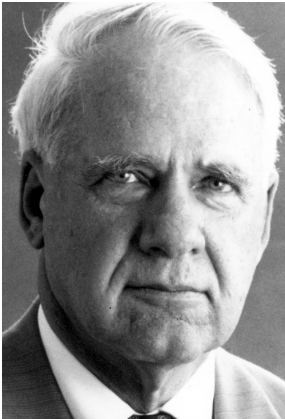


Wisdom from



James R. Schlesinger

Washington and other capitals are chock-full of experienced policy experts who have “seen it all before.” Of these distinguished individuals, James Schlesinger leads the pack. The former CIA Director and U.S. Defense and Energy Departments chief offers unparalleled insights in a TIE exclusive interview.

TIE: The Administration and politicians said that the Middle East struggle is not about oil. If it's not, should it be?

Schlesinger: There may be a touch of ambivalence in that statement that it's not about oil. Oil is always on people's minds. The fact is, the question of oil in Iraq was certainly considered. Oil is the lifeblood of the Iraqi economy. That is why we seized the oil fields and terminals at the outset—to prevent their being sabotaged. However, the left would have it that we wanted *permanent control* of the oil for ourselves. Some both in and out of the Administration thought, “This is the Middle Eastern country which has been explored the least and whose oil reserves are second only to those of Saudi Arabia. This is an opportunity to build oil supply while possibly limiting the influence of Saudi Arabia on our foreign policy.” Oil is always a consideration. The erroneous view that we moved into Iraq in order to control the oil for ourselves was just poppycock.

TIE: Some analysts propose the following theory: After September 11, there was fear Saudi Arabia eventually would become dominated by the faction that views the West as the Great Satan. Suppose this group controlled the Saudi oil fields. They would have command of the world's largest oil reserves, and thus access to real liquidity and a base for global terrorist activities. The Bush Administration couldn't allow this situation to happen. The United States still needed a military presence in that strategic region, if simply as a staging area if the Saudi fields became vulnerable. Yet keeping U.S. troops in Saudi Arabia was too provocative. Instead, the biggest secular state in that region, Iraq, happened to be right next door. Thus, the decision was made to remove the Saddam Hussein regime and establish a long-term U.S. military presence in Iraq. Is this

the *Graybeards*

a credible theory—the truth about Iraq that can't be mentioned? The fear of losing control of the Saudi oil fields?

Schlesinger: It has elements of credibility. The first is the notion that the Saudi regime could be displaced by Islamist radicals, and if Saudi Arabia had a democracy such an outcome might well take place. This is something about which we are rightly concerned. But the Saudi regime has always been quite cooperative with respect to oil production policy, with of course the exception of the Arab oil embargo in 1973.

Now it is true that Saudi Arabia is the source of many of the funds for radical Islamists. We don't like

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that. But there is nothing we can do about the flow of funds into Saudi Arabia because it is, and will remain, the largest source of petroleum in the world. Bringing Iraq back as an oil-producing nation will help, but an

expansion of Iraq's oil fields will take years. Even if Iraq were producing five million barrels a day in 2010, by that time world demand will have increased. The Saudis are building production to 12.5 million barrels a day. They have a plan to go to 15 million if necessary. But the biggest problem the world faces is that there are just not that many new oil fields out there. Over the decades ahead, we are going to run into a plateau in terms of oil production that will have a very grave effect on both the world economy and on our economy. In fact, we should be preparing at some point to make the transition to a world in which we no longer can increase production.

TIE: There's been disagreement over the Saudi oil situation. Some experts argue that we are seeing the end of the Saudi supply while others—the Saudis in particular—say there is far more oil than many realize.

Schlesinger: Those who have questioned Saudi capacity to produce crude are right, but only in the large picture, not in detail. This has been underscored by the Saudis themselves. When the Energy Information Administration of the U.S. Department of Energy stated a year ago that in order to satisfy world demand in 2025—only twenty years from now—the Saudis would need to be producing on the order of 24 or 25 million barrels a day, the Saudis came back and said politely that such a statement was unrealistic. Right now the Saudis are talking about a future capacity of fifteen million barrels a day and maintaining a plateau at that level. But the notion that they have already peaked and that they

can't go above the present eleven million barrels a day is just wrong.

