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## Admiral Hyman G. Rickover, USN: A Decade of Educational Criticism, 1955-64

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ADMIRAL HYMAN G. RICKOVER, USN:  
A DECADE OF EDUCATIONAL CRITICISM, 1955-64.

by

William J. Haran

A Dissertation Submitted to the Faculty of the Graduate School  
of Loyola University of Chicago in Partial Fulfillment  
of the Requirements for the Degree of  
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Finally, a deep gratitude is reserved for my wife, Donna, and my four children, Bill, Chris, Laura, and Dan, whose love, patience, and encouragement made possible this study.

## VITA

The author, William J. Haran, is the son of William J. Haran and Helen (Hennessy) Haran. He was born November 22, 1937 in Chicago, Illinois.

He graduated from Visitation Grammar School, Chicago, in June, 1950. His secondary education was completed at De LaSalle Institute, Chicago, in June, 1954.

In September, 1954 he entered Chicago State University and received the degree of Bachelor of Education in 1958. He was awarded the degree of Master of Arts by the Graduate School of De Paul University, Chicago, in January, 1966. In January, 1978 he entered the doctoral program in the Graduate School of Loyola University of Chicago from which he was awarded the degree, Doctor of Philosophy, in May, 1982.

In September, 1958, the author began teaching in the Chicago Public Schools with whom he is currently associated. His professional experiences include elementary school teacher, remedial reading teacher, school counselor, adult education instructor, assistant principal, and administrative assistant to the district superintendent. In 1967 he was assigned as principal of the William King Vocational Guidance Center, a special facility for potential school drop-outs. In 1972 he was selected as principal of the Joseph Brennemann Elementary School, his present position.

The author is a member of many professional organizations including Phi Delta Kappa, The International Reading Association, the Chicago Reading Association, the Illinois Principals Association, the Chicago Principals Association, and the American Federation of School Administrators.

The author is married to the former Donna L. Fancher. The couple has four children -- William, Christopher, Laura, and Daniel.

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## CHAPTER I

### "BACKGROUND AND PURPOSES OF THE STUDY"

The temporary edge in space exploration gained by the Soviet Union when it launched the world's first artificial space satellite in 1957 caused widespread domestic criticism of American education which was seen as lagging behind Russian programs. Many Americans were concerned that the apparent mediocrity of their schools not only had caused the technological retardation of the space program, but that the inadequacies of American education were causing the United States to lose in the Cold War's ideological competition with the Russians.

Since the end of World War II, Americans had viewed world power as polarized into two giant ideological camps which were in constant competition with each other. Democratic capitalism as espoused in the United States was seen in a life or death struggle for survival with totalitarian Communism typified by the Soviets. Tensions had begun when the Soviet Union, intent upon safeguarding its western borders, created a protective cordon of Communist satellite states in eastern Europe immediately after the War. In March, 1946, Britain's former prime minister, Winston Churchill, charged that the Russians had rung down an "Iron Curtain" across Europe. Seeking to take firm counter-measures against these and other Soviet actions, United States president, Harry S. Truman, announced the Truman Doctrine in which he proclaimed America's intention to support any government threatened by a Communist take-over. American policy of "containment" of communism

was begun. Thereafter, world politics witnessed a drawn-out sequence of international confrontations, each of which contained the potential for atomic warfare between the United States and the Soviet Union.

A fear that the Cold War would suddenly erupt into open nuclear conflict gripped many Americans. A national civil defense policy was developed which included regularly scheduled disaster alerts and the identification of atomic fall-out shelters in subways, schools, and other public buildings. These designated shelters were stockpiled for all to see with food-stuffs and water containers ominously labeled as sealed for protection against radiation contamination. Fear so touched the people that it was not unusual for individuals or families to construct atomic bomb shelters in backyards and basements. These were but a few of the visible daily reminders of imminent nuclear destruction which pervaded the lives of Americans throughout the 1950's.

The Cold War suddenly turned hot with the Communist invasion of South Korea in June, 1950. The United States extended its "containment" policy to the Far East and found itself involved in a war through July, 1953. During this same period (1950-54), many Americans at home were whipped into a paranoid frenzy by Senator Joseph McCarthy of Wisconsin. McCarthy's controversial investigations of public figures contributed to the belief that conspiratorial Communist machinations permeated the fiber of American society and had to be ferreted out before they brought about the ruination of the country from within.

It was amidst this national climate in 1957 that Americans received the news that the Russians had successfully launched a space satellite, Sputnik I. Sputnik was a serious blow to America's national pride, and it was seen by many as the ultimate threat to the country's



security. The citizenry asked questions of its leadership and demanded answers. What had gone wrong? How had the United States fallen so far behind Soviet technology? As is frequently the case in times of national crises, American schools and educational practices came under careful scrutiny to determine their part in this national failure.

This public outcry was only intensified by the fact that American schools during the middle to late 1950's found themselves ill prepared to handle the impact of the post World War II population explosion. This lack of foresight was readily visible to even the most casual critic. It could be seen in the serious shortage of classroom space and teachers. Classroom construction could not keep pace with increasing enrollments, and in many instances the school day had to be modified so that pupils attended one of two abbreviated sessions -- morning or afternoon. Such scheduling provided temporary relief for the lack-of-space problem, but teachers were then called upon to work a double shift and serve twice as many pupils. This undesirable situation was not helped by the prevailing low salaries traditionally paid to teachers which did little to attract the academically talented to teaching. As teacher training institutions rushed to provide the required teachers, they were often accused of sacrificing standards, the ramifications of which would affect the quality of teaching for years to come.

In response to the increasing criticism, the United States Congress passed the National Defense Education Act of 1958. The Act authorized unprecedented, large federal expenditures to the nation's schools. Under the Act, colleges and universities used these monies to expand their physical plants and research facilities, and the federal government made numerous research contracts with universities. Students were

permitted to borrow funds to continue their education, while the various states, by matching federal grants, received funds for textbooks, teaching aids, and other educational needs for use in classrooms at all levels of instruction.

The National Defense Education Act (NDEA) authorized the expenditure of nearly one billion dollars over four years, the largest Federal commitment to education up to that time. Administration of funds actually appropriated by Congress became the responsibility of the Department of Health, Education, and Welfare. The actual NDEA appropriation is under the jurisdiction of the House Committee on Appropriations, and it was at hearings before this Committee on August 18, 1959 that a witness was called to report on the state of Russian education vis-a-vis American education. The witness had been an outspoken critic of American education for at least four years prior to the launching of Sputnik I. The Soviet space success only further evidenced his criticisms, and made him appear prophetic since he had been particularly spotlighting America's lack of technical and scientific brainpower. He was neither a professional teacher, school administrator, nor full-time educational researcher. He held memberships in no professional educational associations, nor was he at the time a member of any nationwide educational reform group. He was a concerned citizen acting alone who seemed a most unlikely person to be asked to attest before the Committee since his occupation was that of a United States naval officer. The witness was Vice Admiral Hyman G. Rickover, USN.

Hyman G. Rickover was known to the American public variously as "The Father of the Atomic Submarine" or "The Father of Nuclear Propulsion". As director of the Naval Reactors Group of the Atomic Energy

Commission, he supervised the team of engineers and scientists who planned and constructed the first United States nuclear powered submarine, the Nautilus. Rickover oversaw construction of other atomic-powered ships and the Shippingport, Pennsylvania Atomic Power Station program which was developing nuclear reactors to supply electrical power. His ambitious goals, and the tireless determination with which he pursued them, made him a bitterly controversial figure in the Navy. This same resoluteness characterized his pursuit of educational reform and angered large numbers of professional educators who asked the question: "What right has this man trained in the naval sciences to call into question American educational policies and practices developed by those of us trained to the profession?" For his sharp criticisms of the schools, Rickover was "often dismissed by professional educators as an out-of-his-depth amateur."<sup>1</sup>

When asked by Rep. Clarence Cannon of Missouri, Chairman of the House Appropriation Committee, to state his background and qualifications for talking about education, Rickover replied:

As to my qualifications: I graduated from grammar school, high school, and the U. S. Naval Academy; I took 2 years of postgraduate engineering and received a M.S. from Columbia University, and I spent another year taking a graduate course in nuclear physics and reactor engineering at Oak Ridge.

I was instrumental in setting up the Oak Ridge School of Reactor Technology. I also assisted in setting up the first nuclear engineering course at the Massachusetts Institute of Technology and I am presently on an advisory committee to Princeton University to help them revise their mechanical engineering curriculum. It is true, however, that on the basis of these qualifications, I would

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<sup>1</sup>. "Able-Minded Seamen", Time, May 12, 1961, p. 63.

not be permitted to teach even a course in "general science" in any grade of the District of Columbia school system, or anywhere else in the United States for that matter... From that standpoint and the judgment of the National Education Association, I am completely unqualified to talk about education to your committee, sir."<sup>2</sup>.

But talk he did regardless of his detractors, and his testimony evoked such public interest and response that there were more requests for copies of those hearings than any other in the history of the Committee.<sup>3</sup>

It was not surprising that Rickover's detractors could not stop him from speaking out on education. The practices of American education were not sacrosanct to him, and if American educators painted him as one given to tactless carping about a grand institution, the schools, he was still not dissuaded. The man cared little for diplomacy and had always been one of the Navy's controversial characters. This controversy made him colorful copy for the news media and popular press, and he used these media effectively to communicate his viewpoints to the public. A review of some newspapers and popular magazines of this era showed that the press delighted in referring to Rickover as "the Navy's volatile virtuoso", "the peppercorn potshotter", "the Naval hot wire", "Peppery Rick", or just "the Admiral" as he was often called without further identification. Because of Rickover's blunt speaking manner, Time magazine stated that the "singleminded godfather of the atomic submarine speaks

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2. Report on Russia by Vice Admiral Hyman G. Rickover, USN: Hearings Before the House Committee on Appropriations, 86th Congress, (Washington: U. S. Government Printing Office, 1959), p. 2.

3. Hyman G. Rickover, American Education --- A National Failure, (New York: E. P. Dutton and Co., Inc., 1963), p. 96.

only one language: plain English, spiced with pepper."<sup>4</sup>.

Rickover's career was one of the stormiest and most undiplomatic tours of duty ever served in the U. S. Navy. Caring little for honored Navy tradition, he had little tolerance for the Navy's cumbersome red tape as he attempted to "get the job done". Life magazine once described Rickover as "the most unpopular admiral in the Navy... He is a red-tape cutter, a by-passer and a tromper-on-toes."<sup>5</sup> Team members and organization men who mindlessly acted out their roles in the Navy's bureaucracy were anathema to him. He felt that excessive military organizational structure only hindered the work it was ostensibly created to expedite by stifling individual creativeness necessary to solve problems. Rickover was quoted as saying:

A military organization is set up to do routine, not imaginative work. If anyone comes along with a new idea, the people in the organization naturally tend to make him conform. The first thing a man has to do is make up his mind that he is going to get his head chopped off ultimately. If he has that feeling, perhaps he can accomplish something.<sup>6</sup>

A prodigious worker, Rickover expected all who worked with him to be as emotionally committed to the project as he. His men most often responded with admiration for him when they saw he worked the same long hours they did and had the courage to buck high-ranking Navy officers who endangered progress sought by the group. Rickover was seen by his fellow officers as "a thin, wiry, iron-fisted, tireless worker who

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<sup>4</sup>. "Now Hear This, You People", Time, 71, April 28, 1958, p. 22.

<sup>5</sup>. R. F. Wallace. "Deluge of Honors for an Exasperating Admiral," Life, 45, September 8, 1958, p. 104.

<sup>6</sup>. Ibid. p. 109.

wrote vituperative reports and drove men and machines to the breaking point... He believed the shortest distance between two points was a straight line --- even if it bisected six Admirals."<sup>7</sup>.

While Rickover's modus operandi may have delighted the news media and earned the respect of his men, it greatly upset Navy brass. He frequently violated Navy protocol by arranging within his command for high ranking officers to work for junior officers or for civilians to fill some of the most important jobs. When a public appearance traditionally called for a proper Navy uniform, Rickover would arrive in civilian dress. If the order-of-the-day was discretion, Rickover was at his candid best. In a Navy that valued the manipulation of men and things, he emphasized the manipulation of ideas.

Rickover just did not project the sterotypical image of a Navy officer. Rather, he was seen as "an egghead in Navy blue." It was said that his intellectual learnings and his actual physical appearance contributed to his unpopularity. He was once described as "a man who lives almost entirely by his mind and seems to have an uncommonly large head." The observer emphasized that this was not really so, but that his rather small stature (5"6" and 125 pounds) added to the illusion that "his body is so overshadowed by his head that it seems to exist merely as an appendage to it."<sup>8</sup>.

Hyman Rickover aggravated so many Admirals during his career that

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7. Clay Blair, Jr., The Atomic Submarine and Admiral Rickover, (New York: Henry Holt and Co., 1954), p. 18.

8. R. F. Wallace, p. 106.

in 1953 when his name came before the board of senior Admirals who determine which Captains will be promoted to the rank of Admiral, Rickover was "passed over" for the second time. This meant that at age 52 when he was being acclaimed internationally for his atomic achievements in behalf of the U. S. Navy, that same Navy's Selection Board by "passing over" him twice for promotion had assured his automatic retirement from the service. Only after intense Congressional pressure on his behalf, and with direct intervention by the Secretary of the Navy was his name brought before the Selection Board for an unprecedented third time. After no small amount of resistance, the senior Admirals finally voted for Rickover's promotion to Rear Admiral.<sup>9</sup>

The Navy seemed determined to force Rickover into retirement. He was to again encounter internal Naval resistance prior to his promotion to Vice Admiral in 1959. Congressional support reappeared conjoined with strong and often emotional support from the news media and popular press. Newsweek, for example, charged he was most probably being forced into retirement because he was outspoken and nonconforming. It reported that several Admirals to whom nuclear physics was unintelligible, made little secret of the fact that they considered Rickover to be a "nut."<sup>10</sup> An editorial in the Saturday Evening Post called for Rickover's promotion and likened him to earlier revolutionary thinkers who had contributed to the reshaping of the U. S. Navy

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9. Clay Blair, Jr., p. 256.

10. "Rickover Rescued Again", Newsweek, 52, August 25, 1968, p. 23.

and who had all been "rapped sternly for their zeal... Admiral Rickover has been snubbed, rebuked, insulted, and hurt to a far greater extent than his predecessors. For over five years the Navy has been trying to shoehorn him into retirement."<sup>11</sup>. The opposition to Rickover's forced retirement again prevailed, and Navy Secretary Robert B. Anderson was persuaded to promote him in spite of the Navy brass.

Looking back to Rickover's early life offers some clues to the unusual character of this man. Rickover was born January 27, 1900 in Makov, Polish-Russia. He was the only son of three children born to Abraham and Rose Rickover. In 1906 the family migrated to the United States as part of the great wave of Russian-Jewish emigration. They settled in Chicago, Illinois in a westside Jewish neighborhood where Abraham Rickover worked as a tailor. His earnings provided the family with essentials, but frugality was a way of life and waste was frowned upon.

Rickover attended the Chicago Public Schools. By the time young Rickover had finished Victor Lawson Elementary School and had reached George Marshall High School, he had already worked at a variety of jobs and had reason to be proud of his self-sufficiency. During high school he worked eight hours a day from 3 PM. to 11 PM. as a Western Union messenger boy to contribute his share to the family income. This left him with little time to participate in school social life, and of necessity, he became a loner. Because of long days at work and school, he was not an outstanding pupil in high school. One year he failed two subjects

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11. "We Mustn't Let the Navy Brass Put Rickover in Mothballs", Saturday Evening Post, 231, October 11, 1958, p. 10.



which had to be made up in summer school.<sup>12.</sup>

In 1918 Rickover was offered a Congressional appointment to the United States Naval Academy at Annapolis. The appointment was a means to acquire a college education he could not otherwise afford. Rickover gladly accepted the offer, and in customary fashion applied for admission to a preparatory school near Annapolis to prepare for the rigorous Naval Academy entrance examinations. He left his family and Chicago for the prep school, but after two weeks he quit because he decided the course was inadequate and would never prepare him for the examinations. He forfeited the hard-earned, three hundred dollar tuition fee. In a manner he came to use many times in later life, Rickover restricted himself to his boarding-house room for two months of self-directed study. When the time came, he took the entrance examinations, passed, and entered the Academy.<sup>13.</sup>

At the Naval Academy, Rickover dedicated himself to a life of hard work and scholarly pursuit. He shunned athletics and other extra-curricular activities, and he scorned the Academy's juvenile rituals. He failed to measure up on the drill field, and consistently earned poor marks in military bearing. His Academy yearbook described him as "studious with little time for humor", yet he seemed untroubled by the derision afforded rebellious individuals and intellectual types by classmates. He most probably encountered prejudice against Jews during his four years at Annapolis (1918-22) since the number two ranked man in Rickover's class, who was a Jew, had his picture in the class yearbook printed on a perforated page for easy removal.<sup>14.</sup> Rickover graduated

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<sup>12.</sup>Clay Blair, Jr. p. 35.

<sup>13.</sup>Ibid., pp. 35-36.

in 1922 and placed one hundred seventh in a class of five hundred thirty-two. Academy class standings were computed on the basis of several factors other than scholarship. While Rickover's scholarship was above average, his ineptitude in non-academic areas undoubtedly lowered his overall class average.

After a required five year tour of duty with the fleet, Rickover became eligible for post-graduate work. He chose to take his master's degree in electrical engineering, and after one year of study at the Naval Academy, he transferred to Columbia University's School of Engineering in 1929. While at Columbia, Rickover met Ruth D. Masters who was a graduate student studying international law. In 1931, the two were married in Litchfield, Connecticut. A son, Robert Masters Rickover, was born from this union. Ruth D. Rickover died in 1972. Hyman Rickover was married a second time to Eleanore Ann Bednowicz in 1974.

Rickover qualified as a submariner in 1931, and spent three years in the submarine service. He continued work at various assignments and commands on ships of the line and in administrative staff positions through 1946. By that time he had advanced to the rank of Captain, and was chosen as the senior naval officer representing the Navy at the special Oak Ridge joint study group to build an atomic power reactor. It was this beginning work with nuclear reactors which would eventually be applied to the propulsion of ships when Rickover became head of the Naval Reactors Branch of the United States Atomic Energy Commission.

Rickover developed a reputation throughout his naval career as a

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14. R. F. Wallace, p. 109.

goal-oriented person dedicated to hard work. He, in turn, admired competent, efficient, and creative individuals. He elicited strong feelings from those with whom he worked. An admirer of his is quoted as saying, "You will like the Captain if you are a man of foresight and imagination. If you are not, you will hate him and he will hate you. There is no middle ground because the Captain has no time for middle ground or mediocrity."<sup>15</sup>.

Meddling superiors in administrative positions were the bane of Rickover's life. This was especially true when they attempted to direct the activities of experts having specialized knowledge. He charged: "Superefficient 'administrators' are the curse of the country... Their main function is to harass brain-workers with trivia and to waste as much time as possible."<sup>16</sup>. Typical administrators reached their positions in the organizational hierarchy "because they understand routine personnel problems, know how to keep people working contentedly, and are always subservient to the wishes of their superiors. The typical administrator...has limited his own originality so severely that he has no understanding of the freedom essential to the creative worker... There is no hierarchy in matters of the mind."<sup>17</sup>.

It was this type of thinking that caused a great deal of friction between Rickover and his superior officers in the Navy chain of command. He felt the creative genius of independent thinkers was being killed by

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<sup>15</sup>. Clay Blair, Jr., p. 29.

<sup>16</sup>. R. F. Wallace, p. 110.

<sup>17</sup>. Hyman G. Rickover, Education and Freedom (New York: E. P. Dutton and Co., Inc., 1959), p. 21.

overorganization. He said:

We are drowning in paperwork. We are talking ourselves into a standstill in endless committees -- those pets of the administrator... nothing can be done without elaborate preparation, organization, and careful rehearsal. We have been diluting responsibility for making decisions by piling layers of supervisory administrative levels, pyramid fashion, upon the people who do the real work. All this delays new development.<sup>18</sup>

Somehow, bureaucracies had to accommodate that self-directed, obstreperous maverick who was always ready to upset the applecart by thinking up new and better ways of doing things.

Rickover can be credited with the execution of a classic maneuver in antibureaucracy. Knowing that the Navy's bureaucracy would be required to deal with the equally cumbersome Atomic Energy Commission, he arranged that the civilian AEC should establish the Naval Reactors Branch to cooperate with the Nuclear Power Division in the Navy's Bureau of Ships. Once this new Branch was agreed to, he proposed that it be headed by a likely fellow named Hyman G. Rickover. Thus it became possible for Rickover wearing his Navy cap to write letters to Rickover wearing his civilian hat. This way, in a rare example of cooperation between military and civilian branches of government, whatever Rickover wanted, Rickover got!

It was men of "independent mind and venturesome spirit" that Rickover set out to find for his nuclear propulsion group. As he started the tasks of building a nuclear propelled submarine and generating electricity with nuclear reactors, he searched among the best young American engineers available for persons who could do these pathfinding jobs at a breakneck pace. What he discovered was that among the very best engi-

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<sup>18</sup>. Ibid., pp. 21-22

neers this country had trained, very few qualified to do the work required. Few of the thousands of "elite" young men interviewed had received a thorough training in engineering fundamentals or principles, but rather had simply absorbed large quantities of facts which were of little use because of the applicants' inability to apply the underlying engineering principles in novel situations. What were noticeably lacking among the group were independent minds capable of creative problem solving in a rapidly changing world which continued to give birth to many new and unpredictable problems.

This experience led Rickover to begin a very careful study of the American educational system. He occupied every moment of his spare time in an effort to discover why the educational system had failed to produce the qualified manpower necessary to do the work needed for national survival and progress. He concluded that American formal education was producing young adults who were so poorly equipped to deal with mid-twentieth century life that the schools had to be the greatest "cultural lag" of the times.<sup>19</sup> American schools simply were not properly training enough young people to carry forward the new and unforeseen projects needed for continued progress in a world with ever decreasing natural resources, particularly its non-renewable fossil fuels. Furthermore, it was every citizen's right and responsibility to be openly critical of such failing schools.

Rickover's rationale supporting a layman's right to criticize American schools was predicated on the premise that education which is

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19. H. G. Rickover, Education and Freedom, p. 23.

not serving society must be reformed.<sup>20</sup> Such reform of the schools must become and remain a "public" issue, and individual citizens who expect to remain free have the right and obligation to concern themselves with all such public matters. They must raise questions to stir public debate; they must publicly criticize. Issues must be sharply defined and brought to public attention since effective action to improve American education will not come about until public consensus demands it.<sup>21</sup> The most productive of these critics have always been outsiders and not professional educators who have a vested interest in maintaining the status quo.<sup>22</sup> However, lay critics need the services of a free press to give the identified issues publicity and start the people moving toward that consensus which eventually solves the problem.<sup>23</sup>

It followed with necessity that Rickover should become a public critic of American education. He raised issues and entered into public debate. He made speeches, wrote articles, and authored three major books on education. He kept the controversy in the popular press for the general public and not only in professional educational publications. He testified about the state of American education before eleven Congressional hearings, and he continues to write and speak on matters which affect the nation and its schools.

Admiral Rickover received many honors for his efforts in atomic energy and educational reform. A list of his military medals, awards,

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20. H. G. Rickover, American Education -- A National Failure, p. 3.  
21. *Ibid.*, p. 264.  
22. *Ibid.*, p. 100.  
23. *Ibid.*, p. 13.

and honorary degrees literally fills pages. In 1973 he received a most unusual honor from which he must surely receive great satisfaction. The Congress of the United States, in an unprecedented action, passed a bill which authorized the President to promote retired Vice Admiral Rickover to the permanent rank of full Admiral. Rickover originally retired in February, 1964, but was recalled to active duty on the orders of the President. As an officially retired officer, he was ineligible for promotion under the normal selection procedures. The Congress, however, believed "that the most appropriate honor for him is to achieve the highest rank in the military service to which he has given his life and to have that honor bestowed on the initiative of the Congress of the United States."<sup>24</sup> As recently as October, 1979, Rickover was re-appointed as Director of the Navy's nuclear propulsion and reactors programs for another two years through January, 1982.<sup>25</sup> He continues to maintain his Navy rank in this capacity. Ironically, the man whom the Navy tried so energetically to retire remains the United States' oldest serving military officer.\*

This brief biographical sketch portrays a man of indomitable drive who speaks with vitality and candidness about all public issues even to this day. He has always seen it as his duty, as it is the duty of every citizen of a democracy, to bring critical issues to public attention.

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<sup>24</sup>. U. S. Congress, House Committee on Armed Services, Authorizing The President to Appoint Vice Admiral Hyman G. Rickover, U. S. Navy, Retired, to the Grade of Admiral on the Retired List, H. Rept. to Accompany H. R. 1717, 93rd Cong., 1st sess., June 1973.

<sup>25</sup>. Chicago Sun Times, October 7, 1979, p. 64.

\* Admiral Hyman G. Rickover was retired from active duty in January, 1982 at age eighty-two. He did not volunteer to retire; in fact, he requested re-appointment by the Secretary of the Navy.

He has done so out of a conviction that if the public can see the problem, the public will correct it.

During the ten year period under consideration in this work, Rickover spoke with the same frankness about what he saw as the many weaknesses of American education. He directed most of his remarks to the general public and not to professional educators whom he thought were incapable of effecting change called for by valid criticism. He was forthright, blunt and uncompromising in his attacks on highly revered educational philosophies and practices. These attacks, combined with his style of writing and speaking which was many times intentionally inflammatory, caused great hostility and controversy among educators from 1955 through 1964. One regrettable result was that many American educators found it difficult to dispassionately appraise his ideas, and frequently the debate degenerated into ad hominen arguments against Rickover. The flames of the controversy were only fanned by Rickover's repeated refusals to reply to the counter attacks of the professionals. He would derisively refer to them not as professional educators, but as "educationists" whom he dismissed with such a typical comment as: "I never try to answer these people or set the record straight. It's useless, and I haven't the time."<sup>26</sup> Such statements guaranteed intense, negative reaction from educators. However, Rickover succeeded in attracting many followers among his intended audience, the non-professional public.

Time has cooled the controversy. The interim permits the begin-

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26. James D. Koerner. "Admiral Rickover: Gadfly," Saturday Review, 44, April 15, 1961, p. 62.



ning of an historical perspective in which Hyman G. Rickover can be seen as part of a twentieth century phenomenon in American education which seems to have recurred approximately every twenty to twenty-five years since the onset of the progressive education era. This phenomenon seeks to return schools to their traditional function of training the mind. It can be seen first in the essentialist movement of the 1930's in the works of such authors as William C. Bagley, Michael J. Demiashkevich, and Henry C. Morrison. It appears again in the 1950's and early 1960's spearheaded by Arthur Bestor, Rickover, James D. Koerner, and Max Rafferty. Most recently, it took shape again in the back-to-basics movement of the late 1970's.

These twentieth century basic education movements remain amorphous in many ways. Certainly the nuances and efficiency of the ideas presented vary among the persons involved and from movement to movement. The essentialists of the 1930's were primarily a group of professional educators reacting to what they perceived as the inordinate influence of John Dewey, the progressive education movement, and the social reconstructionists. In the fifties and sixties the cause was advanced by non-professionals beginning with Bestor followed by Rickover and others. These laymen were critical of the progressives, social reconstructionists, and the then recently emerged life-adjusters.

The recent back-to-basics movement of the 1970's had been heralded by both educators and laypersons. However, no distinct personality has surfaced who might offer clarity and direction to the movement. It differs from the earlier two strands of this basic education phenomenon in that it primarily concerns itself with elementary curricula while the

other two were mostly concerned with secondary schools and higher education. Further, the recent movement has a confusing motivation which is not strongly based on a dissatisfaction with Deweyan concepts. Its motivations might range from tax revolt and economic retrenchment in some school communities to a desired return to an educational, patriotic, or religious conservatism in other locales. For all of their differences, what the three strands of the phenomenon have in common is the call to stop complicating and diluting the primary purpose of a school which is to teach those skills and concepts necessary to develop maximally a pupil's intellectual potential.

Hyman G. Rickover was among those who believed that the school was the only institution in our society conceived exclusively for the purpose of training the mind. He was upset and critical of how far American schools had strayed from this primary function by mid-twentieth century. It is the major purpose of this study to record accurately and analyze Rickover's criticisms and recommendations for American education during the decade from 1955 through 1964. Additionally, the controversy stirred by his criticisms will be explored within the context of the educational climate of that decade.

A concentration on this time frame was chosen because it was during this decade that Rickover emerged as the preeminent critic of American education surpassing even historian Arthur Bestor who launched the basic education trend in the 1950's. It was during these ten years that Rickover's educational thoughts received the most attention and stirred the most controversy. By 1965, Rickover seemed to lose some of his fervor for the educational conflict, and the tide of his notoriety in education-

al matters was beginning to ebb.

Subsequent to 1965 Rickover continued to speak out and offer testimony before Congress on educational matters, but in much less quantity. These later documents shed significant light on the decade of interest for at least two reasons. First, they reveal a remarkable consistency over the years in Rickover's arguments, criticisms, and recommendations for American education. Secondly, though he never responded to his critics among educators, many of these later remarks served to clarify his educational position vis-a-vis the questions raised by his opponents during the decade of controversy. For these reasons, this study makes use of some source documents which post date the decade of Rickover's greatest impact.

Hyman G. Rickover's ideas on education have commanded the interest of various segments of the American public for over twenty-five years. For at least ten of those years, Rickover was the center of a heated controversy in American education. He has written three major books expounding his thoughts on education: Education and Freedom (1959), Swiss Schools and Ours: Why Theirs Are Better (1962), and American Education: A National Failure (1963). On eleven occasions he was invited as an expert witness to give testimony on education before the Congress of the United States. He has authored many articles for magazines and delivered innumerable public speeches on the need for reform in American schools. His calls for educational changes and the controversy surrounding them have been intensely promulgated in the popular press. Yet, Rickover has been largely ignored by educational historians. There have been no comprehensive studies or doctoral dis-

sertations completed which treat his educational ideas. Where he is mentioned in textbooks or articles, he is frequently misrepresented or dealt with cursorily. One must wonder if his ideas have been obscured by the heat of the controversy, or if he has possibly been arbitrarily dismissed by the writers of educational history who more frequently are educators rather than historians.

