

"OPERATION SUNSHINE": THE RHETORIC OF A COLD WAR TECHNOLOGICAL SPECTACLE

CHARLES J. G. GRIFFIN

This essay examines the role of the USS Nautilus (SSN 571), the world's first atomic powered submarine, as an agency for advancing the Cold War objectives of the Eisenhower White House in the aftermath of the Soviet Union's successful launches of Sputniks 1 and 2 and the early failures of the U.S. Vanguard program in late 1957 and early 1958. Specifically, it examines the campaign to exploit Nautilus for domestic propaganda purposes, which culminated in "Operation Sunshine," the first submerged transit from the Pacific to the Atlantic oceans via the North Pole. The essay argues that architects of the technological spectacle faced the necessity of reconciling the material and symbolic aspects of the mission, and identifies three areas where this may have been necessary. In addition to illuminating the role of the Eisenhower White House in a significant, but largely forgotten episode in the Cold War, the essay illustrates the interplay of material and symbolic elements in Operation Sunshine and identifies some constraints that may be inherent in such technological spectacles.

CHARLES J. G. GRIFFIN is Associate Professor of Communication Studies at Kansas State University in Manhattan. The author wishes to thank Professor Martin J. Medhurst along with anonymous reviewers on the staff of Rhetoric & Public Affairs for their assistance and encouragement in the process of revising this essay.

Sixty years have passed since President Truman, upon signing the keel of the navy's newest vessel the *USS Nautilus*, spoke wistfully of a day when the world's first atomic-powered submarine would become "a historic relic of a threat of war long passed."¹ Ahead lay decades of nuclear brinkmanship, the "long twilight struggle" between East and West. Yet today, *Nautilus* does indeed sit quietly dockside in Groton, Connecticut, the principal exhibit at a museum whose visitors, for the most part, were not even born when *Nautilus* played a starring role in one of the most dramatic episodes of the early Cold War. In a secret operation code named "Operation Sunshine," *Nautilus*, in August 1958, became the first submarine to cross between the Pacific and Atlantic oceans via the North Pole. Skillfully managed by the Eisenhower administration, Operation Sunshine capitalized on both the material and symbolic capacities of *Nautilus* to give a much-needed boost to American confidence at home in the grim months after the success of the Sputniks and the sputtering start of America's own space program.

This essay argues that Operation Sunshine was a technological spectacle conceived, carried out, and exploited within the framework of the domestic Cold War propaganda imperatives of the Eisenhower White House and within the material limitations of the *Nautilus* itself. To be sure, there is a respectable body of literature on the combined roles of technology, spectacle, and rhetoric in the Cold War.² However, for purposes of this essay the terms will be aligned in a certain way. Thus, while any technological achievement, broadly speaking, involves "material," "symbolic," and potentially even "rhetorical" elements, it is the conscious management of material technology and the symbolic values associated with it for rhetorical purposes that are my particular interest. In other words, it is the manner in which the material and symbolic aspects of a technological achievement constrain its suatory possibilities, closing off some options while opening up others, that defines a technological spectacle.

Looming over any technological spectacle, of course, is the possibility that a targeted public will draw the wrong lessons from it. There are many opportunities to do so, after all. The audience may, for example, construe the material and symbolic elements of the operation as incompatible, or they may pay too much attention to one at the expense of the other. The press may develop a narrative of events that magnifies, in the eyes of its planners, some irrelevant or undesirable aspect of the mission. The sym-

bolic demands of the spectacle may exceed the operational limits of the technology, or the human element may be overshadowed by the technological (or vice versa). All of these risks are assumed when undertaking the execution of a technological spectacle. Thus, it behooves officials to harmonize the material and symbolic aspects of an event, if it is to be effective rhetorically.

The interplay of material and symbolic aspects in Operation Sunshine, I argue, gave rise to at least three rhetorical problems. Among these were the necessity of reconciling the promise and the threat represented by the mission, the necessity of choosing a dramatic mission within the capabilities of *Nautilus* and then depicting it as simultaneously "remarkable" and "routine," and, finally, the necessity of reconciling *Nautilus*'s technological and human elements. In response to each of these problems, the Eisenhower administration promoted an interpretation of Operation Sunshine that served its rhetorical objectives. Although this essay is intended primarily as an exercise in rhetorical history, the rhetorical strategies employed by the Eisenhower White House during Operation Sunshine may have continued relevance in the twenty-first century.

The argument outlined above is divided into five parts. Part one describes the opening for spectacle afforded by the success of the Sputniks and the embarrassments of the Vanguard program. Part two describes how the material as well as symbolic constructions of the *USS Nautilus* interacted in ways that influenced its value as an instrument of the Cold War. Part three describes Operation Sunshine itself. Part four examines the rhetorical problems raised by Operation Sunshine and details efforts by the White House and domestic press to resolve them. Part five offers some tentative lessons of this case study for students of technological spectacles both within and beyond the context of the Cold War.

SPUTNIK AND VANGUARD

In early October 1957, the Soviet Union surprised the world by successfully putting into low earth orbit Sputnik 1, a grapefruit-sized, 184 lb. artificial satellite. A second, larger Sputnik followed just weeks later. The Sputniks stunned the West, shaking the American public's confidence in its scientific and educational establishments.³ Both privately and in public, President Eisenhower was unimpressed by the Sputniks. He regarded the Soviet

launches as mere theatrics and remained confident that an American space mission, scheduled for sometime late in 1958, would yield more substantive scientific information. But Eisenhower seriously underestimated the extent to which the Soviet space missions had frightened the public. The days that followed witnessed a wave of public angst that reverberated through the American political, military, scientific, and educational establishments. The *New York Times* worried that the missile technology that lifted Sputnik into orbit heralded an advance in the throw weight of Soviet IRBMs (intermediate-range ballistic missiles). *Time* breathlessly reported “Soviet scientists were freely predicting successful space flights to the moon by the early 1960’s.” While admitting that such schemes might have been discounted in the past, *Time* allowed that such was no longer the case “since Sputnik.” Dr. Franklin Murphy, president of the American Council on Education, asserted that “[n]othing less than a major breakthrough in higher educational efforts” would restore the nation’s leadership in science and technology. Indeed, as Kenneth Osgood notes, “to many Americans, the challenge posed by Sputnik and other Soviet outer space successes extended beyond the narrow fields of science and technology. The Sputnik challenge was also a cultural and ideological challenge.”⁴