TIE: To what extent will the Chinese and the Indian economies achieve their economic growth goal? China seems to have an enormous task ahead. Their economy needs to absorb almost the population of Canada into their work force every year for the next twenty years. That requires 9.5 percent growth and 40 percent investment rates for as far as the eye can see. What are the chances that the Chinese in particular will be successful? If not, how will the resulting turmoil throw off predictions on global oil over the next fifteen to twenty years?

Schlesinger: From the standpoint of oil supply, things were a lot easier when Americans were consuming 30 barrels of oil per year per capita and the Chinese were consuming half a barrel per year per capita. Now the Chinese seem to want to raise their consumption somewhat closer to the American level. They will have the same kinds of problems as we do—at the point we all reach the plateau. Until that point they're going to go on expanding their demands on the international oil market.

They see problems with regard to oil supply. For example, one Chinese authority on oil gave an address in Lisbon recently indicating that he expected world production to peak around 2012. Keep in mind that relatively few Chinese go abroad and take a position wholly in conflict with the Beijing regime. But even the oil companies—who have been somewhat dismissive in the past—are projecting a plateau sometime around 2025. So you have this whole range of estimates

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about when the world is likely to hit a plateau in oil production. At that point China faces problems in furthering growth and the United States faces problems because we continue to absorb 25 percent of the world's oil supply with 4 percent of the world's population. That's misleading by the way—in reality the United States represents some 20–25 percent of the world GDP.

TIE: The United States is trying to manage its trade relationship with China but there's tension. A large chunk of the energy supply globally belongs to countries that are potentially hostile to the United States—including Venezuela, Iran, and Nigeria—yet China has been cutting side deals with these nations to meet their needs. America's energy security is wrapped up in its trade with China. Yet the Chinese seem bent on pursuing a mercantilist model. Is this situation sustainable?

Schlesinger: The mercantilist model is a great improvement on what they had under Mao Tse-tung—sheer autarky. It's hoped that as China moves into mercantilism they will gradually become part of the integrated world economy. They are vulnerable. They are dependent on the American market and they know that. Their growth depends upon access to that market.

We have to cooperate with China if we're sane. If we treat China as a foe, we will make sure that it becomes a foe. We prefer they become part of the international community in a serious way. But whether we can cooperate with them on oil supply is much more doubtful. In the first place, we must recognize that in recent years the only country that has really utilized the so-called oil weapon is the United States, by imposing sanctions on Iran, Iraq, Libya, and for a while Kuwait. Those are the countries the Department of Energy projects will increase their oil supply by 2025. OPEC oil capacity has shrunk from 38 million barrels a day in 1981 to approximately 31 million barrels a day, and most of that shortfall comes out of the countries on which we have placed sanctions. China is not going to cooperate on sanctions except in rare cases and they will seek to exploit the fact that we're

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unwilling to trade with these countries in order to lock up supplies for themselves. They regard such actions as in their national interest.

TIE: Japanese government strategists seem to have gone from total infatuation with China to deep fear. Some call this their Dark Theory. The Dark Theory of late that's whispered throughout Tokyo is that the Chinese leadership knows it can't meet its economic growth goals. But they've built expectations so high, plus they face a bubble of aging workers in twenty years, that the picture down the line is not good. For the Chinese leadership—the guys who have the real power—their goal is merely survival. The Dark Theory says that what's happening now is that the Chinese are using their enormous dollar liquidity simply to modernize their military. They realize they can only stay in power through aggressive technological modernization of their military to maintain stability. In your view, to what extent does this thinking have any credibility?

Schlesinger: We've got to recognize that in the long run China could develop into a major problem militarily, but right now the last thing they want is a confrontation with the United States and their military isn't in any shape to have one. I've been surprised at how slowly the Chinese have built up their military. It's only relatively recently that they have started to make these major investments. They recognize their inferiority to the United States, but the Chinese point out that over the years they have not had world ambitions. They want to be treated with respect as a regional power. They don't think they always are. Concern about China is probably exaggerated but certainly premature. A lot of people think of China as the "designated enemy" (like the "designated hitter") but that probably is more from a desire to have somebody out there who seems to be hostile so that we ourselves prepare.

TIE: We recently asked a Bush Administration official the following: What one international develop-

ment causes you the most concern? His answer: The current relationship between China and India—two potentially huge consumer-based economies that have become quite friendly of late. That friendship has caused the Russians to move closer to the United States, while U.S.-Japan relations are closer than they've been in decades. Any thoughts on the Sino-Indian relationship and how it could affect the United States?