Regardless, Rickover should be remembered for his identification and public articulation of specific failures of American schools and the barriers to their reform. He extensively compared and contrasted American education to that received in European countries including Russia in the post-Sputnik era. He suggested changes in American education that in many instances continue to be relevant, yet to this day many of his suggestions remain anathema to most professional educators. A review of his criticisms must begin with what he saw as the failure of American schools to provide the education necessary for the nation to progress.

## CHAPTER II

### "THE MYTH OF AMERICAN EDUCATIONAL SUPERIORITY"

Hyman Rickover charged that the American schools were failing the pupils they served. He further claimed that American educators had created a myth regarding the superiority of schools in the United States as compared to other countries. He felt the illusory claims fostered by this myth created an unjustified satisfaction with the performance of the schools and precluded needed reform. This chapter will present some of the motivation behind Rickover's concerns for American education. The chapter will also provide an expository treatment of what Rickover said were mythological claims of American educational preeminence. More extensive comment and criticism of Rickover's claims will be provided in later chapters.

For Rickover, the failure of American education could be readily seen in its end product, the students finishing its schools. Rickover saw himself as a consumer of this product. His personal experiences attempting to use the end product of American education caused him to suspect that a serious problem surely existed in the schools which prepared the country's scientists and engineers. Initially, he examined this problem because of his need to understand and remove obstacles which hindered his work with nuclear propulsion. His initial investigations soon expanded from his immediate, particular concerns to the development of a general indictment against the educational practices used in the

United States. When his inferred failure of America's schools was coupled with his conviction that Russia was at the same time making great technological progress, Rickover concluded that his country must revise basic attitudes, assumptions, and methods of going about its educational business. This crisis in education was the greatest problem facing America, and its urgent resolution was essential if the country was to continue its technological advance and not lose the Cold War by default. In short, Rickover believed the United States was involved in a race between education and catastrophe.

Rickover underscored this urgency for educational reform with his frequent and prophetic predictions that America's depletion of its fossil fuels, especially oil, could weaken its position as a politically and industrially dominant nation. As early as 1953,<sup>1</sup> he pointed out that the United States for the previous five years had been in the precarious position of importing oil. This dependence on imports was being accelerated by a wasteful attitude among Americans as typified by their persistent and excessive use of big automobiles, the most uneconomical users of energy. The first of the fossil fuels to be exhausted would be oil. As oil resources diminished, the cost of automotive fuel would rise to the point where private automobiles and related modes of transporting people and goods could become financially impractical, thereby forcing a major reorganization of the pattern of living in in-

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1. H. G. Rickover, address delivered at luncheon sponsored by Nevada Mining Association and the Reno Chamber of Commerce, Reno, Nevada, August 15, 1953.

dustrial nations, especially in the United States. Solutions to the many social and technological problems attendant to such massive reconstruction of community life would require the services and support found only among an educated citizenry.<sup>2</sup>

Rickover further believed that high energy consumption had become a prerequisite of political power. The tendency in mid-twentieth century was for international political power to be concentrated in an ever smaller number of countries. Ultimately, the nations with access to the largest energy resources would become most dominant. This eventual struggle for control of energy resources caused Rickover to predict that underdeveloped countries with large fossil fuel deposits might be enticed or coerced into withholding their energy resources from a given country, or might decide to retain these resources for their own economic or political advantage.<sup>3</sup> A severe limitation of energy sources, the lifeblood of all technologically advanced nations, could result in increased international tension and the possible re-alignment of traditionally allied countries.

Rickover focused attention on the future implications of such developing conditions. He urged his nation to think soberly about its responsibilities to its future generations. He called for the development of a national energy program that would at once conserve non-renewable fossil fuels and at the same time promote the development of new energy sources needed to meet future needs. Such a program would likely have

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2. H. G. Rickover, "Energy Resources and Our Future," address delivered at the Annual Scientific Assembly of the Minnesota State Medical Association, St. Paul, Minnesota, May 14, 1957, pp. 12-16.

3. Ibid., p. 17.

ramifications for American foreign policy and would mandate major changes in the nation's daily lifestyle.

The need for large numbers of competent and highly educated men and women to meet the social, political, and technological challenges of such an energy program was self-evident. For Rickover, there was an inexorable link between the problems caused by diminishing energy resources and the need for quality education. He concluded that the greatest of the responsibilities facing the adult citizenry was to give America's youngsters the best possible education for dealing with a future immeasurably more complex than what was known at that time. He was also confident that once the American public understood the urgency of the country's educational needs, it would reconcile itself to the self-denial and continuing higher taxes necessary to finance a solution.

Rickover lacked confidence, however, in the ability of the educational establishment to provide the nation's required educated manpower even though the public provided adequate economic resources. He was convinced that most makers of trends and policies in American education had a distorted view of what constituted an educated person. Consequently, the efforts of American schools to produce the educated men and women essential for progress were necessarily exercises in futility which held grave consequences for the nation.

When asked during a Congressional hearing to define an educated man, Rickover replied:

I think an educated man... is a man with broad knowledge in all the fundamentals that make the world around him intelligible; a man whose mind has been sharpened so that he can use it effectively. He accepts ideas, thinks about them, imparts something of himself into them, and comes forth with something new. Because of his broad general knowledge, the educated man sees things in perspec-



tive; in relation to other things, in an interconnected way... Ability to withdraw into himself and think things out independently is perhaps the educated man's most important attribute... But this characteristic is developed through education. The uneducated have it to a much less degree than the educated.

Further clarifying how education might develop this characteristic of independent thinking, he went on to say:

Education enables a man to draw his own conclusions from what he observes around him. It equips him with sufficient general knowledge to understand the world. It develops in him ability to make rational decisions in difficult circumstances and to meet totally new and unexpected contingencies. It also has familiarized him with the ways in which other people at other times solved similar problems. He is supported by the vast fund of wisdom collected in the past and throughout the world. It isn't finished when formal schooling ends but goes on all through life.<sup>4</sup>

For Rickover, the primary function of schools was to contribute to this type of intellectual education. Educational institutions should direct their efforts toward enlarging a student's comprehension of the world by providing the knowledge and mental skill to understand what lay beyond his personal experience and observation. Schools should familiarize students with events and people who were distant in time or space so that they could form independent judgments on social phenomena. Schools should also render intelligible to students the physical world and its laws so that they could determine their place in nature.

Rickover believed school functions were based on a traditional concept of education in Western civilization which had been permanently fashioned by the classical Greek valuation of knowledge, its pursuit, and reasoning based on that knowledge. This classical respect for know-

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<sup>4</sup>. Hyman G. Rickover, Statement before the Committee on Science and Astronautics of the U. S. House of Representatives -- Eighty-Sixth Congress, Scientific Manpower and Education (Washington, U. S. Government Printing Office, 1959), p. 400.

ledge led the West to create educational institutions dedicated to the preservation and expansion of knowledge which increased man's understanding of himself and his world, and promoted his ability to put the forces of nature to good use for himself. Rickover advocated maintaining the traditional role of educational institutions in Western civilization. He saw this role as threefold: first, to pass on the accumulated knowledge of the past; second, to develop the minds and bodies of young people so that they could acquire this knowledge and use it to solve current problems; third, to encourage highly talented and creative students to explore beyond the current frontiers of human understanding and thereby add to mankind's accumulated body of knowledge.<sup>5</sup>

Rickover's case against those who ran American schools was that they shortchanged the education of children by failing to distinguish between true education and training. A true education, through solid communicative skills and a liberal arts course of study, provided students with the knowledge and perspective necessary to deal with current problems and shape their own future. Such an education enriched the mind, cultivated human personality, and developed intellectual capacity which could be transferred to solve a variety of complicated problems.

In contrast, training always remained specific to a particular task; it failed to provide a theoretical knowledge base that could be transferred to more extensive and novel situations. Moreover, training merely fitted the young into a pre-determined social mold. It developed

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5. Hyman G. Rickover, "The World of the Uneducated," The Saturday Evening Post, 1959, (Reprint).

character traits to suit the predominant ethical and religious beliefs of the community by teaching children socially-approved manners, mores, and personal appearance. Training could also be used to provide simple vocational skills used in routine work, and it was used to teach leisure-time activities. However much training a person received, Rickover maintained neither his ability to reason nor the quality of his intellect would be positively affected.

By concentrating on training, American schools produced little genuine education as compared to traditional schools in Western European countries and the Soviet Union. American students were being offered courses in the minutiae of daily life -- e.g., photography, proper use of the telephone, driver education, simple home maintenance, personal grooming, and dating etiquette -- which could be easily acquired elsewhere. This situation resulted from the refusal of American educators to recognize a hierarchy among school subjects -- cooking being as valuable as chemistry, consumer education as valuable as mathematics, and home appliance repair as valuable as physics. American schools had replaced a sequential curriculum of true academic subjects with a smorgasbord of easy courses from which students chose what they liked to study with no necessary consideration of what experience revealed they needed to know. At the same time, their counterparts in other Western nations spent the majority of their school day concentrating on the academic disciplines of history, geography, anthropology, literature, mathematics, and the sciences. These accumulated bodies of knowledge, along with art and music, contained the intellectual heritage of Western civilization, and Rickover believed the youth of America were being denied easy access to that heritage.

Rickover saw this inordinate emphasis on training in American schools as an outgrowth of the progressive education movement. He was willing to acknowledge that both education and training were the two processes necessary to guide children to adulthood, but while traditional educators recognized and maintained a clear distinction between the two, he argued progressives did not. The equation of education with training by progressive educators was seen by Rickover as a peculiarly American phenomenon. The progressive theories and practices of John Dewey and his disciples had received little assent in countries other than the United States. Rickover frequently reminded Americans that in the 1930's their ideological enemy, the Soviet Union, had temporarily adopted progressive theory with its emphasis on training, but the Soviets abandoned progressivism when they determined it did not truly educate. In America, however, Deweyan concepts were so totally embraced by teacher training institutions that by mid-twentieth century they permeated the country's educational system.

Though he saw both education and training as requisites for the development of the young, Rickover maintained it was impossible for schools to do both in the typical one hundred eighty day school year. Historically, training had been the responsibility of the family, the church, and the larger community. Rickover felt these agencies should not be allowed to shift their responsibility to the school. He believed training could be gotten from a variety of sources including the young's own life experiences, or what progressive educators were fond of calling "learning through living." Education, however, was viewed by Rickover as "learning through instruction," and few parents and no

other public agencies could provide such a deliberately structured program. The need for such instruction was the sole purpose for creating educational institutions. Proponents of progressive educational ideas had caused a dilution of this purpose in American schools. Schools simply lacked the time to take on the task of developing "the whole child" as called for by these progressives. Rickover believed attempts by American schools to do so had failed, and children were neither well educated nor well trained.

According to Rickover, the favorite expression of progressive educators to describe efforts to train a child in group determined skills, attitudes, and habits were "life adjustment" education or "adjustment to the peer group."<sup>6</sup> Such careless interchange of terminology was common by Rickover, and reflected his narrow and confusing view of progressive education. For instance, those most frequently attacked by name in his books, speeches, and testimony were John Dewey, William Heard Kilpatrick, and the life adjusters; yet Rickover failed to discern differences among the three. He regularly placed all three under the same banner along with any other modern educators who borrowed progressive terminology or practices. By so doing, he created a false notion that a universally accepted definition of progressive education existed, and that its practitioners were easily identified. Such was not the case; moreover, Rickover's treatment of the life adjustment movement as synonymous with progressive education was a glaring error.

No less an authority on the progressive education movement than Lawrence A. Cremin claimed that throughout its history progressive ed-

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6. Ibid.

ucation meant different things to different people. Nowhere in his book, The Transformation of the Schools: Progressivism in American Education, would Cremin attempt a capsule definition of progressive education. On the contrary, he cautioned that great care should be taken when ascribing educational beliefs and practices to progressive education because of the evolutionary process the movement underwent. Cremin detected an early shifting emphasis within the movement and away from pure Deweyan ideas. This shift began with William Heard Kilpatrick, Dewey's immediate disciple. As the movement continued to evolve, even Dewey became critical of the Progressive Education Association and eventually became estranged from the group because of what he perceived as its distorted pronouncements in the name of progressivism. Finally, the life adjustment movement which peaked in the 1940's may have had some roots in progressive education, but Cremin viewed life adjustment as an entity separate from anything conceived by John Dewey.

It was ironic that the life adjustment movement which Rickover equated with progressive education was seen by Cremin as the very thing which dealt the final death-blow to progressivism in American education. Cremin believed the emphasis life adjusters placed on adjustment to the group and to the environment was in such direct conflict with the American tradition of self-determination that it elicited an inordinate amount of criticism. Many of the critics, in a manner similar to Rickover, identified life adjustment with progressive education. An already weakened and directionless progressive education movement could not withstand this onslaught of criticism, and according to Cremin, the movement died in 1957. If Cremin fixed the date of demise accurately, it is again ironic that Rickover continued for years to call for a halt

to a movement which had already died in the same year his educational criticisms received their greatest impetus -- 1957, the year Sputnik was launched.

It would be simplistic and unfair to characterize Rickover as someone who attempted to slay an already dead dragon. He may have been wrong treating life adjustment as progressive education, but he was on firm ground when he perceived life adjustment as part of a residual body of educational thought and practice extant in the fifties which began with the progressive education movement and which altered the course of American education in the first half of the twentieth century. Cremin, too, recognized this phenomenon; he borrowed the phrase "conventional wisdom" from John Kenneth Galbraith to describe it. Cremin believed there existed an aggregate of educational ideas and actions having its roots in progressivism, which had become the "conventional wisdom" of the 1950's.<sup>7</sup> American educators during the fifties projected this "conventional wisdom" to the public with carelessly used catch phrases such as "educating the whole child", "teaching children, not subjects", "child-centered schools", "learning by doing", "democratizing education", etc., all of which were borrowed from the progressive education movement at some stage of its evolution. These prevailing educational beliefs and practices, though not "pure" progressivism, continued directing American schools away from what Rickover saw as their primary task -- educating the mind. He viewed this turning away from their primary task as the major cause of the failure of American schools.

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<sup>7</sup>. Lawrence A. Cremin, The Transformation of the School: Progressivism In American Education, Alfred A. Knopf, Inc., New York, 1961. pp.328-338

Rickover found evidence of this failure in the steady decline of standardized test scores, ranging from elementary school achievement tests to college board examinations. He claimed another well documented and clearly reasoned case against the adequacy of the schools was made by academic scholars at the college level. To them the insufficiency of the schools was manifest in the growing number of college remedial courses being offered in high school and elementary school subjects. Additionally, most courses in secondary schools and college lacked any unifying standard which would permit intelligent comparison of educational programs among various schools. One result of this lack of a standard was that diplomas from educational institutions were becoming meaningless. There was no longer a clear understanding of what was meant by a high school education or a college degree. Employers in business and industry or admission counselors in universities and professional schools had come to view a diploma as merely a certificate of attendance whose qualitative standing could be judged solely by the reputation of the institution awarding it.

Quality levels were dropping all along the line, and grade inflation was rampant. Rickover claimed this general downgrading of requirements for high school and college diplomas had created a sort of Gresham's Law in American education.<sup>8</sup> Inflated grades and devalued diplomas had become the dominant coins on the domestic educational exchange and had driven out the preferred forms of education from circulation. However, any exportation or international interchange of education still

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<sup>8</sup> H. G. Rickover, Education and Freedom, p. 145.



demanded that only forms of the highest intrinsic value be used, and Rickover was concerned that the United States would no longer be able to produce premium education for competition in the international market.

It was true that each year Americans took great satisfaction in statistics which showed that increasing numbers of children were going to school longer and reaching higher levels of education. However, Rickover argued that these statistics dealt only with the face value of the education involved, and not with its intrinsic value based on a qualitative factor. The statistics merely showed the number of years attended and not what had been learned during a given year. When the quality factor was introduced, Rickover contended that these reported higher levels became lower, and the American public was receiving no more or better education than it received one hundred years before. A true evaluation of the scholastic performance represented by diplomas and degrees awarded in the schools throughout the United States would cause Americans to stop deluding themselves that they were providing the greatest amount of education to the most children in the best schools in the world. Contrarily, Rickover charged that the dream of American universal education had been betrayed.<sup>9</sup> This betrayal was made possible because of the widely believed educational illusions and myths which by sheer repetition through a half century of educational discussions had become "embedded into folklore."

During Congressional hearing considering the National Defense Education Act of 1958, the Executive Secretary of the Association of Sec-

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<sup>9</sup>. Ibid.

dary School Principals made the following statement:

Both quantitatively and qualitatively, the American system of education is the best system in the world and as evidence we quote our national standard of living level as compared to living levels in other countries. As people become more widely educated, they exert more ingenuity and resourcefulness in improving their living level and more demanding in its acquirements.<sup>10</sup>

For Rickover, this statement epitomized much of the fiction widely believed about American education. It contained two of the old hackneyed myths, i.e. that the most and the best education was provided in the United States. To these add two more: the illusion that Americans pioneered the whole idea of public education and that their school system was wholly unique. Offer as proof of these claims the high standard of living found in the United States, and you have the fictitious picture of American education in its entirety.<sup>11</sup>

For years Rickover sought to combat these educational illusions by collecting and publishing data that compared school achievements in the United States and elsewhere among young people who had the ability and the necessary drive to pursue post-elementary studies. To Rickover, it seemed sensible to examine whether the school systems of other advanced countries better educated their children than did Americans, and whether Americans could learn from them. He concentrated his comparative studies on European education because it was European education which Americans needed to equal or excel. Over the years, he was amazed that American educators remained bitterly opposed to such comparisons and

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<sup>10</sup>. Hearings, 85th Congress, Second Session, p. 783, quoted in H.G. Rickover, American Education - A National Failure, p. 44.

<sup>11</sup>. Ibid. pp. 44ff

gave him little help with his inquiries.<sup>12.</sup> On the contrary, European educational authorities made vast amounts of information available to him in the form of syllabuses or curricula of specific schools; the standards required for admission, promotion and awarding of particular degrees; numerous examination papers. He was even afforded opportunities to conduct in-depth interviews of foreign students in the manner in which he interviewed thousands of young people wishing to enter the United States naval reactors program. The facts Rickover amassed exposed what he condemned as mythological claims for American education.

To begin, Rickover thoroughly discounted the claim that the United States quantitatively excelled in education. He criticized the assertion that American children received more years of schooling and had accumulated more education than any group before in the history of the world; that American schools provided mass education while Europeans had class education because they reserved secondary and university education to a small minority of middle and upper class youths; that nearly all children in the United States went to high school and that approximately one third were in higher education.

In Rickover's mind, the apparent quantitative advantage of American education disappeared when the following items were considered: first, the actual time spent in classroom instruction per school year; second, the quality of instruction and study effort; third, the scholastic achievements attained at particular stages of education. Compared

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<sup>12.</sup> H. G. Rickover, "What Are Schools For?", address delivered at the New Mexico Academy of Science-1971 Symposium, University of New Mexico, Albuquerque, February 12, 1971.

to Europeans, American children attended school fewer hours per day, week, and year, did less homework, had less well-qualified teachers, and were generally not challenged to exert their best effort. Furthermore, European education accomplished much more in fewer years because of its smooth articulation from school year to school year and its carefully planned sequential curricula which avoided needless repetition and gaps in knowledge. This sequential learning was only possible, Rickover contended, in school systems where promotion was contingent on successful completion of a specific course of study and not automatically granted as a matter of "right". Finally, European children did not plan their own educations, but followed a course of study developed by knowledgeable adults who planned more wisely and had the necessary perspective to coherently interrelate the various components of a total educational program.

What the evidence clearly showed to Rickover was that American children did go to school more years, but they did not get more actual education. That they went to school more years was simply a consequence of being part of the slowest moving school system in the civilized world -- nothing of which to be proud! By comparison, European school systems were far more efficient. A school year was worth a third more on the Continent and about twenty to twenty-five percent more in England than in the United States.<sup>13</sup> Since it generally took European schools a third less time to bring any child to a given academic level, nine years of education abroad, which was nearly everywhere the compulsory

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<sup>13</sup>H. G. Rickover, American Education - A National Failure, p. 47.

minimum, corresponded to twelve years of schooling in America. Twelve years abroad, the time it took to reach the baccalaureate on the Continent, corresponded to sixteen years of American education, i.e. elementary, secondary and college combined.

American educational nomenclature hid these facts since it was customary in the United States to affix labels to educational stages that represented much higher levels abroad. For instance, Americans equated their high schools with European academic secondary schools which on the Continent most often carried students to the baccalaureate level. Yet Rickover's studies showed that American high school graduates (age 17-18) who did not take a college preparatory course -- the majority for the country -- attained a basic education roughly equivalent to that reached abroad at the end of the compulsory period of school (age 14-15). Those high school graduates who took a rigorous academic program in preparation for college acquired the equivalent of a middle school education in Europe or of the middle grades of an academic secondary school age (15-16).<sup>14</sup> In both of the above instances, Rickover quickly pointed out that American students took at least two, and in most cases three, years longer to reach either educational level.

As to the American college, Rickover concluded that its liberal arts bachelor's degree was essentially equivalent to the European baccalaureate or maturity level diploma attained at the successful completion of academic secondary schooling (age 18-19). The American college, if assigned its proper place, should have been compared to the upper

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<sup>14</sup>. Ibid. p. 48.

grades of a European academic secondary school. It was not the equal of the European universities, especially on the Continent, which were essentially graduate and professional institutions. According to Rickover, a Bachelor of Science degree awarded at the end of undergraduate professional study in the United States would abroad be rated a technician's degree. He found that only graduate and professional schools of American universities, which required for admission a bachelor's degree, could be compared to Continental European universities.<sup>15.</sup> He maintained that there were no American-type of colleges on the European Continent or in England.<sup>16.</sup> The undergraduate college concept was borrowed by America from the English universities which by mid-twentieth century were becoming universities in the Continental sense. However, people familiar only with English and American universities would find it difficult to understand the Continental university which did not cater to undergraduates at all. Swiss universities, for example, normally accepted without further formalities pupils possessing maturity level diplomas from other Continental secondary school systems; however, they rarely accepted Americans into degree programs unless they had a bachelor's degree.<sup>17.</sup>

After considering the facts and affixing the correct labels on American high schools and colleges vis-a-vis European schools, the quan-

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<sup>15.</sup> Ibid. pp. 49-50.

<sup>16.</sup> H. G. Rickover, Statement before the Subcommittee on Education of the Committee on Labor and Public Welfare of the United States Senate -- Eighty-eighth Congress, Education Legislation - 1963 (Washington, U.S. Government Printing Office, 1963), Vol. V, p. 2564.

<sup>17.</sup> H. G. Rickover, Swiss Schools and Ours, p. 79.

titative advantages alledgedly enjoyed by American youth began to vanish. Certainly the claim endlessly repeated that many more Americans than Europeans obtained a "university" education was a myth Rickover felt should have been exploded for once and for all since American colleges did not offer the same level of education as European universities. Moreover, Rickover went one step further and challenged the variously reported claims that eighty to ninety percent of American youngsters went to high school and that thirty to fifty percent were admitted to college as contrasted to five percent who entered universities abroad. Using nationwide enrollment figures for public schools which were compiled by the United States Office of Education and tables giving the number of academic degrees awarded each year,<sup>18</sup> Rickover tracked the progress of first graders entering public school in a given year and calculated the exact percentage remaining in school in subsequent years through grade twelve. He was also able to compute the percentage of entering first graders that actually obtained a bachelor's degree sixteen years later. His figures were consistently far less than what the public had been told.

For instance, as the first grade class of the year 1944 proceeded up the educational ladder only sixty-nine percent were left by the time they entered the sixth grade. By the tenth grade only fifty-nine percent were left, and forty-six percent reached the twelfth grade. After correcting for private and parochial college graduates, the statistical tables showed that in 1960 approximately ten percent of the 1944 class

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<sup>18</sup>. H. G. Rickover, American Education - A National Failure, pp. 320-329.

earned some sort of bachelor's degree. If only degree holders who went on to enroll in graduate or professional schools were used for comparison to European universities, Rickover was correct when he said America held no numerical advantage over Europe in higher education enrollments. Furthermore, if computations were made for other first grade classes entering public school during the 1940's similar or lower enrollment percentages could be calculated. Allowing for deaths and transfers to private schools, Rickover believed these calculations clearly revealed that the reported percentages of American youth participating in secondary and higher education had been greatly inflated.

The high drop-out rate suggested by these United States Office of Education figures should have caused Rickover to wonder about the effectiveness of the compulsory school attendance laws in force in the various states throughout the country. His case against the quantitative excellence of American education would have been strengthened had he shown that of the then forty-eight states, the upper age limit for required school attendance was sixteen years in thirty-nine states, seventeen years in four states, and eighteen years in five states. However, in the example of the entering first grade class of 1944, forty-one percent never reached the tenth grade at which time they would have been only fifteen years old. It would have required more than death and transfer to private schools to account for such a high termination rate.

An obvious explanation would have been a laxity of enforcement of the compulsory attendance laws. It was also possible that some students began first grade at an older age than six years and would have reached the upper age limit before tenth grade. Still another possi-



bility was that the practice of retaining unsuccessful students in a grade was more widespread than Rickover cared to believe and social promotion less prevalent than he claimed. Thus, some of the thirty-one percent of the sixth graders Rickover thought had left the public schools might have been found in the fifth grade numbers, and some of the "missing" tenth graders could have been in the ninth or eighth grade only to drop-out before reaching the tenth grade.

These speculations about the compulsory attendance laws notwithstanding, there were clearly less students finishing high school and going on to higher education than were being reported to the American public. Rickover saw these figures as the final argument to demolish the illusion that American education was quantitatively superior to European education.

The second myth which Rickover set out to destroy was the claim that qualitatively Americans excelled in education. Until Sputnik planted a seed of doubt in their hearts, Americans believed their schools were the best in the world; that American teachers practiced the most modern pedagogy based on their sociological and psychological training, while European methods were antiquated, rigid, and based on rote learning: that American textbooks were the best conceived in the world.

As for the first part of this myth that American schools were the best in the world., Rickover posed the question, "Best in what?" He answered:

Certainly not in basic education, not in scholastic achievements, not in the amount of education we get for each dollar we spend, not in the intellectual and educational qualifications of teachers -- not, as compared to Europe. Someone once remembered that we are "best" in everything that has nothing to do with genuine education: playgrounds, athletic fields, workshops, social entertainment, fun

and games.<sup>19</sup>

He repeatedly stated that the data on education Americans pointed to with pride most often dealt with "input": capital cost of buildings; size and number of buildings and stadia; number of pupils per square foot of space; pupil-teacher ratio; annual expenditure per child; etc. Unavailable was reliable information on educational "output," that is, what children learned.

However, a disturbing fact which came to light in the 1950's was that the illiteracy rate in the United States was much higher than was previously thought. For years the United States census hid this situation by arbitrarily equating five years of schooling with literacy. This gave an official illiteracy rate of about two and one-half percent -- a rate higher than any other Western nation, but far below the true situation. According to corrected 1950 census figures, eleven percent of Americans were functional illiterates; in 1960 the figure dropped to 8.4 percent.<sup>20</sup> (The United States Office of Education was to admit that the 1970 illiteracy rate again rose to twelve percent.) Based on a population of about 190 million, there were several millions of American adults in 1960 who could not understand what they read. Rickover maintained that in Europe the discovery of even one illiterate past the compulsory education age would excite public wonder and discussion for days while in America illiteracy seemed accepted as a permanent part of the national scene.

Rickover claimed that the introduction of universal, free, and

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<sup>19</sup> Ibid., pp. 57-58.

<sup>20</sup> Ibid., pp. 77-78.

compulsory schooling in European countries wiped out illiteracy, usually in one generation. He repeatedly charged that American educators had complicated the simple business of learning to read into an extraordinarily difficult and complex task, and thrown much of the blame for their own failure on parents and society. The facts he gathered, however, came from the poorest segments of the population, and it was his contention that poverty abroad was more severe and widespread than in the United States. Europeans also learned to read, write, and compute when there were no books in their homes, and no one to read them stories and help them with their homework. European children were successfully carried through their elementary schools with no costly pre-school or other compensatory programs. In fact, Europeans were very niggardly about school expenditures in contrast to the United States where during the 1950's and early 1960's school revenues rose at a rate twice as fast as school enrollment and price increases combined. As a base of comparison during that same period, the defense share of all governmental expenditures -- federal, state, and local -- went up 57% while that for education increased 489%. Americans were rapidly approaching the point where by mid-1960's they were investing in education almost as much as all of the other nations of the world combined.<sup>21</sup> Rickover felt justified in concluding that the American people were giving education a top priority, and that the accusations by schoolmen that illiteracy was a failure of indifferent parents and society were unfounded. It was clear to Rickover that widespread illiteracy was a failure of the educational system.

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<sup>21</sup>. H. G. Rickover, "What Schools are For?", p.7.

One problem which contributed to the failure of the American educational system was the mistake of swallowing hook, line, and sinker the claims made by the behavioral scientists that they were able to devise "scientific" teaching methods. Rickover had respect for these areas of behavioral or human studies when they were true academic disciplines, but he regretted the use of the term "science" which misled layman into ascribing exactness to these disciplines. The behavioral sciences dealt with the most unpredictable of subjects, man, and so could not be exact. Consequently, they often reversed themselves every few years, but meanwhile they may have done irreparable harm to trusting people. One area suffering such harm was American pedagogy whose supposed "scientific" teaching methods were constantly set against Europe's so-called "archaic," "obsolete," and "rote" methods. The claim was that Americans had a "jet propelled" education based on the latest behavioral research while Europeans were still in the "horse and buggy" stage. The trouble with these claims was that they were based on an unwarranted predilection for a specific methodology with no consideration of the results obtained. Rickover claimed that as a measure of verifiable, cold fact, "European teachers move their pupils ahead much faster than Americans and give them a more intensive as well as a broader range of subject mastery."<sup>22</sup> In short, more European children learned more faster, so that if success was to be measured by results, the claim of American superiority in teaching methodology was just another illusion unable to withstand careful scrutiny.

