

ditions of preaching morals and defending the downtrodden and those subordinated by the state . . . became a submissive tool of the authorities and thereby largely forfeited the people's respect as a preserver of spiritual principles." The theology of the Russian Orthodox Church (so respected by Anisimov) was, and still is, however, antithetical to the idea of *man in the image of God*, man as creator. Peter, however, refused to consider reopening negotiations for a union with the Catholic Church based on the principles of the Council of Florence, which would have meant an acceptance by the ROC of the *Filioque*, that is, that the Holy Spirit proceeds from the Father *and from the Son*, signifying that each and every individual is potentially capable of creative reason. Peter met this idea, we are told, with "complete passivity and deprecation." The Russian Orthodox Church under state control was more suited to the czar's need to be able to control the Russian population.

Anisimov also defends the communal system. As Count Sergei Witte pointed out in the late 19th century, the communal system itself was a cause of the backwardness of the Russian peasantry. Because the land belonged to the commune, and not to individual families, no one farmer could ever separate himself from the commune in order to make improvements on the land. This system, which predominated in western Russia, was often contrasted to the success of the Ukrainian kulaks, who were productive farmers because they each owned and worked their land.

Even more startling is Anisimov's rejection of Peter's creation, St. Petersburg. Known as "the city built on bones," St. Petersburg certainly does exemplify the principle of "progress through coercion." Tens of thousands of men died in the building of that city. Anisimov tells us that Peter's vision of St. Petersburg was as a new Amsterdam, but grander. But Anisimov believes that St. Petersburg should never have been built, that it is the home of the Devil. " 'Regularity' and the military element set into the idea of Peter's city, it might seem, ought to have conferred the weight of the barracks, the despondency of the dusty parade ground, and the tedium of endless monotonous lines. But this did not happen. Built on a marsh by a wave of the czarist hand, it bore the stamp of illusion, the lightness of a phantom, a mirage, the Northern Lights that had visited the city earlier."

St. Petersburg has always been identified with those Russians who are called "westernizers," who wish to see Russia turn its face westward in order to assimilate Western ideals and principles.

Thus, the answer to Anisimov's question—the often-asked "Whither Russia?"—lies precisely in what Anisimov has chosen to omit. Just as Leibniz had laid out a true westernizing project through the Russian Academy of Sciences, today, Lyndon LaRouche has proposed a broad-based scientific and economic program, the Productive Triangle, to extend from Paris to Vladivostok and to eventually encompass Chi-

na, as the means of lifting the East out of its current state of economic ruin, and herald an economic and scientific revival throughout Eurasia. Such a program means sacrificing only one thing, and that is the state-enforced backwardness which has harmed the peoples of the former Soviet Union for so long.

Inside the mind that built the nuclear navy

by Stuart Lewis

The Rickover Effect, How One Man Made a Difference

by Theodore Rockwell

Naval Institute Press, Annapolis, Md., 1992
411 pages, hardbound, \$24.95

Theodore Rockwell's book tells the story of how it was one man's idea to build a nuclear submarine, and how he brought it forth. It was clear that "the problem boiled down to convincing the top levels of the Navy and the Atomic Energy Commission (AEC) that building a nuclear submarine was an important national priority. It was clear that no one else who mattered held that view at that time." The only one who held that view in the late 1940s was Adm. Hyman G. Rickover, who was responsible for starting the job and getting it finished, with the official launching of the *Nautilus* in 1954. Equally important, along the way, as a result of the success of the nuclear submarine program, Rickover was asked to develop the first commercial nuclear plant at Shippingport, Pennsylvania, thereby launching the creation of what became a highly trained staff within the military, research laboratories, training schools, and the commercial nuclear industry.

The author, who was a member of Rickover's engineering team, gives an inside view of Rickover's drive and how he moved others to accomplish his nuclear goal, and Rockwell makes clear that the admiral did not see the building of the submarine as a monument to himself. On the contrary, according to Rockwell, Rickover had a strong sense of history and was intent on developing a well-trained cadre who could take over after he was gone. In his foreword, former Secretary of the Navy Adm. James Watkins writes that Rickover's passion was the "never-ending process of education and training prospective leaders for the Navy." As part of this process, Rickover helped set up a master's degree program in nuclear engineering at the Massachusetts Institute of Tech-

nology, which trained many of Rickover's engineers. Exemplary of his farsightedness, the admiral once expressed his thinking: "We can steal trained people from the laboratories and then have them stolen from us, or we can arrange to create more nuclear engineers, to train our own, and to create a national asset that will benefit everybody. I choose the latter course."

