

THE Admiral & me...

...and the bullring

by Bill Lee

Introduction: Anyone that has been even remotely associated with the Naval Nuclear Program has heard numerous tales about Admiral Hyman G. Rickover, Father of the Nuclear Navy. Everyone that was ever involved in the program between its inception and 1982 has at least one personal encounter – a so-called ‘Rickover Story’ - to relate.

So do I. More than one, actually. This is a collection of ‘burned-in’ memories of the relatively few times I was the object of Admiral Rickover’s attention. Those occasions were not historically significant, nor do they reflect very favorably on my actions or on what I had to say at such times, which mostly consisted of either “Yes, Admiral”, or “No, Admiral”, or – and most frequently – “No Excuse, Admiral!”

Much of what follows has been individually told and retold by me for years. Some of it I once kept private, for reasons that may become apparent after reading these recollections. Although what follows transpired decades ago, it is all as vivid to me today as if it happened just yesterday. This recounting of my personal ‘Rickover Stories’ contains no editorial commentary about the man, his controversial ways, or his place in history. Without further elaboration, I’ll just say that he had a profound influence on my life.

My purpose here, pure and simple, is to enjoy remembering - and to share with anyone even remotely interested – word-pictures of the several times I was in the company of the man most often simply referred to at Newport News Shipbuilding as... THE Admiral.

Before launching into story telling, I wish to briefly comment on several recent books and on dozens of related Internet web pages. They all attempt, but largely fail, in my opinion, to even come close to capturing the essence of this complicated iconoclast.

Plus, there is an irony. Those writings are most often illustrated with this picture. Certainly, I never saw him attired that way, not even at major launching events at Newport News. Nor did anyone else, anywhere, except on rare occasion. Even the President of the United States had to *order* Rickover to wear his uniform for presentation of an award at the White House.

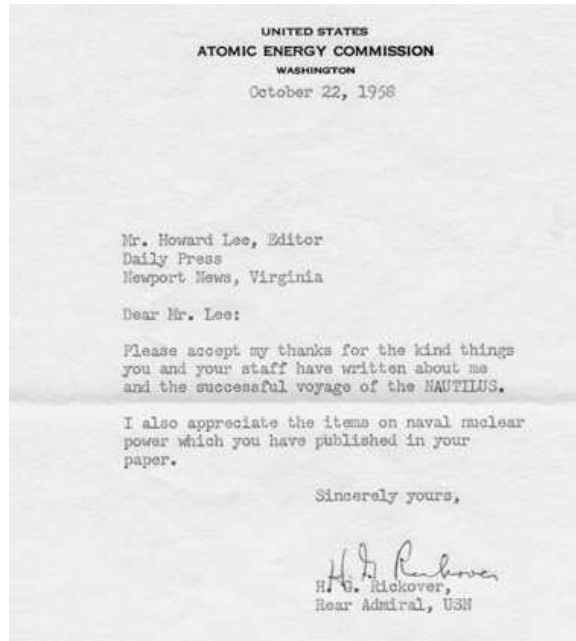


First Sighting: I simply do not recall exactly when or where I first saw Admiral Rickover in person. Surely, it was from a distance, and probably sometime between 1956 and 1959 when I was in the shipyard’s Apprentice Program, learning how to be a designer while working on drawings for the propulsion plant of the USS ENTERPRISE.

What I do remember, from that same time period, is of my Father's appreciation for what THE Admiral had already accomplished. My "Pop" found the start of the Nuclear Navy fascinating; especially Rickover's unique, dual AEC/USN role.

Coupled with the growing involvement of NNS in designing and building nuclear-powered warships, publishing promotional items about them seemed appropriate to "Pop". Of course, my personal, albeit decidedly minor role in all that at the time may have influenced my Father a tiny bit.

In any case, "Pop" was both impressed and delighted to receive this letter, which he treasured for years. As now, do I.



A Near Encounter: I definitely recall nearly coming in contact with THE Admiral during ENTERPRISE sea trials following her 1964/1965 first refueling/overhaul. By then I was a Nuclear Test Engineer, and stationed in one of the propulsion plants. As I turned to leave that space's control room on some now-long-forgotten task, he was just entering, followed by an entourage of navy and shipyard officials. Without speaking, I melted back into a small space between some bulkhead-mounted equipment located behind the suddenly super-alert operators. When the doorway cleared, I quietly eased out and thus missed any opportunity to have a Rickover Story all my very own when he probably tested the crew's proficiency by demanding unscheduled performance of some drill.

First Words: Before I relate what was actually said, a little background info is necessary to set the stage for this somewhat less than historic encounter.

In 1966, I started working in the A4W – later NIMITZ-class - propulsion plant design group. During an interview with Don Kane, that group's Chief Engineer, part of my self-serving sales pitch, highlighted the benefits to his project of my experience as a designer, a graduate engineer and as a test engineer in nuclear propulsion. Actually I didn't have to sell myself at all; I represented a capability that Don had been seeking.