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<sup>22</sup>H. G. Rickover, American Education -- A National Failure, p. 65.

Another part of the "best schools in the world" myth was the claim that American textbooks were the envy of the world. Rickover had difficulty locating these non-Americans who were so envious. On the contrary, he cited numerous foreign analyses of American school curricula and textbooks which found them to be "bland, superficial, and repetitive."<sup>23</sup> Under the shocking impact of Russian scientific successes, Soviet mathematics and science texts were being translated for use by American students because no similar approach to the subject matter was available. Many of these translated texts were being used in American colleges although the Soviets were using them with 14 year olds in their ten-year schools.<sup>24</sup>

Because of the Russian successes, public school systems and publishers began to permit university scholars to re-write some mathematics and science textbooks. Abroad this sort of thing was nothing new. European school systems had become joined together into a smoothly articulating, sequential learning experience because of the direction received from top scholarship which was taken for granted. The content of European textbooks was chosen by expert scholars, and the curriculum was organized according to the logic of the discipline. Mathematicians decided on the order and content of arithmetic books. Chemists wrote texts on chemistry; historians produced history books.

At one time Americans would have thought it quite reasonable that a physicist should determine the physics content of a high school textbook, but with the advent of the progressive education movement this

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<sup>23</sup>. Ibid., pp. 67-68.

<sup>24</sup>. Ibid.

practice was abandoned. By mid-twentieth century, American educators totally accepted the notion that textbook content should be determined by curriculum specialists who were experts in "scientific" method rather than scholars in the discipline to be taught. Furthermore, in keeping with a distorted concept of democracy as espoused by progressive educators, pupils themselves were to set goals, determine content, plan learning activities, and evaluate the results of their work. For Rickover, this was extraordinary nonsense which only caused the content of textbooks to be watered down and presented in illogical sequence. American teachers, he claimed, relied more heavily on textbooks than Europeans; if they were inadequate, the consequences were graver in the United States than abroad. He concluded that American textbooks were not only inferior, they were actually harming the progress of students using them.

For all of the bragging done by American educators about the quality of their schools, the claim remained spurious to Rickover. American children did not learn more; teaching methodology was not more effective; textbooks and curricula were not being imitated around the world. The myth was that American schools had produced a level of education unequalled in the history of man, but the truth as Rickover saw it was "that while everywhere else universal free elementary education wiped out illiteracy in one generation, it continues to linger on in our country. We have more illiterates today than Germany had a century ago. We shall be fortunate if in the year 2000 we reach the total literacy Iceland appears to have attained in the year 1800."<sup>25</sup>

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<sup>25</sup>. Ibid., p. 79.

The third myth which helped destroy the American dream of universal education was the claim that the United States pioneered universal free elementary education. The corollary claim that America alone educated all of its children was equally unfounded. The self-deceit here was astonishing to Rickover since facts to the contrary were so easy to find. Some Continental European countries were providing universal free education centuries before America. The United States did not begin in earnest to create a system of common schools until 1850, and then it was the common schools of Continental Europe which served as models. The last state compulsory attendance law came into force in 1918, about 200 years after Prussia enacted a similar law and 300 years after some of the smaller Continental countries had done so. There were even some public school systems from primary level through the university set up in Europe as long ago as the sixteenth century; taxes covered at least part of the cost of these schools so that fees could be kept low even in higher education.<sup>26</sup>

Rickover conceded that Americans pioneered the principle of socializing the cost of education through the university level. Europeans borrowed this ideal of abolishing individual educational fees. However, this concept remained an ideal in America while Europe had done much better putting it into practice. Through either direct subsidies to universities or through extensive scholarship opportunities, a poor but bright student found it easier in most parts of Europe to obtain his entire education up to the doctorate at little or no tuition cost. All a European child had to demonstrate was the ability and

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<sup>26</sup>. Ibid., pp. 45-46.

willingness to learn and unlimited educational opportunities were available to him. Rickover saw this practice as truly democratizing education; and he could not understand the cry of American educators that European schools were "aristocratic" and provided "class" education. The evidence clearly showed that Europeans, not Americans, pioneered free and compulsory education for all. It was also in Europe that the greatest progress was being made to replace "ability to pay" with "ability to learn" as the selection criterion for admission to higher education.

The last myth that Rickover attacked was the claim that American education was unique, hence could not be compared to education elsewhere. Apologists for American schools maintained that critics overlooked the fact that Americans never sought to copy foreign school systems; that American education cannot be compared with education abroad because it has its own unique philosophy and ideals. The standard argument when confronted with higher achievement levels abroad had always been that America alone educated "all" her children, therefore comparisons were irrelevant. Rickover said the intent of this line of argument was transparent. If you eliminated comparison, you eliminated the best method by which the public can evaluate the work of professionals and the effectiveness of the nation's schools.

Historically, it was simply not true to say that Americans set out to establish a unique school system totally unlike Europe. Rickover pointed out that throughout the nineteenth century, as America was building up its own system, it borrowed extensively from abroad. Free compulsory universal elementary education, the kindergarten, the idea



of special teacher training institutions, graduate university departments, and graduate professional schools were just a few of the schooling concepts borrowed from Europe. At the beginning of the twentieth century, American schools generally resembled those in other Western countries, though they had not attained as high a scholastic level. The men who ran the American educational establishment, fortified with the ideas of progressive education, began at that time to replace the traditional curricula and school objectives which in the past were held in common with Europe. With the accomplishment of this change, American educational isolation became complete. What most bothered Rickover was that he could find no evidence that these schoolmen received any clear-cut mandate from the American people to make this far-reaching and disastrous change. Moreover, for them to argue that the uniqueness of American schools rendered irrelevant any comparisons with education abroad amounted to saying that the American people were forever bound to the mistakes made by those who ran their schools.<sup>27</sup>

In summary, the old hackneyed myths, while good public relations, just held no substance for Rickover; the popular legends of American educational superiority, originality, and uniqueness collapsed under the weight of facts. That the United States had the world's highest standard of living served as the argument to counter these facts. It was argued that American education must be best since Americans were richer than everyone else. Since Americans had the most material goods, they took for granted that they also had more nonmaterial goods and that everything they had was the best of its kind. In education, however,

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<sup>27</sup> Ibid., p. 84.

this conceit had no foundation in fact. America had few educational achievements to match those made by its industry.

It was Rickover's view that America was so blessed with special advantages that the nation progressed despite - not because of - its education which was in fact inferior to education in other industrially advanced nations. America had immense national wealth and natural resources which permitted waste, error and inefficiency. Additionally, Americans had a truly remarkable genius for making practical use of pure science. These factors, along with its geographic isolation from potential enemies, were the real causes of the high material standard of living in the United States - not its superior educational system.

Europe, on the other hand, since the end of World War I had passed through economic dislocations, revolutionary upheavals, inflation, a second world war fought on her soil, and the loss of her colonial empires. One disaster followed another, sapping her inner strength and exhausting her material resources. America had come to Europe's aid so often in the twentieth century that it was understandable to take it for granted that she had nothing left to offer. Not having an historical perspective to see how many times in the past 2500 years she seemed to be finished, America wrote her off too soon. Fifteen years after the end of World War II the federation of European Common Market countries had an industrial growth rate which topped America. Once again, relatively small Europe was wielding power by producing and distributing material affluence on a large scale.

Rickover attributed European resiliency to her educational system. This system long recognized the need for creative intelligence as the

only means of survival and progress when limited resources were available. European education had survived the test of time and continued to prove its practical worth. Despite half a century of wars and other troubles which severely handicapped education and scientific advancement, Rickover felt confident in saying about Europeans:

By any pragmatic test, their education has proved its value. Crowded, resources-poor Europe still wields influence out of all proportion to its relative size; it still has the highest living standard, excepting only that of North America. These are the results of her remarkable intellectual achievements. I invite you to read the roster of Nobel prize winners in physics and chemistry; the number of original thinkers produced in the last hundred years; the number of basic inventions for present-day technology; the discoveries in medicine which have made life happier and safer -- in all these you will find Europeans outnumbering Americans several times over, measured in per capita performance.<sup>28</sup>

Confronted with ever diminishing natural resources and an ideological enemy whose leaders had openly declared that "they will bury us", Americans could no longer afford to be less well educated than people living in the Soviet economic bloc. Rickover called for a stop to the endlessly reiterated and mindlessly repeated myths about the alleged superiority of American education. He challenged the citizenry to judge for themselves whether Europe had a valuable model to offer in solving the troublesome educational crisis in the United States.

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<sup>28</sup>. H. G. Rickover, "Education - Our First Line of Defense," address delivered at the Harvard Club of New York City, New York, December 11, 1958, p. 26.

### CHAPTER III

#### "THE EUROPEAN EDUCATIONAL MODEL"

Rickover tried for years to combat what he regarded as faulty statistics and mythological illusions which overvalued American education. He attempted to do so by collecting and publishing data which he felt established the superiority of European education. Comparisons to European educational systems were used because it was the education of these technologically-advanced nations that Americans had to equal or excel. Rickover made comparative studies of education in Poland, Holland, France, Russia, England, and Switzerland. He reported extensively on the last three of these nations. It was his observation that the use a people made of their available natural resources was essentially a matter of education and wisdom. In this regard Americans could profit from the experiences of others, especially the more historically mature European countries. With much more limited land and raw materials than available to America, Europe had achieved power, prosperity, and world influence through the cultivation of a human resource -- brainpower. European countries long ago came to understand and respect superior human minds capable of that creative problem-solving needed now for men to live decently and still make progress. It was important for Americans to understand how the Europeans had institutionalized the educational process that resulted in such consistent academic excellence.

One essential reason Rickover suggested for this widespread European educational excellence lay in its traditional commitment to the ideals of liberal education which he traced back to the classical Greek era in 5th century B. C. Athens. It was the Greeks, he said, to whom we were indebted:

...for the marvelous pedagogical invention -- the liberal arts curriculum -- which has never been surpassed for training the young to think, to use their brains in solving particular problems, and to provide them with general knowledge on which specialized training could later safely be superimposed. We are discovering the fact that a professional man needs the foundation of a liberal arts education in order to use his specialized training wisely. The man who is highly trained in only one field of knowledge and illiterate in all others can be a positive danger to society.<sup>1</sup>

This liberal, classical education was needed to produce the creative thinkers necessary in all areas of human endeavor from the humanities to the sciences. Rickover claimed that a liberal education could extend our knowledge of the world beyond the narrow scope of personal observations and experience. He said:

...history familiarizes us with the past; anthropology, economics, foreign languages and literatures with distant peoples and lands; mathematics and sciences with the world of nature; mastery of the mother tongue gives us the means of further self-education through books and enables us to communicate our thoughts through the written word. The enhancement of man's comprehension of the world enriches his personal life. In a democracy it has the further invaluable result of making him a better citizen because knowledge and ability to think independently will enable him to make wiser decisions when he chooses among candidates for public office as well as when he voices an opinion on important national issues.<sup>2</sup>

Thus, Rickover believed that if man has to live in a world with ever decreasing natural resources, he must turn in the cultivation of those

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1. Hyman G. Rickover, Education and Freedom (New York: E. P. Dutton and Company, Inc., 1959), p. 146.

2. Hyman G. Rickover, Report on Russia: Hearings Before the House Committee on Appropriations - 86th Congress (Washington, U. S. Government Printing Office, 1959), p. 3.

"inner resources which are limitless: to art, music, literature, good conversation; to cultivation of a more contemplative way of life."<sup>3</sup>

This general, liberal arts curriculum should be intensified and its duration extended to whatever limit possible for each individual undergoing the education process. At the same time, specialized skills developed in vocational and professional education should be delayed as long as possible, and should properly come only after one has completed his general education and through it has developed his mind and discovered his particular talents. Rickover conceded that a liberal education does not in itself prepare one for earning a living, but it does provide the best preparation possible for later vocational training or professional education. Equally as important, a liberal education will liberate the mind and improve the quantity and quality of the many choices open to freemen, thereby increasing their freedom. Conversely, the earlier pupils receive specialized training without sufficient general education as a foundation, the more limited are their choices and chances for maximum self-fulfillment. Commenting on these liberalizing aspects of a liberal arts curriculum, Rickover recalled that:

The word "liberal" derives from the word "free". It goes back to antiquity where these subjects were considered suitable for the education of freemen, as contrasted with vocational subjects which were taught slaves so that they would be "useful" to their masters.<sup>4</sup>

With the erudition of an educational historian, Rickover frequently traced the classical-humanist tradition of a general, liberal arts education from the Graeco-Roman civilization into the Middle Ages when

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<sup>3</sup>. H. G. Rickover, Education and Freedom, p. 32.

<sup>4</sup>. Report on Russia, p. 3.

it was preserved largely in the Byzantine and Islamic empires, with only a glimmer of these ancient learnings being kept alive in western Europe through the efforts of the Church. It was not until the emergence of the late medieval and early Renaissance universities that classical-humanist learnings were revived in western Europe. The influence of the liberal arts curriculum, altered and updated though it may be from the classical trivium and quadrivium, had continued to remain strong in European secondary schools and universities into the mid-twentieth century while it had never received widespread acceptance in the United States.

Rickover believed that students in America were generally being given a watered-down curriculum which had been greatly influenced in the twentieth century by the progressive education movement and an emphasis on life adjustment courses. While American secondary school students were being taught "know-how" subjects such as photography, home economics, consumer education, and proper etiquette, their European counterparts were receiving a solid foundation in history, geography, mathematics, and the sciences. By the end of twelve years of schooling, most Europeans had mastered the reading and writing of their mother tongue, and many had a competence in reading at least two foreign languages.<sup>5</sup> These European students were ready for professional study two to three years sooner than were Americans. Rickover said this was so because European schools were "neither social clubs nor finishing schools. Their objectives are limited and clearly defined: they seek to equip the child with all the educational tools he can

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<sup>5</sup>H. G. Rickover, Education and Freedom, p. 131.

handle; they nourish his mind with as much general culture as he can absorb; and they give his body all the exercise it can take."<sup>6</sup>.

Rickover also reported on the long established multiple track system so common in European countries. The exacting manner in which European educators matched an individual pupil's ability and effort to a suitable type of schooling had been criticized in the United States as elitist and undemocratic. Americans remained aghast at the notion of tailoring a child's education to fit his aptitude as determined by examinations which would weed out those who could not or would not make the intellectual effort. The American idea of education was that it was a right which was purchased by tuition or by paying taxes. Rickover disagreed:

We have yet to learn that education is one thing that money alone cannot purchase. The only acceptable coin which buys an education is hard intellectual effort... All a democratic government can do to insure educational equality for all its children is to throw open the school to everyone who will make the effort to learn.<sup>7</sup>

Free, compulsory, and universal education had been governmental policy in most European countries long before that concept had general acceptance in the United States. Rickover knew of no country on the European continent where a poor child was denied the highest education he was able to attain consistent with his mental ability simply because he had no money. He thought it was shameful that the United States was one of the few advanced countries where ability to pay was still a criterion for getting an education. However, in Europe when a pupil reached that

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<sup>6</sup>. Ibid., p. 151.

<sup>7</sup>. Ibid., pp. 150-51. (Emphasis his)



point where he absorbed no more "mental food" from the general, liberal arts curriculum, he was directed toward schools wherein he was given vocational or technical training which would prepare him to earn a living. In this way, Europeans did not equate democracy with sameness, and they did not seek to democratize their schools by simplifying the curriculum, but rather by differentiating it.

Everywhere he looked in continental Europe and in the British Isles, Rickover saw countries willing to set educational standards of some kind. Furthermore, Europeans tested pupils to measure them against the standard. In his study of the history of educational reforms throughout the world, Rickover determined that no country had been able to significantly reform its educational system without setting up standards. Certainly all European educational reform of the nineteenth and twentieth centuries involved establishing a recognized standard. Europeans, it seemed, believed standards were essential to educational reform. America's ideological enemy, the Soviet Union, established clear and demanding expectations for its students. If reform of American education in the face of the Russian threat was to be brought about, standards for American education were also essential.

Hyman G. Rickover's speeches and writings began to criticize American schools for their lack of standards, and he suggested reform measures long before the Russians put a Sputnik satellite in space in 1957. Sputnik I, however, firmly planted a seed of doubt in the minds of many Americans about the assertion that their educational system was the best of all available. Rickover was one thoughtful observer who early on began to wonder if America might not lose in the ideological

competition with Russia, and that this loss might result from the mediocrity of American schools. In the pre-Sputnik days of April, 1956, Rickover offered the first of many testimonies to members of the United States Congress about the threat of Russian education in the battle for the development of brainpower. He warned that while America had done very little to halt the deteriorating technical and scientific training of its young people, the Soviets had "created a definite incentive and inducement to study hard in high school which does not generally exist in the United States. Their objective is to achieve the scientific and engineering leadership of the world."<sup>8</sup>.

In August of 1959, Rickover was invited to report on the state of Russian education before a hearing of the House Committee on Appropriations of the Eighty-Sixth Congress. Because of his continuing concern about America's technological and ideological rivalry with the Soviets, Rickover had made a detailed analysis of the Russian educational system. He had recently returned from a visit to the Soviet Union and Poland as a member of then Vice-President Richard Nixon's party. While in these countries, he visited many schools and spoke to their respective Ministers of Education and other educational officials. What Rickover reported about Russian education to the Congress of the United States on this and subsequent occasions was very disquieting.

Russian children, Rickover found, began their formal education at about age seven. At the time of his report to the House Appropriations Committee, there were nationwide compulsory education laws mandating

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<sup>8</sup>. Hyman G. Rickover, Statement before the Subcommittee on Research and Development of the Joint Committee on Atomic Energy - Eighty-Fourth Congress, Shortage of Scientific and Engineering Manpower (Washington, U. S. Government Printing Office, 1956), p. 104.

seven years of school for all Soviet children. A soon-to-be-implemented plan, however, would require ten years of universal, compulsory education by 1961. In 1959, ten years of schooling was already the rule in the cities, and most students completed the ten-year school and earned the Russian maturity diploma which signified the successful completion of secondary level education. What Rickover documented was that the number of Russians graduating from their ten-year schools was comparable to the number of Americans graduating from high school. The Soviet graduates, however, were at least two years ahead of their American counterparts in mastery of "sound, basic education." By that Rickover meant "mathematics, the sciences, mastery of the mother tongue, knowledge of their own classical literature and that of major foreign nations, foreign languages, and history -- though their history study is colored by Marxist doctrine."<sup>9</sup> Even Russian graduates of her seven-year schools at ages fourteen and fifteen knew as much about these "solid subjects" as many American high school graduates.<sup>10</sup>

Before a Soviet child was granted his diploma from the ten-year school, he must have passed his maturity examination. This was a comprehensive examination in each of the major subjects which he had studied. The pupil must have demonstrated on this standard national examination mastery of a prescribed amount of knowledge in seven academic areas -- Russian language and literature, a foreign language, algebra, geometry, physics, chemistry, and history.<sup>11</sup> The Russian pupil would take these

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9. Report on Russia, p. 2.

10. Ibid., p. 31.

11. Ibid., p. 22.

examinations and graduate when he was seventeen years old; American youngsters graduated from high school at eighteen. The seventeen year old graduate of the Soviet ten-year school, by all available measures, had been doing as well academically as were the most talented American pupils after two years in college at which time the Americans were twenty years of age.<sup>12.</sup>

Those Russian students who scored low on this national maturity examination did not receive the certificate of maturity and were directed into vocational training or the military service. Some of those who earned the maturity certificate, but were not among the top students, were given a chance to go to technical schools. The top thirty percent of Soviet ten-year school graduates went on to the university with the best of these in selected fields, notably science and engineering. These exceptional students were also exempted from the military draft.

Rickover also denied the frequent criticism of the Russian ten-year school that it gave only a one-sided technical education while American high schools educated the whole child. Russians were not just graduating technicians. American educators visiting Russia in the mid and late 1950's agreed that while the major emphasis in the Soviet schools was on science and technology, the Russians had not neglected culture and the arts. In one instance, Rickover alluded to two visiting groups of prominent educators, one headed by Dr. Harlan H. Hatcher, president of the University of Michigan, and the other headed by Dr. F.

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<sup>12.</sup> Ibid., p. 22.

Cyril James, president of McGill University in Canada.<sup>13</sup> These groups found that Soviet humanities were not being neglected for the sake of science. Dr. Hatcher gave much credit to the excellent foundation laid by the Soviet ten-year school in languages and in literature, both Russian and foreign. Students were arriving at the university well prepared with excellent study habits and broad reading tastes. Dr. James reported that American schools offered no more opportunities to get acquainted with great literature, art, or music than did the Russian schools. In addition, he found that the Soviets were being much better trained in the sciences. Both groups of educators concluded that Soviet scientists, engineers, and technicians had a broader basis of the humanities than many of their professional counterparts in the United States.

The Russian universities studied by Rickover were essentially the same as other continental European universities. That is to say, they basically operated at the level of professional or graduate schools in American universities. The maturity certificate did represent about one year less education than in other continental European countries,<sup>14</sup> where such a certificate was also a prerequisite for entry into a university. This last fact notwithstanding, Rickover firmly and frequently made the point that most graduates of American secondary schools could not compete intellectually in Russian universities, and certainly not in other continental European universities where Americans were most often

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<sup>13</sup>. Hyman G. Rickover, Statement before the Committee on Science and Astronautics of the U. S. House of Representatives - 88th Congress, Scientific Manpower and Education (Washington, U. S. Government Printing Office, 1959), pp. 384-85.

<sup>14</sup>. Report on Russia, p. 32.

required to have a bachelor of arts degree before they were admitted.

Rickover was much impressed by the importance being given to education in the Soviet Union. He observed that by 1961 compulsory education was being extended to ten years, through age seventeen. All schools were totally state-supported through the university level, and they were open to all who could continue to qualify. The high quality of life available to educated Russians was a major motivation throughout their strenuous and highly competitive educational program. While it was true that the school buildings at all levels were very austere, modern housing unlike that available to most Russians was guaranteed to students who were admitted to the universities. Students were also paid a salary which increased with each succeeding year of university attendance. If they were exceptional students, they were paid a premium of twenty-five percent above their base salary. It was possible for a final-year university student with a premium to be earning nearly as much as the average Soviet worker.<sup>15.</sup>

University graduates, especially engineers and scientists, were well taken care of in the Russian economic scheme. The state guaranteed a job to every university graduate. There was no dearth of jobs for competent people in so rapidly a developing country. In fact, the highest paid person in Russia was the head of the Academy of Sciences whom Rickover estimated was earning 100,000 rubles per year. This salary was the equivalent of about \$50,000 in 1959; plus, high Soviet officials received a free car and chauffeur, a country house, and other amenities.<sup>16.</sup>

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15. Ibid., p. 26.

16. Ibid., p. 47.

It was made clear to all Russians that education was the road to the "good life", and to continue the journey down that road one had to compete.

Rickover sought to bring home to all Americans that they were poorly educating their children when compared to Russia; even more so when compared to other western European countries. The thing to learn from the Russians was their ability to produce large numbers of well informed graduates by age seventeen. The thing to learn from other European countries was their ability to produce secondary school graduates who were intellectually more sophisticated and more broadly educated than American high school graduates.

Rickover was fully aware of the jingoistic resistance of most Americans to the suggestion that their schools could learn from the Russian educational system. For that reason, he favored comparisons to various other countries whose citizens Americans respected and against whom they had no prejudices. He felt Switzerland, in particular, was worth studying because of its many parallels to the United States. First among these similarities was that Switzerland's democratic credentials could not be questioned since she was the oldest democracy on the European continent as the United States was on the American continents. Also, the Swiss economy was largely based on the free enterprise system; indeed, the very name "Swiss" had become synonymous with "free". Both countries had a federal type of government comprised of constituent states -- called cantons in Switzerland. Finally, both countries had similar life styles in that they both rose from humble origins to their

present middle class status by assuring social mobility to their citizenry.<sup>17.</sup>

The Swiss learned much sooner than Americans that a democracy requires an educated citizenry. Beginning in 1804, elementary schooling became compulsory and free in one canton after another. The various cantons were building complete school systems including universities by the middle of the nineteenth century. By the end of the century Switzerland's education ranked among the best on the Continent.

Switzerland had very meager amounts of land and natural resources as compared to America's overabundance. Her great prosperity was "To a greater extent than almost anywhere else in the world ... the result of human rather than natural resources -- a creation of the minds and hands of her people".<sup>18.</sup> Not having a plethora of natural resources had caused the Swiss to be frugal when educating a child. While America's wealth had permitted it to spend billions of dollars on expensive buildings, stadiums, gymnasiums, and non-essential curricular offerings, the Swiss were more apt to spend their money to secure a competent teacher while keeping their school facilities plain, though adequate. In this regard, Rickover said:

Swiss children obtain a good, but not a luxurious, education. There are such essential services as free textbooks and study materials, medical services (dental, also, in some cantons), but no money is available for over elaborate buildings and facilities, for frill subjects, for social entertainment. Schools are instructional institutions, not country clubs. At the secondary level they frequently are not coeducational.

Swiss families still hold themselves responsible for their children's social life, manners, personal grooming, and all the myriad

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17. Hyman G. Rickover. Swiss Schools and Ours: Why Theirs Are Better (Little, Brown and Company, 1962), pp. 21-25.

18. Ibid., p. 27.



"useful" skills so dear to our life-adjusters... gymnastics, games, sports are actively pursued by all children... But the Swiss do not use their children to provide athletic spectacles for the community, so there is no need to include expensive stadia, coaches, and so on, in school budgets.<sup>19</sup>

Rickover observed that the Swiss have always highly valued education; it was taken seriously while it had not always been so highly regarded in the United States. He agreed with Robert Hutchins that in the past Americans had little cause to worry about intellectual leadership because the country was so rich in natural resources, so prosperous, and so geographically and militarily impregnable. It could afford waste and poor judgment. Americans believed in the myth that they could do anything if they chose to put their minds to it, but in fact most of the country's success had been the result of its wealth, power, and isolation. Intellectual prowess had seldom been a factor in American success, and this fact contributed to the country's pervasive anti-intellectualism. Little Switzerland on the other hand, limited in raw materials and geographically surrounded on all sides, saw the cultivation of the intellect as crucial to national survival.

The Swiss had to face the problem of educational democracy. They began by recognizing two types of barriers to a complete education for everyone, artificial barriers and natural ones. Artificial barriers included such things as the cost of education, transportation to available schools, low familial expectations, etc. The Swiss worked hard to eliminate these artificial inequalities, which they saw as social, not educational, problems. Natural barriers were varying intellectual capabilities and motivation to learn. As difficult as it was for democratic

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<sup>19</sup>. Ibid., pp. 30-31.

Switzerland, she acknowledged and accepted these natural limitations and developed a school system to deal with the individual differences of her citizenry by providing many paths to educational goals.

Switzerland developed a multiple track system, and these tracks interconnected at various points forming a pattern or network of schools. Education was essentially a cantonal responsibility and the cantons established different compulsory education periods; some for eight years, but most for nine. Most of the cantons required children who left school at the end of the compulsory period to attend vocational schools or to attend a type of continuation school combined with an apprenticeship program until they had reached age eighteen or nineteen. This was an outgrowth of the strong Swiss tradition of providing their youth with what was called "formation professionnelle" for which there was no exact English translation but which included combining both a general and specialized education for as long as possible with avoidance of a premature shift to exclusively vocational training.<sup>20</sup>

The pattern of Swiss schools differed slightly from canton to canton. Most cantons provided totally free education through the university with the heaviest taxes for schools being levied against business and industry. Many cantons had public kindergartens, but all children were compelled to attend a primary school. Depending on the canton, the children spent from four to six years at this primary level. The more successful pupils (about 60 percent) went on to the secondary school while the others continued in the elementary school until the end of the compulsory period. During this time, those remaining in the elementary

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<sup>20</sup>. Ibid., p. 49.

school were provided three to four years of vocational training, often as apprentices while attending school part-time. In this fashion, pupils continued with their general education while concentrating on learning the particulars of their vocation. At this juncture they would have completed their "formation professionnelle" and would be granted an industrial or agricultural diploma.

Those students who moved on to the Swiss secondary schools might have encountered a variety of organizational patterns which Rickover arbitrarily designated as "lower secondary", "incomplete secondary", "maturity", and "technical-maturity".

The lower secondary was considered part of the people's school or Volksschule. It served the dual purposes of broadening and extending the earlier elementary education, and to serve as a transition to more advanced schools, i.e., the incomplete maturity, technical-maturity, or a full-time specialized school (commercial, industrial, or agricultural). It had as many grades as were necessary to fulfill the compulsory school period for the canton. Its curriculum included the usual subjects of the Swiss elementary school -- language, arithmetic, plane geometry, history, geography, natural sciences, art, music, gymnastics, and house-crafts for girls -- but these were more extensively developed. In addition, some secondary school subjects were taught -- at least one foreign language, technical drawing, and more advanced mathematics and science.<sup>21</sup>

The curriculum of the incomplete maturity school paralleled that of the maturity school, but the school terminated three years sooner. Graduates of these schools continued with specialized education at an intermediate level as technicians or semi-professionals. The brightest

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<sup>21</sup> Ibid., p. 51.

of them could pass an entrance exam and enter the regular maturity school.