Scarcely a week after the Sputnik launch a secret U.S. Information Agency (USIA) report warned the president that “Soviet claims of scientific and technological superiority over the West and especially the U.S. have won greatly widened acceptance” and that “[p]ublic opinion in friendly countries shows decided concern over the possibility that the balance of military power has shifted or may soon shift in favor of the USSR.”⁵ Eisenhower was besieged by pleas to do something dramatic to reestablish confidence in the West’s scientific and technological preeminence. Arthur Larson, Director of the USIA and former White House speechwriter, pressed Eisenhower to approve projects that would have a profound effect on world opinion: “The reason for this . . . is not the value of scientific preeminence for its own sake, but the disproportionate impact that real or apparent scientific preeminence now seems to have on our military position and diplomatic bargaining power.”⁶

At length, Eisenhower succumbed to pleas for a tangible American answer to the Sputniks. While continuing to insist publicly that America was not engaged in a “race” with the Russians, Eisenhower announced that the United States would put a satellite in orbit in December 1957, months

ahead of its previously scheduled launch date. The ensuing debacle (Vanguard 1 exploded on the launch pad before a national television audience) has been well documented elsewhere.⁷ Months would pass before the United States could orbit successfully even a small satellite. Even then, Soviet Premier Khrushchev derided the U.S. Army's Explorer 1 launch as that of little more than an "orange."⁸ Following yet another Vanguard failure, Eisenhower and his advisors searched for a way to rehabilitate the tarnished prestige of American science and technology.

NAUTILUS AS TECHNOLOGY AND SYMBOL

One arena in which the United States held a decisive edge over the Soviet Union was that of nuclear submarine technology. The dream of underwater atomic supremacy dated from the earliest days of the Cold War. The world had only lately witnessed the atom's destructive power in the bombings of Hiroshima and Nagasaki. Now, engaged in an all-out propaganda war with the Soviet Union, both the Truman and Eisenhower administrations realized that while America's ability to annihilate a potential enemy must remain beyond doubt, it was equally (perhaps, especially) important for the United States to be seen as leading the way in the search for peaceful, constructive uses of the atom. Indeed, this strategic ambiguity was the animating idea behind Eisenhower's ongoing "Atoms for Peace" campaign.⁹ The concept of employing atomic energy to propel a vessel of some kind held obvious attractions. A ship thus equipped might become a floating ambassador of American ingenuity, might, and peaceful intentions, as well as a platform for testing technologies that could one day feed and bring electric power to millions.

Although the project faced enormous scientific, logistical, and political hurdles, none was a match for the determination of Admiral Hyman Rickover, who held the complementary directorships of the Bureau of Naval Reactors and the Atomic Energy Commission's Division of Reactor Development. Rickover was convinced that the nature of undersea warfare and the extreme conditions under which submarines operated made them ideal platforms for nuclear propulsion, if a suitable power plant could be developed. Unlike previous submarines, which were essentially surface ships that could operate under water for relatively brief periods of time, an atomic submarine would be a true submersible, designed to operate at maximum

efficiency underwater. Rickover and his engineers set about the task of designing and building a nuclear-powered submarine and training the crew needed to operate it.¹⁰ Construction proceeded swiftly, thanks to Rickover's personal oversight and ability to expedite the normally sluggish navy supply chain. A functioning prototype of the reactor plant was readied in the Idaho desert, while back in Groton, Connecticut, a novel teardrop-shaped hull took shape in the Electric Boat Company's Thames River shipyard. Crewmen trained in both locations, rotating as Rickover's meticulous schedule dictated. It was he, for instance, who personally selected Captain Eugene Wilkinson, a decorated World War II submariner as the vessel's first commanding officer. After completing a successful tour of duty, Wilkinson was succeeded in 1956 by Commander William Anderson, another Rickover choice.¹¹

The material characteristics of the new submarine, *USS Nautilus*, affected its role as a symbol in significant ways. On the one hand, the physical attributes of *Nautilus* made it both a daunting addition to the fleet and, at least potentially, to the "Atoms for Peace" arsenal. At little more than 320 feet in length, *Nautilus* displaced roughly 3000 tons, larger than most of its World War II counterparts and certainly more expensive at \$55,000,000. *Nautilus* was also faster, quieter, and able to stay submerged for far longer, at greater depths than conventional submarines.¹² That *Nautilus* could be operated safely was itself a testament to America's ability to harness the atom. Equally important was that although it was nuclear powered, *Nautilus* was not armed with missiles of any kind. Although the implication was clear that future atomic submarines could and very likely would be so equipped, that *Nautilus* was not missile-equipped underscored its value as a symbol of America's quest for the peaceful use of atomic energy.

On the other hand, the physical limitations of *Nautilus* also constrained her value as a symbol. For instance, *Nautilus*'s nuclear propulsion system was admittedly experimental. Despite the navy's assurances that the submarine's reactor was entirely safe, no one knew what to expect under the stresses of operation. Even some allies flinched at the possibilities. For example, a scheduled visit to Copenhagen by *Nautilus*'s sister ship, *USS Skate*, had to be called off when Danish Premier H. C. Hansen, citing fears about its safety, refused to grant it docking privileges.¹³ Another problem was that while *Nautilus* enjoyed the advantage of mobility, it could not go just anywhere. Coastal cities (those that would accept a port call from a

nuclear-powered vessel) defined the extent of *Nautilus's* effective range as an "ambassador" of U.S. atomic technology. Moreover, that *Nautilus* mounted only six torpedo tubes, fewer even than many of its conventionally powered counterparts, proved a mixed blessing. While enhancing *Nautilus's* value as a symbol of peaceful intentions, the submarine's lack of firepower, which was a result of Rickover's insistence that nothing be allowed to distract attention from its revolutionary power plant, detracted from the submarine's value as a symbol of American might.¹⁴ Compounding the problem, *Nautilus* was crammed with an array of esoteric scientific equipment, much of it cloaked in secrecy, which compromised its value as a display of the nation's transparency and good faith.¹⁵

