The Engineer and the Chairman, differing points of view

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Well I had a nice little rant written about "Tipping Points" and public opinion, and then I read two things. The first was a response from one of our industrial friends, about my post on who is getting hired at the oil companies, and the other was Chairman Greenspan's remarks in Tokyo. I think the juxtaposition of comments is in itself revealing, and I will discuss bits of both.

You may remember that I was concerned, the other day, about how the industry is hiring management rather than technical assistance. Our insider comments that in an office where the median age is now around 55 for the majority of drilling engineers and production engineers, there are now a significant number of contract engineers (also in the same age bracket). Only about 10% of the engineering staff can be defined as young. And the reason?

> Ten. That's all we could find on the market. We are getting a few from other countries, but many don't want to leave their homes and come here due to the political climate. And their home countries are offering them really good packages to stay, matching or exceeding what we can offer. America is not regarded as friendly across the world any longer.

(Note, although I have posted this as a quote, I am editing slightly). In this regard let me just say that a friend of mine just visited a lab in China and called to tell me it was now, in this little field that I also play in, the leading lab, equipment-wise, in the world. At some future time I will see if that is really true. As it is my students have had no problem in succeeding once they went back, and most now find it increasingly difficult to stay over here.

But to return to our friend.

> Spool forward 5 years. Now the 55-year old employee has an average age of 60. We work 10-12 hours a day and travel all over the planet away from our families for weeks at a time. We have to jump through hoops to fix things broken by storms and wars and work out deals with people who hate us. We know our business, but the suppliers don't because many of them have retired.
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> So now we have to spec out everything to a new crop of supplier personnel who know little about what they manufacture. In comes cool Joe College Boy with his World Energy Masters in Business Administration, and some corporate wizard makes him the worldwide exploration manager fresh out of school (nothing against graduates as I are one, but in this business we all pay our dues, the MBA types often get a pass). Now all it takes is one stupid move to cripple things and we will leave like rats on a sinking ship. Why? Well we're seasoned, know our business, and we have no patience for stupidity in

> our dotage. We are all cranky, overworked old guys in a maligned industry. Patience? We are so fresh out...
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> Our business has always been cyclical - we gear for it, and try to plan retirement or career change so we exit in a high spot and can walk away with some cash. We are all stockpiling for the next downturn right now. We are paying our homes off and getting a second career in education or ranching or pecan growing ready. We will be ready with an exit plan should things turn down once more due to oversupply. Otherwise, we have about 10 years until we all leave for retirement, and many of us will be leaving the US to retire.

He later added the comment that

> We are tired of the moaning and crying and all the rest. Sure, we got some subsidies from the Feds in the energy bill, but how many of ours were cut over the last 20 years? If you look, you will see that between the EPA, OSHA, MMS and myriad other organizations we have been forced into compliance with every teeny issue anybody could pin on us. Our compliance group is as big as our production group, and all they do is fill out forms and do legal stuff. HR is actually larger than production and drilling as well. The overhead we have been forced to carry is huge, and all it does is feed bureaucracies in DC and state capitals with meaningless papers to go into files. And the only people who go into those files are usually lawyers looking to get a buck off of us because of some contractors missed a survey point or improper road bed alignment...

Having seen the results of some of it, and talked to others involved, I can affirm that there has been a lot of very hard work put into getting production facilities back on line. I was therefore just a bit flummoxed by Dr. Greenspan's comments

> In such tight markets, the shutdown of oil platforms and refineries last month by Hurricanes Katrina and Rita was an accident waiting to happen.

Is this because he thinks that they should not have been in the Gulf? And what then becomes his view as exploration and production must, of necessity, move into increasingly deep waters?

And then one read

> The dramatic changes in technology in recent years have made existing oil and natural gas reserves stretch further while keeping energy costs lower than they otherwise would have been. Seismic imaging and advanced drilling techniques are facilitating the discovery of promising new reservoirs and are enabling the continued development of mature fields. Accordingly, one might expect that the cost of developing new fields and, hence, the long-term price of new oil and gas would have declined.

Scratch of the back of the head ! Um, actually the use of maximum reservoir contact increases production rate, but can't extract oil that wasn't already there, and so in fact it reduces the time over which the reserve is removed, rather than stretching it out. And this applies in both new and mature fields, so that in meeting current demand, we are to a degree, eating next year's corn. But given that MRC and intelligent well control is quite a bit more difficult and expensive than straight vertical well drilling, and that steel and other material costs are getting very high, as is skilled labor, his last point is plain wrong. Interestingly he then, sort of, goes on to blame OPEC for not allowing international companies to invest in more oil production in their countries. First the scenario is set

> This surge arguably reflects the growing presumption that increases in crude oil capacity outside OPEC will no longer be adequate to serve rising world demand going forward, especially from emerging Asia. Additionally, the longer-term crude price has presumably been driven up by renewed fears of supply disruptions in the Middle East and elsewhere.
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> But the opportunities for profitable exploration and development in the industrial economies are dwindling, and the international oil companies are currently largely prohibited, restricted, or face considerable political risk in investing in OPEC and other developing countries.

And then the reality

> But because of the geographic concentration of proved reserves, much of the investment in crude oil productive capacity required to meet demand, without prices rising unduly, will need to be undertaken by national oil companies in OPEC and other developing economies. Although investment is rising, the significant proportion of oil revenues invested in financial assets suggests that many governments perceive that the benefits of investing in additional capacity to meet rising world oil demand are limited.

The relevant comment is then

> it is difficult to envision adequate reinvestment into the oil facilities of these economies.

In other words, please pass the bucket, for it does appear that the mighty ship of state has sprung a leak! And the conclusion

> We will begin the transition to the next major sources of energy, perhaps before midcentury, as production from conventional oil reservoirs, according to central-tendency scenarios of the U.S. Department of Energy, is projected to peak.

It was that same DoE that this last week said that, despite increases in energy efficiency, demand for oil this year would increase 1.3 mbd.

If these sound as though they are conversations that go past each other, I think that would be a fair conclusion. The actual reality of oil platform losses, an ageing technical community that is losing the industrial knowledge base just as it becomes more vitally necessary, doesn't bode well does it? I do occasionally wonder where the good Dr thinks that the oil is going to come from ? But then that may not be something he ever really thinks about !