Of the regular maturity schools, there were three types. Type A was a classical school which emphasized Latin, Greek, and classical literature in addition to one modern language. Mathematics and science were taught, but not at the demanding level of the other types of maturity schools. Type B was a semi-classical school which represented a compromise between A and C. Latin was taught at the difficulty level of the Type A school, and two modern languages at or above the level of the type C school. Mathematics and science were taught at an intermediate level between A and C. Finally, type C or the mathematics-science school placed heavy emphasis on these two subject areas and required two modern languages of all its graduates; a third language was optional. Graduates of type C maturity schools would study engineering or science at a university or polytechnic institute. All students who completed the whole course of study at one of these maturity schools and passed a comprehensive final examination received a maturity school diploma recognized by the Federal Maturity Commission. They also earned the right to attend a university.

Rickover claimed that the technical-maturity school was unique to Swiss education. It served one of two purposes: first, it might train teachers for the elementary or lower secondary schools; second, it might be a secondary level school of commerce. The curriculum of these schools was based on a solid core of liberal arts subjects so a "restricted type C maturity" diploma was granted. This "restricted type C maturity" was a cantonal maturity not recognized by the Federal Maturity Commission as were types A, B, and C.

The type of maturity school completed did restrict the course of study which might be pursued at the university. Holders of a type A diploma were admitted to study in any of the learned professions. They had received the classical-humanist preparation required of professional aspirants by most European universities. Type B graduates were not admitted to studies which required Greek as a prerequisite such as theology. Graduates of type C maturity schools would not pursue studies requiring Latin such as law or medicine. The restricted type C diploma admitted students to the Handelshochschule at St. Gall, (a school below university rank which specialized in business administration, economics, and political science) and to university faculties of philosophy, economics, and political science.

One must remember that the Continental European university is entirely a graduate institution. Rickover built a strong case to show that the Swiss Maturity Diploma was the equivalent of the American bachelor's degree. This was certainly true of Types A and B, and most probably for Type C. Since the maturity school concluded with the twelfth year, as does the American high school, this meant that Swiss secondary school graduates were four to five years advanced in their education over their American counterparts.

Rickover attributed much of the Swiss academic excellence to national standards set down by the Federal Maturity Commission. None of these national standards were compulsory, and no canton or local maturity school was bound by law to comply. Furthermore, the Swiss did not confuse setting national standards with relinquishing local control. The FMC did accredit maturity schools, and if a school wished its diploma to be readily accepted by a university it complied with FMC regulations.

These regulations included setting minimal standards on a nationwide basis, but they did not involve constructing the maturity exam nor dictating its format to the local schools. Each school developed its own test and administered it after having submitted it to an expert from FMC who approved the exam and who would participate in its grading. Rickover felt America could learn much from the Swiss solution to the problem of setting national standards of education in a federalized form of government where control of education was the right and responsibility of the constituent states.

It was hoped by Rickover that his description of Swiss education would prove helpful to those who wished to improve America's schools. He certainly was not advocating that Americans slavishly copy the Swiss system of education or any other European system. He did hope that Americans would begin to question prevailing educational practices in their schools, and be willing to borrow what was good from the Swiss or anyone else. Rickover urged his countrymen to approach their educational problems with an open mind and venturesome spirit.

One obvious point Rickover wished to make was that schools in the United States were inferior to European schools because Americans expected their schools to serve a social purpose that was put above the school's technical task of developing young minds. Rickover saw this as a striking parallel to England's educational problems in the nineteenth century, only that America's social purpose was the opposite of England's. Schools in the United States were being used to level out social differences among students, while nineteenth century English schools were institutions designed to maintain social homogeneity. What the students learned in class was less important to the nineteenth century English

than what they might have learned by boarding together with children from the same social class.<sup>24</sup> Rickover suggested that this was one reason why nineteenth century England was educationally behind the Continent. Her educational facilities and programs were neither adequate to the needs of her rapidly industrializing society nor competitive with education in countries that challenged her military and political position. Her competitors were often authoritarian countries that could order educational reform by fiat rather than awaiting public consensus. The English procrastinated when it came to reform, just as America was doing in the mid-twentieth century. Yet England did revamp its school system and succeeded in establishing and maintaining national standards of education. Rickover argued that Americans could profit by the successful way in which the English came to manage public education by the early 1960's.

In describing English schools, Rickover pointed out attendance in school was obligatory for ten years -- from ages five to fifteen. Education was free in the state system in which 94 percent of the children were enrolled. Children attended a primary school for six years or until the autumn of the year in which they reached their eleventh birthday. Primary schools were comprehensive with a full range of students from slow to bright. The pupils were grouped by ability when first entering the school, and the five year olds were immediately put to work doing much reading, writing, and arithmetic every school day. The school day lasted from nine to four with the biggest block of time devoted to proper use of the English language and to arithmetic and geometry. The re-

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<sup>24</sup>. Hyman G. Rickover, American Education -- A National Failure, (New York: E. P. Dutton and Company, Inc., 1963), p. 150.

mainder of the curriculum included history, geography, nature study, and non-denominational religious instruction. Art, music, some craftwork, and physical education were also included.<sup>25</sup>

Pupils moved ahead at a fast rate and by age eleven were usually one to two years ahead of American children who had completed the sixth grade.<sup>26</sup> The primary school ended with an examination, commonly referred to as "11-plus" exam, which determined what kind of secondary education each child received. At this point the road to education split.

England's Education Act of 1944 stipulated that the various Local Education Authorities were to provide secondary schools which were appropriate to children's capacities. This meant that at age eleven, English pupils would go to one of three types of secondary schools: Grammar School, Technical School, or Secondary Modern School. The strength of their school record, an I. Q. test, and written examinations in English and arithmetic determined to which school they went. The Grammar School and Technical School had selective admittance, enrolling twenty-five and five percent respectively of all eleven year olds. The unselective Secondary Modern School most resembled comprehensive American high schools because of the broad range of pupil ability levels. It differed from American high schools in that the top thirty percent of the ability range was not enrolled. The usual I. Q. range in the Secondary Modern School was from 110 down to 80. Below 80, there were special schools for the "educationally subnormal" or ESN.<sup>27</sup>

The English Grammar School had six forms or grades. The children

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<sup>25</sup>. Ibid., p. 188.

<sup>26</sup>. Ibid., p. 187.

<sup>27</sup>. Ibid., p. 193.



were programmed for a wide range of subjects, and had no choices through the first five forms. After the third form, pupils' preferences and talents were given some consideration by placing youngsters in one of two major courses of study: a linguistic-literacy sequence called "classics", or a mathematics-science sequence called "modern" or "modernside". First formers continued geometry begun in Primary School, and were introduced to algebra. Trigonometry was soon added, and by age fifteen those in the "modernside" sequence were well into calculus and coordinate geometry. Most students had studied two foreign languages, and those in the "classic" sequence would have added a third foreign language beginning at age thirteen. All pupils studied physics, chemistry, biology, history, and geography beyond what is customary in honors classes in American high schools. Music, art, religious instruction, and physical education rounded out the curriculum.<sup>28</sup>

At the end of the fifth form, at age fifteen or sixteen, most Grammar School students took the General Certificate of Education examination-"ordinary" level, popularly called the GCE-"O" level. English or English literature were compulsory for the GCE, and four or five other subjects taken in school were tested. Many secondary students ended their general education at this point and either entered a professional or semiprofessional school, or they went to work.

The sixth form of the English Grammar School was unique. A student who entered the sixth form chose two or three subjects of special interest and concentrated his efforts in these areas. These were subjects upon which he would likely base his lifework and which he would

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28. Ibid., pp. 196-197.

study when he entered the university. This sixth form may have lasted for two or three years, and there was almost a tutorial relationship between student and teacher. Sixth form students would be preparing for careers in the professions or in the upper echelons of civil service or politics.<sup>29</sup> At the completion of the sixth form, students took the GCE advanced level exam which was the equivalent of the Continental baccalaureate or maturity diploma.

Rickover described the Technical School as having an organization and academic program very similar to the Grammar School. The emphasis was on mathematics and science, but with a more practical approach than the Grammar School. While the Grammar School "modernside" sequence was more theoretical and likely to produce research scientists, the Technical School was more likely to produce engineers. Upon completion of the Technical School, at the 5th or 6th form, students would also take the GCE examinations.

The Secondary Modern School was the one attended by most English children. It was these schools which Rickover said were most often unjustly criticized by American educators. The curriculum was still essentially a general one with emphasis remaining on solid subjects such as mastery of English reading and writing, mathematics, science, history, geography, art, and music. The curricular differences were less of kind than of breadth and intensity. There was no premature placement of these children into specialized vocational training. Instead, emphasis was skillfully placed on relating the practical value of the basic sub-

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<sup>29</sup>. Ibid., pp. 200-201.

jects to particular crafts or manual activities the students may have liked. Students generally attended through the fourth form or to the end of the ten year compulsory education period. Fifth forms were being set up for the more able students who would then be eligible to take the GCE-ordinary exam.

Rickover presented evidence to show that American high school students in the I. Q. range of 80-110 were not getting anywhere near as good an education as were the English children attending a good Secondary Modern School.<sup>30</sup> He also compared American students who took our College Board Examinations with English students who took the GCE-ordinary exam. He concluded that the successful passing of the GCE at ordinary level, taken at age fifteen or sixteen, represented a higher level of achievement than an American College Board Achievement Test taken at age eighteen.<sup>31</sup>

The universities in England, Rickover reported, were independently endowed and charged very high tuition rates. The government indirectly supported these universities through an extensive scholarship system. Some eighty percent of university students were on a governmental scholarship of one kind or another. The universities prepared the GCE exams and evaluated candidates for state scholarships. In these ways they asserted considerable influence over the secondary schools.<sup>32</sup>

Rickover said that the English universities were not of equal quality with the Continental universities. He attributed this to a long period of English educational isolation beginning with Tudor times and

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30. Ibid., p. 206.

31. Ibid., p. 199.

32. Ibid., pp. 296-97.

not ending until the close of the nineteenth century. England's two ancient universities of Oxford and Cambridge moved towards more purely undergraduate education and away from being professional-graduate institutions. The universities were increasingly eclipsed by their colleges, and by the nineteenth century they had become a kind of luxury maturity school akin to the "hautes lycees" of the continent.

English university standards had greatly improved throughout the twentieth century, and the number of universities had increased. Most modern students took a course of study with a heavy concentration in the liberal arts. At the end of two years of college, the average English student had an academic attainment equal to the Continental maturity level. Rickover felt that English colleges were becoming universities in the Continental sense.<sup>33</sup>

America inherited the college concept from England, but extended it from a three to a four\* year program. According to Rickover, American universities never set firm and consistent standards, and as a result mediocrity set in. He claimed that the majority of American colleges were roughly comparable to English colleges of the nineteenth century, i.e., luxury maturity schools. He did, however, recognize a trend among a handful of American colleges to upgrade in the direction of the Continental university.<sup>34</sup>

In summary, Rickover believed the American school system failed miserably at its task, especially when compared to European schools. European students appeared to be achieving far more at an earlier age

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<sup>33</sup>. Ibid., pp. 137-141.

<sup>34</sup>. Ibid., p. 139

than their American counterparts regardless of the level of schooling at which one chose to compare. Rickover suggested that a number of factors had emerged in the European systems which contributed to these differences. Chief among these were: 1) a commitment to a general, liberal arts curriculum with a delay of specific professional or vocational education; 2) elimination of "ability to pay" from public education and retention of "ability to learn"; 3) a willingness to track students into programs appropriate to their abilities; 4) the establishment of national standards and a testing program to evaluate students against these standards; 5) a high valuation of intellectual excellence.

These were the European educational practices worth borrowing as attempts were made to bring excellence to American education. Rickover challenged all Americans to become involved in this reform movement. He recognized that there would be many barriers on the road to American school reform. Yet he believed the future belonged to the best educated nation, and he wanted it to be the United States.

## CHAPTER IV

### "BARRIERS TO EDUCATIONAL REFORM - THE PROGRESSIVE EDUCATION MOVEMENT"

Rickover saw the education of America's young people as the nation's most important and urgent problems. Even amidst the post-Sputnik fear that gripped the country, he never once waived in his conviction that education was more important than either the national defense or the country's space efforts.<sup>1</sup> Rickover felt that without an educated citizenry the United States would never solve the problems that endangered it. Education was the nation's first line of defense, and Rickover called for his countrymen to establish without delay the improvement of their schools as the nation's number one priority. He was quick to concede that there was no panacea for the problem of poor education in America; yet, there was no reason the leadership could not at least recognize education as the country's first priority item and start down the long road to reform.

This road to educational reform was seen by Rickover as strewn with many barriers. The first and most formidable of these barriers was the inordinate influence of Deweyan progressive education which Rickover maintained confused the purpose of education; this barrier is the subject of this chapter. A second barrier seen by Rickover was the unwillingness

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<sup>1</sup>. H. G. Rickover, Testimony before the Subcommittee on Education of the Committee on Labor and Public Welfare of the United States Senate -- Eighty-Eighth Congress, Education Legislation - 1963 (Washington, U.S. Government Printing Office, 1963), Vol. V, P. 2567.

of Americans to develop separate educational models to fit the different needs and abilities of children. Still another obstacle was the failure to set specific standards for American schools. A fourth obstruction was identified as the poor quality of teaching in the United States. And the final barrier Rickover saw was the educational establishment itself which he claimed blocked reformation of the schools because of its vested interest in maintaining the status quo. The last four of these barriers will be treated in Chapter V.

This chapter treats what Rickover saw as the greatest contributor to the unsatisfactory condition of education in the United States, the progressive education movement. Not only did Rickover see progressive education as the chief cause of America's educational inadequacies, but he also viewed the deep imprint of the progressives as the major impediment to successful school reform. He accused the progressives of confusing the purpose of education and the role it should play in society. He found Americans in mid-twentieth century confounded by the meaning of education. His studies revealed that such was not the case in Europe where progressive education had made little impact. He found that the consensus among Europeans established education as meaning, first, to have knowledge of mankind's past and present world, i.e., to know history, literature, philosophy, science, art, etc. Second, it meant to possess basic skills such as the abilities to read, write and calculate which made a person a useful member of society. Third, and most important, to Europeans to be educated meant to be able to think critically and logically.<sup>2</sup> These attributes of education were consistent with

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<sup>2</sup>. H. G. Rickover, "What Schools Are For", p. 14.

Rickover's own view of an educated man, so he had little trouble embracing them. For Rickover, the primary purpose of formal education was to instill these three attributes in people. He concluded that to accomplish this purpose, the overwhelming concern of the schools had to be with the intellect. Pre-occupation with anything else only increased the probability that the school's primary purpose, or what Rickover often referred to as its "technical task," would not be fulfilled.

Rickover's comparative studies led him to believe that European schools had successfully adhered to this uncomplicated "technical task," and were achieving the goal of educating their children. By concentrating on a few subjects, -- i.e., mastery of the mother tongue, arithmetic, geometry, history, civics, nature study, some music and art, physical training, and more recently a modern foreign language -- Rickover claimed European schools imparted a more impressive body of knowledge, basic skills, and critical thinking ability than American schools.

At the same time, Rickover found American educational theorists and practitioners were becoming more muddled as to the purpose of schools. He ascribed this bewilderment to the sway of progressivism and life-adjustment in American education; neither, he maintained, advocated training of the intellect as a top priority. Rickover contended that as their clarity of purpose faded, American schools became less able to produce educated citizens. Because of its lack of direction, he charged that the American educational system was no match for the European system when it came to training young minds to think clearly, logically and independently.

Rickover was accurate when he pointed out that before the onset



of the progressive education movement, secondary schools in the United States were not unlike those in Europe. Students were presented a sequentially developed curriculum, and they were expected to show mastery of one level before going on to the next. Shortly after the turn of the century, American high schools still taught basically the same subjects as the lower middle schools abroad, and colleges roughly corresponded to the upper grades of European academic secondary schools ending with the baccalaureate; however, this terminal diploma was earned after only twelve years abroad while it took sixteen years in the United States.

The American educational scene underwent major changes with the advent of progressivism. Rickover viewed the progressive education movement as one of the first manifestations of the invasion of American life by the social sciences. At the beginning of the twentieth century, behaviorial scientists swelled ranks of teachers and school administrators, and fundamental changes were effected in schools throughout the United States. Rickover claimed it was then that American educators turned their backs on Europe and began fifty years of experimental programs. During these years, he felt the public gave educators great leeway in running the schools. In the absence of controls, Rickover accused the educational establishment of finding fads to be more self-serving than fundamentals. He observed that every three years or so something new would come along that was supposed to improve education. These programs most often had sociological rather than intellectual motivations, and all required more non-teaching staff, more facilities, and especially more money.

Additionally, millions of dollars were being spent each year on

educational research in an effort to replace educational concepts Rickover maintained had already been tested over thousands of years. Rickover believed neither these experimental programs and research, nor the millions of dollars they cost, had made any student better educated than those of the pre-progressive era fifty years earlier. On the contrary, he believed they worked to the detriment of America's children by diverting attention from education's true purpose, training the mind.

Rickover contended that schools in the United States imbued with the philosophy of John Dewey, had disavowed the development of intellectual capacity as the primary purpose of education. By mid-twentieth century, most schools were openly claiming their primary function was to train children in what Dewey called cooperative and mutually helpful living. Schools sought to be microcosms of a democratic community, and activities during the school day were primarily designed to develop a social spirit among the school members. Rickover lamented that such a concept of education viewed individualism and competition as negative character traits and discouraged their development. He believed this to be an erroneous concept of education. He felt that by embracing it American educators had not only rejected thousands of years of thought about the purpose of education, but they left their students poorly prepared to face the harsh realities of the dynamic, competitive society they must eventually join.

Rickover believed there was no way a school could do its job if it was to be made a replica of the community with the children themselves exercising their "democratic" right to determine how the school was to be run, and by whom. Rickover wondered by what "tortured thinking" had

progressives come to believe that individual freedom and democracy should be worked out in the classroom by allowing children to plan their own course of study, and by reducing the teacher from instructor to a resource person who was merely a senior comrade in the study group. Such permissive child-centered practices left children to their own devices, and refused them the loving mature guidance that trains and educates them for adult citizenship. Rickover saw this child-centeredness as a pernicious progressive dogma which has

...greatly damaged our children and should be abandoned forthwith... This dogma misconceives the meaning both of education and democracy. There is no analogy whatsoever between the education process and the democratic process. A teacher has authority by reason of his knowledge and skill; his task is to use this expertise to guide the child's intellectual growth. Public officials have authority by reason of having been voted into public office; their task is to govern, not to educate us.<sup>3</sup>

Rickover imputed many of America's educational ills to this child-centered concept of school. Child-centeredness led to the notion that each child should be taught only what would be of immediate interest and use to him. Rickover feared the liberal arts had been abandoned in the name of pragmatism. The consequence he saw was that the school curriculum was being denuded of its academic content as had never before and nowhere else been done. Play activities which emphasized adjustment to the peer group, and easy know-how courses now filled the major portion of the school day in place of solid learning grounded in a basic and liberal education. Children, especially the less able, tended to remain stuck in these immediate school experiences, unable to progress to the level of abstract concepts and ideas. Those children with educationally or finan-

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3. H. G. Rickover, "Education in a Free Society", pp. 15-16.

cially impoverished home backgrounds, in particular, were being deprived of the tremendous intellectual heritage of Western civilization which no child could possibly discover by himself, but which each child needed for genuine socio-economic mobility.

The drift away from traditional education into progressivism struck at the very basis and fabric of society according to Rickover. Schools were fostering attitudes in students that were both cruel to the children and dangerous to society. One of the most pernicious of these notions was the idea that learning must be fun, not hard work. Rickover believed that in order to make learning fun many teachers and administrators had deemphasized disciplined thought and work habits. By so doing, generations of children were growing up believing that they need not struggle to excel. Rickover felt learning could be interesting, rewarding, and exciting, but it was not fun-and-games; it was hard work! Mental effort was required if a student was to succeed. Promulgation of the doctrine that learning should be fun implied that society had an obligation to make life easy, and encouraged an anti-work attitude Rickover found already far too prevalent. In their determination to make children happy, progressive educators had been raising "a generation of Americans who expect to obtain all good things without effort and who acquire a wholly false notion of their own importance because they never had an opportunity at school to compare their own true accomplishments with those of others."<sup>4</sup>

If what America wanted for its children was fun-and-games, then Rickover argued the country had no need for schools and teachers. If

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<sup>4</sup>. H. G. Rickover, "The Role of the Critic" address delivered at the Tenth Institute of the Thomas Alva Edison Foundation, Inc. New York. November 19, 1959, p. 12.

the goals were social interaction and adjustment to the group, then the nation could get along just as well with playgrounds or streets; teachers could be replaced by playground attendants and a few athletic coaches. Rickover saw nothing wrong with children leading a happy and socially fulfilling life. However, he believed: "Much of the 'entertainment' type education given in our schools could well be given after school hours and at the expense of interested families. I am old fashioned enough to feel that taxes ought to be invested in educating children for real life not for having a good time."<sup>5</sup>.

Rickover was disturbed by what he saw as a waste of tax money. It was incomprehensible to him that progressive educators placed such emphasis in the schools on teaching a child how to adjust to his peer group when the best learning years of a child were so short and could be put to better use helping him absorb real knowledge. Why waste time teaching a youngster to adjust to the group -- something that comes naturally to all children? Immature young people almost slavishly conform to the mores of their contemporaries. Rickover was certain children needed no formal instruction in how to become little organization men. Rather, he felt the danger was that by overstressing group adjustment, progressive educators were producing the very opposite of the autonomous, self-reliant, independently thinking citizen a free society must have to survive. The end product envisaged by the progressives seemed to be a new American type -- Group Adjusted Man.<sup>6</sup> Rickover warned that an imme-

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<sup>5</sup>. H. G. Rickover, "Democracy and Competence" address delivered upon acceptance of the Patriot's Award at the University of Notre Dame. Notre Dame, Indiana, February 22, 1961, p. 19.

<sup>6</sup>. H. G. Rickover, "Education In a Free Society," p. 17.

diate danger to children who grow up overly concerned with group adjustment and the inability to think independently is that they could well join the wrong group such as a juvenile gang -- the most perfectly group-adjusted youngsters found anywhere!<sup>7</sup>.

Rickover feared a dangerous determinist attitude was being taught to children as a result of the progressive educators' behavioral concept of man. He believed that respect for individual freedom, for the autonomous individual, was the foundation of a free society; as soon as one thought in terms of the group, the foundation began to erode. He warned that a major threat to individual freedom was "the attack on the spiritual foundation of individual autonomy by the behaviorist view of man, or to put it in popular terms, the replacement of the Protestant Ethic, prevailing in this country until the turn of the century, by a new so-called Freudian Ethic."<sup>8</sup> He admitted that the latter term did an injustice to Freud who would have been dismayed by all that went by this expression. However, for the layman, the simple terms, Protestant and Freudian Ethics, stood for opposite concepts of man which could easily be brought into sharp focus for purposes of contrast.

...The first, Calvinist in origin, sees him shaping his own destiny, being governed by standards he sets himself and by his own conscience, therefore responsible for his own acts. The second, originates in the belief that man must live in society but that society compels him to suppress and push into the unconscious strong instincts that are the sole or primary source of human happiness. It sees man ruled by unconscious drives and external pressures, hence not really responsible for his acts since he cannot help himself. His life is shaped not by himself but by his socio-economic environment; if he becomes a failure or a criminal, not he but so-

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7. H. G. Rickover, "Education - Our First Line of Defense," p. 24.

8. H. G. Rickover, "The Individual in a Free Society" address delivered at the 34th Steinmetz Memorial Lecture sponsored by the Steinmetz Memorial Foundation. Schenectady, New York, March 22, 1963, p. 5.

ciety is to blame... Mediocrity finds in it (Freudian Ethic) a splendid alibi for it looks upon itself as the normal and healthy. The uncommon man who excels thus becomes a sort of unnatural freak. Conformity to whatever the environment in which one happens to find himself becomes the safe and approved aim.<sup>9</sup>.

Rickover thusly claimed that group conditioning shriveled individual autonomy so necessary for the survival of a free society. He maintained that the process of group conditioning directly resulted from permissive homes and progressive schools with their emphasis on life-adjustment curricula. In such schools stress was placed on self-expression rather than on self-discipline; on group adjustment rather than on development of an individual's innate capacities; on being accepted by one's peers rather than on becoming an independent, self-determining adult human being. Rickover feared that such group conditioning by the schools would only cause people when they reached the adult world to huddle together in the safety and comfort of communities populated exclusively by members of one segment of society, and pattern personal behavior on group standards. Such closed groups seldom encouraged independent thinking and frequently heaped derision on the non-conforming mind. In contrast, passive adjustment to the group was viewed by Rickover as totally inappropriate in a free and complex society; it belonged to a more primitive age of man. The higher the cultural and technological level of society, the greater the diversity of human talents could be found, and the more was such diversity needed for the proper functioning and progress of society.

Rickover placed a grave responsibility on man living in a technologically advanced society to reflect critically about the kind of life

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9. Ibid., p. 6.

technology was creating. Failure to do so was seen by him as a serious threat to individual freedom because it implied that technology dictates human behavior and man can only obey its command. Rickover cautioned that purveyors of technology, because of their excessively "practical approach" to scientific discovery, were frequently motivated by short-range and private benefits. He advocated a "scholarly approach" to technology. Such an approach was long-ranged and public, and looked to the effects of a new discovery on the world population, present and future.<sup>10.</sup>

In Rickover's mind, progressive schools with their excessive valuation of the immediate and practical just could not produce people capable of this "scholarly approach" to the uses of technology. Furthermore, he feared these schools were unable to develop properly the diversity of human talent needed to make necessary progress in a technologically advanced society. He squarely fixed the blame on the group he variously called the progressives or life-adjusters. Whatever their intent, he believed the consequences of their efforts were injurious to the nation. Rickover minced no words as he continually called on the American public to cast out from their schools the life-adjustment curricula installed by progressive educators. At one time his battle cry became a paraphrase of the solemn warning of that persistent Roman statesman, Cato the Elder, who ended every speech in the Roman Senate with "Delenda est Carthago." Rickover's entreaty was "Delenda est life-adjustment conditioning;" life-adjustment must be destroyed if the stan-

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<sup>10.</sup> Ibid., p. 8.



dards of excellence were ever to return to American schools.<sup>11.</sup>

Rickover's criticisms of the progressive education influence would have had greater plausibility had he understood and made clear that what he was assailing under the name of progressive education were, in fact, the educational policies and practices he saw as prevailing in the United States in mid-twentieth century. Rickover carelessly labelled and treated these policies and practices as progressive and/or life-adjustment education. He apparently viewed this type of education as a phenomenon begun by John Dewey and traceable through his disciples following an unbroken dogmatic line to the life-adjustment movement which dominated the 1940's and 1950's. The consequence was that he blamed many of America's educational failings on a nonexistent monolithic group. His errors of mis-labelling and not allowing for individual variations in the progressive education movement have been pointed out earlier in this research. At this juncture it will only be reiterated that this error weakened his case because it leaves unclear just who or what were the targets of his criticisms during his attacks on "progressive educationists."

A further fault in his case against the progressives was his cursory treatment of John Dewey. Rickover's criticism of Dewey was one of making random attacks rather than sustaining a comprehensive and logical assault. Rickover's strategy was to make selective references to Dewey in such a way as to hold Dewey's ideas up to ridicule while simultaneously strengthening his own case. As a result of such a practice, he fre-

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11. H. G. Rickover, "A Common Heritage" address delivered at the Columbia University Forum at the Columbia University Club. New York, N. Y., October 23, 1958, p. 8.

quently treated Deweyan concepts and terminology outside the exacting definitive context in which they were conceived and tested by Dewey.

One example of this carelessness can be seen in the disregard Rickover showed for the careful manner in which Dewey used the term "vocational education." Rickover consistently accused Dewey and the progressives of loading the elementary and secondary school curricula with trivial vocational subjects because of their practical value. Rickover feared that one consequence of such an early emphasis on vocational training would be a narrowly educated citizenry which lacked the intellectual training and knowledge necessary to make well reasoned decisions in their private and public lives so that they were capable of changing their status in society rather than adjusting to it.<sup>12</sup> In place of narrow specific training, Rickover strongly advocated a broad, liberal education for all students for as long as possible. It was a liberal education which was truly emancipating, and which provided the greatest opportunity for individual social mobility. He asserted that Dewey's concern was with narrow "vocational education" at the expense of a liberal education.

Contrary to Rickover's interpretation of Dewey on these aspects of vocational education, Dewey said the following:

...it is necessary to define the meaning of vocation with some fullness in order to avoid the impression that an education which centers around it is narrowly practical, if not merely pecuniary. A vocation means nothing but such direction of life activities as renders them perceptibly significant to a person, because of the consequences they accomplish, and also useful to his associates.

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<sup>12</sup>. H. G. Rickover, "European and American Secondary Schools -- A Comparison" address delivered at the Fiftieth Anniversary Celebration, St. Albans School. Washington, D. C., March 23, 1958, p. 6.

...We must avoid not only limitation of conception of vocation to the occupations where immediately tangible commodities are produced, but also the notion that vocations are distributed...one and only one to each person. Such restricted specialism is impossible; nothing could be more absurd than to try to educate individuals with an eye to only one line of activity...in so far as one approximates that condition, he is so much the less developed human being; he is a monstrosity.<sup>13</sup>

Dewey was making a careful distinction between vocational education and what he called "narrow trade education." Still, Rickover never acknowledged Dewey's distinction between these terms. Dewey urged the masses of people not to settle for this specific trade preparation because such an education discounts the scientific and historic human connections of the materials and process involved. Instead, Dewey preferred a concept of vocational education which took its point of departure from social occupations, but which broadened out to include instruction in history, science, economics, etc. Dewey said:

An education which acknowledges the full intellectual and social meaning of a vocation would include instruction in the historic background of present conditions; training in science to give intelligence and initiative in dealing with materials and agencies of production; and study of economics, civics, and politics, to bring the future worker into touch with the problems of the day and the various methods proposed for its improvement. Above all, it would train power of readaption to changing conditions so that future workers would not become blindly subject to a fate imposed upon them.<sup>14</sup>

Dewey would have had little argument with Rickover on the emancipating qualities of a general education. He insisted on an individual's right to act upon his own interest and judgment when choosing his career, with no generation empowered to bind its successors. To secure this

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<sup>13</sup>. John Dewey, Democracy and Education (New York: The Free Press - McMillan Publishing Co., Inc., 1916), p. 307.