Nautilus was more than a submarine; it was a trope for American might and purpose. And much as the submarine's anomalous physical characteristics affected its symbolic value, the symbolic context in which *Nautilus* operated limited the material uses to which its technology could be put. Both forces must be appreciated to understand fully the genesis of Operation Sunshine. As early as June 1952, President Truman had attempted to reconcile these dual realities: "This ship will be something new in the world," he speculated. "The military significance of this vessel is tremendous, the peaceful significance of the *Nautilus* is even more breathtaking. When this ship has been built and operated, controlled atomic power will have been demonstrated on a substantial scale. . . . We may have to live in a half-peace, half-war condition for a long time to come. . . . [W]e are, at one and the same time, fortifying the cause of free men everywhere against aggression and taking a long stride toward the day when man can reap the material benefits of the atom."¹⁶ At its launching just 18 months later, Chief of Naval Operations Robert Carney pointed to *Nautilus* as a "symbol of man's dreaming . . . his bright dreams certainly, and if man is not wise, his nightmares too."¹⁷

The submarine's very name was charged with symbolic associations. In calling the new vessel "Nautilus," the navy had chosen one of the most illustrious names in undersea exploration and combat, heir to a series of real-world predecessors, including Robert Fulton's experimental underwater craft (1804) and a 3,000 ton behemoth which earned numerous battle stars in the Pacific War.¹⁸ Significantly, in 1931, Australian adventurer Sir Hubert Wilkins had even attempted to reach the North Pole in a converted World War I submarine he rechristened *Nautilus*. Wilkins ingeniously

fitted his craft with a set of upside down runners that, in theory, would enable the craft to skate along the underside of the ice cap all the way to the Pole. Unfortunately, the submarine's aging diesel engines and then its batteries failed. Wilkins's grand adventure culminated ignominiously at the end of a towline.¹⁹

But it is unlikely that any of these earlier craft loomed larger in the public imagination in the mid-1950s than the fictional vessel in Jules Verne's *Twenty-Thousand Leagues Under The Sea*. Generations of schoolchildren had read Verne's fin de siècle classic. A younger generation had been reared on the 1954 Disney feature film, which updated Verne's story for Cold War audiences. J. P. Telotte notes that the relationship between the real *Nautilus* and its cinematic counterpart was mutually beneficial. Stories about the actual submarine gave a boost to the Disney movie just as the film heightened the allure of the navy's remarkable vessel in the public mind. Although the 1954 film took considerable liberties with Verne's tale, the technology that powered the new vessel promised to realize its fictional counterpart's potential to "lift mankind from the depths of hell into heaven . . . or destroy him."²⁰

Thus, the meaning of *Nautilus* resulted from an interplay of material and symbolic forces. *Nautilus* awaited only its moment and a mission to fully realize its full potential as an instrument of the Cold War. The Sputnik/Vanguard drama set the stage for just such an opportunity in the form of the navy's Operation Sunshine.

"OPERATION SUNSHINE"

Under Wilkinson and his successor, Captain William Anderson, *Nautilus* racked up a number of speed and endurance records in its first two years of operation. But though it proved a public relations success for the infant nuclear navy, the submarine lacked a signature accomplishment, one that brought together its material and symbolic potential. Then, in late 1957, just two weeks after the failure of Vanguard, Commander Anderson arrived at the Pentagon to brief his superiors on the submarine's participation in "Strikeback, a series of joint NATO maneuvers in the north Atlantic," and to report on *Nautilus*'s efforts to probe approaches to the Arctic icepack.²¹

As he was leaving the briefing, Anderson was approached by the president's naval aide, Pete Aurand, who asked him to drop by his office for a

private chat the next day. According to Anderson's later account, Aurand inquired whether a continuously submerged cruise around the world by *Nautilus* and its sister ship, *USS Skate*, might be possible. Anderson thought it technically feasible, though not exactly awe-inspiring and pitched an alternative mission: a solo submerged transit across the top of the world. Fortunately, Aurand "grasped at once the tremendous potential of nuclear submarine operations in the Arctic" and the two men enthusiastically discussed Anderson's idea.²² It was within the submarine's physical capabilities and with the proper management, the spectacle could help to restore the shaken confidence of the American public.

President Eisenhower was quick to embrace the concept. Indeed, when the *Nautilus* later returned from Operation Sunshine White House Press Secretary James Hagerty went so far as to claim that his boss had come up with the idea in the first place.²³ Whatever the case, planning for the polar mission began in earnest early in the new year. The mission was code named "Operation Sunshine," a nod to an auspicious moment when the sun broke through gray skies at the submarine's commissioning ceremony nearly four years earlier. If successful, the mission indeed would cast a ray of sunshine onto the bleak post-Sputnik landscape. A submerged transpolar crossing would be the sort of dramatic spectacle the West needed, provide valuable scientific information, and send an unmistakable message to domestic and foreign audiences that the navy was capable of operating within striking distance of the Soviet heartland. In brief, Operation Sunshine was a mission that fully exploited *Nautilus*'s material capabilities and her potential as a strategically ambiguous symbol. "But if the transpolar trip was to be a propaganda success," Anderson noted, "it had to be done neatly, safely, quickly" And, until it was a demonstrable success, *secretly* as well.²⁴

Eisenhower wanted no more public humiliations like "Vanguard." Moreover, the president was still unhappy over leaks concerning *Nautilus*'s prior operations under the arctic icecap, which he felt had squandered a promising propaganda opportunity. Consequently, knowledge of Operation Sunshine was restricted to a tight circle of individuals on a "need to know" basis. Elaborate subterfuges and cover stories cloaked the operation in near total secrecy. Eisenhower "realized that by controlling the revelation of a successful mission of this magnitude, he could ensure worldwide attention. On the other hand, if there should be a failure, he alone could minimize the damage and take the responsibility."²⁵

After months of planning, reconnoitering, and one false start, *Nautilus* crossed the North Pole 400 feet below the ice, making 20 knots, at 11:15 PM EDT on August 3, 1958. On board, *Nautilus* carried Anderson and a crew of 116, including civilian ice scientist Dr. Waldo Lyon and a revolutionary inertial guidance system designed specifically for the demands of polar navigation. Captain Anderson counted the moment down for his crew. He then offered a brief tribute to the polar explorers who had come before, braving hardship and death, endeavoring to achieve what they had accomplished with such apparent ease. Then, its jukebox switched back on, *Nautilus* pointed its bow south and resumed its normal shipboard routine.²⁶

Two days later, the submarine surfaced in the Atlantic Ocean off Iceland. Only then did it send to Washington its top secret, but soon-to-be famous signal “Nautilus 90 North” acknowledging the successful completion of the polar transit. In Washington, Admiral Burke informed the president. At dawn two days later, a navy helicopter plucked Anderson from the deck of the *Nautilus* in the Greenland Sea. On board to escort Anderson in secrecy to Washington, D.C. was Aurand, traveling as “Captain E. P. Adams.” The public phase of Operation Sunshine was about to get underway.