By early 1967, the arrangements and systems' designs for CVN 68 were sufficiently advanced for the Navy to have a set of Contract Guidance Plans and Detail Specifications created. The part of that effort that involved the propulsion plant was started at Newport News in a high security area, but completed in Naval Reactors' offices in Washington, DC. A small team of a half-dozen designers with yours truly in charge was assigned to go there to put the finishing touches on numerous and highly classified documents. Howard Marks, head of NR's Surface Ship Systems Group, and a member of Admiral Rickover's original team, arranged for us to use a conference room as an impromptu drawing room.

It was there that I had my first face-to-face (well, not 'exactly') encounter with the Admiral...at adjoining urinals in the men's room!

Glancing over – rest assured, strictly at eye level - I smartly said “Good Morning, Admiral”, finished my business and headed straight for Howard Marks' office. I thought the quizzical look on Rickover's face indicated that he was about to ask: “Who in the hell are you???”. So I hurriedly zipped and skipped, and informed Howard of what had taken place so he would be prepared to respond to Rickover's anticipated question – if asked. A little disappointingly, Admiral Rickover never made any such inquiry. So much for my first up close and personal encounter with THE Admiral.

Black Thursday and Its Considerable Aftermath: But our next meeting was far more important; not just to me, but to the shipyard, and - ultimately - to the entire fleet of NIMITZ-class carriers. No brag – just fact. It all started one evening in the latter part of 1969 which later was frequently referred to as Black Thursday at NNS.

By that time, the NIMITZ propulsion plant's design was well advanced, along with a full-size mock-up of selected portions of it. The shipbuilding contract included a requirement that tied release for fabrication to mock-up approval. Accordingly, a portion of the mock-up important to the ship's erection sequence had been made ready. A perfunctory walk-through was envisioned. After all, NNS traditionally did its designing on drawing boards.

I was not there that evening, but here's what I understand transpired. Don Kane led Admiral Rickover to the NIMITZ-Class Propulsion Plant Mock-Up. To get to the specific area prepared for review, it was necessary for them to walk through some unfinished areas. Right off the bat, THE Admiral started commenting negatively, and the more he was told those areas were not yet ready for review, the madder he apparently got.

When they got to the area that NNS thought represented a final design, Rickover was in a foul mood. Others hid, but Don Kane and Howard Marks were transfixed by THE Admiral's unexpected ire. Rickover pointed out many things he found to be unsatisfactory. He first berated the members of his own staff present, demanding to know why they hadn't seen these things and fixed them. Not waiting to hear, much less accept, any excuses, he then turned to the shipbuilders present and declared it was high time they learned how to do design work without relying on their precious - but inadequate – composite drawing design practices. As an ultimate insult, Admiral Rickover indicated that he'd arrange for the Electric Boat Division, of General Dynamics to teach NNS, their biggest competitor, how to properly design nuclear propulsion plants.

The next morning, as office rumors swirled, Don Kane summoned me. Like Rickover, Don is not a man to sugarcoat or draw out a discussion. He told me about the night before and that the shipyard's President had already agreed to do things THE Admiral's way.

THEN, Don informed me that he had nominated ME to lead the necessary corrective activity effort, and that my selection had already been ratified by the Company President and already approved by Naval Reactors. Things moved fast in those days...

If I had known then what I know today, I'd have been terrified. But I enjoyed the confidence, the self-assurance – and the ignorance and arrogance - of relative youth. It was weeks before I really grasped the scope and significance, and understood the magnitude of the struggle associated with creating what turned out to be a fundamental change in the way NNS would thereafter accomplish its highly detailed, technical work.

Within hours, I was totally immersed in a whirlwind of training that included a several days' visit to EB. The following excerpt from a book entitled *Rickover and the Nuclear Navy* provides some idea of what I saw – and learned.

“Submarine mock-ups were fascinating. Built largely of cardboard and wood, they made it possible to trace every pipe in its actual size, see the location of every valve, and observe the overall arrangements of components. Rickover took a great deal of time in his frequent inspections of a mock-up, often remaining transfixed while he visualized the motions that men would have to make to maintain or repair equipment. The mock-up even showed whether lighting was sufficient to read instruments. The full-scale mock-up exposed problems that would not have been apparent from blueprints or a model. It allowed shipyard workers – such as welders – to be sure they could perform their job in the ship wearing full working gear. After a mock-up had served its initial purpose, it could be used in training people, making sure procedures were correct, and ensuring that operations could be carried out as planned.”

EB people reluctantly revealed to me the details of their experience in utilizing mock-ups as interactive design tools. Upon my return, Don helped me create the A4W Mock-Up Design Team, hand-picking the very best designers and engineers available, and over others' objections. Then, my newly drafted comrades and I started figuring out what the hell we were supposed to be doing. In parallel, a Naval Reactors' report suggested that a new methodology, for which no procedures or experience existed at NNS, was needed.

