



LANDPOWER ESSAY SERIES



No. 94-1

January 1994

NUCLEAR FUSION: TECHNOLOGY DEADLINE FOR MILITANT ISLAM?

by

Patrick L. Moore

In 1498, a Portuguese naval expedition under the command of Vasco da Gama succeeded in reaching India via the Cape of Good Hope. This was a momentous event in the history of the Middle East. As described by Professor Bernard Lewis in his book, *The Arabs in History*, da Gama “had opened a new route from Europe to the Further East, cheaper and safer than the old one. ... The Portuguese established bases in India, and developed direct trade, dealing a mortal blow to the Egyptian route and cutting off the very lifeblood of the Mamluk state (then, Egypt and Syria). ... The Arab Near East had been outflanked.” From the 15th century until the 20th, the Muslim states of Africa and the Middle East settled in for a 500-year nightmare of economic decline and cultural desuetude. Then came oil.

With the advent of the oil culture, most easily dated from Winston Churchill’s 1911 decision to fuel the Royal Navy with petroleum instead of coal, the oil-rich Islamic nations of the Middle East began a material resurgence which has lasted until today. The oil-producing states have made money hand over fist (especially since the 1973 Yom Kippur War and related oil embargo) and have invested, lost or merely squandered vast sums in wise and unwise projects, but with much of it going to fund massive armaments with which to threaten Israel, intimidate their fellow Muslims, or otherwise establish their place as powers to be reckoned with in world politics. Much of the fortune made from oil, it seems, might as well have been poured out on the sand from which it emerged for all the good it did for its spendthrift owners.

The last, wasteful episodes of military petro-prodigality in the area were the Iran/Iraq war and the Iraqi invasion of and expulsion from Kuwait. The first was a nine-year tragedy which even now threatens to renew itself as Iran rises from the ashes of its bitter stalemate to face a newly decimated

Landpower Essay Series is published by the AUSA Institute of Land Warfare. The series is designed to provide an outlet for original essays on topics that will stimulate professional discussion and further public understanding of the landpower aspects of national security. The content represents the personal opinions of the author and not necessarily the position of the Association of the United States Army or its members. Candidate essays of 2000 words or less may be submitted: Association of the United States Army, Institute of Land Warfare (Attn: Landpower Essay Series), 2425 Wilson Boulevard, Arlington, Virginia 22201.

Iraqi military. Both sides threw money and lives away as if there were no tomorrow, only to find their sacrifices mocked by failure and their people and economies exhausted and indentured. Both Iran and Iraq seem to be preparing for a rematch or to make forays against the West or local Western allies.

The second was the tactically crushing but strategically indecisive repulse of Saddam Hussein's *coup de main* against the Persian Gulf oil fields and sea lanes (which situation may even now be heating up again in light of recent Iraqi border demonstrations and that nation's persistent disregard of United Nations sanctions). Reports indicate that Iraq has made or can quickly make good its materiel losses (once again having discounted its human losses) and that resumption of Iraqi programs for development of weapons of mass destruction can be easily accomplished and swiftly concluded as soon as diplomatic efforts to remove the pending United Nations restrictions are successful.

The problem, however, is that this oil-fired game might soon itself run out of gas. All of the militant Islamic oil-players who have tried to parlay their petro-wealth into a quick militarist ticket back to geopolitical importance actually face the threat of economic obsolescence.

With rising awareness of the jeopardy of the oil supply, its advertised ecological disabilities, and the always risky price of that commodity, oil users have become increasingly thoughtful in their applications of petroleum products and are growing more avid in seeking alternative energy sources. Especially attractive is nuclear energy, despite seemingly inherent (even if small odds) risks in that form of energy generation. The main technological downside to nuclear energy, however, despite its widening use in the West (especially in Europe) and in the former Soviet Union, is that at present it is nuclear "fission" (i.e., splitting atoms to release energy) which is the process harnessed by nuclear power plants. Fission plants create hard-to-dispose-of waste materials and fairly or unfairly summon up the specter of another "Chernobyl" (no matter how unique that accident was to the cranky, ill-designed systems of the USSR). Nevertheless, the use of nuclear power is spreading.