On Friday afternoon, August 8, more than 100 reporters and photographers crammed into the White House briefing room, enticed by Press Secretary Hagerty’s promise of a “showcase presentation” which just might include an appearance by the president. The press set up its cameras and waited amid speculation as to what the announcement might be. Then, at 1:30 PM precisely, a small group of dignitaries, including Naval Aide Aurand, Press Secretary Hagerty, Chief of Naval Operations Arleigh Burke, and Commander and Mrs. Anderson (who had been flown in from the couple’s Connecticut home for the occasion)—followed by the president himself, entered the packed briefing room through a side door. Inexplicably, Admiral Rickover, “father of the nuclear submarine,” was not invited, an oversight that both the navy and the White House would have cause to regret, as it set off a small firestorm that threatened to overshadow the administration’s carefully constructed narrative.²⁷

But for the moment, Eisenhower was buoyant. He announced to the world that an American atomic submarine, the *USS Nautilus*, had successfully transited under the polar icecap from the Pacific to the Atlantic, breaching the North Pole in the process. In his remarks, Eisenhower spoke briefly of *Nautilus*’s achievement. The president awarded Anderson the

Legion of Merit and presented a special Unit Citation to the officers and crew of *Nautilus*. He then left the room. The press secretary took a few questions from the press while copies of a "fact sheet" on the mission, prepared earlier by Anderson, circulated around the room.²⁸ Then Hagerty turned the conference over to Anderson, who patiently answered reporters' questions about the particulars of the voyage. After the news conference, Anderson was flown back to the *Nautilus*, still in mid-ocean. The now-famous submarine proceeded to Portsmouth, England, where the crew enjoyed a celebratory port call.²⁹ After that, it was home to a heroes' welcome for *Nautilus* and its crew, including a ticker-tape parade in New York City. Admiral Rickover, whose "snubbing" at the postmission news briefing had set off a firestorm of criticism in the press, was on hand to welcome the *Nautilus* to New York as the president's personal representative.³⁰

Operation Sunshine thus consisted of three interrelated phases: the planning phase, the polar transection itself, and the rhetorical exploitation of the voyage, which may be said to have begun with the press conference on August 8. In addition to the formidable technical challenges involved in mounting the expedition itself, the domestic propaganda value of Operation Sunshine necessitated that the White House accounts of the mission reconcile its material and symbolic aspects so that the American public (and close allies) drew the desired lessons from the event. To ensure that it did so, it was necessary that the architects of Operation Sunshine surmount at least three rhetorical obstacles.

PROMISE AND THREAT

At his press conference on August 8, Eisenhower elected to portray Operation Sunshine entirely in beneficent terms. Citations for Anderson and the crew of *Nautilus* avoided mention of the military ramifications of the voyage and praised them only for opening "the possibility of a new commercial seaway, a Northwest Passage, between the major oceans of the world," while noting that "nuclear powered cargo submarines may, in the future, use this route to the advantage of world trade." Hagerty, in his remarks, claimed merely that *Nautilus* had returned from the Pole with "a raft of scientific information," which would benefit commercial mariners everywhere.³¹

This portrayal of Operation Sunshine cast the polar mission as the herald of a better life for millions in the developing world. Echoing the theme, Captain Anderson told a reporter within the week that “[t]here appears to be no upper limit to the size you can build submarines and I think cargo submarines carrying a priority cargo such as oil are definitely coming along in the future. The possibility of carrying oil from Alaska to Europe by this short route is very promising.”³² Anderson continued to champion the idea in the months that followed, predicting that “large submarines would carry cargo from Asia to Europe on the route the *Nautilus* had pioneered under the North Pole.”³³ Yet, if such a venture ever was contemplated, it was quietly dismissed. There is no evidence that the development of nuclear-powered cargo submarines or underwater “tug trains” ever received serious consideration from the Eisenhower administration.

Visions of “tug trains” and “cargo submarines” were all to the good, but unspoken behind them was the confidence-building image of American submarines prowling in the Soviet Union’s back yard. The lightly armed *Nautilus* posed no immediate threat, but who was to say what the future held now that the arctic ice had been broken, so to speak? Thus, the decision to frame Operation Sunshine as an illustration of American magnanimity while leaving open the possibility that it might have more sinister implications reconciled the material fact of the transpolar crossing itself with the symbolic aims of the White House.

THE REMARKABLE AS ROUTINE

Given the soul-searching occasioned by Sputnik/Vanguard, it was important to convince the American public that its educational and scientific establishments were still capable of accomplishing *extraordinary* feats on a *routine* basis. The application of the remarkable technology of the *Nautilus* to such a venture so ripe with significance was ideal. Operation Sunshine could deflect attention away from the space race and promote the competence and ingenuity of the American scientific establishment. At the same time, it presented an opportunity to contrast the quiet competence of the West with Soviet blustering over the Sputniks. Hence, the effort to simultaneously trumpet and downplay *Nautilus*’s polar cruise.

