

Turning the Tide:

**How the USS *Nautilus*'s Trip to the North Pole Transformed America's Cold War
Propaganda Into a Popular Culture Phenomenon**

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Introduction

On August 27, 1958, the USS *Nautilus* and her crew reached port in New York City. Upon arrival, they were greeted by a raucous armada of tugboats and fireboats, a ticker tape parade, and an estimated 250,000+ people.¹ The world's first nuclear-powered submarine had successfully crossed the North Pole, fully submerged. President Dwight D. Eisenhower's announcement of the mission and its success came as a surprise to the American public, who was previously unaware of the mission's existence. Nevertheless, Americans eagerly welcomed any reason to celebrate, as the United States had found itself in the midst of a war once again -- the Cold War. Tensions between the US and the Soviet Union were steadily rising, and the Soviets' growing technological expertise alarmed many people. In fact, the government planned the *Nautilus*'s mission -- deemed "Operation Sunshine" by US naval officials -- as a response to the Soviet's launch of the Sputnik in October 1957. At its conception, the government hoped the mission would reassure the public of America's steadfast superiority as a world power. Additionally, the government thought *Nautilus*'s completion of Operation Sunshine would successfully demonstrate a benefit of nuclear energy, a scientific advancement that had gained frightful connotations since the Soviets detonated their own nuclear bomb in 1949.

The US government would see these goals for the *Nautilus* and Operation Sunshine come to fruition, though perhaps not in a way initially expected. Curiously, Americans embraced the success of Operation Sunshine with a fervent reaction that they had arguably yet to demonstrate towards previous Cold War successes. News of the submarine quickly spread across the country, a hot topic of both print and broadcast journalism. Consequently, the nuclear-powered submarine became a common trope in American popular culture, showing up in books, cartoons, and even influencing several Hollywood films. Though infiltrating the entertainment industry

was not the US government's projected strategy, they promptly took advantage of the widespread cultural craze surrounding the *Nautilus*, employing its popularity to create new types of propaganda that appealed to Americans' desire for entertainment. With the help of popular culture and the public itself, the US government distracted the American people from nuclear fear and Cold War tensions, accomplishing its initial goals after all. Overall, the success of the USS *Nautilus* and Operation Sunshine initiated one of the first prominent examples of popular culture and entertainment media's effect on US propaganda.

PART 1

Nautilus in Context:

Perceptions of Science and Technology From Reconstruction to the Cold War

Adjusting to Progress

In order to understand the importance of the American public's positive perception of the *Nautilus* and her success, the history of public attitudes towards scientific progress must first be analyzed. Though specific fears of nuclear science and technologies did not occur on a large scale until the mid-twentieth century, widespread apprehension towards general scientific progress began as early as the post-Civil War Reconstruction period. As American cities industrialized and immigration rates increased, society saw the need to adjust to its rapidly-changing economic and infrastructural needs. These changes continued into America's Gilded Age, and the unfamiliar nature of scientific and technological advancement shocked many people. In his book *The Incorporation of America: Culture and Society in the Gilded Age*, American Studies scholar Alan Trachtenberg notes that adjusting to new science and technology was one of the "major cultural processes of these years, even in such simple matters as riding in streetcars and elevators, getting used to packaged and processed foods, and the style of machine-made clothing, let alone growing accustomed to new harsh sounds and noxious odors near factories and railroad terminals."² Moreover, many Americans felt that integrating science and technology into society negated the cultural myth of the "American Dream" by providing an unfair advantage to those with inventive minds. Historian Ernest Freeberg expands on this idea in his book *The Age of Edison: Electric Light and the Invention of Modern America*, commenting that "While many rags-to-riches stories in the Gilded Age affirmed the virtues of hard work and strong moral character, another version emphasized the life transformation that awaited the man

or woman who made the better mousetrap.”³ This statement implies the struggle that those with the “lesser mousetrap” faced -- hard work could not compete with better science.