The timing for such an effort, driven by the ship's erection schedule, seemed impossible. We had to tear into the offending space's design and make significant changes in time for another review by Naval Reactors (which meant Rickover) in six weeks. Six weeks! With little choice in the matter, we got busy. There's an old WWII Seabee saying: “The difficult we do immediately, the impossible takes a little time”. I won't relate in detail what it took to do the impossible; suffice to say that we - somehow - got the job done.

Here are my still-vivid memories from 1969 of the first exchange of any real significance between THE Admiral and me. Early on the appointed date, his subordinates surrounded me for hours, pouring over the details of Rickover's last visit to that space, to make sure that we had fixed everything he had found wanting. Like picadors and banderilleros at a bullfight, they added numerous jabs of their own: “why not relocate this pipe from over this electrical cabinet, tilt that instrument a little more towards the operating station, etc.”. Additional changes were agreed to, and written down.

Hours later, after dark, I nervously waited with Don Kane by the door of the local NR office. When Rickover bounded out, I literally had to run to catch up with him and Dave Leighton, NR's Project Officer for Surface Ships, as they walked briskly to the mock-up structure. Once in the revamped space, Dave introduced me to Admiral Rickover.

As the rest of Rickover's entourage surrounded us, I looked frantically for Don Kane, but he was not yet there. I was on my own, much like an endangered bull in the center of a ring. As I faced the Admiral – who looked for all the world to me like a menacing matador – I commenced a walking/rapidly-talking review of the space we had reworked.

We had taken a bunch of Polaroid “before” pictures of the things he had declared unacceptable before revising the space's many mechanical, electrical – even structural – features. I displayed the pictures, one-by-one, for comparison with the “after” results while recapping his prior comments. I got less than halfway through those examples, when he cut me off. Rickover turned to Dave Leighton and said: “He's got the idea.”

He's got the idea - high praise from THE Admiral, as anyone who has ever been in his company will surely attest. Then he turned to leave, asking Leighton: “What's next?”

Dave said something to the effect of “But Admiral, what about approval of this space? Howard's got a short list of suggested changes that he thinks will make it acceptable, and the shipyard needs approval and release for construction.” Howard Marks started to pull out the list we had worked on that afternoon, but Rickover just waved it away and said: “Do I have to do *everything*? If you guys think its ok, then release it!”

And then they were gone. I was left standing there, dumbfounded, as Don Kane warmly congratulated me. I recall thinking about a Peggy Lee song: “Is that all there is?” Not only was that all there was that night, it was all we really needed to enable us to get on with our new-found design skills and help get NIMITZ construction back on schedule.

The Battle Cry and the Crowning: One phrase in the “Black Thursday” report neatly summed up what we were to be all about in the months thereafter. I can quote it from memory even now – almost 37 years later.

No amount of drawing or intuitive reasoning can substitute for a carefully reviewed mock-up.

Penned by Howard Marks, it became a well-used phrase that provided our inspiration, our authority...and often our shield when we ran afoul of unhappy design traditionalists at NNS. Coming from their ranks, I didn't blame them – but I couldn't help them...

Early in our success, team members began calling me ‘mock-up king’. They even had a label plate made, mounted on fine walnut usually reserved for executive use at NNS. This plate, my favorite, was crafted without any authorization whatsoever by the Sargent Bilko of the mock-up design team. I told you we had hand-picked the very best...



This title was later expanded to a more formal one: “The A4W Mock-Up King”. That inspired my very own

military-like acronym – *TAMUK*. Very impressive, until one realizes that it's pronounced - ‘ta-muk’ – as in ‘running ta-muk’. Several disgruntled people at the shipyard demanded my ‘running ta-muk’ be controlled. But Don Kane stood firm in his support of our work.

MDP's and a Material SetBack: After receiving that all-important initial vote of confidence from THE Admiral, we perfected procedures for making and controlling changes as well as changes to changes. We maximized use of a form entitled Mock-Up Design Problem (MDP). Before the detail design of NIMITZ's propulsion plant was completed, thousands of these hand-written, problem statements were completed. Without MDP's, or something similar, we could not have done the job. I saved a rare, remaining blank as a souvenir.

Ways of marking items and then identifying – in the smallest detail - what had been approved were originated. Plus release forms.

Additional procedures were written to establish various review criteria for conducting comprehensive internal and external reviews, including sign-offs by cognizant engineers. We also documented precise releases for fabrication following additional Naval Reactors reviews.

The image shows a blank form titled "MOCK-UP DESIGN PROBLEM". The form is divided into several sections. At the top, there are fields for "NEWPORT NEWS SHIPBUILDING & DRY DOCK CO.", "DATE", "CHARGE NO.", and "SERIAL NO.". Below this is a large section labeled "PROBLEM". Underneath the "PROBLEM" section are fields for "REPORTED BY" and "DEPT.". Below that is a section labeled "RESOLUTION:". At the bottom of the form, there is a grid for "COG. SUPVSR." and "DATE". The form is partially obscured by a large, dark, curved shadow that appears to be coming from the right side of the page.