By emphasizing *Nautilus*’s mastery over one of nature’s most extreme climates, the polar mission proclaimed that American science and technol-

ogy, if temporarily eclipsed by the Sputniks, was still preeminent in the world. The myriad technical challenges posed by the mission, not to mention its very audacity, bespoke national greatness. No other nation, including the Soviet Union, could have achieved such a daring and complex feat. At the same time, efforts were made by the White House to treat Operation Sunshine as if it were a fairly routine product of American science and technology. Indeed, the White House seemed to put out both messages. An example of this studied ambiguity was Eisenhower's own behavior at the press conference on August 8. By relaying, through his press secretary, that he would personally attend an event, Eisenhower dangled an almost irresistible mystery before the press. But by leaving the briefing room and allowing his press secretary and the mission commander to conduct the bulk of the event, he treated the event in an almost casual manner. In the same way, Anderson's "Fact Sheet" offered a curious mixture of the arcane and the prosaic. It featured, for instance, details about the total length of the cruise and the depth of the ocean at the pole, alongside the number of movies—38—watched by the crew during the voyage. Echoing both of these themes, *Life* magazine asserted "the great subsurface polar crossing was essentially a triumph of machinery and of diverse intellects of the men who had invented it. *Nautilus* herself was the star of the show."³⁴

SUBMARINE AND CREW

But an assertion such as the one made by *Life*, though in itself flattering, was problematic in another way. Indeed, a third area where the symbolic and material capabilities of *Nautilus* necessitated careful rhetorical management during the course of Operation Sunshine was that of the submarine's relationship to its human crew. Clarifying that relationship in the press accounts of the mission could be important because it would presumably influence popular views about the sort of warriors America needed to pilot her through the atomic age, as well as their relationship to the technologies of Cold War. While the rhetorical objectives of the White House dictated the foregrounding of the submarine's performance, doing so ran the risk of reducing her crew to mere cogs-in-the machine, thus undermining America's standing as "the land of the free and the home of the brave." The problem was how to present Operation Sunshine so as to promote the one without denigrating the other.

There is no doubt that conditions aboard the *Nautilus* were relatively comfortable in comparison to those of its predecessors. Even before Operation Sunshine, for instance, the navy had retained a well-known interior decorator to create a color scheme that would be cheery and relaxing for the crew during their prolonged cruises. Because *Nautilus* did not need to carry large amounts of diesel fuel, the navy boasted that it had considerably more room for living and working. In contrast to their counterparts aboard conventional boats, the crew of the *Nautilus* enjoyed private bunks, each with its own air conditioning vent, plenty of hot water for showers, abundant fresh air (continuously “scrubbed” by an innovative filtering process) and greatly expanded mess and recreation spaces. The submarine’s wardroom, for example, was four times larger than that of conventional submarines. Moreover, no matter how cold it was outside, the submarine’s interior temperature remained at a constant 72 degrees. And *Nautilus*, it was said, was so stable at operating depth that seasickness or even the sensation of motion itself was nonexistent.³⁵

Generations of arctic explorers had endured exposure, isolation, and deprivation as the price of polar conquest. But at Hagerty’s post-Sunshine briefing on August 8, 1958, reporters learned that as *Nautilus* glided across the top of the world its crew feasted on a meal of steak, french fries, creamed carrots and peas, fruit salad, and “North Pole Cake.” Where their predecessors had seen only the next pressure ridge in an interminable wasteland of ice, the men of *Nautilus* enjoyed closed circuit TV and watched movies during the four-day transit. While icy darkness reigned outside, life within *Nautilus* was governed by warmth, light, comfort and the usual routines of life at sea. *Life* magazine commented on the contrasts, remarking that “[b]y cruising under the Pole with a jukebox and a coke machine, they doubtless caused the shades of Frobisher, Peary and Amundsen to flap like nightshirts in a gale, but they also altered concepts of the arctic which had been building up in the minds of men for centuries. One touch of hardship would have ruined the whole effect” and averred that “[i]t seemed like the ship herself wanted to make the trip” one crew member told a reporter.³⁶

After enduring months of embarrassment over Sputniks, it was difficult for the White House not to boast about the capabilities of such a machine as *Nautilus*. Yet doing so carried its own risks. To highlight these it might be useful to recall Kenneth Burke’s observations on the relationship between agencies and agents. Emphasizing the submarine’s provision of safety,

efficiency, and even comfort during Operation Sunshine risked reducing the crew of *Nautilus* to mere extensions of their amazing machine. Such a conclusion could undermine the traditional American virtues of freedom, self-reliance, and heroism and, besides, was hardly the stuff of recruiting posters.³⁷

The possibility that the American public might conclude that they were automatons, and coddled ones at that, may explain why efforts were made to humanize and stress the expertise of the submarine's officers and crew. For example, a brief biographical sketch released by the White House portrayed Anderson as a battle-tested World War II veteran, a warrior of raw courage who had, even so, mastered the extremely challenging physics of nuclear propulsion. An article entitled "Modern Captain Nemo" in the *New York Times* quoted a fellow officer's assessment of Anderson as "always cool. They picked the right man for this assignment." The writer went on to characterize Anderson as quiet and resourceful, the kind of man who could regard the terrors of the unknown as merely a series of problems to be solved.³⁸ Yet Anderson was not just brave and intelligent. He was also the epitome of the all-American male: a modest lad from rural Tennessee who grew up with a dream of going to sea. He enjoyed woodworking and building model ships. He and his wife Bonnie had two boys, a dog, and a mortgage. To burnish his credentials as a family man, the White House even had Mrs. Anderson flown down from Connecticut to appear at his side for Hagerty's "showcase presentation."³⁹

In similar fashion, the risk that the crew of *Nautilus* might be seen as mere extensions of the submarine's technology was mitigated by highlighting the crew's technical prowess and basic humanity. Thus, crewmen of the *Nautilus* were depicted as prototypes for a new kind of sailor: cool, highly trained professionals on the job, yet easygoing, "regular guys" when off duty. Volunteers all, the crew were handpicked for their "high ability, emotional stability, and discretion" and being conversant with "the mysteries of atomic propulsion . . . once under the ice cap the men of the *Nautilus* were simply servants of their wonderful machine." While *Nautilus* cruised at 20 knots under the ice, they calmly went about their assigned duties. "One would think Washington had built them to specification," *Life* wrote. And yet, "there does not seem to be one who cannot be identified as an honest, open, clean-cut all-American, small town boy that could be found in a Norman Rockwell painting." In the devil-may-care tradition of sailors

everywhere, they could even share a laugh in the face of danger, as when some enterprising crewmen staged a visit from “Santa,” who questioned the submarine’s intrusion into his frozen domains. In a gesture somehow emblematic of the mission’s theme, Electrician’s Mate First Class James Sordelet even reenlisted mid-voyage because he wanted to be the first sailor ever to do so at the North Pole.⁴⁰

CONCLUSION

Technological spectacles such as Operation Sunshine represented an important rhetorical weapon throughout the Cold War era. They were inherently risky gambles, but when they succeeded they could generate rich benefits on both the domestic and international propaganda fronts. The foregoing analysis of the dynamics of Operation Sunshine illustrates the mission’s genesis and development while raising some broader questions for students of rhetoric as well.