<sup>14</sup>. Ibid., pp. 318-319.

right, Dewey felt all citizens needed as broad an education as possible. He was fearful that the American school system would be split with the less fortunately situated receiving mainly specific trade preparation while the economically advantaged received a more favorable liberal education. Dewey warned:

...at the present juncture, there is a movement in behalf of something called vocational training...This movement would continue the traditional liberal or cultural education for the few economically able to enjoy it, and would give to the masses a narrow technical trade education for specialized callings, carried on under the control of others. This scheme denotes, of course, simply a perpetuation of the older social division, with its counterpart intellectual and moral dualisms.<sup>15</sup>

The matter of vocational education has been used here to illustrate the manner in which Rickover would enter an argument against Dewey without first defining terminology or providing a thorough explication of Dewey's ideas. The onus lay with Rickover to recognize that both men were not speaking of the same thing when dealing with the concept of vocational education. Rickover saw an antithetical relationship, vocational education versus liberal education. Dewey assumed continuity, that is, the more liberal learnings of science, mathematics, history, art, etc., were the natural outgrowths of the study of familiar social occupations.

It is noteworthy to observe the frequency with which Rickover's assaults against Dewey and progressive/life-adjustment education took the form of philosophic dualisms, e.g., vocational education vs. general education, individual vs. group, child-centered vs. teacher directed, subject matter vs. method, and play vs. learning. It would have been sim-

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<sup>15</sup>. Ibid., p. 319.

plistic of anyone to think that Dewey was unaware of this human tendency to see much of life, including education, as one-sided segments of experience interacting in opposition to one another. Dewey hated such dualisms and assiduously sought to resolve them in favor of continuity.<sup>16</sup> But, for Rickover to repeatedly present dualistic arguments in his case against Dewey suggested that Deweyan ideas gave rise to these opposing positions. It will be left unresolved here whether or not Dewey's theories and practices generated the dualisms he so detested; however, it is a reasonable expectation that Rickover have been aware of and credit Dewey for his detailed and erudite case against dualisms. Nowhere did Rickover do this; one intimation being that he may have been unaware of this basic tenet of Dewey's philosophy, or that he was purposely selective in his references to Dewey.

Another possibility was that Rickover fell victim to what Bernstein called the "Dewey Legend." This legend developed from a caricature of Dewey's philosophy created by casual students of Dewey who misinterpreted his ideas. These same dilettantes became very "authoritative" when attributing educational practices to his theories. As a result, Dewey has been attacked for the promulgation of concepts and practices which were never truly his. The criticisms of Dewey continued based on the presumption that the caricature was an accurate presentation of what he said, and his true thoughts never did emerge. Bernstein claims: "These various attacks on Dewey have given rise to the legend that Dewey was a muddle-headed thinker whose social and educational

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<sup>16</sup>. Ibid., pp. 333-39.

views have mis-led America, and whose philosophy when stripped down to fundamentals is essentially anti-intellectual."<sup>17</sup> Rickover surely subscribed to the notion that Dewey was "muddle-headed," that he had "mis-led America," and that his philosophy was "essentially anti-intellectual." However, Rickover's frequent offhand treatment of Dewey was so much evident, it gives cause to speculate that his knowledge of Deweyan thought may have been founded on the caricature and not on the primary source.

It is not the purpose of this research to isolate and treat the many deleterious educational practices Rickover imputed to Dewey and the progressives. To compare and contrast these imputations to what Dewey and the progressives truly theorized and worked out in their laboratory schools would be the subject of separate research. Still, it may serve a useful purpose to look closely at one of Rickover's accusations -- that Dewey and the progressives created schools so permissive and child-centered that they lacked adult guidance in matters of instruction and subject selection -- and ask the questions: "Who created such schools, and to what extent were they actually established?"

Rickover and the "Dewey Legend" notwithstanding, Dewey's theories and his efforts in the Laboratory School at the University of Chicago were never permissive and child-centered. Cremin confirms Dewey's consistent efforts to avoid dualisms. He asserts that Dewey would never countenance any dichotomy between teaching children and teaching subjects. Cremin maintains Dewey's concerns remained with the interests and purposes of children as worked out in a balanced social setting, and that

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<sup>17</sup>. John Dewey, On Experience, Nature and Freedom: anthology edited by Richard J. Bernstein, (Indianapolis and New York: The Bobbs-Merrill Co., Inc., 1960) pp. XIX-XLVIII.

his pedagogical paradigm also remained counterpoised. Cremin charges that Kilpatrick, not Dewey, subtly shifted the emphasis toward the child because of his conviction that future uncertainty precluded subject matter determined a priori. Because of his belief, Kilpatrick consistently chose teaching children over subject matter, thereby creating a child-centered approach.<sup>18</sup> Rickover's charge that Dewey conceived and nurtured the child-centered school is unsupported by Cremin.

In spite of Rickover's charge, Dewey and the early progressives never sought to replace a structured curriculum with unrelated, directionless learnings developed willy-nilly out of the minds of children. What Dewey was clearly seeking was a new curriculum to replace the old, that is, "a new body of subject matter, carefully ordered and designed, that began with the experiences of the learner and ended with organized subjects that represented the cumulative experience of the race."<sup>19</sup> Mayhew and Edwards' account of the Laboratory School of the University of Chicago<sup>20</sup> contains firsthand descriptions of carefully developed policies, organization, curricula and methods used at this early progressive school. Their book, sanctioned by Dewey, totally debunks the notion that the Laboratory School was permissive and child-centered; rather, the image was of a school carefully directed by responsible teachers, not in a child-centered surrounding but in a society-centered atmosphere. The activities of the School found focus in a highly structured curricu-

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18. Cremin, The Transformation of the School: Progressivism in American Education, pp. 218-20.

19. Ibid., p. 220.

20. Katherine Camp Mayhew and Anna Camp Edwards, The Dewey School: the Laboratory School of the University of Chicago, 1896-1903. (New York: Atherton Press, 1966).

lum having social occupations at its core rather than what were conventionally termed studies or subjects.

Contrary to what Rickover says, it is abundantly clear that Dewey intended for adults to run schools. Dewey's eventual break with the Progressive Education Association revolved around the lack of adult guidance in child-centered schools which he saw as stupid because they attempted the impossible.<sup>21</sup> However, implicit in Dewey's estrangement from the Association was the existence of child-centered schools as part of the progressive education movement. The question remains unanswered: "Who created these child-centered schools so deplored by Rickover?" It was not, as Rickover would have had the public believe, Dewey and the early progressives who launched such schools; and these schools were in place prior to the life-adjustment movement of the 1940's. Most probably child-centered schools were the result of an evolutionary process which began when Kilpatrick lost all faith in extrinsic subject matter and shifted the emphasis to the child. The one certainty that does emerge is that Rickover's case against progressive education is further diminished by his attempts to affix responsibility for child-centered schools with the same broad brush covering Dewey, Kilpatrick, progressives and life-adjusters.

Another unanswered question is the degree to which child-centered schools were actually established throughout the United States. To the extent the old adage is true that teachers teach as they were taught, it seems reasonable to wonder how successfully the child-centered approach

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<sup>21</sup>. Cremin, The Transformation of the School: Progressivism in American Education, p. 234.



impacted on America's public schools. Regardless of theories and practices developed in teachers' colleges and policies espoused by the educational hierarchy, the extent to which teachers practiced permissiveness and child-centeredness in public school classrooms is debatable. Even Rickover suspected as much when he said: "Fortunately, progressive educational methods have not found too wide application in our schools -- thanks primarily to the heroic resistance and good judgment of our teachers. However, the spirit of Dewey permeates our teachers' colleges and state boards of education; it thus influences the training of our teachers and our formulation of school curricula."<sup>22</sup> How far reaching were these influences are still uncertain since the true methodology and curriculum in any school is determined by what actually transpires in the classroom under the direction of the teacher and not what is found in methods textbooks or curriculum guides. If Rickover is to be believed that teachers put up a "heroic resistance" to progressivism, then it follows that he may have been wrestling with a paper tiger when he attacked the profound negative influence of permissiveness and child-centeredness on American public schools.

Summing up, Rickover observed and identified many short-comings in American educational practices in mid-twentieth century. He sought to link these failings to the advent of the progressive education movement launched by John Dewey. Rickover contended that the progressive education movement confused the purpose of education in America by directing the efforts of the schools away from education's primary task of training the intellect. He saw many progressive practices as threat-

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22. H. G. Rickover, Education and Freedom, pp. 137-38.

ening to individual autonomy and the continued progress of the nation. Not only did he view progressive education as the chief cause of America's educational problems, but it was also seen as the largest barrier to school reform.

It is the conclusion here that Rickover did not successfully establish his case against the progressives. His case was in jeopardy from the start when he failed to recognize that many practices being performed in the name of progressive education were not securely grounded in the movement. He went on to repeatedly demonstrate he lacked an understanding of the nuances of the movement. For example, he often treated John Dewey, William Heard Kilpatrick, "progressives," and "life-adjusters" as an inseparable group who spoke with one voice; consequently, the target of his criticisms always remained vague. His treatment of Dewey was cursory and, at times, inaccurate. Finally, Rickover minimizes the importance of his own case by adding to the speculation that progressivism had little impact in the classrooms of American schools.

## CHAPTER V

### "FOUR ADDITIONAL BARRIERS TO EDUCATIONAL REFORM"

The inordinate influence of the progressive education movement was not the only barrier to educational reform seen by Rickover. Four other major roadblocks clearly emerge from his criticisms: first, the failure of American schools to develop a variety of educational models to fit the varying needs and abilities of children; second, the unwillingness of American educators to set national standards for education; third, the poor quality of teaching in the United States; fourth, the built-in resistance to change found in the educational establishment. For Rickover, these last four barriers to educational reform were inter-related with each having tendrils attaching it to progressive education. Chapter V will examine these four additional barriers.

Rickover viewed the failure of American educators to develop a variety of educational models as originating in a commonly held misconception of democracy which arose with the long established concept of the comprehensive schools. It had been the practice throughout the early common schools of the United States to teach children of varying capabilities and achievements in one classroom. This one-room schoolhouse concept essentially served simple rural communities. Subjects taught in such schools remained elementary and could be readily mastered by most average and bright children, though at different rates of speed, without seriously interfering with one another. However, a rapid expansion of

secondary schools occurred with the urbanization and industrialization of American society. Compulsory school attendance increased secondary education and caused an ever widening range of mental capacities and achievement levels which made instruction difficult.

Rickover charged that American educators had ignored accumulating data which showed these differences increasing among children. He pointed to the American practice of continually lumping students in huge comprehensive secondary schools which adequately served only the tiny minority exactly in the center of the ability scale.<sup>1</sup> Rickover insisted that compulsory togetherness had taken precedence over the educational needs of children and that the full development of individual potential had been subjected to group needs. He accused American educators of seeking to level children into homogeneity by forcing identical education on all in the name of equality.

Our determination that every child must get the same education, at least during his first twelve school years, is at the root of most of the defects in our school system. We are apparently incapable of accepting the incontrovertible fact that after the first few elementary grades children's mental inequalities make any kind of genuine education impossible if we force them to move in lockstep through the single-track comprehensive school. This sort of school is a defective instrumentality, yet we cling to it because it looks so "democratic."<sup>2</sup>

Rickover was convinced that progressive educators were responsible for maintaining this outdated model of comprehensive schooling. He claimed progressives were attempting to apply to public education a nar-

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1. H. G. Rickover, "Democracy and Competence," address delivered at the annual meeting of the Ladue School District Council, St. Louis, Missouri, April 26, 1960, p. 15.

2. H. G. Rickover, "Education in a Free Society," address delivered at the Clinical Congress of American College of Surgeons, Chicago, Illinois, October 5, 1961, p. 12.

row and erroneous concept of democracy which only served to defeat the purpose of education in a true democracy. Because of their excessive identification with the social sciences, progressives concerned themselves primarily with group behavior and group needs; therefore, Rickover believed they were uncommonly susceptible to doctrinaire egalitarianism. Their tendency was "to treat children -- in the name of equality and democracy -- as an undifferentiated mass that must be kept together in class -- whatever the cost may be to the children themselves, not because this would best enable each child to advance as fast as his ability and effort allow, but for reasons which are political, not educational, namely the belief that togetherness in school is a prerequisite to 'democratic' living in adulthood."<sup>3</sup>

Rickover concluded that the fundamental American belief in the equality of man before the law had been transformed by progressives into a Jacksonian egalitarianism which attempted to assure political and social equality beyond the law. Named for the governmental policies of Andrew Jackson, elected president of the United States in 1828, this dogmatic egalitarianism advanced the idea that the needs of average men were the only valid considerations in a democracy. Jackson's administration had pledged to open society's institutions and society's critical occupations to all men. In its extreme, Jacksonian egalitarianism argued that any man of average ability could fill any public office or exercise any profession even though he may have lacked requisite training. Securing equality before the law, equality vis-a-vis the government, and equality of opportunity were not enough for Jacksonians. They attempted

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<sup>3</sup>. H. G. Rickover, "What are Schools For?" address delivered at the New Mexico Academy of Science, 1971 Symposium at the University of New Mexico, Albuquerque, February 12, 1971, p. 14.

to level out all aspects of human nature and experience in a quest for homogeneity. American democracy was viewed by them as synonymous with "sameness," and individualism was forced to yield to a pre-conceived ideal of the common man.

Rickover argued that Jacksonian egalitarianism had permeated the dogmas of modern behaviorists and progressive educators, and produced a misguided cult of the common man. He maintained that progressives made shibboleths of "democracy" and "equality" as defined by this narrow Jacksonian view of democracy. These passwords, "democracy" and "equality," secured admittance to the common man cult in education, and connoted an antithesis and open hostility to all that was excellent or different.

Nothing was further from the minds of the nation's Founding Fathers, according to Rickover. He claimed that both the Federalists and Jeffersonians among the Founding Fathers agreed that a basic problem for democratic government was to obtain capable leadership for the nation without infringing on the right of all citizens to earn access to leadership positions.

It is difficult to take exception to Rickover's interpretation of the Founding Fathers, limited though it may be. A reading of the United States Constitution or study of the Federalist's commentaries of Alexander Hamilton, James Madison, and John Jay clearly reveal concerns for the development of superior leadership and protection from hasty and ill-conceived popular actions.<sup>4</sup> Even Thomas Jefferson, political opponent

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<sup>4</sup>. Henry S. Commager, ed., Selections from the Federalist (New York: Appleton-Century-Crofts, Inc., 1949).

to the Federalists and himself an advocate of agrarian egalitarianism, repeatedly called for talented and educated persons to assume the leadership of the nation. In his "Bill for the More General Diffusion of Knowledge," Jefferson outlined an educational plan for the Commonwealth of Virginia which clearly called for its citizens to identify and educate the intellectually gifted in addition to the common citizen. Further, many of these early patriots, both Federalists and Jeffersonians, were sons of the Enlightenment who highly valued reason and readily accepted the Platonic notion of an "aristocracy of intellect" within the Republic.

What Rickover might have pointed out in all fairness was that regardless of their vague assurances of equal educational opportunity, only Jefferson had a concrete proposal for educating the common man; the Federalists, by omitting education from the United States Constitution, limited educational opportunity to children of the wealthy with only meager schooling for the poor. It was not until after the rise of Jacksonian democracy that the common school movement in the United States garnered much support. Rickover should have seen the incompatibility of evoking the Federalists in support of varied educational opportunities since it was their purposeful omission of education from the Constitution which delayed universal education in America -- a delay frequently alluded to be Rickover when making comparisons to the earlier appearance of universal education in parts of Europe.

Regardless of these limitations, Rickover was accurate in his claim that the Founding Fathers recognized the need for a carefully selected and trained leadership. Rickover maintained that in an effort to preserve the more narrow and mistaken Jacksonian concept of democracy

progressive educators deprived many of the nation's talented children, and almost all of its average children, of the benefits of a general or liberal education which he believed enhanced man's stature and enabled him to live a fuller, more interesting, and more satisfying life. Because such a basic, liberal education could not be provided to all American children simultaneously, Rickover charged that progressive educators downgraded curricula in the direction of what were termed "common needs of youth" -- e.g., vocational training; the teaching of manners, mores and leisure time activities; etc. Such a practice permitted Americans to maintain a perverted pride in their "mass" educational system, no matter how little genuine education it provided.<sup>5</sup>

American educators considered it "undemocratic" to follow the European practice of differentiating curricula and providing parallel tracks to accommodate for natural differences in ability and aptitude. The European practice of testing to see which track best met the educational needs of individual children was dismissed by Americans as aristocratic or class education in contrast to the mass education sought for American children. Rickover accused American critics of European tracking practices of never mentioning that there were several transfer points in European school systems which permitted students to rectify placement errors by switching tracks. Furthermore, little attention was given by Americans to the European practice of eliminating most of the cost of education through the university for all who qualified intellectually.

Rickover said that American educators, particularly adherents to

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<sup>5</sup>. H. G. Rickover, "Democracy and Competence," p. 16.



progressive theory, were confounding "ability to pay" with "ability to learn." He argued that a child's inability to pay for schooling was a removable bar to education, while a child's inability to learn was an irremovable bar. Many poor children were gifted, and many rich children lacked either the ability or industriousness necessary to benefit from advanced education. Giftedness and motivation ought alone determine the educational level a child should attain. When you eliminate "ability to pay" through tax support and scholarships you get educational democracy; when you eliminate "ability to learn" you get non-education.<sup>6</sup>

Rickover criticized American educators for viewing public education as democratic only when merit was divorced from academic reward. He saw this as the basic difference between American and European education. Both had for all practical purposes eliminated "ability to pay" by mid-twentieth century, but in Europe the old standards of excellence remained. Rickover felt European higher education had never been purely a class privilege; it always had to be earned. "Ability to pay" may have gotten Europeans into school in the past, but unless they mastered the rigorous academic program they did not remain there. The cost of education was no longer a factor in modern Europe, but "ability to learn" was still the conditio sine qua non in European schools.<sup>7</sup>

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<sup>6</sup>. H. G. Rickover, "A National Standard for Education," address delivered to the Burlington-Lake Champlain Chamber of Commerce and the University of Vermont, Burlington, Vermont, November 7, 1963, p. 6.

<sup>7</sup>. H. G. Rickover, "Priorities in Education--What Can We Learn from Europe?," address delivered at a special public meeting sponsored by the Council for Basic Education, Washington, D. C. October 25, 1963, p. 20.

By contrast, Rickover felt American educators found "ability to learn" as unacceptable a bar to educational advancement as "ability to pay." They claimed that high academic standards produced no less an aristocratic or class education than school fees. Educational advancement was looked upon as a right guaranteed by citizenship, and not as something to be earned. The "advancement" of all children at the same rate was acceptable evidence to American educators that their practice of leveling education in the name of democracy was a success. Rickover frequently puzzled over the inability or unwillingness of American educators to see the inherent folly of such a practice. "Strange as it may seem, they (educators) appear literally incapable of grasping the simple fact that when you promote a student who has not mastered this year's program, you hand him a paper reward. Even as you give it to him, it devalues, as does all currency not backed by gold."<sup>8</sup>.

Rickover consistently delineated this distinction between the right to an education and the right to equal educational opportunity. He resisted the wide spread notion that education, especially liberal and higher education, was a democratic right. Instead, he viewed education as something to be earned, and not something which was a gift by virtue of one's citizenship. He made the case that education was not a material commodity such as a television set or an automobile. Since everyone could use and enjoy such material commodities it would be unfair if the government distributed these items free of charge to a limited part of the population. The ability to use and enjoy academic training was not universal; therefore, to limit its use to those who

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8. Ibid.

could benefit from it was not unfair; but to deny it to the minority who could use and derive benefit from academic training was both unfair and undemocratic.<sup>9</sup> He saw equality of opportunity as the only valid right in education, and when public schools were used to level out inherent inequalities of talent and motivation among individuals, they destroyed equality of opportunity.<sup>10</sup>

One obvious problem resulting from leveling all schooling in the United States was that the needs of exceptional children had not been met. Rickover felt it was to the credit of the American people that they readily abandoned such a cherished principle as "equal education for all" when it came to making special provision for handicapped children. However, he argued that the talented are as exceptional as the handicapped, and that the American public should feel no less compassion for the mentally superior child whose exceptional needs were being left untended. Yet by mid-twentieth century, there was little mass support necessary to upgrade the schooling of talented youth in the United States. Rickover believed this was in part a consequence of a prevailing anti-intellectualism in America which looked with a somewhat jaundiced eye on scientists and scholars. He thought it was especially ironic that this anti-intellectualism had permeated the country's educational officialdom. Lacking a genuine respect for scholarship, Americans showed their disrespect by disparagingly referring to scholars engaged in higher learning as "eggheads" and "intellectuals."

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<sup>9</sup>. H. G. Rickover, "The Education of our Talented Children," address delivered at the Seventh Institute of The Thomas Alva Edison Foundation, East Orange, New Jersey, November 20, 1956 (Reprint)

<sup>10</sup>. H. G. Rickover, "Democracy and Competence," address delivered at the University of Notre Dame, Notre Dame, Indiana, February 22, 1961, p. 16.

Rickover feared America was becoming an envious society incapable of tolerating intellectual excellence because of its rarity. He said:

In truth, we have no real admiration for higher learning as such, nor are we willing to respect those engaged in it unless we see an immediate practical advantage to ourselves in their work. Most Americans dislike the very idea that people are unequal in intellectual capability, though they are ready enough to recognize inequality of natural endowment in other respects. This ambivalence in our attitude toward the mentally superior is surprising when we compare it with the generous applause we lavish on superior talent in athletics or in the arts; on superior beauty or on superior business acumen.<sup>11</sup>

Rickover accepted the premise that children learned at different rates because they had unequal mental abilities. He further believed that because of differences in innate ability and personal motivation not all children would climb equally high on the educational ladder. It was wrong, he argued, to decelerate the learning of talented pupils to the speed of the average or less capable students. Society could not afford this waste of human resources. The logical conclusion was inescapable for Rickover -- separate educational models had to be established and comprehensive schooling had to be abandoned.

"Sham egalitarianism" should not be allowed to deny children of all socio-economic classes to their rightful opportunity for full educational development. Regarding this denial, he said:

I presume we do not wish to carry "democratic" education to a point where only children of the rich can afford to become professional people. Yet this would assuredly happen if we heeded those educationists who brand everyone as undemocratic who advocates special public schooling for our talented youth. Do we want the services of doctors, lawyers, engineers and other professionals? Well then we won't get them unless we provide proper schooling for those of our children who are willing and able to become professionals. To

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<sup>11</sup>. H. G. Rickover, "The Education of our Talented Children."

call this advocating that only an "elite" be well educated while the rest of our children receive an inferior education, making them forever hewers of wood and carriers of water, is highly irresponsible demagoguery. At present nobody gets a really good public education; what critics advocate is that everybody receive the best education he is able and willing to absorb. What could be more democratic.<sup>12.</sup>

"Proper schooling," for Rickover, meant mentally homogeneous schooling. Comprehensive schools, except at the most elementary level, should cease to exist. He was aware that any change in the American commitment to comprehensive schools would meet strong opposition. Special education for the mentally handicapped would continue to be tolerated, but special tracking for the mentally superior would remain branded as undemocratic and elitist education. He knew his critics would argue that separation of children according to mental capacity would deny them the valuable experience of living together with other children of varied background and ability, and that this constituted a necessary condition for a smooth functioning democracy. Rickover believed none of these objections to tracking could bear critical examination.

To propose various school models appropriate to one's socio-economic class or restricted to members of racial/ethnic groups would, indeed, be undemocratic. Yet, Rickover contended that schools designed along the lines of intellectual ability were only recognizing an "irremovable bar" to education - i.e., the child's inability to learn. Ability to learn was certainly not limited to children from any one racial or ethnic group nor to those coming from economically advantaged homes. Rickover argued that if special interest schools could draw from the

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12. H. G. Rickover, "The Role of the Critic," address delivered at the Tenth Institute of the Thomas Alva Edison Foundation, New York, November 19, 1959, p. 11.

whole population and all children were given the same opportunity to advance in accordance with their abilities, the social advantages of learning to live together with children of varying backgrounds would still be preserved.

He proposed that the magnet type of schools would break down social, racial and economic isolation already existing in many American schools, especially in large cities which drew their pupils from a particular neighborhood or homogeneous population. Also, affluent communities generally provided better schools for their children by assuring sufficient tax monies or by sending them to private preparatory schools. The talented poor child, however, depended almost exclusively on public education, and Rickover felt strongly that the poor and racially isolated were denied access to the quality education they needed to compete in American society.<sup>13</sup>

Rickover regretted that the objectives of providing equal educational opportunity had changed at some point to providing equal education. In an effort to assure equal education, a diploma was given to nearly all who wanted one. The educational system lowered its expectations and standards. Advancement through the system to the next higher grade was automatic as far as Rickover could see; promotion became meaningless. Lower standards may have allowed the mass to move forward together and to claim the same rewards, but they did not produce well-educated citizens.

To counteract social promotion practices, Rickover argued for the establishment of a national scholastic standard. He claimed that the

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H. G. Rickover, "Education of our Talented Children."

absence of a national standard was another underlying cause of the nation's low academic achievement and a major barrier to educational reform. It made educational reform difficult and, if accomplished at all, likely to occur in a piecemeal fashion that would only increase the already great geographic inequalities that characterized American education.<sup>14.</sup>

Rickover knew that by advocating national educational standards, he would again be accused of trying to foist upon the country an aristocratic elite. Regardless, the nation could not succumb to a philosophy that regarded educational honors as gifts to be bestowed without asking that they first be earned.<sup>15.</sup>

Most developed countries had definitive and known standards of intellectual accomplishment. Further, Rickover knew of no country that had achieved educational reform without first establishing national standards. Yet in the United States, what a child should have known at a given point of his academic career remained undefined. Despite many local curriculum guides, no uniform standard nor means of measurement had emerged. Rickover often said that to operate schools without appropriate standards and objective measures of student performance in relation to these standards was tantamount to getting vaccinated and not caring to find out if the vaccination "took." Still, he found that attempts to establish national standards and tests were opposed by the educational community. First, they argued that there was already too

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<sup>14.</sup> H. G. Rickover, "A National Standard for Education." p.3.

<sup>15.</sup> H. G. Rickover, "The Role of the Professional Man," address delivered at the dinner commemorating the ninetieth anniversary of the founding of Roosevelt Hospital, New York, October 29, 1959, p. 16.

much emphasis on test scores as a measure of student performance; or that standards and tests were unfair to minorities and the disadvantaged -- a violation of civil and human rights. A second common argument was that setting standards should be based on local needs; that national standards and tests would eventually lead to federal control of education.

Rickover found the arguments against national standards to be specious. To begin, he conceded that no test was perfect, and a single test score did not reveal completely a child's intellectual and academic development. However, testing and grading were essential steps in gauging a student's progress and the quality of his work. Furthermore, students, and employers had a right and a need to know where students stood academically. Rickover believed the abolition of tests and grades violated that right.

Rickover continued his rebuttal by asserting that minorities and the disadvantaged had the most to gain from clearly established standards and testing. He strongly made the point that standards, tests, and grades were never intended as measures of a child's value as a person. However, they would present an accurate picture to parents of how their children compared to the rest of the nation without having to rely solely on the judgment of teachers or school officials. He urged minority parents to endorse standards and testing as a means of assuring that their children got fair, quality education. Minority children must be held to a demanding standard; to expect less was the cruelest form of discrimination. Schools whose minority and disadvantaged students consistently failed to meet national standards should be identified and made to focus



necessary attention on the problem.

It was difficult for Rickover to agree with the argument that children ought not be "judged" in a competitive way; that each child had a right to "equal education and equal status." Nor, did he share the concerns of educators that children who do not measure up to a standard would suffer pain and lose face. He conceded that different standards could be established for different levels of aptitude; but regardless, children should not be forever shielded from the inevitable demands of a realistic and competitive world. He argued:

All of life is a series of tests. Young people will be better able to take these tests in their stride if at an early age they begin to learn that everything worthwhile requires great effort but that the satisfaction derived from attaining a standard makes effort worthwhile. Given the wide differences of aptitude with which we are born and which we do not know how to alter, is it not good for young children to discover that some goals are beyond their capacities; that they cannot win all the tests? It is better to know one's limitations, as well as one's capacities, than to live in delusion which life sooner or later will rudely shatter.<sup>16</sup>

As to the contention that setting standards can only be done locally, Rickover countered that a child's basic educational needs had become the same no matter where in the United States he went to school. The concept that schools educate children to fit into the local environment belonged to an earlier, less complex age when people were less mobile and the need for literacy not as great. With increasing transiency in population, every child in America, regardless of racial, cultural or geographic background, had the same need for a competent education.

Regarding the amazing diversity of standards throughout the United States, Rickover felt that this was probably unavoidable in ear-

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<sup>16</sup>. H. G. Rickover, "A National Standard for Education," p. 18.

lier times when Americans were still engaged in subduing a wilderness. Different parts of the country were then at different stages of development and reflected different states of culture. "High culture" came when the material necessities of life had been provided. Education was bound to be better in the long-settled communities along the Atlantic seaboard than in the interior pioneer country.

Such variable conditions were no longer the case in modern America according to Rickover.