Despite initial pushback, however, the general public adjusted to science and technology more readily upon realizing that science and technology not only affected work, it affected pleasure as well. Science and technology heavily contributed to new forms of entertainment that provided new, exciting, and -- most importantly -- affordable activities to all economic classes. The invention and integration of the electric lightbulb made a spectacular addition to all sorts of entertaining attractions, providing decorative lights around Ferris’s “great wheel” at the 1893 Chicago Fair and illuminating the stage at Buffalo Bill’s Wild West Show on Staten Island.⁴ Entire amusement parks were built with new technology as well, with parks like Coney Island using electric lighting to entice park-goers to experience rides and attractions that employed new mechanical technologies with every move. Film emerged as a new form of entertainment during this era of technological pleasure as well, as new technologies allowed Edison Studios to create films as early as the 1890s.⁵

Science and technology also began to find their way into late-nineteenth and early-twentieth century print media. Magazines such as the *Popular Science Monthly* served as a fascinating read for the non-scientist as early as the 1870s. In the early twentieth-century, men’s adventure publications, such as the *Franke Reade Weekly Magazine*, began to combine elements of science and technology with their dime novel-esque feature stories.⁶ Even journal articles published by well-known institutions such as the Franklin Institute focused on the research and creation of once-unfathomable scientific innovations that left scholarly readers in awe. No matter the specific type of publication, these print sources understood that their readers -- predominantly

male -- were enticed by the bit of mystery, danger, and, eventual success that followed the protagonists of their scientific features, both fiction and non-fiction. Their hypotheses regarding current and future scientific endeavors made science -- and their publications -- appealing to the masses.

Science, Technology, and Propaganda Reach the Atomic Age

The acceptance and glorification of science and technology continued to expand as the twentieth-century progressed, with both print and broadcast media continuing to capitalize on the scientific adventure story. However, as America entered into World War II, scientific and technological progress gained patriotic connotations as well. Although the world seemed to be crumbling around them, the country's scientific and technological advancements provided citizens with opportunities to maintain U.S superiority by contributing to the war effort as individuals. From 1939 to 1945, the US government intentionally employed propaganda that subtly communicated these opportunities, attempting to garner widespread physical, emotional, and financial support for the war.⁷ For example, WWII propaganda often portrayed brave, masculine men using "high-tech" military vehicles to destroy the Nazis, affirming success via technology while also persuading men to enlist by implying enlistment asserts masculinity.⁸ Additionally, the government portrayed technology in propaganda to persuade women to join the war effort on the home front, producing advertisements that showed women using tools and technologies.⁹ These advertisements enticed many women to join the industrial workforce not only out of patriotism, but out of the desire to experience technologies that were previously inaccessible to females. In demonstrating the ways in which the individual could positively affect the war effort, these examples of science-filled propaganda comforted citizens by giving them a way to take action.

Though the government subtly displayed technological advancement in many WWII propaganda campaigns, science and technology played a not-so-subtle role in what could be argued as America's most influential wartime feat: the creation and detonation of the atomic bomb. In 1939, the US government approved and established the Manhattan Project, a secret research and development program that aimed to harness atomic energy and create the world's first nuclear weapon. Though scientists conducted research at various sites across the US, a large portion of scientific experimentation occurred in East Tennessee. Realizing that nuclear waste would need to be contained should a disaster occur, the government built the town of Oak Ridge, TN, in hopes that the surrounding mountains and distance from other cities would accomplish this goal while maintaining secrecy. The government advertised free housing, good pay, and the wonders of new experience in efforts to persuade scientists and their families to move to this pop-up town in the middle of nowhere. Nonetheless, perhaps the most enticing aspect of the Manhattan Project was the opportunity to navigate a unexplored facet of science for the betterment of one's country. In her book *Longing for the Bomb: Oak Ridge and Atomic Nostalgia*, sociologist Lindsey A. Freeman suggests that the concept of moving to Oak Ridge intrigued Americans, as it gave them a chance to participate in a new version of the American pioneer myth – albeit, an atomic one. She notes:

...wartime Oak Ridgers are the products of a linear progressive narrative, which creates an entirely new type of pioneer, a member of the vanguard in realms of science, engineering, and nuclear weapons technology. Thus, by employing this line of thinking and storytelling, the Oak Ridgers [saw] themselves as pioneers, to emerge trailblazing, as products of social regeneration and as products of cultural and scientific evolution.¹⁰

In other words, many people who moved to Oak Ridge did so under the impression that they would be heroes, just as they imagined while reading sci-fi or watching Buck Rogers -- serving their country in the face of the danger and the scientific unknown.¹¹ Furthermore, Oak Ridge promised a life of patriotism and community. The city provided great schools, respectable jobs, safe neighborhoods, community events, and shared goals among residents. Families enjoyed living in this atomic utopia, and the city would serve as an example for suburban neighborhoods throughout the 1950s and 60s. Therefore, even after discovering the less-than-adventurous realities in wartime Oak Ridge -- including but not limited to strict rules, secrecy, and poor infrastructure -- people remained due to its utopic and patriotic culture. In the small, isolated Appalachian town, Oak Ridge citizens were sure that the future of science, technology, and their country depended on them.