In the short term, Operation Sunshine provided a much-needed boost for the West at a critical moment in the Cold War. At home, the *New York Times* devoted extensive frontpage coverage to the polar crossing on August 9, 1958. A lengthy story quoted California Senator William F. Knowland as stating that the mission “should give us courage and remind us to have faith. It shows that this is no time to sell America short.”⁴¹ The following week, *Time* crowed: “In the high stakes power and propaganda contest called the cold war, the U.S. piled up one of its biggest weekly scores so far. Capturing men’s imaginations around the world, and replying persuasively to Russia’s Sputniks, the U.S. Navy’s atomic submarine *Nautilus* completed a historic transpolar voyage under the vast arctic ice pack, fulfilling in a 20th century way the centuries old dream of a northern passage from ocean to ocean.”⁴² Overseas, America’s allies were both impressed and relieved. Congratulatory telegrams flowed into the White House from world figures such as German Chancellor Konrad Adenauer and Italian Prime Minister Amintore Fanfani. French Premier Charles DeGaulle, ever jealous of Gallic pride, invoked the ghost of Jules Verne: “Thanks to the United States Navy, the NAUTILUS, whose expected exploits generations of Frenchmen have learned about in advance, has accomplished its destiny.”⁴³ In a somewhat more generous vein, the *London Daily Telegraph* wrote: “The voyage of the atom-driven submarine *Nautilus* under the North Pole is a victory for

Western diplomacy. For the first time since Russia exploded her H-bomb in 1953, the United States appears to have recovered the military initiative." It was, the *Telegraph* added, "America's answer to the Soviet sputnik."⁴⁴

Thus, the foregoing analysis underscores one way in which rhetorical studies can enliven our understanding of Cold War events by disclosing how they wove symbolic and material considerations together to form a persuasive tapestry. Operation Sunshine could not have succeeded absent either of these elements, nor can a full accounting of the vessel and its polar mission afford to ignore their close interrelationship. This study thus illustrates how an understanding of the rhetorical constraints involved can enrich our understanding and appreciation of historical events.⁴⁵

This study of Operation Sunshine also reveals some of the complications that may arise when technologies are rhetoricized for propagandistic purposes. On one hand, technological achievements can act as a type of atechnic proof, tangibly dramatizing the capacity and commitment of a government to produce breakthroughs that benefit domestic and allied audiences. As noted earlier, an impressive body of research on the Eisenhower administration's "Atoms for Peace" campaign has elaborated on the government's efforts to "domesticate" the atom in just this fashion. This study, it is hoped, contributes to that body of work by examining how the physical limitations of a given technology both empower and limit efforts to exploit it for propagandistic ends. In many ways, the physical characteristics of *Nautilus* enhanced its value as a symbol that could be adapted simultaneously to different audiences. Because *Nautilus* was no mere symbol, but a material reality as well, her propagandistic value was arguably magnified.

On the other hand, *Nautilus*'s very materiality constrained its value as a symbol. The novel and possibly dangerous technology concealed within its opaque shell effectively reduced the submarine's range of operations by making some ports "off limits." The submarine's relatively light armament, a concession to the size and weight of its power plant and to Rickover's desire to promote nuclear propulsion, limited its value as a symbol of American military might. The rigorous training and technological expertise of its elite crew could also make the nuclear navy seem an arcane and inaccessible branch of the service to recruits. And finally, the expense involved in building *Nautilus* and training its crew made its use on ordinary missions where standard diesel technology would serve as well seem a luxury. Such a marvel begged for a marvelous mission. In sum, the materi-

ality of *Nautilus* was not an unalloyed advantage; it constrained her rhetorical value in important ways, necessitating that she be “managed” so as to maximize her potential and minimize her liabilities.

Finally, this case study illuminates some rhetorical dilemmas in Operation Sunshine that may apply to technological spectacles in general. Half a century ago, the American public arguably viewed every scientific achievement through the lens of the Cold War. Through what lens(es) do they view comparable achievements today? Do any rhetorical dilemmas comparable to those present in Operation Sunshine influence twenty-first century technological spectaculars, or were they artifacts of a particular time and place? For in an age of cyber warfare, “smart” battlefields, and remotely operated Mars Rovers, the spectacles of technology are no less common today than they were 60 years ago.

The greatest technological spectacular of all, America’s decade-long program to put a man on the moon, was only a couple of years away in the summer of 1958. It is tempting to speculate that as prelude to that undertaking, Operation Sunshine anticipated some of the rhetorical dilemmas ahead. This is especially true with regard to the somewhat tricky relationship between human beings and the astonishing machinery of space flight. For *Nautilus* itself, however, fame proved fleeting. Within days, its polar transit had been duplicated by its newer counterpart, *USS Skate*. Although *Nautilus* remained on active duty until 1981, it had enjoyed its brief moment in the sun. It may be that a similar fate awaits all such firsts, spectacular as they may appear to us at the moment when rhetoric aligns the material and the symbolic.

NOTES

1. “Text of Truman’s Speech Dedicating the First Atomic Submarine as Harbinger of a New Age” *New York Times*, June 15, 1952, A56.
2. Martin J. Medhurst et al., *Cold War Rhetoric: Strategy Metaphor and Ideology* (New York: Greenwood Press, 1990), 19; Lynn Boyd Hinds and Theodore Otto Windt Jr., *The Cold War as Rhetoric: The Beginnings, 1945–1950* (New York: Praeger, 1991), xiii; Rachel L. Holloway, “The Strategic Defense Initiative and the Technological Sublime: Fear, Science, and the Cold War,” in *Critical Reflections on the Cold War: Linking Rhetoric and History*, ed. Martin J. Medhurst and H. W. Brands (College Station: Texas A&M University Press, 2000), 209–32; Kenneth Osgood, *Total Cold War: Eisenhower’s Secret Propaganda Battle* (Lawrence: University Press of Kansas, 2006); J. Michael

