



Peak Oil Workhorse Matt Simmons: 1943-2010

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This is a guest post by Steve Andrews and John Theobald. Sally Odland and Randy Udall also contributed. Andrews and Udall are retired co-founders of ASPO-USA. Odland and Theobald are formerly associated with ASPO-USA. The four of them currently are developing a new peak oil project.

“Petroleum is industrial oxygen,” Matt Simmons liked to say. The more he looked, the more convinced he was that much of our energy system was being red-lined, run on the ragged edge of disaster. And look he did—more than 50 hours a week by his own description. “Some people play golf,” Matt said. His hobby was looking at energy data. Often, he was alarmed, and sometimes—as with recent ill-advised comments about BP’s Gulf of Mexico oil spill—he could be alarmist. Readers of The Oil Drum know plenty about that, (<http://www.theoil Drum.com/node/6789>). But no matter. The contribution he made was titantic, in every sense of the word.



Matt was arguably the most influential individual on this side of the Atlantic to warn about the coming peak-and-decline of world oil production. Beginning in 2001, when he published his ground-breaking white paper on the world’s giant oil fields, Matt alerted presidents, politicians and whoever else would listen that our energy joyride was headed for deep trouble. He drove himself tirelessly, riding the speaker circuit at breakneck speed, visiting some 25 countries to deliver over 400 fact-filled energy talks to industry, investment, academic and general interest audiences.

Then, suddenly, he was gone. Matt died Sunday evening, August 8th, at his home in Maine. He will be missed enormously by his wife Ellen, five daughters, his close associates, and all of us who knew and respected him. A service celebrating Matt’s life will be held in Houston on October 4 at noon in the Museum of Fine Arts (Caroline Wiess Law Building, Cullinan Hall, 1001 Bissonnet Street).

Matt was a contrarian thinker with high-level access and influence. The access was a product of his decades of stunning success in the energy investment banking business, where he made his fortune; the influence came from his research, timing, acumen and luck—and from swimming ahead of the crowd. Matt’s energy investment firm, Simmons & Co., Int’l., helped clients navigate through the oil industry’s historic down cycles. By the mid-1990s, with a high-profile column in *World Oil* magazine and a growing number of top-level media appearances, Matt began to leverage the reach of his ideas.

Matt’s viewpoints reached to the top of the political food chain. He co-chaired the energy task force of presidential candidate George W. Bush in October 2000. He helped Bill White get elected Mayor of Houston. He provided advice and primary support to the 2008 candidacy of Mitt Romney. But he didn’t always fit the profile of the Republican investment banker. Matt was known to brief staffers for Democratic candidates as well. In 2008, surprisingly, but perhaps not all that surprisingly, he announced his support for Barack Obama in the general election. Throughout the past decade, he would testify before several House and Senate committees, an experience he would compare to “shouting down a well.” More recently, he gave a one-hour presentation in the Pentagon auditorium that stretched another hour with intense questioning.

Matt did make it into the White House once. During a short session in the Oval Office with President Bush in early 2001, he shared his concerns about our emerging energy crisis. However, be it Democrat or Republican in power, he was never pleased with what passed for energy policy in Washington, and he never was co-opted by government. Indeed, one of his most widely rumored associations is a myth: Matthew Simmons never was a member of the 2001 National Energy Policy Development Group (a.k.a. “Cheney Energy Task Force”). One suspects he was too much of an independent to hang with that group.

A favorite Simmons comment was:

Do your analysis first; second, check it again; third, DON’T rely on a third party; then, if that’s what you conclude, go ahead and speak out with the courage of your convictions.

Not many people can live up to that standard. In 2003, Matt did by beginning to question the conventional wisdom that Saudi Arabia could someday produce 15 or even 20 million barrels a day. This forced the Saudis to publicly defend their reserves and production capacity. In early 2004, at a symposium sponsored by the Center for Strategic and International Studies, Saudi Aramco officials worked hard to rebut Matt’s claims that their oil fields were depleting faster than thought. The outreach effort included cover stories like that in the *Oil & Gas Journal* (April 5, 2004): “Saudi oil minister Al-Naimi sees kingdom sustaining oil supply linchpin role for decades.”

Of course, Matt wasn’t the only one speaking about peak oil. In 1998 Campbell and Laharrere had published a landmark piece in *Scientific American*, “The End of Cheap Oil.” A number of excellent books soon appeared, by scientists like Deffeyes and Goodstein, as well as generalists like Heinberg and Roberts. But Matt, along with other industry analysts like Charley Maxwell, Henry Groppe and Tom Petrie, helped bring peak oil to the boardroom and to Wall Street. He doggedly pushed the topic on cable news shows, buttressing peak oil’s intellectual and numeric underpinnings, reinforcing its respectability. In doing so, he helped animate a new generation of researchers whose findings would be published in books, magazines, and websites like theoil drum.com.

