and extraction rate. Their entry will therefore have a negligible impact on overall peak.

85. Future Conferences covering Oil Depletion

Several new conferences, touching on the issue of oil depletion, have been announced

October 30th

Oil Depletion organised by the Danish Association of Civil Engineers in Copenhagen

October 31st - November 2nd

Ireland's Transition to Renewable Energy organised be FEASTA in Thurles, Ireland

November 14-16th

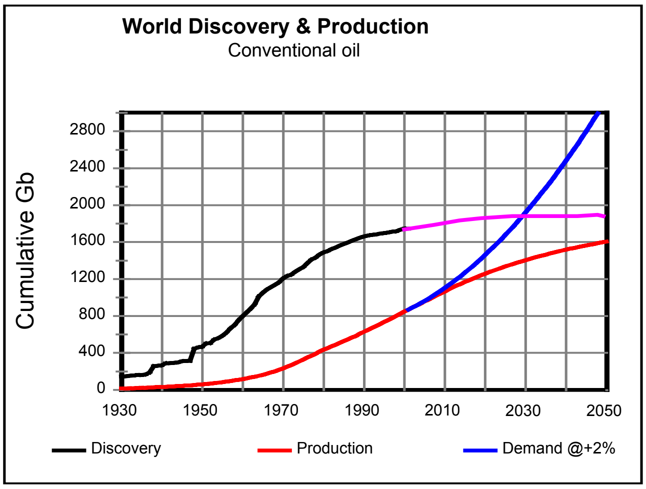
Climate Change in Italy and the Mediterranean; IGBP, Paestum, Italy

Spring 2003

World Energy Forum, International Centre for Theoretical Physics, Trieste

86. Corporate Confession

Robert Anderson, the former head of Arco, put it bluntly when he said, a few years ago, that the oil industry was "a sunset industry – and the sun is low in the sky". Oil executives to-day try to put a brave face on the situation choosing their words with care. One reason is to try to encourage new recruits, as their staff is ageing about as fast as their reserves.



Harry Longwell, the Executive Vice-President of Exxon-Mobil, did however come close to confessing to depletion at the Offshore Technology Conference. He said that oil demand would have to rise at 2% a year, to sustain economic growth, before admitting that about half the volume needed to meet such demand in 2010 is not on production to-day. He estimated the cost of providing it at a trillion dollars, or 100 billion a year, much more than is currently being invested. This is an oblique way of saying that supply will not in fact rise at 2% a year.

This is made rather plain by the attached graph, although it is not the full picture. The black line plots the discovery of oil and gas liquids, based on *Proved & Probable* Reserves, with revisions backdated to their discovery. The inflection to decline came in 1964. The trend is extrapolated forward in purple, giving a total of 1900 Gb. The red line depicts past production of conventional crude oil and condensate, projected forward on the assumption of the same 1900 Gb total with flat demand to 2010 followed by decline at the then depletion rate. On this basis, there will still be about 300 Gb left to produce after 2050, so we are evidently not about to run out. The blue line shows a future growth of demand at 2% a year.

It is clearly not attainable. Production in oilfields declines slowly due to the physics of the reservoir, so it would be physically impossible to deplete the reserves by 2030. It is very evident that a 2% growth in supply is not attainable, which, if Mr Longwell is correct, implies that economic growth is not either.

87. Forecasting Global Oil Supply 2000-2050

The M.King Hubbert Center for Petroleum Supply Studies dedicates its June issue to the above subject, including tables showing realistic reserves and future production forecasts by country.

88. Venezuela

In an editorial in the May issue, the *Petroleum Review* assesses the predicament faced by Venezuela in the face of depletion. It needs oil revenue to fund a range of much needed government programmes, yet it needs to invest in ever more infill drilling to offset the natural decline of its ageing oilfields. Should it

i) encourage foreign investment?
ii) allow capacity to shrink by using oil revenue for other purposes?
iii) become an ever more nationalistic member of OPEC, encouraging rigid quota compliance to drive up prices?
iv) have another coup?

Since infill drilling is a losing battle, no matter who pays for it, Option iii) seems the only sensible policy. The US, which evidently supported the failed coup against President Chavez, would no doubt encourage Option iv). A passage from the manuscript of an as yet unpublished penetrating book explains why.