Schlesinger: The Sino-Indian relationship is a lot better than it was in 1962 when they had a war. One should not exaggerate the degree of warmth that has crept into that relationship. The Indians are still very wary of China. One of India's principal motives in building up its nuclear forces has been to have counter-deterrent not to deal with Pakistan but to deal with China. Meanwhile the U.S.-Indian relationship has been warming up considerably, partly perhaps due to the rise of China, but more importantly because India—with a very large internal Muslim population—is quite worried about Islamist terrorism. Also, India is contending with terror along its frontiers.

The fact that the Indians have gotten over the preconceptions of the London School of Economics also helps.

TIE: The Indians are making progress. It's fascinating that we're talking about U.S. energy and security needs—the essence of future U.S. foreign policy—yet we haven't mentioned Europe. Are they becoming marginalized?

Schlesinger: "Marginalized" is too strong a word, but that's the direction. Europe has become something of a backwater in geopolitics. Partly, this is because they really don't want to participate. The European countries find it most comfortable not to engage in anything other than offering their diplomatic good offices while spending much of their time criticizing what the Americans are doing.

You asked a question before about demographics. The only happy demographic regime is one with

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basically a stable population. With rapid population growth as in Saudi Arabia, Iran, and other Middle Eastern countries, then unemployment is a problem. With too slow population growth, then the labor force begins to run out, as Japan, China, Germany, Italy, and other countries are discovering. Europeans have a severe demographic problem and it affects their mentality. It is one of the reasons that they reluctant to get seriously engaged as opposed to rhetorically engaged.

TIE: *Is nuclear power going to make a comeback? The Chinese have been putting in a huge number of nuclear power plants. Their environmental constraints are less of a concern.*

Schlesinger: We keep talking about the “energy crisis.” It’s not the energy crisis. Most of the energy problems that we worry about are infrastructure problems that can be solved through investment including generation and transmission of electrical power. Our real problem is the “liquids crisis” because of the dependency on the transportation of petroleum. Building nuclear plants may be quite in the national interest, but that won’t solve the real pending problem. Yes, nuclear power will come back in the United States. It’s not going to come back as quickly as the Administration or the nuclear industry would want, and we’re not likely to see another nuclear plant until 2015 or beyond, but it’ll come back. It may come back massively, but it’s going to take a while.

TIE: *It's difficult placing a new nuclear plant in a community. But is there spare capacity within the existing plants to add additional nuclear energy capacity?*

Schlesinger: There is. We have achieved much of it. Availabilities of nuclear plants used to run around 65 percent. Once we had competition, the industry found ways to push those availabilities up to 90 percent and beyond. So much of what’s possible has been exploited already. However, there is the possibility of up-rating nuclear plants. Some up-rating is going on, and some will continue.

TIE: *As developing countries continue to progress economically and their markets expand, pressure on energy prices from both the supply and demand sides will continue for a while. Are we at a stage where the economics justify alternative technologies? Is there something more we should be doing on the policy side to reduce our vulnerability in the oil area?*

A. At that time we hit that ceiling on oil production capacity, be it fifteen or twenty-five years from now, we are going to have a problem. We ought to be thinking about the transition. Given the longevity of the capital stock, it takes at least a decade to make adjustments in response to what could potentially be a very rapid rise in oil prices.

We should begin to move toward new technologies as they become reasonably cost-effective. Some technologies may need to be subsidized to bring them into the marketplace. You don’t want to spend too much money on subsidization. Pursuit of reduced energy vulnerability shouldn’t lead to an inefficient energy supply compared to that of other countries. And we must bear in mind that the risk of running into that ceiling of production at an early date is greater than the risk of not preparing and then suffering the economic consequences. And the economic consequences can lead to political unrest and a sharp effect on political systems, including democratic political systems.

TIE: *One of the arguments in the past was that the price of oil was so low that it wouldn't be cost-*

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effective to engage in productive search efforts for new sources. That's why Saudi Arabia was such an attractive supplier—stick a well in the ground and suddenly there's the oil. If the world price stays around \$60 per barrel, does that change the investment picture?