But in the middle of that process, we hit a slight snag. Occasionally, Rickover would make a cursory visit to the mock-up. On one such trip, he stopped short in mid-sentence. Pointing to a very large mocked-up component, he demanded to know why we were using expensive metal, instead of cheaper wood. I was at a rare loss of words. He had often walked past many such items without comment. Cutting off any attempt to justify, he abruptly ordered me to change everything that was metal to wood before he returned!

Upon learning of this edict, Howard Marks sagely suggested replacing one unit (the object of THE Admiral's displeasure was one of several identical items) with a similar one made of wood for comparison purposes. Then document the differences in cost, and estimate the further expense of upkeep; being careful to show that NNS, a metalworking facility, primarily, could really build such things far cheaper out of metal than wood.

We did so quickly, and then went a bit further. A part of the mocked-up components in question had rounded tops; originally sheet metal, shaped over steel skeletons. We built that part of the new, sample unit with a wooden frame and a cardboard cover. I had pictures taken of the two types of manufacture, making sure the top of the fragile one was stepped upon beforehand to slightly damage it. Several people volunteered. Unable to pick and choose, I allowed more than one to participate.

Those pictures, along with an extensive justification to use metal are probably still classified and in some secure file somewhere. When Howard Marks got this material, he waited for an appropriate time, and then tried to show it to Rickover and get us some relief. By then, THE Admiral apparently had more pressing matters on his mind, for he just waved the documents and photos aside and told Howard to do what he thought best.

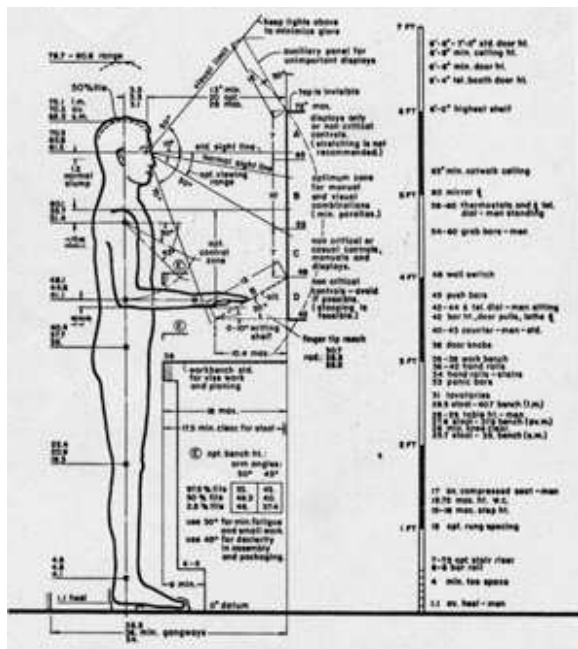
We never built another large item out of wood. But a cardboard sign was prepared, that parodied the shipyard's famous motto. I was brash enough to display it above my desk in a prominent place, but prudent enough to hide it whenever THE Admiral visited us, or was even rumored to be anywhere in or near the shipyard.

That sign survived, and is on permanent 'loan' from NNS...but they don't know it. It's handy as a photo prop for happy events such as this recent visit by Al Forssell, who succeeded Howard Marks as head of the Surface Ship Systems Group at NR.



Christmas, 1970 Comes Early: A few days before Christmas that year, a major NIMITZ control room mock-up was declared ready for review. In the past, this important feature of any navy nuclear propulsion plant had been traditionally reviewed and personally approved by THE Admiral. We were told to expect an intensive scrutiny of our work.

After a series of internal reviews, resulting in numerous changes, the Naval Reactors staff conducted additional reviews, in greater number and detail than we had previously experienced. To make those reviews more realistic, actual battery-operated battle lanterns, that would illuminate when the normal lighting was interrupted, were installed. The positions of these devices were carefully adjusted, to make absolutely sure that shipboard operators could function properly under emergency conditions. About the only thing we did not do was to set any fires to 'simulate' a smoke-filled compartment!



But before any of those reviews commenced, we spent untold hours - utilizing anthropometric data to design the individual operating positions within that control room. NNS personnel with prior operating experience then took turns going through all the motions that a sailor might ever be expected to experience.

Finally, after some pretty hectic last minute adjustments, the big night arrived. More than a little nervous, I led the way. Several people crowded into the relatively small space, leaving the President of NNS just enough room to put one foot over the coaming of the doorway and peek in to witness the proceedings.

Unexpectedly, Admiral Rickover let me totally complete my presentation of the space, highlighting improvements we had fashioned over prior designs for similar spaces. Then there was a long, LONG, L-O-O-O-N-G pause as he looked around for what seemed like an eternity. Followed by a few easy-to-answer questions. My responses resulted in him requiring only three small changes; easy to make, and even easier to accept. One of his comments involved a slight modification to an item that was government furnished. Although I didn't have the authority to do, I didn't hesitate to agree to make that change. After all, wasn't I the king? After another long pause, THE Admiral said, almost to himself: "I know how hard it is to create a control room as seemingly simple as this one."