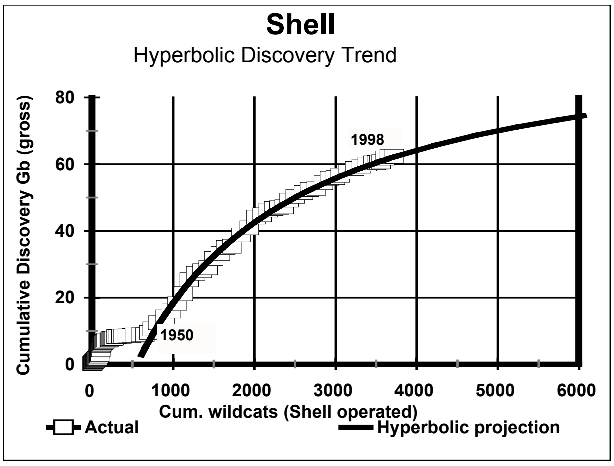
> Soon after US petroleum production had peaked, official policy began emphasizing "free trade" as a global panacea for unemployment, under-development, despotism, and virtually every other economic or political ill. Through its manipulation of the rules of global trade, the US sought to maintain and increase its access to natural resources worldwide. Those rules—written primarily by US-based corporations and encoded in policies of the International Monetary Fund (IMF), the World Bank, and the World Trade Organization (WTO), as well as in treaties like the North American Free Trade Agreement (NAFTA)—essentially said that wherever resources lie, they must be available for sale to the highest bidder; whoever has the money to buy those resources has a legally defensible right to them. According to those rules, the oil of Venezuela belongs to the US every bit as much as if it lay under the soil of Texas or Missouri. Meanwhile technology, or "intellectual property," was regarded as proprietary; thus nations with prior investments in this strategy were at an advantage, while "underdeveloped" nations were systematically discouraged from adopting it.

89. Improving Oil Company Accounting

The structure of a manufacturing business comprises the plant, which is an asset, and the ongoing business of purchasing raw materials, fabricating products and marketing. Although there are various tricks of treating an operating cost as an asset and in the manner of reporting the details of debt, amortisation etc., it should be well within the grasp of any honest accountant to measure the assets, profit and loss.

But the oil industry is different in one critical respect. In addition to extracting, transporting, refining and marketing, it has to find the oil before it can produce it. What it finds lies far underground where no one can exactly measure it. The oil accountant therefore faces three critical questions: *what* did the company find? *how much?* and *when* did it find it?

To prevent fraud, the Securities & Exchange Commission set rules whereby companies could report only *Proved Reserves* for financial purposes, which in practice meant the best estimate of what current producing wells would produce in the future. (There is also a sub-category of *Proved Undeveloped*, which we need not explain here). The thrust of this arrangement was to prevent the exaggeration of reserves, with under-reporting being tolerated as prudence. The upward revisions were reported on the date they were determined, which sounds reasonable enough, but in fact greatly distorts the picture.



In the aftermath of the scandals of false accounting that rock America, starting appropriately enough with the oil and gas company, Enron, efforts are now being directed to tighten up the rules so as to give the investor a better idea of the value of his stake. One great contribution to this end would be a new requirement for oil companies to report the date of discovery of their oilfields with any revisions to the estimates of their size being attributed to that date. It would soon reveal that companies are replacing reserves less by discovery that by imaginative accounting. Knowledge of the discovery trend would provide the investor with an entirely different image of his assets. If the information showed, as is undoubtedly the case, that the industry has been finding much less than it was producing, the investor might reasonably conclude that pending shortages would drive up the value of the remaining reserves, which might thus become an appreciating asset. In making his dispositions, he might turn to companies that were conserving their reserves rather than producing them at depressed prices, even after taking into account the time-cost of money.

To know the date of discovery is quite as important as to know the amount discovered. The date of discovery of an oilfield is that of the completion of the first successful well drilled upon the prospect responsible for it, even if economic or technological developments over time affect the amount recoverable, and the successive estimates thereof. The attached plot shows the declining discovery rate of Shell, which is probably better than most of its competitors. Reports of percentage reserves replacement as provided in company financial reports are essentially fraudulent.

90. Britain's kleptocrats revealed

Name	Company	Annual Take
Bandier	EMI	£3.7M
Brecht	Reckitt Benchiser	£3.36M
Fink	Man Group	£3.32M
Browne	BP	£3.04M
Anderson	BHP Billiton	£2.92M
Brady	Amvescap	£2.52M
Garnier	GlaxoSmith Kline	£2.52M
Leahy	Tesco	£2.46M
Gent	Vodophone	£2.42M
Kaye	Helical Bar	£2.3 M

With a happy juxtaposition of typesetting, the Times of August 2nd revealed the faces of Britain's ten most highly paid executives, beneath another account, headlined *"Executives get used to handcuffs"*, referring to the arrests in America of those accused of theft by false accounting. It is gratifying that only one oil man appears on the list. The performance of companies often bears little relationship to the exaggerated payments their captains take. Some of them successfully float away from shipwrecks in gilded lifejackets. Far from suffering ignominy for bad navigation, many soon find themselves in command of a new vessel. The French in earlier years used the guillotine to reward excessive behaviour.