Today technology has brought culture to the remotest farm. A child's educational needs are now the same whether he goes to school in Florida or California, in Wisconsin or Vermont. Every American youngster must have knowledge of the basic subjects: of language, mathematics and science, of government, geography and history -- all up to the highest level he is capable of achieving. Every child has the same need for development of his intellectual capacities so he will be able to reason logically and understand the complex world in which he lives and the public issues on which as a democratic citizen he is called to express independent and rational opinions. All our children need a good basic education to qualify them for the kind of jobs a highly technical society provides. Less and less will there be rewarding work in this country for the uneducated, no matter where they may live.<sup>17</sup>

Rickover disputed the reasoning of educators who argued that a national standard and testing program would eventually lead to federal control of education. The standard of which he spoke meant simply "a specific requirement or level of excellence deemed worthy of esteem or reward." It was not a law, enforceable in the courts; falling below the standard did not put one in jail. Nor was it a conventional rule imposed by society; failure to meet the standard did not get one socially ostracized. There were no money grants involved; achieving less than expected by the standard did not cut off federal aid -- a possibility more likely

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<sup>17</sup>. Ibid., pp. 3-4.

at a later time. No one had to live up to the standard since what Rickover was proposing was an "optional criterion for determining the value of an act or accomplishment." For those who chose to participate, the standard would become the yardstick by which the worth of these acts or accomplishments could be determined.<sup>18.</sup> There was no logical necessity that national standards would lead to federal control over education.

Testing of students against national standards, while important, was seen by Rickover as merely an indicator of whether students were learning. He knew it took a properly balanced curriculum taught by competent and dedicated teachers to provide quality education. The public had to require teachers to be knowledgeable in the subject matter they taught, and to demonstrate the reading, writing and mathematical skills necessary to evaluate pupil performance. Sadly, Rickover found many American teachers were ill prepared and lacked the basic skills and knowledge which needed to be taught to students. Secondary school teachers, especially, were frequently not scholarly in their subject areas. The result was a reciprocal losing cycle: poor teaching caused the public to generally place a low value on teachers, poor salaries were then paid, and fewer scholars were attracted to the profession, which served to continue the cycle. Rickover saw the breaking of this cycle by raising the intellectual and educational quality of teachers as the single most important step needed to improve education in the United States.<sup>19.</sup>

The preparation of American teachers concentrated too heavily on

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18. Ibid., p. 17.

19. Hyman G. Rickover, American Education--A National Failure, (New York: E. P. Dutton and Co., Inc., 1963), p. 311.

methodology and not enough on content as far as Rickover was concerned. He believed modern methodology was of dubious value at best, and certainly its worth decreased in secondary education. If teacher preparation was to improve, more time would have to be spent educating prospective teachers in the liberal arts and assuring they had acquired the body of knowledge necessary to identify them as scholars in their discipline. What Rickover feared was that teacher-training institutions would continue their de-emphasis of basic, liberal education and replace it with a plethora of "how to" methods courses and other "educationist trivia." He strongly believed that the quality of a school system was determined by the intellectual caliber of the persons who directed the enterprise and of the professionals who staffed it -- and by nothing else. The reason American education was scholastically inferior to education in other Western nations was because it was led and staffed by men who were uninterested in things of the mind. Abroad, schools were viewed as intellectual enterprises. However, American school administrators and their confreres in the teacher-training and certification end of the enterprise set qualifications of teachers at so low an intellectual and professional level and allowed them so little professional freedom that persons with first-rate minds were seldom attracted to public school teaching. Small wonder that these same non-intellectual leaders of American education would find "subject matter" courses of little value in teacher preparation. Rickover could find no other country where so large a part of teacher training was devoted to the study of methods, and so little to knowledge of subject matter.<sup>20</sup>

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<sup>20</sup>. H. G. Rickover, "The Truth Shall Make You Free," address delivered at the Dedication - Inauguration Ceremonies of the Polytechnic Institute of Brooklyn, New York, April 19, 1958, pp. 14-15.

It was embarrassing to Rickover that many American teachers had not even mastered their native language. In an effort to give the United States Congress specific and concrete examples of this deficiency, Rickover cited an experience of James D. Koerner in which he taught a refresher English course to a number of American elementary and secondary school teachers. The writing of the teachers was so poor that Koerner assessed them as "hopelessly illiterate." Rickover reported to the Congress that the spelling, punctuation, and grammar displayed in the collection of teachers' compositions from Koerner's class were not much better than that of the pupils in a good English Secondary Modern School -- a school serving pupils in the I. Q. range of 80-110 which was less demanding than the English Grammar School.

Rickover found teacher literacy to be a major problem duplicated many times throughout the United States. He presented evidence in testimony before the United States Congress in 1963 that one-fourth of American elementary school teachers had not even attended college; half the high school English teachers had not majored in English; in two-fifths of the States, one could teach elementary school without meeting any requirements in English; secondary school teachers in English, on the average need not have more than two semester courses in beginning composition.<sup>21</sup>

It was clear that Rickover did not believe American teachers had achieved professional status as had most of their counterparts in Europe. He was exacting in his definition of the term "profession," holding to

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<sup>21</sup>. H. G. Rickover, American Education, pp. 208-209.

traditional standards and avoiding indiscriminate usage which blurred the distinctions among crafts, trades and professions. One necessary condition of a profession was that it have an intellectual content, a sometimes esoteric field of knowledge, it monopolized. This content must be mastered before an individual could begin to call himself a professional person. The body of knowledge was always growing so the professional man was never done with learning. He was obligated to add to the knowledge of the profession and to assist in handing down the knowledge to new members. A professional man who was not able to make original contributions to his field of knowledge nor personally instruct neophytes could at least enhance the prestige or standards of the profession and support institutions which conducted research and trained future colleagues. Granted a profession was practical in application, but it was also clearly intellectual in content.<sup>22</sup> To practice a profession one must have acquired mastery of an academic discipline, and Rickover found a serious dearth of content mastery among American teachers. He believed any claim teachers had to a professional body of knowledge must be linked to the content of the subjects they taught, e.g., history, science, etc. The theory or science of teaching would not suffice as the necessary body of professional knowledge.

Clearly, Rickover did not believe pedagogy was an intellectual discipline worthy of professional status. He remarked,

...education is a fairly simple subject. Any intelligent layman can obtain a thorough understanding of its problems, principles,

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<sup>22</sup>. Hyman G. Rickover, Education and Freedom, (New York: E. P. Dutton and Co., Inc., 1959), pp. 61-64.

and the performance of different national school systems. As to what our schools teach, how they teach it, how they are organized to do this job and what they accomplish in twelve years of schooling -- these are matters which one can quite well grasp without having first taken the required number of courses on Education at a teacher's college which constitute almost the sole qualification demanded of American educators.<sup>23</sup>

Rickover picked up on a thesis expounded earlier by historian Arthur Bestor that if American teachers were ever to become truly professional, they had to be emancipated from the control of a power complex composed of school administrators, state officials determining teacher certification requirements, professors of education, and administration-controlled accreditation agencies. This group comprised a huge bureaucracy which was self-serving and had vested interest in maintaining the status quo. It was these people for whom thoroughgoing school reform would be most painful. Teacher qualification could not be significantly raised until the American public unseated the powerful men who set certification requirements in each state and their friends in teachers' colleges who made "low-level trade courses" compulsory. Rickover said, "If their courses were no longer compulsory, 90 percent of education professors might lose their captive audience and so, presumably, their jobs." He went on to ask if America succeeded in training genuinely professional teachers "how then could we hold them if we permitted non-teacher administrators to boss them? We would have to turn the status totem pole upside down, with the teachers on the top, the administrators on the bottom."<sup>24</sup> It seemed strange to Rickover that Ameri-

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23. H. G. Rickover, "The Role of the Critic," pp. 25-26.

24. H. G. Rickover, American Education, p. 24.

cans, who were noted for being a sensible and practical people, consistently undervalued and underpaid the most important person in education, the teacher. He steadfastly maintained that administrators and other staff were expendable, but teachers were not.

Many of Admiral Rickover's critics have depicted him as an opponent of the American teacher. This is an unfounded criticism most probably based on Rickover's open disenchantment with the preparation of American teachers, certification procedures, and the inordinate influence of administrators on the curriculum and teaching methods found in American schools. In fact, Rickover was acutely aware of the major role teachers played in the education process, and he sought to improve the quantity and quality of this teacher influence. He stated: "To become educated takes sustained effort, hard work, excellent instruction by teachers who themselves are excellently educated and who thoroughly know their subjects."<sup>25</sup> Raising the intellectual and educational quality of teachers was seen by him as the single most important step to be taken to improve American education.<sup>26</sup>

The concept of the "pure" administrator as it affected education was a concern for Rickover. He defined "pure" administrator as a man trained for a career of ruling organizations and for nothing else. It could not be denied that teachers did all the productive work, yet it was not they who managed the school systems in America. Only in America was education, an intellectual enterprise, directed by persons who in a

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<sup>25</sup>. Report on Russia by Vice Admiral Hyman G. Rickover, USN: Hearings Before the House Appropriations Committee--86th Congress (Washington, D. C. : Government Printing Office, 1959), pp. 27-28.

<sup>26</sup>. H. G. Rickover, American Education, p. 311.



great many cases had neither the training nor the experience which would give them competence in the scholarly aspects of education. In Europe it was unthinkable that teachers who were members of a "learned" profession would be directed by administrators whose competence included school housekeeping, maintenance, personnel, record keeping, and public relations. In Europe, a school administrator was but another member of a largely self-governing faculty, and only gross incompetence induced a principal to interfere in a teacher's professional work. Europeans had difficulty understanding the reverence Americans held for administrators who were barely at home in the world of ideas or, worse still, for athletic coaches who so frequently ended up as principals of American schools.

Rickover called for the abandonment of the practice of putting non-teaching administrators in charge of schools. He favored an administrator who was a kind of European headmaster having unquestionable qualifications and competence as a practicing teacher. When administrators relinquished direction of education to persons who had the proper qualifications, there would at last be a chance to bring about fundamental reforms in schools by concentrating on raising the intellectual and professional level of American teachers. Here local communities were seen by Rickover as having much power.<sup>27</sup> They could see to it that their school boards hired no one as administrator who was not also a well educated and experienced teacher. Then as older teachers were replaced by better qualified new ones, the latter could be given more freedom to plan and execute their programs. This was necessary because to obtain

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H. G. Rickover, American Education, pp. 311-312.

and hold truly professional people, you had to treat them as professionals, and this meant granting them maximum freedom in the practice of their profession.

It must be pointed out that Rickover's perceptions of school administrators were extreme and, at times, inaccurate. He accepted the common derision of school administrators as unsuccessful physical education teachers who descended the promotional ladder to become administrators. He claimed there were inordinate numbers of former coaches and physical education teachers among the ranks of administrators, yet he offered no data to substantiate his claim. He gave no credit to the large numbers of liberally educated administrators who surely existed and deserved better than flippant mockery. He also sought to liken school administrators to the "pure administrators" he saw attempting to direct professional doctors in hospitals and professional engineers in government projects. He understandably entreated professionals to resist such lay direction. However, school administrators were seldom "pure administrators" as Rickover defined his term. The common practice in the selection of school administrators during the 1950's and 1960's was to hire or promote from among practicing teachers--theoretically from among the more successful teachers. School boards did not have to be advised to hire administrators who were experienced teachers since that was already their practice. In the case of school administrators it was not a matter of a non-teaching lay person directing a teacher, but of one professional directing a colleague.

Rickover was convinced it would be especially difficult to implement professional reforms because Americans had waited too long. They

now had to contend with a huge bureaucracy which was entrenched and un-moving; one with a vested interest in maintaining itself. Rickover included as part of the resistance such organizations as the Educational Policies Commission of the National Education Association, the National Association of Secondary School Principals, and the United States Office of Education. To overcome the resistance of education's officialdom would take heroic efforts from outside the educational establishment. These efforts had to come from the people, through public opinion, and eventually through a consensus calling for action at all governmental levels -- local, state, and federal.

The goal of this chapter was to present what Rickover saw as four factors which, along with progressive education treated separately in Chapter IV, constituted the major barriers to improving schools in the United States. In summary, these five barriers were: 1) the inordinate influence of the progressive education; 2) a failure to develop separate educational models to meet individual needs and abilities of students; 3) an unwillingness to establish national standards; 4) the poor quality of American teaching; and 5) the resistance of the educational establishment to reform.

Rickover held little hope that these barriers would be removed unless the public established clear expectations for educators running public schools. He saw no inconsistency with the lay public telling professionals what they wanted from their schools as long as the public refrained from directing the daily actions and judgments of the professionals. The public, as client, had every right to set expectations and evaluate results; indeed, citizens had a responsibility to do so. It is not surprising, then, that Rickover had explicit recommendations for im-

proving education in the United States. His expectations for American schools will be the subject of the next chapter.

## CHAPTER VI

### "RECOMMENDATIONS FOR AMERICAN PUBLIC EDUCATION"

Hyman G. Rickover saw himself engaged in a struggle to combat over fifty years of influence by progressive educators who had made public schools at all levels -- elementary, secondary and higher -- non-intellectual enterprises. To assure his goal, Rickover tendered specific recommendations for improving American public education. It is not surprising that his recommendations were in direct response to what he saw as the major barriers to educational reform discussed in the last two chapters. Chapter VI will explore in detail his suggestions for reform in the areas of curriculum content, organizational restructuring of the system to improve instruction, national standards, and teacher performance.

Rickover's first recommendation to combat the "error of progressive education" sought to ensure that the primary goal of schools was the intellectual development of children. Requiring a basic shift in curricular emphasis, American schools had to replace the sociologically-oriented progressive curriculum with the humanism that formerly permeated the best education everywhere in the West. Humanism in public education centered on the individual child and sought to develop diverse sequential programs of basic, liberal education. Toward this end, Rickover called on every school system to conduct a thorough and critical curriculum review to ensure the development in each child the ability to

read, to write clearly, to calculate, to think critically and logically, and to acquire knowledge of the world through history, literature, science, and art. Anything which detracted from this type of basic curriculum had to be questioned and in most cases eliminated. Most of all, schools had to realize their limitations. The prevailing progressive philosophy, coupled with a growing mandated curriculum, had forced schools to perform the functions of social worker, parent, physician, minister, policeman, and employment agency. The American public schools were being asked to do too many things; as a result, they were doing few of them well.

The essential part of any elementary school curriculum should be an intensive development of reading, writing and arithmetic skills; these were basic. Beyond that, Rickover believed that every student should receive as much liberal arts education as he was capable of absorbing for as long a time as possible. Every American child -- whether rich or poor, bright or dull, personally inclined or externally directed -- should have specific vocational or professional training delayed until as much liberal education as possible could be provided. Only after it was certain no more basic liberal education could be learned should a child receive specific occupational training.

Rickover maintained that Europeans better understood that a liberal or general education was a necessary preparation for subsequent special education intended for earning a living. Both general and special education were legitimate concerns for public schools; however, Americans often failed to differentiate between the two. While the two types of education were complementary, they were not interchangeable. Both were

indispensable to everyone, yet Rickover believed American secondary schools failed in their responsibility to provide a liberal or general education. He said of a general or liberal education that it

...seeks to improve human beings through cultivating the capacity to use their minds. A systematic program of studies in language and literature, mathematics and science, history and geography, with some art, music and physical training make up the bulk of general education, whether at the elementary or at the secondary level. These studies... develop the qualities we subsume under the term intelligence -- ability to observe, concentrate, memorize, synthesize, deal in abstractions and relate them to concrete situations; to imagine, weigh and judge. The aim of general education is to produce a mature person who possesses knowledge that helps him understand his world; mental skills that enable him to apply his knowledge to any situation he will encounter in life, the habit of reflection before action; of decisions on the bases of verified fact, logic and personal judgment.<sup>1</sup>

Rickover's emphasis on the liberal arts cannot be overstated since he is often inaccurately depicted as concerned only with narrow scientific or technological education. He has been frequently mis-represented as seeking to meet the Soviet challenge and improve American education by placing a distorted emphasis on mathematics and science. Nowhere could it be found that he ever advocated an unbalanced focus on mathematics and science; nor did he advocate that liberal education be reserved exclusively for an intellectual or social elite. On the contrary, Rickover said a liberal education should not be reserved to the intellectually talented when it can be used to "help the average man to grow in wisdom" by broadening his intellectual vision. Furthermore, "No plaything for the idle gentleman is this liberal-arts education based on the humanities and the sciences." He felt the liberal arts continually proved itself as very

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1. H. G. Rickover, "Priorities in Education -- What Can We Learn from Europe,?" address delivered at a special public meeting sponsored by the Council for Basic Education, Washington, October 26, 1963, pp. 23-24.

pragmatic when applied to the resolution of the everyday problems of all people.<sup>2.</sup>

Rickover felt he was being misrepresented intentionally by educational officialdom on the value of a liberal education and who should receive it. To clarify this charge, he responded on several occasions to the attacks of educators. At hearings before the United States Senate Subcommittee on Education in 1963, Rickover said

...I believe that every student, whoever is possible of absorbing it, should be given a good liberal arts education. I would much prefer, even in a scientific endeavor, to hire a graduate of a liberal arts school than anybody else. I want to make that point, because I think I'm being misquoted frequently. One expression that is commonly used in quotation marks is that I want to "educate the best and shoot the rest"...Not at all. I think every child should be given the maximum education he is capable of and I think a liberal arts education or what is as near to is as possible is the sine qua non for the type of education one needs in an industrial democracy such as ours.<sup>3.</sup>

After Rickover was assured by Senator Jennings Randolph of West Virginia that he must indeed have been misunderstood by educators in the past, the admiral was unable to resist a curt and derisive retort to his critics.

Deliberately, sir, because people see their rice bowl being broken by my attitude. They see if my idea picks up, it will take a lot of professors of education and throw them out and they will have to do some real work or they will be out of jobs.<sup>4.</sup>

The liberal arts, Rickover believed, should constitute the major

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2. Hyman G. Rickover, Education and Freedom, (New York: E. P. Dutton and Company, Inc., 1959), p. 27.

3. H. G. Rickover, Testimony before the Subcommittee on Education of the Committee on Labor and Public Welfare of the United States Senate--Eighty-Eighth Congress, Education Legislation-1963 (Washington, U. S. Government Printing Office, 1963), Vol. V, p. 2568.

4. Ibid.



portion of the formal curriculum in America's secondary schools -- the six years of junior and senior high school. He felt it was unfortunate that because of the watered-down curriculum in American high schools, it took another four years in a liberal arts college to complete a broad, general education. A definitive, well-thought-out liberal arts program continuing over at least the six years of secondary school would have the desirable effect of making the American educational system responsive to changing national needs for particular kinds of professions and other occupations. Rickover argued that as paradoxical as it sounded, the very lack of a definitive liberal arts program produced greater rigidity in the American educational system as compared to European nations. Students enrolled in European secondary schools received a general education sufficiently broad in the humanities and sciences so that they could at age seventeen or eighteen choose among many professional or vocational courses of study. This possibility for quick career shifts was especially true of Europeans leaving the academic secondary schools and heading towards a university. Any sudden change in the national demand for professionals, technicians, tradesmen, etc., could still be met in Europe within the prescribed period of specific professional or vocational preparation following secondary school. Students in the United States, however, were finishing high school lacking the fundamental knowledge and mental training which would permit them to transfer their career preparation to the areas of greatest opportunity. The start of individual vocations was being unnecessarily delayed. Furthermore, no matter how promising careers may become in later life, career changes would be barred to individuals deficient in such fundamental

knowledge and skill.<sup>5</sup>

Apparently, Rickover's concept of a liberal education was two-fold. First, young people's minds were to be stocked with the kind of knowledge that made life intelligible, and no substitute for a liberal arts curriculum had yet been invented that served this purpose so well. English, foreign languages, mathematics, sciences, history, and geography were the subject areas which had to be mastered.<sup>6</sup> However, Rickover also saw these subjects as intellectual tools for use in a process that enabled man to order his life intelligently, that is, to understand the problems and complexities of the tense and uncertain modern world. It was this process or mental conditioning which could be successfully applied to all of life's problems, and therefore needed by all men. Those who did not have the mental capacity to totally master all of the liberal arts still needed the same type of intellectual fare, only less of it.

In The Idea of a University, John Henry Newman provided a definition of liberal education with which Rickover agreed. More than just mastering bodies of knowledge, Newman said of a liberal education that "it brings the mind into form." Once so formed, the intellect developed a conceptual ability to grasp the interrelationship of various views. Rickover quoted Newman: "...it (a liberal education) will display its powers with more or less effect according to its particular quality and capacity in the individual." So defined, a liberal education was the means by which any average man of limited schooling could eliminate the

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5. H. G. Rickover, *Education and Freedom*, pp. 119-120.

6. *Ibid.*, p. 154.

malady of parochial vision and more successfully deal with the vicissitudes of everyday life. "In all," wrote Newman about liberal education, "it will be a faculty of entering with comparative ease into any subject of thought, and of taking up with aptitude any science or profession."<sup>7</sup>

During the 1963 Senate hearings on education, Rickover explained how this dual nature of liberal education could be developed in the discipline of history. Asked if the teaching of history should be an aggregate of facts and dates, or a process of inquiring about relations in time, he responded that historical facts are essential if one is to have a grasp of history; ignorance of historical data was inexcusable for the educated person. However, merely teaching youngsters dates and isolated facts was wrong. History also should be taught as a method of inquiry, searching for unifying generalizations while assiduously avoiding value judgments that frequently deteriorated into indoctrination.<sup>8</sup>

A return to an intensive liberal arts curriculum was Rickover's first recommendation for combating progressivism and improving public education in the United States. A liberal arts curriculum in American high schools would send graduates into the world with minds which functioned markedly better because of time spent in the classroom. Children's own endowments and their determination to develop them, of course, would set limits as to how much liberal education they could absorb. Nevertheless, all children should be given as much liberal education as possible for as long as possible. Citizens had a right to expect that schools would strengthen children's determination to learn and tolerate

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7. Ibid., pp. 26-27.

8. Education Legislation - 1963, pp. 2568-70.

no limits but those set by nature to impede intellectual progress.

Rickover asserted that unfortunately the organizational structure of the American school system actually handicapped the educational development of many children. A school system which insisted on the same instruction for the talented, the average, and the below average child prevented as many children from growing intellectually as did a system that excluded children because of the racial, social, political or economic status of their parents. Neither system was democratic.

Rickover developed a number of specific recommendations to restructure the system in an effort truly to democratize it and improve the quantity and quality of instruction. In addition to its failure to democratically differentiate instruction, reorganization of the school system was necessary because of the incredible "stretch-out" time in American education. He felt it took American schools longer than necessary to attain any given scholastic level. Concurrently, the entrance of young Americans to the work world was delayed unnecessarily. Throughout most of Europe, pupils completed at age sixteen a secondary education superior to that received in the United States, and were entering the work force or were ready to continue with added vocational or professional training. Europeans entering universities at ages eighteen or nineteen possessed the equivalent of a bachelor's degree from an American liberal arts college. The fact it took the American system three or four years longer to prepare a learned professional only added to the nation's serious shortage of such professionals. Further, this "stretch-out" increased the total cost of an education and frustrated goal-oriented students who were anxious to pursue their careers. Rick-

over asked the public to recognize that "stretch-out" added nothing to a person's education, but was only the by-product of an inefficient system which wasted the best learning years of its youth.<sup>9</sup>

What was needed was a plan to shorten American general education through college to at most fourteen years; and to twelve to thirteen years for exceptionally talented pupils. All high schools ought to graduate at age sixteen those children who learned quickly and were capable of becoming professionals. Colleges should then be open to accepting these special students. Additionally, a two or three year vocational skills development program should be offered to those sixteen year old students who do not pursue a professional career.<sup>10</sup>

If greater achievements were to result in fewer years, efficiency of the system had to be improved, and the amount of classroom instruction per school year had to be increased. Not only would the curriculum need to be streamlined by eliminating everything that could be learned elsewhere, but the school day and school year had to be lengthened. Rickover reported to Congress that while the school year in the United States averaged about one hundred eighty days, it was 210 days in England and 240 days on the Continent. European children frequently attended school six days a week, their school days were longer and school vacations shorter. They most often began formal education at age five, one year earlier than Americans. Simply put, one reason European children

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<sup>9</sup>. H. G. Rickover, "A National Standard for Education," address delivered to the Burlington-Lake Champlain Chamber of Commerce and the University of Vermont, Burlington, Vermont, November 7, 1963, pp. 13-15.

<sup>10</sup>. H. G. Rickover, "A Size-Up of What's Wrong with American Schools," U. S. News and World Report, December 6, 1957, p. 91.

learned more than Americans of similar ability was the fact that they went to school longer in a given period of time.<sup>11</sup> Rickover reminded local communities and state governments that they had the power to increase the amount of classroom instruction per school year, and he urged them to increase immediately the school year to at least 210 days which would be equivalent to two additional years of instruction before college.<sup>12</sup>

Much more difficult to implement would be a system of multiple tracks similar to those so long established and common in European countries. Rickover felt that parallel to the existing school system which suited the average student reasonably well, Americans ought to provide some alternate educational road for those who were above average. Comprehensive schools were acceptable for the first six years of attendance, but the comprehensive secondary school model so beloved by progressive educators was inefficient for instruction, costly in time and money, and undemocratic. Requiring all children to attend school together until they began training for their diverse vocations -- usually 12 long years -- resulted in an unwieldy span of instructional levels; it bored students whose educational needs were only occasionally being met; it caused more "stretch-out" and consequently more financial costs for taxpayers and tuition payers. By matching an individual pupil's ability and effort to a suitable type of school, large comprehensive high

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11. Education Legislation-1963, pp. 2573-74.

12. H. G. Rickover, "Engineering and Scientific Education," address delivered at luncheon sponsored by the Thomas Alva Edison Foundation, East Orange, New Jersey, November 22, 1955, p. 12.

schools could be eliminated. The obvious and immediate advantage would be that schools serving a particular constituency could be smaller in size, hence, better able to personalize instruction. The proposed new schools would serve the academically talented, i.e., the top 15 to 20 percent.<sup>13</sup> Existing schools would continue to serve average students, but more efficiently because of lower membership and fewer instructional levels.

It should be understood that Rickover was not advocating multiple-tracks within the comprehensive school. This practice may have been a step in the right direction, but it was not enough. He wanted to establish separate magnet secondary schools to attract only those students who had both an abundance of natural talent and the desire to learn. The advantage of these proposed separate schools over college preparatory tracks in large comprehensive schools was that they would transfer the serious students from "the atmosphere of trivialities and easy school life to one where everyone is concerned with matters of the intellect."<sup>14</sup> Rickover placed a high value on the intellectual stimulation superior students would receive from interaction with children of similar mental capacity and academic interests. Further, the study regimen of these students would be intensified by eliminating socialization activities during the school day and increasing the amounts of home work.

The establishment of these new secondary schools for the talented was the responsibility not only of government - local, state, and federal -- but also of the private sector. In fact, Rickover proposed as a

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<sup>13</sup>. H. G. Rickover, Education and Freedom, p. 208.

<sup>14</sup>. Ibid., p. 211.

first step that twenty-five demonstration high schools be established throughout the country as a private undertaking of industry, labor, and educational foundations. He reasoned that private institutions were also social institutions; therefore, they had acquired the obligations inherent in this concept. Furthermore, Americans had always recognized the duality in their schools, i.e., federal and local support, and public and private support. His recommendation of private support of the proposed schools fitted into this duality.<sup>15.</sup>

The major role Rickover envisioned for the private sector was to underwrite the cost of operating such schools for at least ten years at which time the most successful schools could be taken over by the community and become tax-supported. Private enterprise also could provide continuing donations to see that the schools remained free to qualified students. All private funds might be assigned for distribution to "central groups of men not associated directly with industry or with the schools." This council of independent citizens could assist in managing the schools. It would also protect schools from special interest groups and free industry from the accusation of being self-seeking.

Since industry was contributing to the shortage of quality teachers by paying inflated salaries to the best college graduates, Rickover urged that scientists and engineers from industry be given sabbatical leaves at company expense to teach in America's schools. He saw the possibility that private institutions operating in a school community could develop a plan of released time for some of their employees to serve as resource people in the schools. Such resource persons might serve as

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<sup>15.</sup> H. G. Rickover, "Engineering and Scientific Educating," pp. 16-19.



guest speakers, career counselors, or tutors in their specialty. They could also take over the leadership of after-school clubs in science, mathematics, civics, and radio and thus relieve teachers of this duty.<sup>16.</sup>

The new schools, described by Rickover,<sup>17.</sup> would attempt to complete the six years of junior-senior high school in four years. The schools would be free, but admission would be based on successfully passing a comprehensive examination. Promotion of students would be by merit only. The curriculum would consist primarily of a carefully designed liberal arts sequence of courses taught by teachers of above average intelligence and training. Qualifications for the teachers would include pedagogical skill as well as a broad general education and thorough mastery of one or two subjects. Teachers in these schools would be given no extra-curricular work because as professionals they required time for thought and study. Teachers' salaries would be in accord with the high scholastic qualifications required, and commensurate to salaries paid for comparable positions in industry.

The purpose of these new high schools would be to demonstrate that academically talented pupils could go on to college and obtain a quality liberal arts education in fourteen years rather than the usual sixteen years. To accomplish this goal, these high schools would be primarily scholastic institutions; social activities would be kept to a minimum. The schools would need to maintain a ratio of at least one teacher for every twenty pupils. Finally, if the usual six years of secondary school were to be completed in four years the school year would need to be

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16. Ibid. pp. 18-19.

17. H. G. Rickover, Education and Freedom, pp. 208-211.

lengthened, most probably by having students take extra courses during the three summers.

Rickover was convinced that Americans could never establish quality secondary schools such as he proposed nor even begin a really effective reform program unless national scholastic standards were set. National standards were needed to do away with misleading educational labels which confused laymen and made it difficult to judge whether a school was doing its job properly. Parents often felt vaguely that their local high school was below par but they had no way of proving it. Some way had to be devised to introduce uniform standards into American education.