- Hogan, "Eisenhower and 'Open Skies': A Case Study in Psychological Warfare," in *Eisenhower's War of Words: Rhetoric and Leadership*, ed. Martin J. Medhurst (East Lansing: Michigan State University Press, 1994), 138; and Shawn Parry-Giles, *The Rhetorical Presidency, Propaganda and the Cold War, 1945-1955* (Westport, CT: Praeger, 2002). For purposes of this essay, I assume that in the 1950s, the opinion-leading press, such as the *New York Times*, *Time* and *Life* magazines, served as a reliable barometer of the administration's propaganda efforts. Following Parry-Giles, I define "propaganda" as "strategically devised messages that are disseminated to masses of people by an institution for the purpose of generating action benefitting its source." See Parry-Giles, *The Rhetorical Presidency*, xxvi, n. 10.
3. David Henry, "Eisenhower and Sputnik," in *Eisenhower's War of Words*, 223-49; David E. Nye, *American Technological Sublime* (Cambridge, MA: MIT Press, 1994), 226.
 4. "U.S. Missile Experts Shaken By Sputnik," *New York Times*, October 13, 1957, 185; "Soviet Movie Shows Reach for the Moon," *Time*, October 28, 1957, <http://www.time.com/time/magazine/article/0,9171,810033,00.html> (accessed July 17, 2013); "Satellite Called Spur to Education," *New York Times*, October 12, 1957, 3; Osgood, *Total Cold War*, 353.
 5. "World Opinion and the Soviet Satellite: A Preliminary Evaluation," USIA Report, October 17, 1957, White House Office of the Special Assistant for National Security Affairs Records, 1952-1961 OCB Series, Administration Subseries, Box 8 (1), Eisenhower Presidential Library, Abilene, KS (Hereafter EPL). In the weeks following the Sputnik coup, various ideas were put forward for regaining the propaganda initiative, some of them quite fantastic. A list of suggestions for the White House generated by the CIA included dropping a nuclear bomb into a typhoon to stop or slow it; sending *Nautilus* and a sister ship on a friendship visit to the Soviet port of Murmansk; and even sending *Nautilus* under the ice cap. White House Office of the Special Assistant for National Security Affairs, 1952-1961 OCB Series, Administration Subseries Box 5, (7). EPL.
 6. Larson is quoted in Osgood, *Total Cold War*, 342-43.
 7. Osgood, *Total Cold War*, 341; Tom Wolfe, *The Right Stuff* (New York: Farrar, Straus, and Giroux, 1979), 73.
 8. Krushchev is quoted in Osgood, *Total Cold War*, 342.
 9. Dwight D. Eisenhower, "Address Before the General Assembly of the United Nations on the Peaceful Uses of Atomic Energy, December 8, 1953," text available online at Gerhard Peters and John P. Wolloy, eds., *The American Presidency Project*, www.presidency.ucsb.edu/ws/1/?pid=9774 (accessed July 17, 2013). Martin J. Medhurst, "Eisenhower's 'Atoms for Peace Speech': A Case Study in the Strategic Use of Language," *Communication*

- Monographs* 54 (1987): 204–20; Medhurst, ed., *Eisenhower's War of Words*, 12; Osgood, *Total Cold War*, 155–57.
10. Norman Polmar and Thomas B. Allen, *Rickover* (New York: Simon and Schuster, 1982), 135–54.
 11. Polmar and Allen, *Rickover* 153–54; Wilkinson was succeeded by CDR William Anderson in June 1957; “Nautilus Gets New Skipper,” *New York Times*, June 19, 1957, 41.
 12. “Atomic Submarine Launched by U.S.: Summer Tests Set,” *New York Times*, January 22, 1954, A1; William Anderson, *The Ice Diaries: The Untold Story of the Cold War's Most Daring Mission* (Nashville, TN: Thomas Nelson, 2008), 163; “The Nautilus Goes to Sea: First Atomic-Powered Ship,” *New York Times*, January 18, 1955, A1; Polmar and Allen, *Rickover*, 167; Hanson W. Baldwin, “Man Made Fish: A Description of the Quick Maneuverability and Stability of the *Nautilus* Underseas,” *New York Times*, May 15, 1956, C18.
 13. In fact, *Nautilus* made but one trip to New York harbor following her polar journey. Subsequently, “the city was put ‘off limits for nuclear ships.’” Polmar and Allen, *Rickover*, 178.
 14. Polmar and Allen, *Rickover*, 166.
 15. “Stories Doubting Atomic Sub's War Value Rile High Officials,” *Washington Evening Star*, January 6, 1954, A5 in Beach/Aurand Papers, Box 23 (1) EPL; “Atomic Submarine Only a Test Craft,” *New York Times*, January 4, 1954, 7–8.
 16. “Text of Truman's Speech,” *New York Times*, June 15, 1952, 56.
 17. “Atomic Submarine Launched,” *New York Times*, January 22, 1954, A1.
 18. “New Atom Sub Called Nautilus,” *New York Times*, December 13, 1951, 19; “The Chambered Nautilus,” *Time*, December 17, 1951.
 19. “Submarine Failures,” *Time*, June 22, 1931, <http://www.time.com/magazine/article/0,9171,741870,00.html> (accessed July 17, 2013).
 20. Jules Verne, *20,000 Leagues Under The Sea* (New York: Tor, 1995); *New York Times*, October 16, 1952, 60. *20,000 Leagues Under the Sea*, Walt Disney Productions, 1954; J. P. Telotte, “Science Fiction as ‘True Life Adventure’: Disney and the Case of 20,000 Leagues Under the Sea,” *Film and History* 40 (2010): 70; “The Chambered Nautilus,” *Time*, December 17, 1951, <http://www.time.com/time/magazine/article/0,9171,859430,00.html> (accessed July 17, 2013); “Prophecy,” *New York Times*, February 16, 1954, 60. Explicit attempts were made to identify *Nautilus* with Verne's fictional vessel. For example, a program commemorating its launching featured vintage illustrations from Verne's classic, framing the text: “When Jules Verne wrote *Twenty Thousand Leagues Under the Sea* in 1869 he imagined a true submersible which operated beneath the surface of the sea for indefinite periods. . . . [n]ow through the sagacity and vision of the United States Navy, the Atomic Energy Commission and