Amazingly, that was it – more high praise – Rickover style. To make sure, Dave Leighton asked if the space was approved, and got an irritated '*of course*' response. Turning to leave, Rickover spied Mr. Ackerman and said: "Ackerman, you don't have the slightest idea what the functions of this space are, do you?" "No, Admiral, I sure don't." was the candid reply. "Well, its high time you learned something, get in here!"

Rickover directed Bud Ackerman to the chief operator's position and for about fifteen minutes proceeded to give the NNS President a short course in propulsion plant normal, abnormal and emergency operations. And in terms suitable for easy understanding by an executive who had come to the shipyard from outside both shipbuilding and nuclear power. I was dumb-founded; not that THE Admiral was capable of such a performance, but because I knew it was the first time he had ever been in that particular space!

He seemed to know, just by glancing around, where *everything* was, and *what* it was, even though some items were pretty crudely mocked-up, and only had tiny labels. Nevertheless, he pointed out locations, purposes and functions in great detail and with unerring accuracy. I later learned I had not been alone in being awed by this performance.

Then, THE Admiral rushed out, late for the next item on his agenda. As the others filed out, Mr. Ackerman was the last to pass me. He gave me a big grin, and warmly grasped my shoulder. A day later, Don Kane told me Mr. Ackerman had authorized an advanced raise for me. Christmas did, indeed, come early that year for me - in more than one way.

Hear-Here: On another visit to the mock-up, THE Admiral abruptly stopped in front of a mocked-up "Hear-Here" and declared: "This thing is too big. Why, a sailor could sleep in it. Make it smaller." What we had faithfully mocked-up was a standard, combination acoustically insulated telephone hood and log desk. Similar to this more modern, streamlined commercial version.

Reluctantly, my right hand man, John Castleman, determined that item could be made slightly smaller, yet retain full functionality. To 'prove' it, he had one cut down and then climbed completely inside the damn thing, sitting all tightly doubled up atop the log desk, hard hat on backwards. With a look of defiant determination on his face, John had a snapshot taken of himself in that implausible position.



Once everyone had a good look, and a good laugh, that Polaroid was sent to Washington. I doubt Rickover ever got to see it. I wish I had gotten it back. But I really don't need it to fondly recall when more than a little humor crept into our activities.

Anyway, we were subsequently informed to make all of them smaller. And that was when the fun *really* began. Because it was a navy standard design, the manufacturer couldn't make a change without the ok of the non-nuclear navy command that 'owned' that design. They adamantly refused, so we were told, and weeks passed as the Navy did internal battle with itself.

Eventually, THE Admiral prevailed, no surprise to us, and log desk/telephone hoods of smaller dimensions were ordered and installed throughout the ship's machinery spaces.

More Mock-Up Misadventures: It was not unusual for THE Admiral to visit the mock-up for just a few minutes while in town for other reasons. On those occasions, he often only looked at one or two items; things like modifications made after initial approvals.

On one such visit, as I tried to lead him back to the building's security-controlled entry, he asked why we didn't use a nearby, more convenient door. It was a fire exit, only there to satisfy building code. We never used it; the door had a 'box-car' type of metallic seal installed in addition to being locked to discourage any breach of the classified interiors. By then, I knew action was far preferred to excuses. So I unlocked the door, busted the seal and took him to meet some other NNS personnel, waiting for him outside the normal entry. I thoroughly enjoyed the looks on their faces when they spied us coming from a totally unexpected direction. Likewise, the scramble of his assistants, left inside, who didn't know where we had gone, and anxiously retraced their steps in hopes of finding us.

Speaking of doors... Submarine mock-ups had no room inside for anything except the replicated equipment; just like inside a submarine. The NIMITZ mock-up, on the other hand, is so big it occupies a large structure. Externally, it appears to be just another unimpressive shipyard building. But inside...the level of detail is often staggering when first viewed by even seasoned naval officers and veteran shipbuilders.

One feature of the NIMITZ mock-up that once briefly intrigued Rickover was a somewhat disguised door. It was there because my team didn't just assume responsibility for the detailed design of the mock-up in 1969, we moved in! A big hole was burned in the side of a particularly large – and hollow – structural component. With hinges added to the cutout plate, we had a door. A workspace for several people was then created inside.

That component's exterior had some mocked-up piping attached, cut so that the portions attached to the door would swing right along with it. The result was a door not very noticeable to the casual observer. On one of THE Admiral's visit to that immediate area, I needed something out of our office. Without much thought, I tugged on the handy handle (the piping), opened the door and went inside, half expecting him to follow. When I turned around, he was still outside, with a bemused look on his face, swinging that disguised door back and forth. He'd apparently never seen anything like *that* at EB!

Late in the process of finalizing the NIMITZ propulsion plant design, we made a small change to accommodate an equipment resizing. It was near the top of the building, far from anything else THE Admiral needed to see on that visit. Thoughtfully – I thought – I had a picture taken, to allow him to avoid climbing about 35 feet up a vertical ladder for a few seconds’ look. Bad idea... He very clearly told me he had not come all the way from DC to just look at a photo, and advised me to get my posterior up that ladder posthaste. I did, he followed; telling the others to wait for us. And that’s all there was to that incident.