Recognizing the widespread distrust of the federal government in educational matters and the fact that education was constitutionally within the province of the separate states, Rickover proposed the formation of a council of scholars who would set a national standard for the high school diploma as well as for the scholastic competence of teachers. Originally he saw this council as a private agency financed by the colleges and universities. High schools accepting the standards set by the council would receive council accreditation. Teachers would receive a special certificate if they completed the requisite course of study. Colleges and universities would be in a position to give impetus to council accreditation by making it a desirable admissions criterion.<sup>18.</sup>

In May of 1962, in his testimony before the House Appropriations Committee concerning the quality of education in England, Rickover's "council of scholars" reappeared in slightly altered form. At that time

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<sup>18.</sup> Ibid, pp. 218-220

he recommended that Congress create a National Standards Committee composed of men of "national stature and eminence -- trustworthy, intelligent, scholarly, and devoted to the ideal of an American education second to none."<sup>19</sup> The Committee would be charged with two tasks.

The first task was purely informational. The Committee was to inform the public on the state of American education. Rickover believed schools were being run and major educational decisions were being made on the basis of myths and misinformation supplied by educational officialdom, including the United States Office of Education. This independent Committee would collect and disseminate accurate information about the relevancy of American education and how academically competitive its students were when compared to non-Americans.

Secondly, the Committee would have the task of formulating a national scholastic standard based on its determination of the status of American education. The standard would serve the purpose of making education in the United States internationally competitive and responsive to specific domestic needs. The Committee would do this by drawing up national examinations set at different ability levels. These examinations would delve into "a candidate's true knowledge and intellectual caliber -- not IBM graded multiple choice tests." Rickover favored modeling the tests on the English national examinations which came at three levels of difficulty and were offered in many subjects. English students chose the number of subjects and the level at which they wished to be tested. Their number of so-called "passes" was then recorded on

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<sup>19</sup>. Hyman G. Rickover, American Education-A National Failure (New York: E. P. Dutton and Company, Inc., 1963), p. 309.

their leaving certificate.

Under Rickover's proposal, no one would have to take these national examinations but those who did and passed would receive national accreditation. He suggested that perhaps the notation N.S.--National Scholar--could be stamped on their regular diploma. This way the committee would in no way interfere with educational institutions now granting diplomas. Furthermore, it would offer no threat to the American tradition of local control of schools since what Rickover proposed was the rendering of a service, not regulation in any way. The Committee would simply set up a higher standard, offer the examination to anyone who wished to meet the standard, and accredit those who were successful. Such noncoercive national standards drawn with infinite care by non-political persons of solid scholarship and educational experience would, in fact, be a protection for students against interference from the state. High school diplomas would become meaningful again, and communities and parents would have a means of judging how well their schools were preparing children for the world.

Any plans for educational reform based on Rickover's recommendations for curriculum revision, reorganization of the schools, and national standards were wasted efforts if they could not be successfully implemented. Rickover knew that the agents for implementation of meaningful school reform had to be teachers. The great importance of teachers in the scheme of education was obvious for the simple reason that they did the actual instruction and implemented all programs in the schools. Because of this pivotal position, teachers also had to share in the blame for the continuing poor condition of the schools. It was

Rickover's contention that if students had few instructional materials, no buildings, no service from counselors, and a total absence of administrators, they could still get a good education from competent teachers. The problem as he saw it was that there were excessive numbers of incompetent teachers due primarily to the poor preparation they received. No successful change in the schools could be effected without a substantial improvement in the quality of instruction, and that had to begin by establishing a national standard for teacher preparation.

Rickover believed the way to uniformly upgrade the preparation of teachers across the nation was to improve the quality throughout all of their education. He viewed true professionals as having high intelligence, strong motivation, and a willingness to undergo a long period of general and special schooling. This meant that those entering American teacher training institutions should come from among the best secondary students. A national requirement would be that they have received a broad, subject oriented, liberal arts education in high schools for talented pupils. Upon entering college at age sixteen or seventeen, prospective teachers would begin four years of arduous study beginning with a continuation of their basic liberal education and gradually narrowing to a concentration on their specialized subject. As in European countries, pedagogical training would receive a heavy emphasis only for teachers of the primary grades; it would diminish proportionately for fourth and fifth grade teachers; and for junior high and high school teachers the focus would be on content areas.

Rickover's aim was to have American teacher preparation programs approximate those found in Europe both in content and duration. He

claimed that European secondary school teachers were more highly trained than American high school teachers. European secondary teachers had an education comparable in years and intensity to that of a lawyer. They had a broad, general education approximately equal to that required for a bachelor of arts degree from an American liberal arts college. Additionally they had three to five years of university study in their special subjects. A good foundation in three of these subjects was required to teach in the middle grades, and a very intensive specialization in one of the three subjects was required for teachers of the upper secondary school.<sup>20</sup>

Rickover recommended that all American teachers upon completion of four years of undergraduate work proceed to secure a master's degree. For those secondary teachers teaching college preparatory and advanced placement courses, he recommended graduate university education close to or at the doctoral level.<sup>21</sup> These advanced degrees should be earned in the subject area taught and not in the field of education. The pursuit of graduate degrees in education was frequently derided by Rickover and dismissed as an unscholarly endeavor. By eliminating "stretch-out" at the secondary level, teachers could still complete this advanced preparation by age twenty-two or twenty-three years.

Upon completion of the prescribed course requirements of teacher training institutions, certification should be granted only upon passing

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20. Report on Russia by Vice Admiral Hyman G. Rickover, U.S.N.: Hearings Before the House Committee on Appropriations, 86th Congress. (Washington: U. S. Government Printing Office, 1959), p. 45.

21. H. G. Rickover, "Priorities in Education--What Can We Learn From Europe?," p. 25.

an examination administered by the individual state in which the teacher sought employment. Rickover recommended that this qualifying test resemble the style of a law bar examination. This admittance-to-practice examination would permit state authorities to alter and update teacher certification requirements so that "teachers would in time become 'professional' persons, highly competent both in knowledge of subject matter and in teaching skill -- as European teachers generally are."<sup>22</sup> A national standard of teacher preparation coupled with a rigorous state certification examination would assure a uniformly high standard of competence while permitting localities to select teachers on the basis of positions available and preference for particular personalities.

With these kinds of truly professional credentials, Rickover felt there was a good chance teacher salaries and prestige would eventually rise. Teaching could then compete with other professions and begin to attract the right quality of people. However, this process would slowly evolve and would demand a heavy toll of those students waiting for good teachers. Precious time would also be lost in the international educational race with Russia. Some action had to be taken forthwith to overcome the negative cycle of poor teacher quality, unacceptable teacher performance, low salary, and attraction of poorer teacher candidates.

Rickover submitted that an immediate step essential to upgrading the quality of the teaching profession was to increase salaries drastically. He knew that the low salaries paid over the past fifty years had attracted many unqualified teachers. It mattered little to him that

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<sup>22</sup>. H. G. Rickover, American Education-A National Failure, p. 311.

these incompetents would be overpaid by this sudden salary increase.<sup>23.</sup>

He preferred to dwell on statistics which showed that when average individual salaries in education were considered, it was teachers who invariably received the smallest increases when compared to administrators, secretaries, custodians, and other non-teaching personnel.<sup>24.</sup> He claimed America was losing many qualified young teachers who left teaching because of the low salaries being paid. While it was true that there were dedicated people who would work under adverse conditions and at low pay, Americans should not delude themselves that the answer to their problem lay in dedicated people. There would never be enough of these in a culture where the desirability of a given occupation was measured largely in salary terms.

An immediate across-the-board raise in salary for all teachers was the surest way to instantly attract and hold competent men and women. Further, when salaries were increased it would be possible to base advancement on performance and not on longevity of service as was the prevailing practice. Rickover recommended that federal funds and scholarship money be redirected toward increasing teacher pay based on merit. He thought it foolhardy that millions of dollars were spent on federal programs and scholarships only to place the students under incompetent teachers. Instead, he suggested the money be used for federal merit increments paid directly to individual teachers. Recipients of these grants would be teachers identified as meeting a national standard for teacher performance predetermined by Congress, possibly by the

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<sup>23.</sup> H. G. Rickover, "Engineering and Scientific Education," p. 10.

<sup>24.</sup> H. G. Rickover, American Education--A National Failure, pp. 17-18.



National Standards Committee. If the teacher met the standard, Rickover would "give money directly to him, and not pass it through all those grasping bureaucratic hands that you have all the way in the process between the time Congress appropriates the money and the time it does some good."<sup>25</sup>.

Rickover sought through his recommendations to create an environment in the schools where teaching and learning were the primary objectives, and where performance was demanded and excellence rewarded for teacher and student. First, he made specific suggestions for once again challenging students in secondary schools and colleges with a basic education focusing on the liberal arts. He then called for a re-structuring of the organizational patterns within the schools so that the curriculum could be efficiently taught and the instructional needs of individual students met through a multiple track system. Third, he argued for a national standard for education. Without this standard, there was no yardstick by which to hold teachers and administrators accountable for failing to educate America's children. Last, he contended that children would put forth the effort necessary to achieve this national standard only if they were guided and challenged by highly intelligent and rigorously educated teachers. He had recommendations for upgrading the training of such teachers, and advocated using money to attract and hold them in the profession.

Throughout the decade, 1955-1964, there was considerable reaction among educators to Rickover's criticisms and recommendations for educational reform. Many educators responded to him in professional publica-

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<sup>25</sup>. Report on Russia, p. 50.

tions and related literature. Most of the response was negative. This controversy and a closer analysis of Rickover's thoughts on education will be the subject of the final chapter of this dissertation.

## CHAPTER VII

### RICKOVER AS A PARTICIPANT IN EDUCATIONAL CONTROVERSY: AN ANALYSIS

Rickover's ideas on education helped stir a turbulent controversy in the United States during the decade, 1955-64. One side of the controversy was represented by such persons as Rickover, Arthur E. Bestor, James D. Koerner, and Max Rafferty -- a loose coalition of scientists, scholars, popular writers, businessmen, and a popular educator-politician -- who saw themselves aligned with the lay populace. The ideas expressed by this group became the foundational credo for the Council for Basic Education which was founded in the 1950's to promote a return to a liberal arts curriculum in the schools. On the other side of the controversy were professional educators and their representative organizations. Included in this group were teachers, school administrators, college professors of education, and the National Education Association.

The lay critics accused the professional educators of undermining public confidence in the schools through excessive social experimentation and watered-down curricula; they called for a return to a more basic education and the elimination of excessive pedagogical courses in the preparation of teachers. The educators countered by claiming that these lay critics failed to understand the impact on the schools caused by modern society, most recently during the unsettling postwar era. It was the contention of the professionals that schools had been doing an

admirable job of responding to massive social changes occurring during the preceding half century.

Historian Arthur E. Bestor was the first of these lay critics to draw together the threads of the basic education movement in the 1950's. His two books, Educational Wastelands: The Retreat From Learning in Our Public Schools (1953) and The Restoration of Learning: A Program for Redeeming the Unfulfilled Promise of American Education (1956), brought into sharp focus what had been a growing dissatisfaction with the schools among non-professionals. However, it was Rickover who eventually emerged as the most prominent critic because of the visibility of his position and his tireless campaign to bring educational issues to the attention of the public through his many speeches, his news-making testimony before Congress, and his effective use of the mass media. Rickover's style of criticism was often abrasive, and he treated educators with derision and condescension. It is unfortunate, though not surprising, that many educators reacted to him similarly. Much of the response to him in educational publications during the decade was more concerned with berating Rickover's personality and style than with the substance of his thoughts on education. The vituperation on both sides only muddied the waters of the controversy.

In testimony before Congress reported earlier in this study, Rickover alluded to the emotional accusation of educators that he wanted "to educate the best and shoot the rest." This was only one of many emotionally charged ad hominen attacks on Rickover by educators. These attacks on his person along with many foolish and unreasoned responses regularly appeared in the professional literature over the ten year period of this study. A reading of this literature reveals the mocking

and harsh statement that Rickover's "present 'thought' concerning education represents the effrontery of ignorance." In another publication reference was made to "the nursery-school level of the admiral's knowledge about comparative education." He was jokingly referred to in two separate articles as "the great 'discoverer' of educational problems" and "a resident of the ivory conning tower." One superintendent of schools wrote of his objections to the title of Rickover's book, American Education--A National Failure; he felt it necessary to argue a lengthy case against the title of the book since the book was the work of one man and not the report of an official commission with a balance of lay and professional persons. Another writer was concerned that the "hard subjects" recommended by Rickover would leave the minds of students "too tired to think" about improving the social conditions of mankind. The zenith of this ludicrousness can be found in the comments of the editor of the professional periodical, Social Studies, when he said that a critic such as Rickover "puts himself in the company of those who favor sin and decry motherhood."<sup>1</sup> Nineteen years after that comment was written there is no indication in the text of the editorial that the editor's tongue was causing a protrusion in his cheek.

Of course there were respondents to Rickover who sought to calm the turbulence and settle the muddied waters. They offered countering evidence and reasoned replies to the issues raised by Rickover; they also argued logically against the methods he used to collect his data. These more moderate and insightful voices claimed that Rickover failed to understand that reasonable educators were not questioning his right

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<sup>1</sup>. "As the Editor Sees It," Social Studies 54 (April, 1963) p. 160.

to criticize the schools. What was questionable, said Johnson,<sup>2</sup> were Rickover's doubtful assertions, his particular values, and his personal conclusions. Johnson went on to point out that it was Rickover's own vituperation and his tendency to dismiss as unworthy all motives unlike his own that repelled people from his thought. Johnson accused Rickover of reducing the complexities of modern life to simple terms in an effort to lay the way for simple remedies.

Boodish<sup>3</sup> was another who felt that perhaps the reason for the ambivalent feelings toward Rickover was the rigidity of his approach. He argued it was wrong of Rickover to make schools the sole scapegoat of all weaknesses in American society. Boodish contended that the schools were only reflecting the conditions of the times and the demands of local taxpayers who were footing the bill. He listed some of the national issues to which schools had been responding in recent years. These issues included unemployment, strikes and labor-management relations, farm problems, increasing crime rates and juvenile delinquency, changing housing patterns with the growth of suburbia, and disintegrating families as manifested in the rising divorce rate. These issues were essentially domestic and social in nature. Boodish added that except for the years during the two World Wars, international competition was not a major concern for an isolationist America. Therefore, it was unfair of Rickover to accuse the schools of being the cause of the nation's losing position vis-a-vis the Soviets.

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2. Leighton H. Johnson, "Education of Hyman Rickover: Review of American Education--A National Failure," School and Society 92 (May 2, 1964) pp. 203-204.

3. Hyman M. Boodish, "Admiral Rickover on Education," Social Studies 54 (March, 1963) pp. 107-110.

A recurring theme in the professional response to Rickover was the idea that the Progressive Era which ushered in the twentieth century had brought with it a greater sensitivity to social problems and their affect on American youth. Schools were identifiable institutions in place in society at that time, and were therefore called upon to provide social services to children. Shayon<sup>4</sup> asked Rickover what would he have the schools do when society placed so many non-educational tasks at their door step. In a changing society, do the schools refuse to perform these non-educational tasks and have the needs of children go unmet? The home, for instance, was no longer the traditional institution Rickover wished it to be. Single parents, working parents, increasing mobility, and changing values contributed to this alteration in the family. Boodish argued that the result of this change was that homes no longer met their obligation to educate those aspects that concerned life adjustment. There was no dispute among educators that the home should provide this practical training; but it did not, and Rickover should accept that reality.<sup>5</sup> Even educators who resisted the imposition of non-educational tasks on the schools performed them since no other social agency was available to do so.

Many of the professional educators were also dismayed by the techniques Rickover used when reporting his findings. First, they highly criticized his excessive use of the mass media whereby he avoided critical analysis of his charges. His use of the popular media and his con-

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<sup>4</sup>. Robert Lewsia Shayon, "Let the Debate be Honest! Criticism of Admiral Rickover's Views," National Education Association Journal 48 (February, 1959) pp. 16-18.

<sup>5</sup>. Boodish, p. 107.

nection with the highly visible United States Energy Commission were seen by his critics as the main reasons for his public popularity. Second, his critics were amazed that Rickover attacked all phases of the educational system indiscriminately and simultaneously. Spinning<sup>6</sup> accused Rickover of using a maneuver intentionally designed to discredit his opponents in the eyes of his audience without honestly addressing the issues. Rickover was accused of using the tactic of bringing a blanket indictment against the schools, assailing the integrity of anyone who did not accept his charges and solutions in toto, and then dismissing as part of the problem anyone who dared question him. Spinning also presented evidence that Rickover was not above misquoting people or quoting them out of context when it suited his purposes.

Other frequent criticisms of Rickover's reporting technique were the inconsistent and contradictory statements he would make in his public presentations. For example, the statement that progressive education had a great impact on American education followed by the statement that teachers heroically resisted progressive education in the schools. As another example, he frequently lamented the unwillingness of American educators to learn from Europeans and he predicted this resistance would continue; yet, he simultaneously argued that precedent for such borrowing could be found in the many instances when Americans did borrow from Europeans to improve their system.

In addition to the manner in which he reported his findings, some of the most intensive criticism of Rickover was leveled at his methods

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<sup>6</sup>. James Spinning, "Rickover Sheds Heat, But Little Light; Review of American Education--A National Failure," The Nations Schools 73 (February, 1964) pp. 8 ff.



of research. He was often censured for utilizing selected data and documentation which was intentionally one-sided. The "data" he used was often only opinions formulated by others, and not hard evidence. Brickman<sup>7</sup> specifically attacked Rickover for using sloppy research methodology in his studies of comparative education. Brickman believed that as a comparative educator Rickover presented little real evidence to support his opinions, yet he stated those opinions dogmatically. He showed that Rickover seldom referred to anything already published in comparative education; hence, he was unencumbered by citation of sources. Brickman also disagreed with Rickover's claim that comparative information was difficult to obtain. He thought it inexcusable that Rickover exhibited no knowledge of the work being done by the Institute of International Education, the Cooperative Education Society, UNESCO, and the United States Office of Education. Each of these organizations had been generating much information which was readily available to anyone through their publications.

Brickman went on to assert that by 1958 Rickover had had no first hand contact with a foreign educational system; that he never set foot inside a European school. A 1962 review of Rickover's book,<sup>8</sup> Swiss Schools and Ours, charged that Rickover had visited only briefly Switzerland, and that he had never been inside a Swiss classroom. This current research could find no evidence that Rickover ever visited a foreign elementary or secondary school. However, during his trip to Russia and

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7. William W. Brickman, "Rickover as Comparative Educator," Phi Delta Kappan 40 (November, 1958), pp. 64-67.

8. "Heidi and Johnny," Newsweek 59, March 5, 1962, p. 78.

Poland in 1959, Rickover claimed to have visited a number of universities and to have spoken to many students about their experiences.<sup>9</sup>

Brickman argued that Rickover's studies in comparative education showed no research in relevant primary documents. Three and one half years later the same charge was made in the Newsweek review which claimed he wrote Swiss Schools and Ours from second-hand sources. (Newsweek also charged that parts of the book were ghost-written by Rickover's wife, Ruth Rickover, who had a doctorate in international law and had considerable experience in European and American educational methods.) It is not entirely true that Rickover failed to use primary documentation. This may have been true for his early speeches, but the Report on Russia and his three books contain some limited statistical data along with samples of examinations, student papers, curricula, and other governmental and school documentation which would be considered primary sources. What concerned this researcher were the selectivity of the documents and the conclusions Rickover made after working with his data.

More significant than Rickover's failure to visit the foreign schools he saw as models, Shayon<sup>10</sup> raises the question: Did Rickover, the popular critic of American schools, ever visit a school in the United States during the decade of criticism? Shayon answered: "Not likely!" This present research confirms his suspicion; there is no indication Rickover ever visited or observed an American elementary or secondary school in operation during the ten years, 1955-64. He argued that personal experience was not necessary in gathering information about the schools; studying the experiences of others was sufficient.

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9. H. G. Rickover, Report on Russia, pp. 25-27.

10. Shayon, pp. 16-18.

He said that personal experience was necessarily limited by the kind of life one leads and the type of work he does. Rickover accused educators of trying to escape lay criticism by "constantly using the stereotyped argument that only 'professionals' or 'inside' critics can judge the schools unless he has personally inspected every school in the country, sat in every classroom and listened to every child in every classroom in every school."<sup>11</sup>.

Rickover's use of hyperbole only begs the question of whether his criticisms and recommendations would have had greater credibility had he visited the schools he claimed were failing. Granted, many types of inquiry do not require first hand experience to do quality research; yet, research is often enhanced by personal experience when possible. This is especially true when the research results in criticism of the performance of others in a practical setting, and when that research dictates to these others certain courses of action for them to implement. Such was the case with Rickover.

Surely, Rickover's life style or vocation did not prohibit him from some personal experiences in schools to help confirm his criticisms and measure the practicality of his recommendations. The proximity of local schools and their accessibility to the public made visitation a possibility for any interested person. Rickover often entreated parents, community leaders, and members of the corporate sector to become directly involved in the public schools; yet, he felt no need to do so himself. One can conclude that to the extent he failed to secure first hand knowledge, his case against the schools weakened in comparison to the case

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<sup>11</sup>. H. G. Rickover, American School--A National Failure, p. 99.

of his opponents. Conversely, those who presented evidence in support of the schools based not only on the experiences of others but also on personal observation and experience strengthened their case by increasing their data sources.

It is unknown just how much attention Rickover paid to his opponents. He claimed he had little time for his educator critics and that it was useless to respond to them. This attitude reflected another incongruity in his thinking and one that did not go unnoticed by his critics. He insisted on his right to be critical and lamented the lack of reasoned response to his criticisms, yet he denied these rights of criticism to his critics whom he summarily dismissed. Had he taken more notice of his critics, Rickover would have discovered that they viewed him as someone offering shallow, simplistic solutions to deep, complicated problems. For instance, one critic was appalled at the lack of deep thinking from this "thinker."<sup>12</sup> Another felt that, based on his intolerance of opposing views and unwarranted conclusions founded on inaccurate or incomplete data, it was not difficult to think of Rickover as unscientific and anti-intellectual<sup>13</sup>.-- a strange position for a scientist and advocate of intellectualism.

One conclusion of this research is that many of these criticisms of Rickover's methods of inquiry and his subsequent conclusions were justified. It is ironic that he failed to exhibit those qualities of a liberally educated man that he espoused. According to Rickover, among the chief characteristics of a liberally educated person are such factors

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12. Shayon, p. 17.

13. Brickman, p. 67.

as caution against overgeneralization, meticulous care against unwarranted assertion, and general precision in thinking. These attributes certainly should characterize a person trained in the sciences such as he. Hence, as one studies Rickover's criticisms and recommendations, he has a reasonable right to expect specific evidence to support specific charges; that the proffered evidence should be extensive enough to warrant the integrity of assertions. This exacting research and precise thinking excludes generalizations based on isolated cases, hearsay, and personal, impressionistic opinion. The indictment here is that Rickover was guilty of such undisciplined research. His methodology caused him to frequently misunderstand existing conditions and future trends of education both in Europe and America. His matter-of-fact assertions were often overgeneralized from limited specifics, and then uttered without qualification. The result was that Rickover became just as dogmatic as the educational dogmatists he decried.

At this point, let us turn from a general indictment to a bill of particulars offered in support of it. Answers to five specific questions will now be sought: 1.) How reasonable was it for Rickover to lay total blame for the school's inadequacies on educators, especially the progressive education movement? 2.) How accurate were Rickover's perceptions of European educational systems which were to be the paradigms for reform? 3.) How ineffective were the American comprehensive secondary schools, and were they ignoring talented pupils as Rickover claimed? 4.) How novel and practical was his call for national standards? 5.) How clearly did he understand teacher preparation and certification in the United States? Three techniques will be used in the discussion of these questions: 1.) presentation of countering evidence found in the

contemporary literature; 2.) logical analysis, and 3.) judicious personal experience.

The first of these five questions arises from Rickover's conviction that whatever public skepticism, whatever loss of confidence, whatever, in general, was wrong with American public education could be traced back to professional educators and especially to John Dewey and the progressive education movement. Rickover charged that professional educators, beginning at the turn-of-the-century with the progressive movement, had unilaterally changed the purpose of the schools. They were no longer intellectual enterprises; they had become institutions for socialization. He claimed that educators, with no mandate from the public, had steered the high schools away from the traditional liberal arts curriculum. In its place they had substituted easy "know-how" courses, and no longer demanded rigorous study. The result, he said, was that by mid-twentieth century schools had lost direction and no longer were providing necessary basic education to the majority of their pupils.

There is little doubt that there was a growing dissatisfaction with public education in the 1950's. Later in this chapter we will see that the extent and sources of this dissatisfaction were unclear. What is clear to this researcher is that Rickover had little justification for laying the near total blame for the school's conditions at the feet of twentieth century American educators. They alone were not to blame for what the schools had become. Chapter IV concluded that Rickover failed to establish his case against John Dewey and the progressives. Not only did he misunderstand progressive education, but much of his educational thinking was oversimplified, and hence was guilty of the fallacy of in-

sufficient cause.

Anyone interested in getting at the real causes of the shortcomings of American education and its evolution away from basic education would find himself confronted with a staggering array of social forces which could be traced back far beyond the Progressive Era to the beginnings of liberal education in classical Greece. It was Isocrates and the sophists who first sought to create a practical man of worldly affairs through an emphasis on rhetorical rather than classical education. These efforts by the sophists to develop men with personality and poise were the first shifts in the evolution away from the purely liberal education of Plato and the speculative philosophers.

Included in this vast complex of philosophical shifts away from the spiritual and intellectual to the corporal and practical is the shift from the Socratic concept that knowledge is virtue to the Baconian postulate that knowledge is power. Another might be the shift from the other-worldliness of medieval Christianity to the this-worldliness of modern democratic secularism. Still another would be the conceptual shift from the fixed and completed world of Aristotle and Newton to the process world of Darwin and Whitehead. These are but a few of the changes in the world of ideas which have moved education away from the purely classic and liberal.

Historical factors along with social and intellectual development have also operated powerfully in altering education. For example, causal forces can be found in the concept of universal education which emerged from the Enlightenment. Still another source of change can be seen in industrialization and its attendant demand for vocational competency. The impact of modern psychological research and theories on human

behavior and learning is another factor. Compulsory attendance laws and the post World War II "baby boom" caused a sharply increased school membership with such accompanying problems as multiple ability levels, shortage of teachers, and lack of facilities. Individual and family living patterns had been altered by improved transportation, communication, and technology; all had implications for education.

Two points are to be made. First, movement away from classical-liberal education did not begin with the Progressive Era in American history. Second, none of the above factors which had altered basic education originated with professional educators. Rickover failed to appreciate this obvious second point that educators alone have never controlled the destiny of education; nor did modern twentieth century educators totally control curriculum development in American schools. Legitimate community interests and vested interest pressure groups are a vital part of the American democratic process, and have an influential voice in school curricula. Parents, politicians, businessmen, advocacy groups, pupils themselves, and even a navy admiral contribute to changing the purpose and curriculum of American schools. Therefore, Rickover was not justified in blaming educators for all of the changes which had taken place in the schools.

Another consideration is that for good or for bad, schools were reflecting society as a whole. This can be seen in the matters of "hard" versus "easy" subjects and the study demands that educators require of students. Rickover blamed educators for allowing "easy" subjects to dominate the curriculum and for not making students study harder. He called for a return to "hard" subjects along with a general "tightening up" and acceptance that learning was hard work. Yet, soci-



ety was operating quite to the contrary. In his research, the writer read many popular and professional publications of the decade which gave high priority to ease in their advertisements. There were cigarettes that were easy on the draw; liquor that was easy to drink; detergent that was easy on the hands; payment plans that were easy on the pocket book; contests that were easy to win; pills that eased you to sleep; instructional aids that were easy to use; and music that was easy on the ears. Ease was more than a means; it had become an end in itself. It is not surprising that parents, teachers, and pupils would find acceptable a curriculum that was easy to teach and easy to learn. Society's thoughtful people may have found the acceptance of ease as objectionable, and educators certainly shared responsibility for its acceptance in schools; but, again, they were hardly totally to blame as Rickover wanted the public to believe.

The second question in this assessment of Rickover concerns the accuracy of his perceptions about European education. If the earlier conclusion is warranted that Rickover's methods of research were questionable, then it is logical to suspect data gathered by such methods. The accuracy of these data were important because he saw European systems as the touchstones for determining genuineness in education. Rickover believed that a study of European education would point the way to American educational reform.

We will put aside the valid issue of whether it is appropriate to compare educational systems which may have different purposes. Since the demands on schools usually grow out of national needs, it is possible that an educational system easily could be viewed out of context, making comparisons among systems tenuous. Nevertheless, Rickover did make comparisons between American and European systems, and his recommendations

for American education hinged on these comparisons.

It was not possible within the confines of this research to examine every claim Rickover made for the superiority of European education over American education. However, a perusal of some reactions to his claim from people close to the European systems revealed an astonishing consistency of thought. First, Rickover's description of European systems were fairly accurate, but his conclusion that they consistently provided first-rate education was doubtful. Second, Rickover failed to recognize the growing dissatisfaction among Europeans with their own educational systems, and he missed the trend among European schools toward the evolutionary modifications that had already taken place in American education. It seemed many European educators viewed American high schools as being in the vanguard of progress and frequently cited them as models for study.