Concern about American education

Later in his life, Rickover became increasingly involved in upgrading American education. Rockwell tells the story of a conversation Rickover struck up with a young sailor who was assigned to him as a driver. The young man had graduated high school with above average grades, and yet, he confirmed for the admiral that the Civil War had occurred "two or three hundred years ago." Rockwell reports: "The admiral managed to sound noninquisitorial, just friendly, and the sailor seemed relaxed. Rickover reviewed a number of topics—history, geography, politics, literature—and the sailor consistently revealed an appalling ignorance. . . . When [the sailor] was gone, Rickover said, 'You see why I'm concerned about our education system? Here's a kid, obviously brighter than average, not lazy. . . . Our schools have betrayed him. They took 12 precious years of his life, the years when he was most capable of learning, and taught him almost nothing. What I could have done with him in those years!' " Of course, in the few years since his death in 1986, the situation in education has become critical with the spiritual child molestation called outcome-based education sweeping many areas of the country.

In 1984, Rickover set up the Rickover Science Institute, which for six weeks every summer would provide "intensive classroom instruction and internships in scientific research for 60 high school students from the United States and abroad who had demonstrated excellence in mathematics and the other sciences." Alumni proudly referred to themselves as "Rickoids," even after he had his name removed from the foundation in 1986, when he became too ill to continue his involvement.

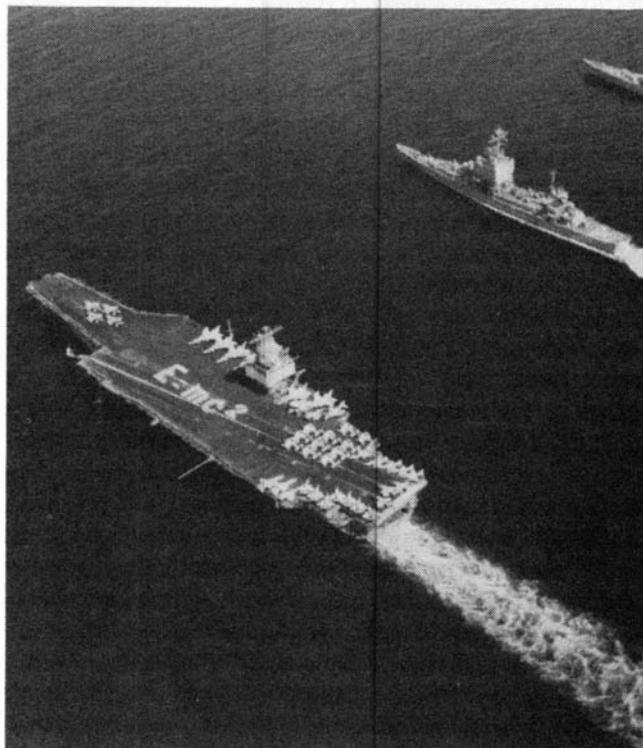
The birth of the nuclear navy

Rickover knew that in order to get the ball rolling for a nuclear navy he would have to convince the Navy's top brass and eventually the secretary of defense. "Trying to persuade all these Navy jokers is a waste of time," he said. "If the secretary declares the nuclear submarine a military necessity, they'll all fall in line." Rickover and an associate drafted a letter for Chief of Naval Operations Chester Nimitz—described as a "submariner"—to send to the secretary of the Navy. Shortly after, the Navy went on record: "There was a military need for a submarine with unlimited endurance at high speed submerged. Only nuclear power could meet that need."

The Nimitz report outlined its assessment of the strategic

situation: "The seriousness of the Russian submarine menace is emphasized by the fact that they now have over five times the number of undersea craft that Germany had at the outbreak of World War II." Another Navy report found that "the tactical characteristics of the medium-speed, deep-diving, snorkle-equipped submarine have virtually nullified the effectiveness of most of our World War II ASW [anti-submarine warfare] procedures, tactics, and doctrines." Diesel-powered submarines could not stay under water continuously and had to spend most of their time at periscope level. Nuclear submarines are able to remain submerged for long periods and can go where diesel submarines cannot.

Rickover rubbed many lesser spirits the wrong way. When *Nautilus* traveled beneath the polar ice cap, it was considered a marvelous feat, and the vessel's captain was invited to a White House reception. Rickover, however, was left off the Navy's invitation list. Adm. Elmo Zumwalt once expressed what not a few felt about the way—or perhaps the fact—that Rickover accomplished things: "The Navy had three enemies: the Air Force, the Soviet Union, and Hyman Rickover." And when Commanding Naval Officer Arleigh Burgh took the decision to put missiles on submarines, "To ensure that Rickover did not dominate the project, Burke gave strict but unwritten orders to keep all news of the project secret from Rickover," says Rockwell.