91. ASPO Submission to UK Government

ASPO has responded to an invitation from the UK authorities to make a submission in the consultation process leading to a year-end white paper of energy policy.
www.dti.gov.uk/energy/energyep/index.htm

92. Discovery in 2001 fell

IHS (Petroconsultants) reports that the discovery of oil and gas liquids fell in 2001 to 8.9 Gb. for the world outside North America. It probably means that total world discovery fell from about 24 Gb in the bumper year of 2000 to about 16 Gb, slightly above the average for the last ten years of almost 14 Gb. At a guess, about 6 Gb of it is conventional crude oil (excluding deepwater, polar oil and NGL). It is far below consumption, now running at around 27 Gb.

93. Legal proceedings against the US Geological Survey

The USGS now faces legal proceedings under Public Law 106-554; H.R. 5658 Section 515, which is concerned with the obligation of government departments to provide sound information, in connection with its flawed estimates of future oil discovery and reserve growth, published in 2000. The matter is being brought to the attention of US Senators

94. If it was n't bin-Laden, who was it ?

Press release:

> NEW YORK, Aug 4 (Reuters) - Pakistani President Pervez Musharraf, a key ally in the U.S. fight against terrorism, is not convinced that Osama bin Laden was the mastermind behind the Sept. 11 attacks, according to a report on Sunday.
>
> "I didn't think it possible that Osama sitting up there in the mountains could do it," Musharraf said ……………….

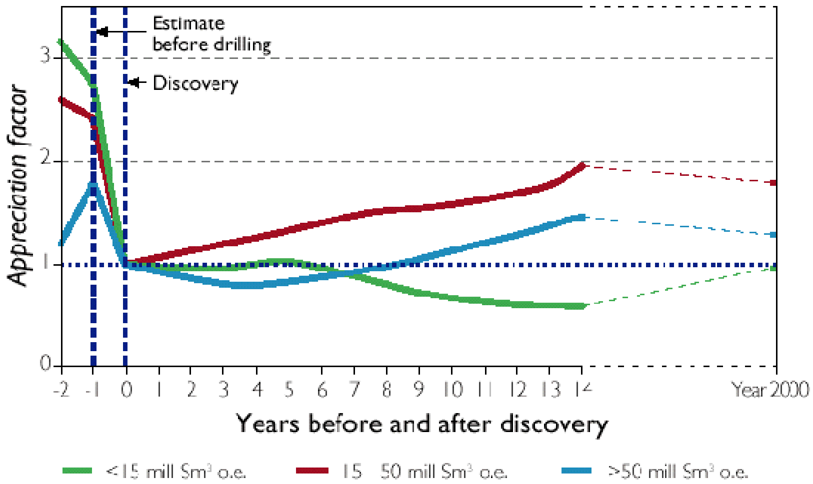
The Guardian Newspaper has a chilling explanation of the background to the threatened invasion of Iraq on www.monbiot.com , urging Mr Blair to use his special influence to avert it.

95. The illusion of Reserve Growth confirmed

A new report by the ever honest and reliable Norwegian Petroleum Directorate (August 2001) includes the following graph, which confirms the view already emphasised herein about the illusion of reserves growth. Although it is based on what the companies claimed in their applications for licences, which may be very different from what the geologists actually thought, it does give a clear picture.

In the case of a large field, explorers are able to report their genuine estimates because the economic threshold is low. The engineers for their part report low initial reserves following discovery, to reflect the initial phases of development only. The reserves are revised upward over time as subsequent phases are added to match the original volumetric estimates of the explorers. In the case of small fields, the explorers are obliged to exaggerate the potential, and the fields do not always live up to the claims made for them.

Both the engineers and the geologists know their job and are perfectly capable of making sound estimates: but what they "sell" to their management or report to government are commonly influenced by non-technical factors. In any event, it serves to dispel the widely held but mistaken view that reserve growth is driven by unforeseen technological developments.



96. New forecast of the imminent peak and decline of European oil

An article by Dr Smith in the August issue of the *Petroleum Review* describes and illustrates the imminent peak and decline of European oil supply, and its vulnerability in a deteriorating world situation. He exposes the misleading nature of "reserve growth" and Reserve to Production Ratio, as well as the failure of the oil industry and the International Energy Agency to properly explain the issue. The arguments, interpretation and data assessment will be very familiar to readers of this newsletter.

97. The Hidden Iraq Agenda

From **The Guardian,** Saturday August 10 2002

Anthony Sampson analyses the roots of America's fear of the Iraqi dictator, and warns that toppling him might cause less stability and more insecurity

Quote

Is the projected war against Iraq really turning into an oil war, aimed at safeguarding Western energy supplies as much as toppling a dangerous dictator and source of terrorism? Of course no one can doubt the genuine American hatred of Saddam Hussein, but recent developments in Washington suggest oil may loom larger than democracy or human rights in American calculations.