The atomic, patriotic glory felt by the people of Oak Ridge was not equally present in the rest of the country, however. By the time the atomic bombs were dropped on Japan in August 1945, Americans viewed scientific and technological advancement as a part of everyday life rather than a shocking occurrence. In fact, many Americans developed an apathy towards scientific progress in the years following World War II. Despite its grandiose and fatal effects, public apathy towards the atomic bomb was especially evident. Contemporary sociologists Leonard S. Cottrell Jr. and Sylvia Eberhart conducted research on this “atomic” apathy in an attempt to discern why the bomb did not evoke more concern from the American people. In their findings, published in their 1948 book entitled *American Opinion on World Affairs in the Atomic Age*, the authors conclude that while “[the American public knew] that the atomic bomb [was] terrible and [was] to be feared,” the majority of the American public was war weary, leaving them to express apathy towards atomic dangers and frequently claim the mantra “ ‘let the

government worry.’ ”¹² Whether this attitude stemmed from pure trust or general war weary, it affirmed that the US government had gained some credibility in the eyes of the American people, especially when it came to maintaining its status as a world power through the use of science and technology. It seemed that the World War II propaganda campaigns and the successful employment of nuclear weapons had accomplished their goal of persuasion. Nevertheless, the American public’s trust in the government would only last temporarily.

The Age of Nuclear Propaganda

Much to the shock of the US intelligence -- and to an entirely unprepared civilian population -- the Soviet Union detonated its first atomic bomb on August 29, 1949. By this time, relations between the US and the Soviet Union were not favorable, and despite some trust in the government, many citizens instantly saw their atomic apathy turn into nuclear fear. Though wishing to remain trustworthy to the general public, the government found itself backed into a corner. The United States had seen the disastrous effects of nuclear detonation by its own hand, but it had yet to encounter nuclear threat towards its own people. Despite its own uncertainties, however, the government did understand the need to assuage public emotions, if only to keep up appearances as a confident world power and prevent fear from growing. Hoping to maintain public trust through media campaigns once more, the age of nuclear propaganda began.

In 1950, President Harry S. Truman created the Federal Civil Defense Administration (FCDA), a special unit in charge of designing governmental campaigns and programs to reassure the American people of their safety. Unsurprisingly, the FCDA quickly developed multiple propaganda campaigns targeting everyone: men, women, and children. Architectural historian Susan Roy discusses these propaganda campaigns in her visual history book *Bomboozled: How The U.S. Government Misled Itself and Its People Into Believing They Could Survive A Nuclear*

Attack. She notes that the earliest campaigns “would first acknowledge that a nuclear attack was possible, and would then offer hope by telling Americans they could learn skills that would save their lives.”¹³ Yet Americans were not reassured by this acknowledge-address strategy, and understandably so. The so-called “skills” suggested in these early propaganda campaigns were simple actions, such as to lay face down on the ground, or to pull the curtains and close the doors. In light of the images of atomic destruction that the US had circulated to emphasize the magnitude of the bomb, these “skills” did not seem to guarantee one’s safety from an imminent mushroom cloud.

After receiving unsatisfactory results from the initial nuclear propaganda campaigns, it became clear that a different approach was needed. Remembering the general public’s positive response to the WWII propaganda that encouraged Americans to take individual action, the FCDA designed campaigns that encouraged citizens to take immediate action to prepare for life post-nuclear detonation. This rhetoric aimed to assure Americans they would survive through the disaster, just as they survived through tornadoes, earthquakes, and hurricanes. According to Roy, many of these campaigns were family-oriented, and minimized the nuclear threat in an attempt to “normalize the idea of nuclear attack by integrating it into everyday life.”¹⁴ Films produced by the FCDA -- such as the 1951 film *Survival Under Atomic Attack* -- encouraged the family patriarch to find a place in his home in which to create a nuclear bomb shelter.¹⁵ Other propaganda campaigns encouraged women to maintain their domesticity even in preparation for nuclear survival, with one ad even assigning women the task of creating “Grandma’s Pantry,” part of the home bomb shelter stocked with food, water, and other post-bomb supplies.¹⁶ Even children were targets of atomic normalization, as the FCDA created an animated film called *Duck and Cover* to be shown in elementary school classrooms. The film, which stars a friendly,

unafraid turtle, aimed to teach school children how to duck under their desks and cover their head, just as they would to shield themselves from a rogue football, and just as a turtle crawls into his shell.¹⁷