Show Him What I Taught You: Our work in the mock-up was interrupted several times when a senior admiral, or an elected official, or – once – even the Secretary of the Navy came to see what we were accomplishing. The first time that ‘opportunity’ came up, I was instructed by Rickover to “Show him what I taught you”. Which I always did on every such occasion, utilizing the ‘before’ photos while standing in the middle of the ‘after’ approved space, as other team members played the role of navy operators.

Before the Secretary of the Navy made his visit, Rickover apparently wanted to insure that a good impression would be made, so he came to Newport News a couple days in advance just to be absolutely certain I knew exactly what to do – and say.

Assuming the role of the Secretary, he had me commence a dry run of what I planned to show the civilian head of the Navy, and what I was going to say. Like most dress rehearsals, it didn’t go well. I didn’t – couldn’t - do a very good job of guessing what subtle message THE Admiral wanted me to convey. I still don’t know.

The more I tried, the worse it got. I was a miserable novillos (i.e., an apprentice matador). I had been an apprentice before, of course, but nothing like that! Every other sentence he uttered went something like: “Lee, if you can’t do anything else, at least **Show Him What I Taught You!** Leighton tried to help me out, as always, but only got berated for his trouble. As always. Finally, Rickover stalked off, leaving me in near-tears and imagining that my reign as mock-up king was rapidly nearing an abrupt end.

Left to my own devices – and misery – I went back to basics, and decided to repeat what I had done for previous VIP visits. On the appointed day, I waited just outside the mock-up structure to greet the Secretary of the Navy. It was noon hour, and several craftsmen were sitting outside, enjoying the weather and the contents of their lunch pails. As the Secretary climbed out of a car, he ignored me, standing there with hand outstretched, and walked straight to those workers. He asked one – who was eating an apple – “Is that a Virginia apple?”

An astute politician, he chatted briefly, shook hands all around and only then allowed me to lead him into the mock-up. His tour was perfunctory. I don’t have the slightest illusion that he understood, or cared much about what he saw, or what I said. But I did show him what THE Admiral had taught me.

Today, then-Secretary of the Navy John Warner is the Senior Senator from the apple-growing Commonwealth of Virginia.

Miscellaneous Meetings: I recall that there were, at most, perhaps a dozen other times, after our mock-up work was done, when I briefly conversed with Admiral Rickover. Those occasions were one or two impromptu hallway meetings at Naval Reactors, a few launching receptions at NNS, and several times in the two-three days while we were both onboard NIMITZ during her 1975 builder's trials. I probably said benign things like Good Morning, Admiral! At best, he may have acknowledged with a curt nod.

My days of being center stage in the bullring were apparently over.

Before he departed, near the end of NIMITZ's first time at sea, Rickover used the ship's 1-MC announcing system to praise the entire crew as well as the craftsmen of Newport News. Rickover said the NIMITZ was "the most successful technological accomplishment in the last 100 years of the United States Navy". At the time, I thought that a little over-the-top, but, as usual, Admiral Rickover was right.



That design has now been successfully applied to ten aircraft carriers over three decades.

Unexpectedly, THE Admiral permitted his picture to be taken on the fantail of NIMITZ during a high speed run in his working 'uniform'. Crispily-ironed khaki pants and shirt, plus a nondescript windbreaker, devoid of any insignia or ID. This is the typical image of him that is burned forever into my memory.

A Personal Favor: After my Mother passed away in 1973, I tried to get my Father, by then retired and understandably despondent at our mutual loss, to chronicle some of his memories. Unfortunately "Pop" never felt inclined to do so before he passed away.

But in an attempt to inspire my "Pop" to do so, I boldly set out to get Admiral Rickover to autograph a copy of a book that he had completed in 1972 about the namesakes of the Polaris submarines. I purchased a copy and asked a couple of Rickover's direct reports to help me out. They declined, saying they didn't think THE Admiral would ever do such a thing. I assumed they were afraid to ask for a personal favor for anyone.