American industry have developed a ship which goes beyond even the fanciful creation of Jules Verne." When, in February 1957, *Nautilus* turned over her 60,000th mile without refueling (thus achieving the mythical 20,000 leagues under the sea) one White House advisor suggested that the boat's sponsor, First Lady Mamie Dowd Eisenhower, send a congratulatory telegram to the crew. Noting that "[t]here is much interest in this little milestone by the press and by the Congress" and that the *Nautilus* had influential members of the press aboard to mark the occasion, the aide allowed that it was a noteworthy achievement "which will not be repeated. It is the first time any ship, submarine or otherwise has rivaled Jules Verne's fictitious NAUTILUS." Later, when *Nautilus* achieved her underwater transpolar milestone, press accounts at home and abroad explicitly compared her to Verne's fabled vessel. Newspaper accounts noted that on Captain Anderson's desk was a copy of Verne's *Voyages Extraordinaires*, a compendium of the visionary author's fiction, a gift from the French government. See, official program from the Launch of the USS *Nautilus* January 21, 1954, n.p., n.d., Beach/Aurand Papers, Box 3 (3), EPL; "Nautilus, Unrefueled, Logs 20,000 Leagues," *New York Times*, February 16, 1957, 12; William Anderson, *Nautilus 90° North* (Cleveland, OH: World Publishing Co., 1959), 100; Beach to McCaffrey, February 4 1957, Beach/Aurand Papers, Box 23 Folder (3) EPL.

21. Anderson, *Nautilus 90° North*, 101–3; Anderson, *The Ice Diaries*, 152–58.
22. Anderson, *The Ice Diaries*, 154–57; Anderson, *Nautilus 90° North*, 102.
23. James C. Hagerty Papers, Box 52 ("Press Conferences, July–September, 1958") (2) EPL.
24. Anderson, *The Ice Diaries*, 162–63; Anderson, *Nautilus 90° North*, 106.
25. Anderson, *The Ice Diaries*, 166–68; *Life*, September 1, 1958, 64; Polar and Allen, *Rickover*, 171.
26. Anderson, *The Ice Diaries*, 282.
27. James C. Hagerty Papers, Box 52 ("Press Conferences, July–September 1958") (2); Polmar and Allen, *Rickover*, 176; Anderson, *The Ice Diaries*, 297, 302.
28. "News Conference with Commander Anderson, Monday, August 8, 1958. Hagerty Papers, Box 52 ("Press Conferences, July–September 1958") (2) EPL.
29. "Nautilus Sailing to a British Port," *New York Times*, August 10, 1958, 51.
30. "City Greets Nautilus With Cheers, Whistles, Fireboats, and Helicopters," *New York Times*, August 26, 1958, 1; see also, David Murray, "Atomic Submarines as Cargo Ships," *The Scotsman*, August, 19, 1958, n.p. in Beach/Aurand Papers, Box 24 (13), EPL.
31. "New Cargo Route Foreseen: Nautilus Captain Forecasts Use of Arctic Passage," *New York Times*, October 13, 1958, 40; Anderson, *Nautilus 90° North*, 224. At the same time, the polar mission calmed post-Sputnik jitters by emphasizing the fact that "Most of the Soviet heartland could be reached with only 1500-mile missiles—fired from open

- stretches in the ice.” Such missiles would soon be available and “Already the Navy had, in various stages of development, four revolutionary nuclear-powered, missile launching submarines, which Admiral Rickover described as versatile ‘under-water satellites.’” Then, quoting Rickover, Anderson added that “Because it is able to hide and even lie still against sonar, the atomic missile submarine cannot easily be traced by the enemy. . . . Search radar would also be helpless against it. The enemy would be in the position of trying to find a black cat on a vast and empty plane on a moonless and starless night.” Quoted in Anderson, *Nautilus 90° North*, 98–99.
32. “Skipper Rejoins Nautilus Today,” *New York Times*, August 12, 1958, 12.
 33. “New Cargo Route Foreseen: Nautilus Captain Forecasts Use of Arctic Passage,” *New York Times*, October 13, 1958, 40.
 34. “Beneath the North Pole,” *Life*, September 1, 1958, 59.
 35. “Modern Captain Nemo,” *New York Times*, August 9, 1958, 6.
 36. “Beneath the North Pole,” *Life*, September 1, 1958, 59; Anderson, “The Facts on the First Transpolar Voyage from Pacific to Atlantic, *USS Nautilus*,” Hagerty Papers, Box 7 (1) EPL.
 37. Kenneth Burke, *A Grammar of Motives* (Berkeley: University of California Press, 1969), xx.
 38. “Modern Captain Nemo,” *New York Times*, August 9, 1958, 6.
 39. An official navy biography of Captain Anderson is located in the Hagerty Papers, Box 7 (folder Labeled “Nautilus”); Hagerty Papers, Box 52 (“Press Conferences, July–September 1958) (2), EPL; “Modern Captain Nemo,” *New York Times*, August 9, 1958, 6.
 40. “Beneath North Pole,” *Life*, September 1, 1958, 59–60, 72; “Men of Nautilus Proud, Efficient,” *New York Times*, February 13, 1955, 40.
 41. “Nautilus Sails Under the Pole and 1830 Miles of Arctic Icecap in Pacific to Atlantic Passage,” *New York Times*, August 9, 1958, A1; “Modern Captain Nemo,” *New York Times*, August 9, 1958, 6.
 42. “The West’s Good Week” *Time*, August 18, 1958. <http://www.time.com/time/magazine/article/0,9171,810480,00.html> (accessed July 17, 2013).
 43. Beach/Aurand Papers, Box 24, (11), EPL; the French government also presented Anderson with a copy of Verne’s *Voyages Extraordinaire*. Beach/Aurand papers, *News Chronicle* (London) Box 25 (2), EPL.
 44. “Nautilus Gives West Shot in the Arm,” Reynolds News Service August 16, 1958, n.p., and “Under the Icecap,” *London Daily Telegraph*, August 9, 1958 in Beach/Aurand Papers. Box 25 (1,2), EPL; Osgood, *Total Cold War*, 323–53, 367; Anderson, *The Ice Diaries*, 294.
 45. See David Zarefsky, “Four Senses of Rhetorical History” in *Doing Rhetorical History: Concepts and Cases*, ed. Kathleen J. Turner (Tuscaloosa: University of Alabama Press, 1998), 19–32.