In one instance, educators from twenty-six European countries met at Sevres, France in April, 1958 for a two week conference on secondary education. Their final report indicated the trend which developed opposite to Rickover's ideas. The report concluded that the traditional pattern of European education had to be changed if it was to deal with the pressures of population increases and technical advances. Specifically, the consensus of the delegates was that the traditional classic study course had to be broadened and that the exacting comprehensive written and oral examination should be abolished. Rickover would have been dismayed to discover that the delegates also looked favorably upon the American school system because of its responsiveness to the changes

of modern society.<sup>14.</sup>

Many people who knew European education first-hand disagreed with Rickover's comments on it. Harry D. Gideonse, President of Brooklyn College, had attended school in the Netherlands and maintained a close interest in the country through frequent trips. He admonished Rickover that his facts about Holland were frequently inaccurate. Gideonse was particularly interested in Rickover's failure to stress the widespread criticism of secondary education in the Netherlands and the affirmative feelings the Dutch had for the American high school.<sup>15.</sup> Brickman commented that while Rickover saw Sputnik as a triumph of Russian education, many Soviets did not. Seemingly, Rickover was not aware of the ongoing internal criticism of the Russian educational program and the extensive dissatisfaction with the quality of Soviet teachers.<sup>16.</sup>

Dr. David Super of Teachers college, Columbia University had studied for years in the Swiss Schools and reported that American schools were far superior to Swiss schools in teaching children to think for themselves. His experience was that Swiss students were more likely to reflect back the teacher's own words without first internalizing the ideas. The result was less creative thinking.<sup>17.</sup> Furthermore, Dr. Rudolf Seitz, secretary of the Zurich Education Department did not completely

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14. "European Educators Discuss Secondary School 'Revolution'." UNESCO publication, 4, April 23, 1958, p. 1.

15. Harry D. Gideonse, "Keeping Pace with Expanding Horizons: We Must Let Our Minds be Bold," Vital Speeches of the Day 25 March, 1959 pp. 348-52.

16. Brickman, p. 65.

17. "Heidi and Johnny" p. 78.

agree with Rickover's perceptions of Swiss schools and spoke of the high regard in Switzerland for American schools and teaching methods. He spoke of introducing some of these modern methods to the Swiss. Seitz also found merit in the American practice of allowing students to choose some of what they wanted to learn.<sup>18</sup>

There were contemporary writers on English education who believed Rickover's conclusions about English schools were rooted in misconceptions of existing conditions. They contended that Rickover failed to realize that what he wanted to borrow from England was already dead or decaying in its country of origin. Leighton Johnson<sup>19</sup> offered as an example of this misconception the fact that Rickover wanted "hard academic subjects" as in England, yet he seemed unaware of the strong and persistent tradition of experimental permissive schools in the British Isles. These independent schools were increasing rapidly in mid-twentieth century among educationally conscious families in search of alternatives to state schools. Moreover, state schools often sought to improve their instructional effectiveness by borrowing methods and techniques from such successful independent schools as Summerhill. Johnson also reported the vigorous growth and acceptance of the comprehensive schools in England which seemed to have escaped Rickover. Local authorities throughout England set up comprehensive secondary schools as a means of getting around the self-fulfilling prophecy created by the Eleven Plus Examination. By 1964 ten percent of the English student population were in comprehensive schools and the number was growing.

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18. Ibid.

19. Johnson, pp. 203-204.

John Rosselli,<sup>20</sup> the deputy London editor of the Manchester Guardian, wrote a perceptive response to Rickover's comments on education in England. Rosselli decided Rickover's praise of English schools was fostered by three characteristics of the British system. First, pupils were grouped through a nation-wide examination known as Eleven Plus -- the age at which pupils were tracked into one of three types of secondary schools: grammar school for the academically talented, technical for the mechanical minded, and secondary modern for the average majority. Second, all three types of schools concentrated on fundamental knowledge of important subjects rather than on helping students adjust to social problems. And finally, English pupils were able to specialize early so that by age seventeen or eighteen they were on a level with upperclassmen in American colleges.

Rosselli said that for the first two characteristics Rickover had inaccurate information of the British national system as it then existed. And in the matter of early specialization, Rickover accurately described the existing state of affairs, but he failed to add that nearly all articulate voices in British education were anxious to get away from it and only differed on the best means to do so.

It seems the "tripartite" system of grammar, technical, and secondary modern schools had never fully come into being as it was established by the 1944 Education Act. There never were many technical schools, so the population was split into two groups as determined by the Eleven Plus Examination. Children who did not score high enough to get into

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<sup>20</sup>. John Rosselli, "Where the Grass is Greener; Some Reactions to Admiral Rickover's Comments on British Education," National Education Association Journal 51 (December, 1962) pp. 40-42.

grammar school were universally, though unofficially, said to have "failed." These "failures" were then assigned to secondary modern schools. The Eleven Plus took on great importance because, in practice, its verdict was seldom reversed in later years. Rickover's flat assertion that the examination was not a "day of terror" did not change the reports of parents, teachers, physicians, psychologists, etc., who claimed the day struck fear, tension and anxiety in the hearts of pupils.

Rosselli wrote of the many ways Britishers sought to circumvent the problems caused by the Eleven Plus Examination. He mentioned the thriving comprehensive school movement in which students were streamed according to ability, but all under the same roof. Another favorite device of local authorities was to turn the secondary modern school into a "bilateral" school. This was done by adding a "grammar stream" which could take pupils up to the advanced leaving examination and then to higher education.

Rickover's praise of British schools; no matter the type, for teaching the fundamentals and avoiding "soft" classes was another matter of mixed opinion throughout the British Isles. Rosselli reported that many teachers and education commentators believed that vocational or life adjustment courses had merit for students who currently did little work in academic classes. It seems large numbers of students were attending school but learning little. The call for curriculum reform was widespread and the number of practical courses in the schools was rapidly increasing. Rosselli said that Rickover would have been surprised at the number of "frills" already included in the curriculum of the publicly supported British schools.

Lastly, where Rickover completely parted company with articulate British opinion was over early specialization. This was the practice that resulted in fifteen to eighteen year olds choosing an area of concentration such as mathematics, science, etc., and spending the major portion of their day studying subjects within that area. Rosselli reported a near unanimity of feeling in Britain against the practice. It was seen as directly traceable to competitive pressures transmitted downwards by university admission policies. Oddly enough, one of the chief arguments against early specialization was that it ill-prepared students for the real business of universities because the practice was "anticultural as well as uneducational." Both the senior chief inspector to the Ministry of Education, Percy Wilson, and the Secondary School Examination Council were quoted as saying that the school-work in the sixteen to eighteen age group had become too overly concerned with the competition for grades in a rather narrow range of subjects and too little concerned with the total development of youth.

It is apparent to this writer that there were many contemporary persons familiar with European education who perceived it differently than Rickover. Clearly, there were mixed feelings among Europeans about the effectiveness of their educational systems. There also was evidence of a trend throughout Europe away from the classical curriculum as espoused by Rickover; movement was toward the American curricular model he deplored. Finally, many voices from abroad could be heard in support of comprehensive high schools such as those found in the United States. Rickover's treatment of the American comprehensive high school is the third item in this bill of particulars against him.

The American comprehensive schools were a favorite target of

Rickover's attacks. He reported a growing dissatisfaction with this type of school organization, because it was ineffective and caused academically talented pupils to go unserved. The following discussion will seek the answers to the questions: "Were Americans dissatisfied with their comprehensive high schools?" and "Did comprehensive high schools ignore academically talented students?"

The American comprehensive high schools served pupils of all academic levels and embraced all curricula in one unified organization. Courses of study ranged from terminal vocational education to college preparatory programs. Any adjustments of the curriculum to fit individual abilities and interests was done within the school unit. Rickover talked about an increasing dissatisfaction with this system; that parents had a vague feeling it was below par.

The best evidence available, however, does not support Rickover on this matter. In fact, the reverse seemed true according to material compiled by the National Education Association's (NEA) Research Division.<sup>21</sup> After studying major public opinion polls on education between January, 1950 and April, 1958, the NEA reported that the American public was generally satisfied with the nation's schools. The material showed that the public strongly endorsed the basic goals of American education and, for the most part, they were more convinced of the value of practical training than of the value of what is generally known as liberal education. Furthermore, the polls suggested something that would have disheartened Rickover -- educators were more demanding of American public education

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21. Committee on Tax Education and School Finance, National Education Association, Public Opinion Polls on American Education (Washington, D. C. : The Association, 1958).



than was the general public. In a Gallup poll, for instance, seventy-nine percent of principals stated schools demanded too little work of their students. In contrast fifty percent of parents were of this opinion, and one in three parents believed that current work requirements were satisfactory.

The 1958 Rockefeller Report on Education also supported the concept of the comprehensive high school. Prepared by a group of lay persons, the report concluded that a dual system of secondary schools was unpalatable to most Americans. The study held that it was not necessary to choose between a fair education for most and an excellent one for leaders. America needed both, and both could be gotten in a comprehensive school. The report favored tracking within a school, but could find no reason why students from all scholastic levels could not sit in the same homeroom, play on the same teams, attend the same extra-curricular events, and share in the same student government. These shared experiences were seen by this lay group as being very useful in the development of understanding among different groups and in raising aspiration levels for students. The group did not rule out the possibility that in larger cities special schools might be developed to meet special purposes, but there it should be a case of varying the rule to meet the circumstances.<sup>22.</sup>

It should be interjected here that Rickover chose to almost totally ignore the many specialty high schools that had been already developed throughout the country at the time he was arguing for a dual

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22. The Pursuit of Excellence: Education and the Future of America, the Rockefeller Report on Education, Panel V of the Special Studies Project (Garden City, New York: Doubleday and Company, 1958) p. 31.

high school system. Clearly he knew of some of these specialty schools which were most prevalent in urban areas. He refused to concede that they were akin to what he was proposing. The Chicago Public Schools during the 1950's and 1960's were operating two types of high schools in addition to the general or comprehensive, i.e., vocational for those seeking career training, and technical for those college bound pupils with an aptitude for mathematics and science.

The Rockefeller Report cited the famed Bronx High School of Science as another good example of specialty schools. Rickover did identify this Bronx school as being similar to those he had in mind for talented pupils, but he dismissed it because it did not accelerate pupils through the grades. Granted, acceleration of pupils in these specialty high schools was not common, but they were operating intensified programs in the "hard" courses of which Rickover was so fond. His idea of separate schools for children of different levels and interests would certainly have been nothing unusual to most big city educators.

So far we have been considering support given to the comprehensive high school by non-professionals. It is uncertain whether Rickover thought of James B. Conant as a professional educator though he often mentioned Conant when speaking of "educational officialdom." Conant was a chemist, a former president of Harvard University, and a former United States ambassador to Germany. During the 1957-58 school year, Conant and a staff of investigators visited fifty high schools in eighteen states in all parts of the United States. In total, he and his staff gathered first-hand information on about one hundred schools in twenty states. They investigated the comprehensive high school intensively and concluded it was fulfilling its function satisfactorily. Conant made a

number of recommendations for improving conditions in secondary schools, however he clearly supported the concept of the comprehensive high school. He said he was certain of only one thing as a result of his study, and that was that no radical changes were required in the pattern of American public secondary education in order to make the schools adequate for the tasks confronting them.<sup>23</sup>.

The evidence presented here counters Rickover's contention that non-professionals and the general public were discontented with the comprehensive high school per se. But what of his more specific imputation that because of the wide acceptance of comprehensive high schools, talented pupils were not being identified and served? Many respondents to Rickover pointed out that education in America was not identical for all as he portrayed to the public. Homogeneous grouping for instruction was an historical means of providing differentiated curriculum in public schools at all levels. It certainly was extensive during the 1950's and 1960's, and multiple-tracking was the accepted practice in the comprehensive high schools.

Surely Rickover was aware of the multiple-tracking going on in the schools, yet he regularly referred to "the single-track 'comprehensive' school...in which children from IQ 70 to IQ 170 are supposed to acquire an education in democratic togetherness."<sup>24</sup> In a 1963 footnote to this quote, he finally acknowledged that "multiple-track schooling is coming to be widely adopted of late, chiefly in response to outside pressure."<sup>25</sup> This explanatory comment late in the decade of criticism

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23. James B. Conant, The American High School Today (New York: McGraw-Hill Book Company, Inc., 1959) p. 96.

24. H. G. Rickover, American Education-A National Failure, p. 63.

25. Ibid.

was not only insufficient to undo nearly ten years of misinformation which he gave to the public, but it was still inaccurate. Educators and school systems were leading the way, not being pushed, in the identification and segregated instruction of children of various ability levels.

There were many examples of multiple-tracking to be found had Rickover been seriously looking. Years before his acknowledgement in 1963, tracking was a common practice in individual high schools. There were even cases where entire large city school systems were testing and then tracking all students entering comprehensive high schools. St. Louis was one such city where all incoming high school freshmen were separated into three levels according to ability, placed in classes with others of similar ability, and then had the curriculum adapted to their level.<sup>26</sup>.

Chicago was another urban educational system that during the 1950's and 1960's was channeling its ninth graders as they entered the comprehensive high schools. As an eighth grade teacher and elementary school counselor in Chicago, this writer was personally involved in city-wide testing programs that determined which of four tracks a youngster was placed -- essential, basic, regular or average, and honors. With such evidence so readily available, it is difficult to understand why Rickover operated under the erroneous assumption that the American comprehensive school was a single-track operation and hence not differentiating its curriculum for the talented. Had he been better informed, he may not have been so adamant about establishing a dual high school system.

Not only did he deny the long established practice of tracking,

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<sup>26</sup>. "St. Louis Adopts New School Plan," New York Times, 14 April 1957.

but Rickover seemed equally unaware of a national concern among educators for the unmet needs of the gifted. Educators were troubled by the indifference of the public to the special educational requirements of talented pupils. As a result, the National Education Association with aid of a grant from the Carnegie Corporation convened in Washington, D. C. on February 6-7, 1958 some two hundred outstanding educators and laymen who were knowledgeable about talented pupils. The group was chaired by James B. Conant. Their task was to consider problems involved in identifying and educating above-average pupils. The assemblage agreed with Rickover that a nation-wide reluctance of American citizens, through local school boards, to set up special programs for the gifted was part of a larger anti-intellectualism which was deeply ingrained in the American tradition. Among the conclusions reached by the group was, first, that gifted pupils must be identified as early as possible. Second, the negative attitude of parents and community as a whole must be dealt with even if it meant a change of mental-set to gain acceptance. Third, there was a need for greater initiative at the local school level to start programs for the academically talented. Last, as schools placed pupils for instruction in these programs emphasis should be put on achievement in a given subject so that students could study that subject with other students of comparable ability.<sup>27</sup> The task of this group and its recommendations were almost identical to the very things Rickover, throughout the decade, criticized educators for failing to do.

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27. James B. Conant, The Identification and Education of the Academically Talented Student in the American Secondary School (Washington, D. C. : National Education Association, 1958) pp. 135-38.

On this third issue of the comprehensive high school and whether it caused educators to ignore the problem of identifying and educating the talented, Rickover stood almost alone. His position could not be supported by the evidence and opinions of leading scholars and educators of the time. The comprehensive high school may not have been perfect, but only Rickover called for it to be dismantled. Neither the public nor the educators close to the comprehensive high school saw the need for such a drastic step, and even Rickover recognized that it was unlikely the comprehensive school would pass out of existence.

Rickover may have reluctantly accepted the reality of the comprehensive high school, but he would make no concession on the need for a national standard. He was convinced there could be no educational reform in America until national standards were established. In his view, Congress should appoint a National Standards Committee to determine what specifically was needed to make the United States educationally competitive. After deciding on this standard, the Committee would develop a national examination for use with individual pupils to measure their achievement of the standard. Pupil participation in the national examination was voluntary, but those who participated and passed would receive national accreditation. What he was proposing was somewhat similar to secondary school accrediting associations except that the Committee would be composed of scholars and national leaders instead of educators, and the Committee would be accrediting individual students and not a school and its programs. However, for all he wrote and spoke on the subject, it always remained vague just how the Committee would determine the nation's educational needs.

Rickover's call for nationalizing standards may at first have

seemed drastic to some, but in the prior fifty years American society had been moving toward centralization in many aspects of its living, e.g., business, labor, mass media, and even education. In education this centralization could be seen in school district reorganization and consolidation. School districts numbered 127,530 in 1932, 103,000 in 1948, and 59,270 in 1958.<sup>28</sup>

On the other hand, a trend in American society toward emphasis on the rights and importance of the individual had been evident also. The Progressive Movement, women's voting rights, and certain Supreme Court decisions were evidence of this contradictory trend. It appears Rickover caught a glimpse of the advantages of centralization, but he had not weighed these against the disadvantages. The chief disadvantages of federal standards were that centralization restricted identification and articulation of school curriculum needs to a small group, and removed decision making from the hands of the individuals most affected. This ran counter to the American tradition of individualism which Rickover so espoused, and gave cause to wonder if national standards were either desirable or feasible at that time.

This question of practicability was an important one. Regardless of Rickover's insistence that participation would be optional for students, school districts would have no option except to prepare students who wished to be accredited. Just as with "optional" school accreditation associations, pressure to participate would be exerted by university admissions procedures and the universal desire for prestige. However,

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<sup>28</sup>. "American Association of School Administrators," School District Organization (Washington, D. C.: the Association, 1958) pp. 207-209.

as long as the United States still had 37,000 school districts (out of the above total of 59,270) that employed fewer than ten teachers, and as long as more than one-half the 23,000 public high schools in the country enrolled less than two hundred students,<sup>29</sup> there was little chance of implementing programs that would be necessary to meet the national standard. Small schools and small school districts could not hope to supply the many teachers and programs required to accommodate the wide range of intellectual abilities from the academically talented to the mentally handicapped. Even in large or wealthy school districts, the nationwide shortage of teachers and facilities would have limited the programs required to implement a national standard.

Rickover went on to question whether American teachers were prepared well enough to implement a national standard if one was established. He was very critical of the preparation teachers received and of the institutions providing this training. He felt the programs offered by these institutions, especially teachers colleges, concentrated too heavily on pedagogy and gave too little attention to general education.

It seems to this writer that Rickover made two basic errors in his thinking about teacher training institutions. First, he did not place teachers colleges in historical perspective as well as in contemporary perspective with other types of colleges. Second, his statements on the curriculum content of teacher preparation programs was not supported by statistical evidence available.

Had Rickover been more aware of the historical development of

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29. Ibid p. 308.



teacher training institutions he would have seen a steady improvement in their quality. Most teacher training before the turn of the century was done in normal schools. These normal schools were primarily two year programs with no degree. As the common school movement in America spread from state to state, normal schools filled the increased demand for teachers. Without normal schools public education would not have been successfully begun in the United States.

Changing conditions at the start of the twentieth century started an evolution in teacher training institutions. There was a general recognition that the old programs in the normal schools were not meeting the needs of the rapidly changing social order. Public high schools were on the increase, and the quality of these secondary schools was improving because of demands being made by accrediting associations. As the need for better educated teachers surfaced, four year degree-granting teachers colleges began to develop. When the present century began there were only four full-fledged teachers colleges in the country. Thirty years later there were one hundred fifty degree-conferring state teachers colleges in the United States.<sup>30</sup>

By the time Rickover started his criticisms of teacher preparation, it had become apparent that the teachers colleges of which he was most critical were going to be a temporary phenomenon in American higher education. Karl Bigelow, professor of education at Teachers College, Columbia University, accurately prophesied that teachers colleges were leaving the American scene. He saw the teachers college as a sort of

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<sup>30</sup>. Charles A. Harper, A Century of Public Teacher Education (Washington, D. C.: The American Association of Teachers Colleges, National Education Association, 1939) p. 133.

way-station between the normal school and the multi-purpose state college or university for which teacher education was only one among several functions.<sup>31.</sup>

This movement away from the teachers college concept, which is all but complete today, had already begun in the early 1950's. From 1951 to 1959, fifty-nine teachers colleges and normal schools had become state colleges or universities, and two others disappeared through mergers. These changeovers were attributed to higher teacher certification standards and the growing acceptance of teacher education as an integral part of higher education.<sup>32.</sup>

This evolution of teacher training institutions is not historical hindsight on the part of this researcher. The same evidence used in this paper was available to Rickover. Had he used it, he would have seen that teacher education programs were steadily being upgraded. They had been improving in response to the nation's need for better educated teachers. It was careless of him to take no cognizance of the rapid changes in teacher preparation which were in progress in the midst of his criticisms. His failure to acknowledge these changes diminishes the credibility of his claim that educators were maintaining the status quo in teacher preparation.

Before considering Rickover's main criticism of teacher preparation that it was filled with an inordinate amount of pedagogy, the point

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31. Karl W. Bigelow, "The Passing of the Teachers College," Teachers College Record 58 (May, 1957) pp. 409-417.

32. W. Earl Armstrong and T. M. Stinnett, A Manual on Certification Requirements for School Personnel in the United States. (Washington, D. C.: National Education Association, National Commission on Teacher Education and Professional Standards, 1959) p. 15.

should be made that teachers colleges did not have a stranglehold on teacher education programs. Rickover's intimations notwithstanding, T. M. Stinnett found that in 1956 teachers colleges provided only two in ten of newly prepared teachers each year. Private colleges and universities were providing three in ten of the nation's teachers, and public multi-purpose colleges and universities were providing the other five in ten.<sup>33</sup> Had Rickover availed himself of this information he certainly would not have continued in his mistaken belief that teachers colleges monopolized teacher preparation.

Rickover's main criticism of teacher preparation programs was that they were almost entirely given over to pedagogy. He charged that colleges had severely cut general, subject oriented courses and replaced them with professional courses. The sources of Rickover's data on this issue never became clear in this current research. But, what did the available statistical evidence indicate? This researcher discovered two contemporary studies that focused precisely on the question raised by Rickover. The studies concerned the percent of the college curriculum that was devoted to education courses. One study dealt with preparation of elementary school teachers, and the other was concerned with secondary teachers.

In the study dealing with elementary school teachers, Andrews and Palmer<sup>34</sup> surveyed twenty-two teacher training institutions of seven different types well distributed geographically throughout the United

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<sup>33</sup>. T. M. Stinnett, "The Teachers College Myth," The Journal of Teacher Education 7 (December, 1956) p. 290.

<sup>34</sup>. L. O. Andrews and R. P. Palmer, "The Education of the Elementary School Teacher," The Education of Teachers: New Perspectives (Washington, D. C.: National Education Association, 1958) pp. 322-329.

States. They found that only one-fifth to slightly below two-fifths of total courses had to be taken in professional education. The rest of the course work was spread over general and specialized (added content matter courses and electives) areas. This evidence supports the claims made by professional educators that during the time of Rickover's criticisms prospective elementary school teachers were being more broadly educated in four year institutions than they were in the recent past when so many had been trained in two year normal schools.

Of course, Rickover was more concerned with the preparation of secondary school teachers. He conceded that professional course work may have had some merit for elementary school teachers, but high school teachers needed little more than some student teaching. He was critical of teacher training colleges for wasting the time of prospective high school teachers with excessive theory and methods of teaching. However, the study of secondary teacher preparation does not sustain Rickover's assertion. The study surveyed five types of teacher training institutions as to the percent of total college credits in a four year program that were allotted to professional courses. One hundred fourteen schools were randomly selected of three hundred institutions accredited by the National Council for Accreditation of Teacher Education in 1956. The study indicated that only sixteen to twenty-one percent of the four year program was being devoted to professional courses, and about thirty percent of the professional course work consisted of practice teaching which would have been the least objectionable aspect of professional training to Rickover.<sup>35</sup>

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<sup>35</sup>. Morris L. Cogan, "Professional Requirements in Programs for the Preparation of High School Teachers," Journal of Teacher Education 9 (September, 1958) pp. 270-279.

When Rickover condemned American teacher training colleges and placed upon them the blame for alledged weaknesses in the nation's educational program, he simply did not know, or chose to forget, the facts of the situation. He displayed ignorance of the history of teacher education in the United States, and the continuing evolution it was undergoing. With no apparent evidence, he faulted teacher preparation programs for concentrating on pedagogy rather than on courses with intellectual content; yet, there were contemporary studies that showed this charge was unfounded.

Another part of Rickover's recommendations to improve teaching performance in the schools was to tighten up certification procedures. The central component in his recommendation was to establish a certifying examination in lieu of the existing practice of simply completing a prescribed course of study. He would not admit to practice any teacher who could not successfully complete this examination. Ideally, this should be a national examination; but Rickover granted it would most likely be implemented at the state level.

His idea for a certification examination had merit, but was not new. While not usual, certification by examination was in use in various forms. The National Teachers Examination (NTE) was commonly used in the 1950's to enhance teacher credentials, and in West Virginia the NTE was being used as a certification instrument for liberal arts graduates who lacked professional training.<sup>36</sup> Another precedent could be found in the Chicago Public Schools which certified its own teachers. The

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<sup>36</sup>. Genevieve Starcher, "National Teachers Examination: A Certification Instrument in West Virginia," Journal of Teacher Education

Chicago Board of Examiners developed its own certifying examination which was both written and oral. While the oral examination was practical, the written examination covered general knowledge and contained a concentrated test in the prospective teacher's specialty.

With the completion of this bill of particulars against Rickover, it is easy to see that he evaded several laws of rationality. He resorted to the argumentum ad hominen, special pleading, appeals to emotion, and unwarranted generalization. Of course, some educators also evaded the laws of rationality when they used vituperative language against Rickover, misrepresented him, and failed to attack his arguments directly. A common form of sophistry in which some engaged was to make Rickover's argument seem ridiculous by confusing it with part of that which he denied. For example, it was frequently asserted that Rickover was advocating attention only to education for the elite or bright student thus sharpening the class distinctions in American society. He is accused of letting the average and slow learners shift for themselves. This study does not bear out this accusation. On the contrary, Rickover firmly believed that education in a democracy should be a process of leveling upwards, and that the greatest function of the public schools was to eliminate social class distinctions and raise the intellectual level of the entire nation.

This misunderstanding of Rickover's intent was most probably caused by his focus on what he saw as the unmet needs of talented pupils. Rickover had the courage to disagree with the prevailing psychology which said that slow learners and some average learners could never grasp the abstractions of a subject oriented, liberal arts curriculum. He refused to believe the curriculum content should be altered because

of variations in intellectual capacity. Instead, he asserted that all children should have access to a liberal education, each to absorb as much as he could at his own rate in the prescribed compulsory education period.

Rickover was also unjustly accused by many educators of neglecting certain aspects of the "whole child," such as, the physical, emotional, and aesthetical. He was portrayed as a creator of intellectual monstrosities -- little "egg heads," distorted by his emphasis on intellectual training in the schools. Yet, Rickover would have readily agreed that a purely intellectual approach to life was not sufficient. He often acknowledged that the aesthetic, emotional, physical, religious, social, and recreational needs complement the intellectual needs of man; however, he maintained that these needs were better fulfilled by institutions other than the schools.

Because many of Rickover's most vehement remarks were directed toward professional educators, he was indignantly referred to in educational literature as an enemy of the public school teacher. This unwarranted conclusion was promulgated by the respondents to his thoughts who most often were professors of education, school administrators, and other members of what Rickover called "education officialdom." It was this hierarchy of which he was most critical, not teachers. As Arthur Bestor before him, Rickover saw this power vested hierarchy restricting the professional growth of teachers. He advocated liberating teachers from the constraints of this powerful group. He sought to upgrade teachers towards true professional status in the community. This improved status could only be effected by assuring teachers would receive a first-rate free education, and by drastically increasing their salaries. He also

recommended a reduction in teachers' work loads and a decrease in administrative meddling so they would be free to teach and grow professionally. These recommendations would hardly have met with much disfavor by most teachers.

These are but three aspects of Rickover's thoughts on education which were misunderstood in the educational literature in the late 1950's and early 1960's. Today, there continues to be those who would dismiss him as a non-contributor to the cause of education. This is not the case. There is much for which to applaud him. At a time when there had been considerable apathy to public education, he brought educational issues to the attention of a large national audience and challenged them to become involved in the public schools. He certainly influenced the United States Congress to see education as a high-priority, national issue. Teachers were challenged to honestly evaluate their professional status, and all educators were called upon to evaluate their performance in light of results. His rationale in support of gifted education and against the cries of elitism are powerful today. Finally, his strong advocacy of a basic liberal education helped restore balance to an American curriculum which had been leaning away from such learnings.

Rickover was fond of saying "the inevitable comes to pass through effort." The one trait all of his detractors would grant him was that he brought boundless energy to the controversy. He approached his avocation of education with ten years of fervor during the period, 1955-64, and he continues to speak out on educational issues. From the time of his first interest in educational reform in about 1947 until 1982 is a long time to engage these issues.

As this research concludes this author could not refrain from



wondering what Rickover came to feel about these many years of effort. Did he think he had accomplished anything? Had he finally lost enthusiasm for the fray? As a veteran campaigner for educational reform, did he have advice for newcomers? The following testimony before the United States House of Representatives in 1977, thirteen years after this study's decade of concern, helps answer these questions.

Representative Ronald W. Mottl of Ohio thanked Rickover for taking the time from his busy schedule to provide testimony in favor of a bill to provide national proficiency standards for education. Their conversation was as follows:

RICKOVER. My labor is the labor of Sisyphus. For many years I have kept on rolling the stone uphill and it always falls down. This is one of my periodic adventures. Hope springs eternal, sir, and I have never yet given up; although if you think I believe that something significant will come out of this, I wish to disabuse you.

In fighting for educational reform, you are fighting the National Education Association, you are fighting the Office of Education, you are always fighting your own people... The major fight you have is not with outsiders; it is within your own organization. But at least we can say we tried.

MOTTL. We are going to keep trying together. Thank you very much.

RICKOVER. You are in only your second term in Congress and you have not yet been subjected to those lobbyists. You are going to get it. Watch out.

MOTTL. I might not be here for my third term.

RICKOVER. If you keep on pushing this course, I might bet on you.<sup>37</sup>

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<sup>37</sup>. United States House of Representatives, Part II: A Bill to Provide Educational Proficiency Standards, Hearings before the Subcommittee on Elementary Secondary, and Vocational Education of the Committee on Education and Labor (Washington, D. C.: U. S. Government Printing Office, 1977) p. 22.

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The final copies have been examined by the director of the dissertation  
and the signature which appears below verifies the fact that any  
necessary changes have been incorporated and that the dissertation is  
now given final approval by the Committee with reference to content and  
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The dissertation is therefore accepted in partial fulfillment of the  
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