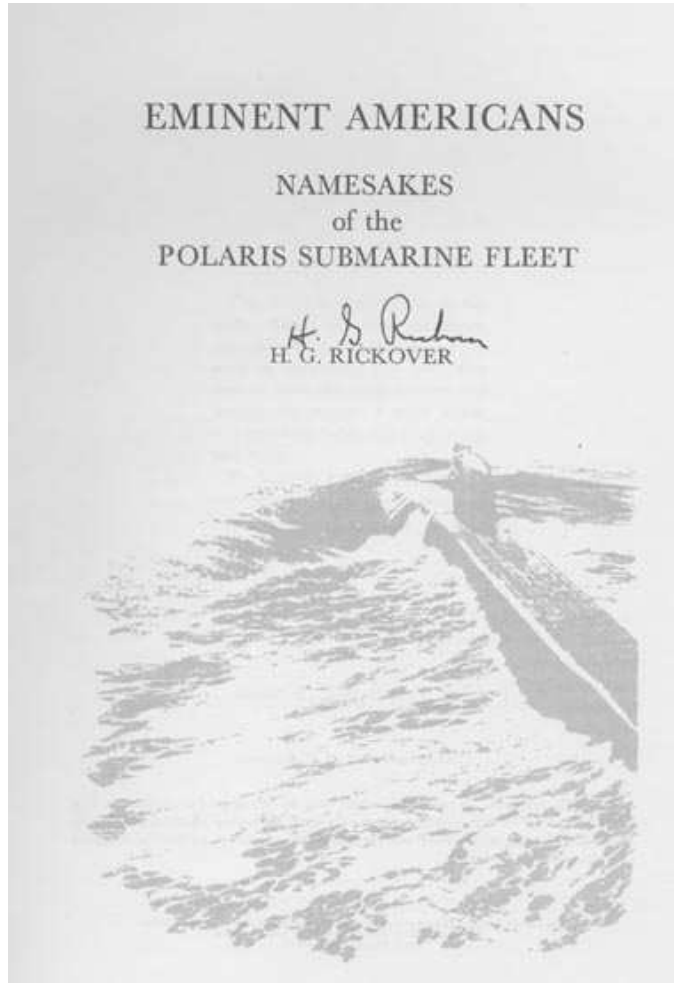
Not willing to take 'no' for an answer, I drafted a personal letter to Rickover. I related the circumstances prompting my request, enclosed a copy of the 1958 letter he wrote to my Father, plus a story about "Pop" and Admiral King having a heated disagreement about freedom of the press in New London, Connecticut in the 1920's.

I further indicated that if he deemed my request to be out of order, to donate the book to a library. On my next visit to NR's headquarters, to attend a meeting, I managed to quietly hand the book and letter to one of Admiral Rickover's personal assistants. Somewhat fearfully, I waiting for a reaction, not knowing quite what to expect. Weeks passed...

Then, one day I came home to find a package. In it was the book. No note, just the book. At first, I was disappointed, but when I opened it to the title page, this is what I discovered:

A comparison of the signature on the book's title page, and the one on the 1958 letter he wrote to my Father leaves little doubt as to its origin. I cannot prove it, of course, but I like to believe that the death of Rickover's wife, coming about thirteen months before my Mother's passing, may have brought out compassion and understanding from the man so many have thought for so long had none at all.

If you think this was but a one-time aberration in his behavior, I suggest that you read a book written by one of Admiral Rickover's closest advisors. Titled the "*The Rickover Effect*", it reveals a warmer side of THE Admiral few ever witnessed.



Our Last Conversation: I believe it was in 1983. I know it occurred in the St. Louis airport. Waiting out a long connection, I had gone from my gate to the main concourse to get a snack, and then retreated to a quiet corner. Looking around, I noticed a small, spare, elderly man in a nondescript business suit sitting all alone nearby, reading a newspaper.

The more I looked, the more I thought it had to be THE Admiral, forced into retirement the year before. I wanted to go speak to him, but wasn't sure... Wasn't sure it was actually Admiral Rickover, plus I also wasn't at all sure what he might have to say to me at that point in time. I had not only left the navy nuclear program without his permission after NIMITZ was completed in 1975, but I had also subsequently testified for the shipyard in some claims' litigation with the government that he had adamantly opposed.

While I was procrastinating, a burly fella approached the man and I was able to overhear their conversation. Well, I did edge a little closer... The younger man identified himself as a retired navy nuke, a Chief, and said he just wanted to shake THE Admiral's hand. Rickover stood, thanked the Chief for his kind words and his service, and shook hands.

Emboldened, I approached and quickly identified myself as the NIMITZ mock-up king. I think he recognized me. Anyway, he said he did. He was polite, but I sensed our past was just that – past – so I cut the conversation short, just wishing him well. He reciprocated, we shook hands, the only time we ever did, and went our separate ways.

Lee - Show Them What I Taught You: This collection would not be complete without relating what transpired the penultimate time I was in his company, for it was the final time I got that all-too-familiar command directly from THE Admiral. When EISENHOWER (CVN 69) was completed in 1977, Don Kane called one day to tell me my services were required on builder's trials for that vessel. Didn't bother him a bit that I didn't work for him anymore. He called and expected me to unquestionably do my duty.

I was excited at the prospect, but a bit wary of being around all those Naval Reactors people that I had abandoned (in their opinion) in 1975, shortly after NIMITZ was delivered. Don said I was needed; that I was an invaluable walking reference book about things that happened during the nine years of NIMITZ's design, construction and testing. Things hard to find in files by people that had not been through the entire design effort. Plus, Don emphasized, the NR folks felt the same way, and that I had already been cleared by them to go. Things still moved fast in those circles...

Of course I went. I had no title, assigned duty, or authority. I spent a lot of time observing tests being run in the machinery spaces or 'hanging out' in a compartment that served temporarily as a test center; waiting to be needed. But things went without a hitch, so I had time to be a tourist of sorts. On the unoccupied Flag Bridge, a shipyard photographer snapped a picture that, to me, is appropriately symbolic of the nine years I devoted to the NIMITZ project.