Even beyond the economic pressures of fission-based power, the critical question is what happens to oil futures when the truly clean form of nuclear energy is finally developed for industrial and consumer use — i.e., nuclear "fusion" (the generation of energy by pushing atoms together to release vastly more power than fission). Fusion's only waste product is water. The only danger involved if a fusion reactor runs out of control is that it would simply shut down, i.e., no "meltdowns," explosions or Three Mile Island panic alerts. For once, the dream of almost inexhaustible supplies of safe energy for comparatively minimal cost will have been achieved. At that time (and it seems that time will come), petroleum will revert to being no more than a source of machine lubricants and a diaper rash remedy. Oil-based fuels will swiftly become as obsolete as whale-based fuels — along with oil-based profits.

Oil-producing Muslim nations who have not prudently diversified and invested their oil-age revenues for the future will have been once again economically outflanked by Western initiative and ingenuity. Those nations in particular who squandered their wealth on hitherto futile militaristic dreams and failed desert campaigns will again sink into economic backwardness as did the Mamluk Empire of the 15th century. Unless they can manage to extract a military victory from the jaws of economic/technological defeat, they face the prospect of entering the queue of bleak, third-world statist dictatorships (like Cuba) waiting for the market-based world revolution which overthrew Soviet Communist totalitarianism to reach them.

The dilemma facing oil-dependent militant Islam (whether of the “secularist” Iraqi variety or of the “fundamentalist” Iranian sort) will be how to protect their special form of investment (in the form of high-tech military hardware) purchased in hopes of asserting by force of arms their version of Islamic interests and challenging the trend of Western cultural and political dominance regionally or even globally. As the saying goes, the only thing you can’t do with bayonets is sit on them, especially the kind which have an expiration date. “Use it or lose it” as applied to their military hardware will become the motto of aggressive Muslim oil-states in the Middle East. The temptation to try to invert history by force of arms may well soon become irresistible for the Saddam Husseins and Ayatollahs of the Middle Eastern world. Even more terrible is the fact that if time really is running out on oil technology, then the prospect of cash-intensive (but overall relatively cheaper) military shortcuts of weapons of mass destruction (i.e., atomic, biological and chemical weapons) appears even more promising (and perhaps even essential from the point of view of oil-driven purveyors of militarism and totalitarianism in the guise of champions of Islam).

How long will this process of fusion-based technological innovation take? How much time will oil-rich militarists have before their game is called? That is hard to say with precision. What we do know is that the velocity of invention and new ideas through our world society becomes shorter every day. New technologies appear and are superseded with increasing alacrity. Ten years until fusion is announced as a practical technology is probably a good guess. In any event, that figure brings up the specter of the quinquecentennial of Vasco da Gama’s voyage (the last economic “Cannae” of militant Islam) as a reminder to those who depend on oil riches to fund their vision of an armed reassertion of Islamic influence.

Having recently celebrated the 500th anniversary of the arrival of Christopher Columbus in the New World, we should not forget the approaching memorial of the Portuguese explorer who eclipsed the fortunes of Middle Eastern Islam with a technology of wood and hemp rope. Modern Muslim dictators and demagogues who seek power by means of oil-driven military adventures will have watched Operation Desert Storm and learned their lessons, and they may not wait for the Western explorers of the atom to economically outflank what they may see as their last best hope of establishing a regional hegemony or perhaps even a bid for global Islamic influence.

The West and its friends could be in a technological race which we could lose (militarily) by “winning” (economically), i.e., by inadvertently precipitating military challenges we are not prepared to meet, unless we remain alert to that strange mix of strategic military, economic, and psychological drives brewing among the militant Muslims of the Middle East.

(Patrick L. Moore is a partner with a Chicago law firm and an advisor to the National Strategy Forum. He also served as a Petty Officer Second Class in the United States Coast Guard from 1971 to 1975.)

###