When Matt's opus, *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy*, appeared in May 2005, it was an instant sensation. Within Saudi Aramco, engineers fixated on a few of the book's factual errors, thereby missing the big picture. On the world stage, however, the book brought a harsh dose of reality to the happy talk proffered by Cambridge Energy Research Associates and others. Daniel Yergin might remain a cheerleader for abundance, but no longer could it be assumed that Saudi Arabia's "endless oil" could solve the world's larger energy problems.

In response to *Twilight's* assertions, Saudi Aramco mounted a PR campaign, claiming it could boost production to 12 million barrels a day and maintain that level for decades. Ironically, this knocked some stuffing out of the U.S. Energy Information Administration, whose annual forecasts often seemed like a vision in search of reality, particularly those which foresaw Saudi production reaching 20 million barrels per day by 2020.

Matt was flooded with speaking requests. His presentation style was always memorable: the phrase "drinking from a fire hose" borders on understatement. Passionate, animated, face flushed, words flowing, Matt commanded the podium, bombarding his listeners with facts, figures and original graphics that often connected established dots to make new points. His material was usually fresh, always insightful, often provocative. He brought a teacher's mindset as much as a businessman's to his talks and appearances. Periodically, he made outlandish statements. Though we admired his chutzpah, Matt's 2006 bet with a New York Times columnist that oil prices would average \$200 a barrel during 2010 struck us as ill-advised.

Throughout this period, several key threads flowed through Matt's papers and presentations. One was his relentless plea for data transparency; the lack of reliable production numbers frustrated him no end. The most important "missing evidence" was depletion data from mature oil fields. Although drillers took depletion for granted—waged war against it incessantly in their own fields—they hated to talk about it in public. Matt lent his voice early and often on the need to obtain better data on decline rates, thus helping to spark the decline rate study that the International Energy Agency published in 2008. He also called attention to "rust," the aging of energy infrastructure, and to the high-wire act that is deepwater drilling.

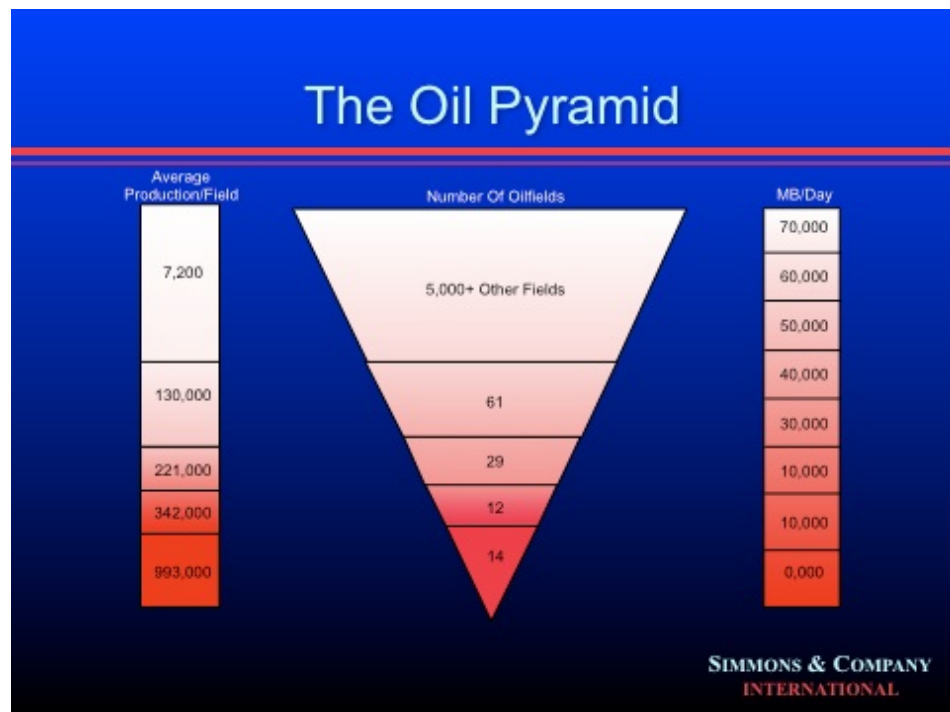
Apart from his book, Matt's most insightful analyses derived from two early papers: "Revisiting Limits to Growth: Could the Club of Rome Have Been Right?" (October 2000), and "The World's Giant Oilfields" (late 2001). In "Revisiting Limits," Matt swam upstream against cornucopian groupthink, which held that resource limits would never constrain economic growth. When he reread the book, what he found surprised him.