On the first day at sea, and, appropriately enough, in the evening, someone from Admiral Rickover's staff came looking for me. I figured something had gone amiss, and my knowledge about some obscure detail was needed. Not so. He said Admiral Rickover wanted to see me, then dashed off to lead the way. THE Admiral & me – AGAIN??? My heart raced, my pulse quickened. We descended several near-vertical ladders to the same space (albeit a real one, this time) where I had once felt so much like a bull in the ring.

Standing there was Admiral Rickover talking to two civilians. Without any semblance of personal greeting to me, he introduced them as Professors Hewlett and Duncan, AEC historians. One of them started to explain that they were onboard to gather information for another book about the history of the navy nuclear program; a follow-up to *Nuclear Navy, 1946-1962*, which they had previously co-authored.

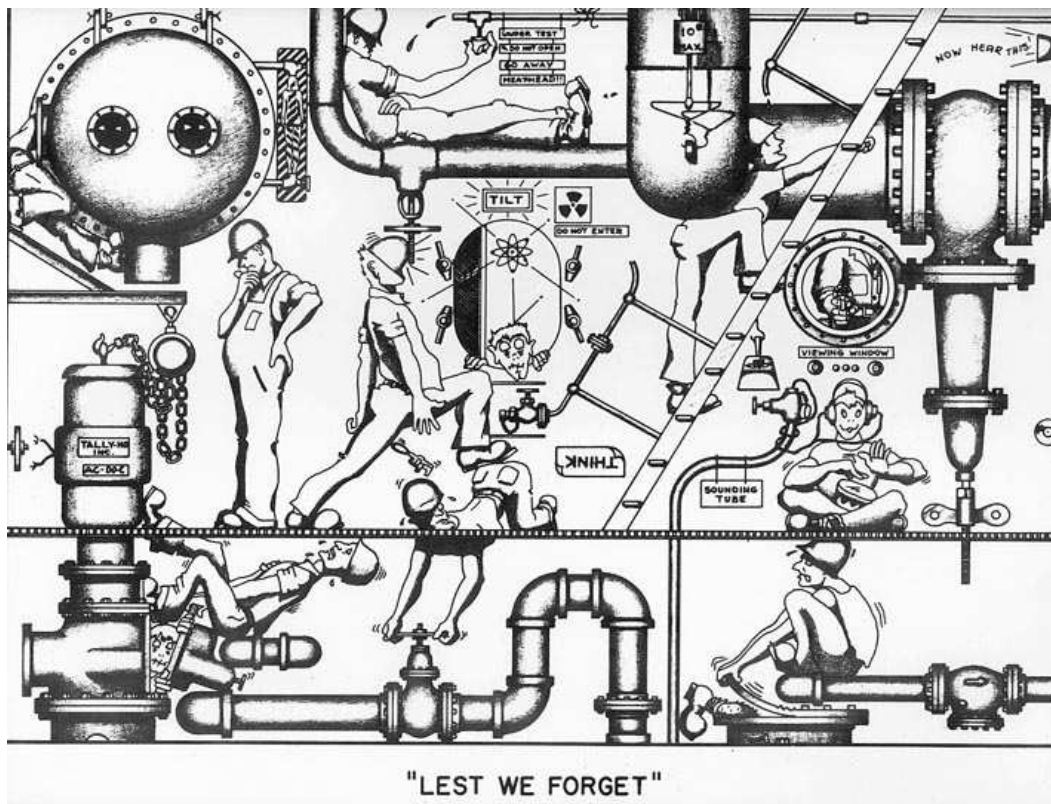
Impatient, as always, Rickover interrupted and said: **“Lee – Show Them What I Taught You.”** Without another word, he stepped back and I launched into my well-rehearsed, walking/rapidly-talking recital. It was a brief, but extremely satisfying moment for me.

I had become a torero...THE matador's assistant.

Postscript: THE Admiral is gone now, as is Howard Marks. So, too, are three members of my invaluable mock-up design team, including John Castleman. Don Kane and Al Forssell are now long retired, and probably not very interested any longer in spending their evenings climbing and crawling about dusty mock-ups. And I'm certainly too wide to take John's place in that acoustic hood.

But right now, somewhere at sea, a sailor on one of the ten NIMITZ-class carriers is standing watch, or performing maintenance, or engaged in a drill, or perhaps even responding to an abnormal event in his ship's machinery spaces. Although that sailor does not know it, much less appreciate it, his task, whatever it may be, was made a bit easier, years ago, thanks to the dogged persistence of THE Admiral.

Thanks too, to my comrades, and countless others, who accepted, practiced and successfully implemented a basic Rickover philosophy: *"The devil is in the details; but so is the salvation."* I feel fortunate and very proud to have also participated in that quest, and to have had a small role in helping to create "The most successful technological accomplishment in the last 100 years of the United States Navy".



SAMUK
March 2006