The alarmist briefing to the Pentagon by the Rand Corporation, leaked last week, talked about Saudi Arabia as 'the kernel of evil' and proposed that Washington should have a showdown with its former ally, if necessary seizing its oilfields which have been crucial to America's energy.

And the more anxious oil companies become about the stability of Saudi Arabia, the more they become interested in gaining access to Iraq, site of the world's second biggest oil reserves, which are denied to them. Vice-President Dick Cheney, who has had his own commercial interests in the Middle East, baldly described his objection to Saddam in California last week: 'He sits on top of 10 per cent of the world's oil reserves. He has enormous wealth being generated by that. And left to his own devices, it's the judgment of many of us that in the not too distant future he will acquire nuclear weapons.'

If Saddam were toppled, the Western oil companies led by Exxon expect to have much readier access to those oil reserves, making them less dependent on Saudi oilfields and the future of the Saudi royal family. The US President and Vice-President, both oilmen, cannot be unaware of those interests. Of course Western policies towards Iraq have always been deeply influenced by the need for its oil, though they tried to be discreet about it.

The nation of Iraq was invented in 1920, after the First World War. The allies had 'floated to victory on a sea of oil' (as the British Foreign Secretary Lord Curzon put it), but they preferred to conceal their dependence on it: 'When I want oil,' said Clemenceau, the French Prime Minister, 'I go to my grocer.'

But both Clemenceau and Curzon, while they talked about Arab interests and self-determination, knew that what really mattered in Iraq was the oil that was emerging in the North; and the British and French succeeded in controlling the precious oilfields at Mosul.

Iraqi oil became still more desirable after the oil crisis of 1973 which enabled the Arab producers to hold the world to ransom; and the discovery of huge new oil reserves in the South made Iraq more important as a rival to Saudi Arabia - and Saddam more exasperating as an enemy.

It is true that since the Seventies, as the shortage turned into glut, producing countries have become much more dependent on the global marketplace. Countries which hoped to develop political clout by allocating oil supplies soon found they had to compete to sell their oil wherever they could. And Western companies developed new oilfields nearer home, or in friendlier countries.

But America and continental Europe still depend on uncertain developing countries, mostly Muslim, for much of their energy, and in times of crisis the concern about oil supplies returns. Western oil interests closely influence military and diplomatic policies, and it is no accident that while American companies are competing for access to oil in Central Asia, the US is building up military bases across the region.

In this security context the prospect of a 'terror network' controlling Saudi Arabian oil, which last week's briefing to the Pentagon conjured up, presents the ultimate night mare: a puritanical Islamist regime in Saudi Arabia, and perhaps in other Gulf states, would be prepared to defy the marketplace, with much less need to sell their oil than corrupt monarchies or sheikhdoms. Bin Laden, himself a Saudi, made no secret of his overriding ambition to rid his country of corrupt rulers and return to its austere Islamist roots.

In this scenario Americans would be more determined to get access to oil in Iraq, and the demands to topple Saddam would be reinforced.

There are undoubtedly many different and sometimes conflicting strands behind Washington's attitudes to Iraq. Certainly the public sense of outrage about 11 September, and the fear of terrorism, remains the most potent political force behind the moves against Saddam - reinforced by Israel's dread of Iraq's weaponry.

But there are also the longer-term geopolitical arguments in the Pentagon and the State Department, with commercial pressures behind them, about the need for energy security. And these have become more urgent with the growing worries about the Saudis.

The crucial question remains: would toppling Saddam safeguard Iraq's oil for the West? After all, both previous American Presidents - Clinton and George Bush Snr - were persuaded not to overthrow Saddam, because the alternative could well be a more dangerous power vacuum. That danger remains. If Iraq were to split into three parts, as many expect, the new oil regions in the South might be become still less reliable, in a region dominated by Shia Muslims who have their own links with the Shia in Iran. And a destabilised Saudi Arabia could make a power vacuum still more dangerous.

The history of oil wars is not encouraging, and oil companies are not necessarily the best judges of national interests. The Anglo-American coup in Iran in 1953, which toppled the radical Mossadeq and brought back the Shah, enabled Western companies to regain control of Iranian oil: but the Iranian people never forgave the intervention, and took their revenge on the Shah in 1979.

The belief that invading Iraq will produce a more stable Middle East, and give the West easy access to its oil wealth, is dangerously simplistic. Westerners live in a world where most of their oil comes from Islam, and their only long-term security in energy depends on accommodating Muslims.

The Newsletter very much welcomes contributions from ASPO members and other readers, who may wish to draw attention to items of interest or the progress of their own research.

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