Schlesinger: The peaking theory was put together by an American geologist, M. King Hubbert, half a century ago and it dealt strictly with *conventional* oil supplies. Now the so-called optimists are not limiting themselves to *conventional* oil supplies. They are including tar sands, heavy oils, the Orinoco basin, and so forth, so that oil reserves for Canada have jumped suddenly by 180 billion barrels. That rise in oil prices has made tar sands look very attractive.

TIE: Throughout history, doomsayers have always predicted mankind's eventual demise due to a problem or shortage, yet some new ingenious technology has always come along to save the day. Do the gloomy projections on oil have the same relevance? It's a scary way to face the future, but things always have a way of working out, particularly if the market price is high enough.

Schlesinger: The question of oil supply and its extent has been on the boards now for almost one hundred years. In 1920, the head of the U.S. Geological Survey said we had used up 40 percent of our oil supply. That was just a decade before the East Texas field was discovered. That bonanza drove oil prices down in the 1930s below a dollar a barrel, and governors of various states, most notably Texas, called out the troops in order to limit production.

The problem is that now we have surveyed much of the world and most of our production continues to come from the giant oil fields—the so-called elephants—many of which were discovered before 1950. Nearly 90 percent of our oil comes from these aging giant fields. In the United States, we used to discover elephants and now we discover prairie dogs, just very small fields which are rapidly exhausted.

So is Saudi Arabia is going to peak? We haven't gotten there yet. But what Hubbert based his theory on was the observation that as an oil field itself passed the 50 percent mark in terms of utilization of its reserves, it then began to decline. We estimated decades ago that the world had a total of two trillion barrels of oil in the earth's crust. We've now used one trillion of them. The estimate has increased to three trillion in the minds of many. But when that head of

the U.S. Geological Survey said in 1920 that we had exhausted two-thirds of our reserves, the previous year worldwide we used 386 million barrels. Now we are consuming 30 billion barrels a year. If you believe the Department of Energy projections, in 2025 we'll be consuming 40 billion barrels per year. At that rate, we will reach the hypothetical halfway point in something on the order of fifteen years. The fact is that we have

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not found new fields in any number. Of the 55 fields that produce more than 200,000 barrels a day, only four have been discovered since 1980.

The optimists are right in one respect. Any "additions and extensions" in an individual field are attributed back to the year of discovery. Such additions are not due to further discovery. Yet it is new technology that has added to what we can recover. Soon, however, unless new giant fields are found, a limit will be reached. With new technologies including 3-D seismic, we have done a great deal of surveying. There's plenty left to survey but whether we're going to find other giant fields like Ghawar is very questionable.

TIE: The political left argues for energy conservation and the Bush Administration seems to give lip service to the idea. But how important is conservation in achieving any kind of a meaningful reduction in dependence on foreign oil?

Schlesinger: We're not going to reduce our dependence on foreign oil. That is simply an illusion—until

such time as we have wholly new technologies. Conservation will not do it, though conservation can be helpful. One form of conservation is people's will-

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ingness to limit what they consume, and I don't count on the American consumer to engage in that kind of self-discipline. On the other hand, there is the possibility of considerable improvement in energy efficiency and we ought to be working at that. But it must be cost-effective energy efficiency: not spending a great deal to reduce a modest amount of consumption.

TIE: That raises another point on the demand side about the growth of energy use. As we expand into some alternatives like coal, there are environmental issues. You wrote a fascinating article in the *Wall Street Journal* ("The Theology of Global Warming," August 8, 2005) on global warming. What's the real story?

Schlesinger: It is quite plausible that the release of greenhouse gases contributes to global warming. We are seeing global warming. We see that the sea ice in the Arctic Ocean has shrunk and that snow remains on the ground around the Arctic for a shorter period of time. There's a longer warm season. We don't know how much the release of greenhouse gases might contribute to warming. Global warming has been going on basically since the end of the Little Ice Age sometime in the seventeenth century. Yet, climate remains variable. From 1940 to 1975 we had a cooling period that worried the scientists. When the Marshall Plan came along in 1947, it was after an extremely cold winter in Europe in which the rivers and canals had frozen and coal could not be delivered.

The basic point is that those who believe the release of greenhouse gases is directly contributing to

global warming had better pray they're wrong, because nothing is likely to significantly reduce the amount released. By 2030, it's projected that we will be burning worldwide three billion tons more coal. The Chinese will burn almost an additional billion by themselves. If the Europeans do manage to cut their release of greenhouse gases in accordance with the Kyoto Protocol, that's not going to do very much. China is larger than Luxembourg.