The sailors in formation on the deck of the nuclear-powered aircraft carrier USS Enterprise spell out "E=mc²," as it cruised the Mediterranean with other nuclear ships in this June 1964 Navy photo.

However, there were civilians who knew that Rickover was a rigidly honest man who could be relied upon in an emergency. After the March 1979 nuclear accident at Three Mile Island in Pennsylvania, President Jimmy Carter, who had been a nuclear engineer in the Navy, called on Rickover for advice. Rickover submitted a report to the President and met with the President's appointed group, the Commission on the Accident at Three Mile Island. Later, in 1983, the Metropolitan Edison Co. itself called on Rickover to help it get its undamaged plant, TMI-1, started up again, because, as the utility representative said, "We don't seem to be able to persuade anyone to examine us and pronounce us ready to go." On the basis of Rickover's favorable recommendation, the plant was allowed to start up in 1986.

Committed to the best

The admiral's zeal for technical improvements did not begin with the nuclear navy—it was a lifelong obsession. As an engineering officer on the S-48, an old submarine, Rickover put out a fire caused by the main batteries. When he discovered that the design of the motor was at fault, he redesigned and rebuilt the motors.

As second in command of the Electrical Section of the Bureau of Ships, Rickover decided that some of the hardware on ships was too big and heavy. He drew up a new set of plans for control panels, warning the manufacturer to make them to his specifications: "If you won't, the Navy will cancel all future orders for control panels work [and] with someone who will." In another instance, writes Rockwell, a "vendor announced proudly that it [a redesigned instrument] was now a fully shockproof design. He handed it over to Rickover, expecting the commander to look it over admiringly and perhaps comment on its sleek appearance. But Rickover merely hurled it against the old-fashioned radiator and didn't even wince as it shattered. He then turned on his heel and strode silently back to his office."

Rockwell writes that "one of Rickover's greatest assets, as leader of a technically sophisticated project, was incredible technical intuition," and he quotes a General Electric executive that "his engineering intuition is eerie." It was Rickover's design for a pressurized-water reactor to power nuclear submarines that won out over the many others, when detractors felt that it was "too unimaginative." But, continues Rockwell, "essentially all of the world's nuclear power plant builders have independently come to adopt Rickover's design concept and technology." The author also shows how Rickover's work acted as what Lyndon LaRouche has called a "science driver" in the U.S. economy: "Whole new industries were set up to produce tonnage lots of zirconium, hafnium, uranium oxide, and other exotic materials previously known only as laboratory curiosities. Totally new types of valves, pumps, heat exchangers, and control systems were developed, which quickly found application in fields as diverse as biomedical research and water treatment plants."

FDR's second term: a study in opposites

by Stuart K. Lewis

FDR: Into The Storm, 1937-1940

by Kenneth S. Davis

Random House, New York, 1993

691 pages, hardbound, \$35

Some of the major events in President Franklin Roosevelt's second term, such as his trying to pack the Supreme Court, his struggle to get the National Recovery Administration programs passed, and his fight against isolationism, which Roosevelt saw as crippling his efforts to rearm the country in the face of expanding fascism in Europe, are thoroughly discussed in this long book by Kenneth Davis. Unfortunately he never deals with the British-steered geopolitical control over American policy, which set the forces in motion for both world wars, and of which FDR was sometimes the instrument, and other times the opponent; but for the student of history who is aware of those more fundamental causes, the book's detailed account of certain secondary features of the times and the gigantic personality of FDR, the last U.S. President to make such a mark on history, is both useful and fascinating.

Timely, in the context of today's western impotence to oppose Serbian fascism, is a long discussion of British Prime Minister Neville Chamberlain's appeasement policy of telling Czechoslovakia, which had one of the best armies in Europe at the time, to just give up its Sudetenland region to appease Hitler's Germany. Some other subjects Davis details are: the development of the Tennessee Valley Authority, which helped in flood control and gave the TVA area twice the national average in per capita use of electricity at half the national average in cost; a letter to Roosevelt from scientists concerning the use of nuclear power as a weapon, led to a whole discussion of the history of nuclear radiation; and the Russian invasion of Finland.

Spiteful appointments

Roosevelt's choices for Supreme Court justices and ambassador to England reveal the way his petty frustration would boil over into intensely damaging policy results. One of the most disastrous of all such decisions was his choice of Hugo Black for Supreme Court justice. Davis writes that