In September 2000, Matt emailed us: "I have just finished the most important white paper I've tackled...I always thought this Club of Rome thing was some bad joke. But I am now of the opinion that historians will mark the book as perhaps the most important piece of 'writing that got ignored' in the last half of the 20th Century." Seven years later, Matt hadn't changed his mind about the value of the *Limits* study: "The world sleep-walked for three decades while believing all natural resources would last forever."

The research that fully awakened Matt to the impact of oil field depletion, however, was his trail blazing "Giant Oilfields" paper. In early 2001, he had noted a worrisome fact: almost 30 years had elapsed since the discovery of the last super-giant oil field that could produce 1 million barrels a day. Then he dug into the numbers. The resulting paradigm-shifting paper pivoted on the recommendation that wraps up the quote below:

Traditionally, the definition of a giant or super-giant oilfield has been a field whose reserves exceed one billion barrels. Super giant fields are generally ones whose reserves exceed five or even ten billion barrels. This definition often gets ambiguous as the reserves for some fields get depicted as ‘total possible reserves’ or ‘oil in place’ while other fields’ reserves sizes adhere to the strict definition of ‘proven ‘ and ‘recoverable reserves.’ *Perhaps it is time for the energy world to change this reserve focus and begin defining giant oilfields in terms of their daily production. This yardstick can be accurately measured unlike total reserves, which are always estimates.* [our emphasis]

Although he was forced to guesstimate production for some fields, the paper highlighted how critically important giant fields are to world production; the largest 3% of fields produce 47% of the world’s daily supply, as shown in the graphic below:



Pair Matt’s “*Giant Oil Fields*” of nine years ago with Chris Skrebowski’s current research on future megafield development and you have all you should need to convince alert scientists and astute businessmen that it would be wise to start planning for a pending peak in oil production. Matt’s key observation from the study:

Most of the world’s true giant oil fields were found decades ago...The last four oilfields found with a productive capacity that exceeded one million barrels a day were China’s Daqing field (1959), Western Siberia’s Samotlor (1965), Alaska’s Prudhoe Bay (1968) and Mexico’s Cantarell (1976). After Cantarell, no new field has come close to this one million barrels a day production level...Not a single oilfield found in the [1990s] produces more than 200,000 barrels a day. Only three oilfields discovered in the decade of the 1980s still produce over 200,000 barrels a day....[This] was a big surprise to me. I would have guessed intuitively that the number would be far higher.

Lessons learned from this lengthy effort? He cited five additional surprises:

My biggest surprises of this study were first, how difficult it was to even obtain data on current production rates. Second, how critically important this relatively small population of oilfields still is to the world's total oil supply. Third, how old many of these fields are, particularly the largest of these fields. Fourth the total lack of good data on the decline rates for almost all of these giant fields. My last surprise was the consistently small size of each new generation of giant fields.

Matt's summary slide (below) started showing up in presentations in early 2002. In fact, he later acknowledged that his giant oilfield study was the critical work in moving him to understand and embrace the long-term peak oil reality.

Giant Oilfield Data Raises Serious Long-term Supply Questions

- World's Oil Supply Is Far From Diverse
- 14 Fields Accounts For 20% Of Total Supply
- Another 41 Fields Make Up Another 15%
- Post-1979: Only 3 New Fields Still Produce Over 200,000 B/D
- Decade Of 1990s: Only 11 Fields Produce Over 100,000 B/D (Of 420 Total)
- Have Most Of Giant Fields Now Been Discovered?
- Will Most New Fields Be "Relatively" Small?

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Full of surprises but perpetually surprised himself, Matt treated peak oil more like a journey of self-discovery than like a bell curve or a set of charts. It's impossible to think of how this issue developed over the past decade without thinking of Matt, and we enjoyed and learned from being along for the ride.

Personally, the man was full of surprises, too. He was a water color artist, who produced his own Christmas cards. He loved to play the marimba. His presentations were sometimes delivered via live webcast so that he could attend a daughter's graduation or important family event. He liked to cook for his family to relax after a hard day. He and Ellen revived the historic Strand Theatre in his adopted Maine hometown of Rockland—one of the many "pay it forward" endeavors that will be the legacy of this remarkable man. We are among the many, many people who will miss Matthew R. Simmons and remember him fondly.



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