We face a situation on which there is a growing consensus among knowledgeable observers including the people in oil industry. They project that around twenty years from now worldwide oil production will plateau. I repeat, only twenty years from now.

So we have a choice between adjusting to the projected limitation on oil production which would have a massive effect on the economy and on politics, or cutting the release of greenhouse gases which may affect somewhat the climate in the year 2100, much further down the road. Environmentalists talk only about the latter problem. If we had been able to implement the Kyoto Protocol it would have reduced the world temperature by 0.02 degrees Celsius in the year 2100 as opposed to a projected increase of 6 or 7 degrees. If they're right and the release of greenhouse gases has caused global warming, then we had better prepare for a lot of global warming. Saying that that's not going to happen is like King Canute demanding that the waves of the seas stand still.

TIE: Is global warming a long-term historical trend, or a relatively new phenomenon caused by human activities?

Schlesinger: I don't know. The greenhouse effect may or may not make a significant contribution, though it's visibly not the whole story in my judgment. There is a major cyclical element to global warming. The world has basically been warming up ever since the end of

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the Little Ice Age and even during that period, glaciers have partially melted and then later reformed.

TIE: Let's talk about refining capacity. How serious is the problem? Can reasonable investment correct the situation? It's one thing to be heading toward a plateau in reserves, it's another to create an artificial problem even before it happens.

Schlesinger: The incentive to build refineries in the United States is not overpowering. Refineries can be built outside of the country and we can import products.

TIE: Did Larry Summers have it right when he was Chief Economist at the World Bank? Of course he was attacked viciously for suggesting that developing countries had a comparative advantage in these kinds of things.

Schlesinger: Ali Al-Naimi, the Minister of Petroleum in Saudi Arabia, comes out once every two weeks and says we have additional capacity, we're willing to sell crude oil to anyone who wants it. Come and buy it. The additional capacity is all heavy, sour crude. Over the years there was a sufficient surplus of sweet crude, so worldwide the capacity was never developed to handle heavy, sour crude. So while there's more crude oil production capacity out there, we don't have the refining capacity to handle that kind of crude. There's a mismatch between the crude that refiners will accept and the crude that's still available on the market. That's one of the problems.

A second problem is it takes eight to ten years to build a refinery and before the time, some years out, that those refineries become available, we are going to be pressing against the worldwide limit on refining capacity. I don't

want even to mention the stupidity of having seventeen different boutique blends that our refiners are forced to provide for different locales.

TIE: What are the chances the suspension will continue?

Schlesinger: There are some follies that time will actually cure—and that's one of them. Sometimes people do the rational thing, not frequently necessarily, perhaps just by happenstance, but it happens.

TIE: Suppose you could convince the U.S. Congress there's an enemy out there that is going to be in a position of destabilizing the U.S. economy in fifteen years. What would they do? Would they initiate a massive effort like the Manhattan Project? Why isn't this happening? Is it because we are letting the market find the solutions, or is it that the United States doesn't realize the danger of the enemy at the door?

Schlesinger: There's a natural reluctance amongst human beings to prepare against future problems. Ever since 1915, when a hurricane wiped out New Orleans, we recognized that there was about a 100 percent probability of another hurricane hitting the city, and for a city below sea level, that should have been a vital concern. But neither the government nor the people in the locality did much about it.

Political systems are not very effective at looking at distant threats because it means inconvenience if not sacrifice in the short term. We prefer to push our worries into the future. It's a natural tendency. In economics we call it a discount rate, frequently a very high rate of discount.

TIE: Perhaps a government-wide energy project needs a compelling, easy-to-grasp reason. We had an industrial policy in this country for decades that led eventually to the computer and Velcro and a host of other products—we called that industrial policy the space program.

Schlesinger: The spillover technologies, notably the Department of Defense's development of jet engines (turbines) or what we've gotten out of the space program, without intending to, far surpass whatever the U.S. Department of Energy's R&D has accomplished. As long as one is producing these new technologies, somebody in the marketplace is going to utilize them for productive purposes. There are some areas that we can work on. One of my favorites continues to be hydrates—frozen methane in the depths of the sea. If we can ever find a way to unleash this energy source it would change for at least an extended time the impending shortage of hydrocarbons.

TIE: Thank you very much. ◆