Production of nuclear propaganda continued even into the 1980s. From men's science magazines, to women's self-help columns, bomb shelter propaganda appeared everywhere one looked, resulting in the construction of at least 10,000 bomb shelters throughout the Cold War.¹⁸ However, when Dwight D. Eisenhower became US President in 1953, it seemed as though no amount of propaganda could prevent the fear provoked by the Soviets' growing technological power. The public was becoming increasingly exasperated at the government's inaction as well. In his book *The Cold War: A Very Short Introduction*, historian Robert J. McMahon discusses this anger, noting that the late 1950s saw many Americans cast blame on Eisenhower himself, accusing him of "allowing a 'missile gap' to open between the Americans and the Soviets."¹⁹ In this historical moment, it became clear that a different sort of persuasion was needed should the government want to regain the public's trust and remain a confident player in its rivalry with the Soviet Union. However, Eisenhower and the rest of the government probably didn't expect this persuasion to come in the form of a nuclear-powered submarine.

PART 2

“Underway on Nuclear Power:” A Sci-Fi Adventure Comes to Life

The Nautilus Is Born

In the midst of addressing the public's shifting emotions towards nuclear energy, the US government was also trying to continue its string of scientific achievements. One of its main scientific goals was to discover more uses of the atom. In 1946, the government made progress towards this goal when Admiral Hyman G. Rickover -- merely a naval Captain at the time -- left his post at the US Bureau of Ships to study reactor physics at Oak Ridge National Lab. A trained electrical engineer, Rickover hoped to introduce more efficient forms of energy to the US Navy. After much research, he concluded that a nuclear reactor could be made small enough to fuel a steam-propulsion engine in a submarine. By doing so, a submarine could become nuclear-powered -- it would require only a small amount of uranium as fuel rather than diesel. Additionally, it would not need any outside air or oxygen for fuel combustion, meaning that it could remain submerged indefinitely. Many thought his theory foolish -- it had never been done before, and an Oak Ridge nuclear reactor was at least as long as a street block. Nevertheless, after much perseverance and many phone calls, Rickover persuaded the Atomic Energy Commission that he could produce a nuclear reactor small enough to carry out his plan. Consequently, Rickover became the head of the AEC's Naval Reactors Branch in 1949.

Soon after Rickover's governmental success, his research came to fruition: a small-scale nuclear reactor was created. In response to his success, Congress approved the construction of the first nuclear-powered submarine. Construction began at the Electric Boat Shipyard in Groton, Connecticut on June 14, 1952. Upon its completion, the ship launched on January 21, 1954. First Lady Mamie Eisenhower christened the ship, breaking a celebratory bottle of champagne on its bow. The Navy called the ship *Nautilus*, not unlike Captain Nemo's famous vessel in Jules Verne's *20,000 Leagues Under the Sea*. Under the direction of its first commanding officer,

Commander Eugene P. Wilkinson, the ship spent the next few years proving itself as the navy's most advanced submarine yet.

In 1957, Wilkinson left his post as the *Nautilus*'s commanding officer and was replaced by William Robert Anderson. Born and raised on a farm in Bakerville, TN, the small town naval officer had shown great promise during his time at the United States Naval Academy, graduating a year early to serve in World War II. During the war, he participated in no less than eleven submarine patrols. Although he was not nationally famous by any means, he was highly respected by those Americans who knew of his service. With this in mind, Admiral Hyman G. Rickover hand-picked Anderson to lead the *Nautilus* and her men on a secret mission never before completed: a underwater journey to the North Pole.

While the government did build the submarine to test a new use of nuclear energy, the timing of the *Nautilus*'s secret mission was not a coincidence. Eisenhower received a tremendous amount of pressure from the military and the general public, especially after the Soviet's launched the Sputnik satellite on October 4, 1957. America's attempt to launch its own satellite in December 1957 failed miserably, sparking anger from US military officials who were desperate to see real results from the government. In her book *Competing with the Soviets: Science, Technology, and the State in Cold War America*, historian Audra J. Wolfe asserts that many military officials pushed for a secret rocket science program on the same level as the Manhattan Project.²⁰ These tensions between the Eisenhower and the military did nothing to bolster the public's confidence in the government's ability to protect them, and confidence levels dropped even more when the Eisenhower administration joined the fallout shelter frenzy, as the President had not previously pushed the need for fallout shelters as much as Truman had seven years earlier.

With the public's trust at risk and nuclear fallout imminent, Eisenhower hoped, perhaps naïvely, that a nuclear submarine's journey to the North Pole would alleviate national anxieties while also intimidating the Soviet Union. After months of preparation, tests, and research, Anderson and his men set forth on their secret arctic journey on June 9, 1958. Much to Eisenhower and Anderson's dismay, however, this journey would only turn out to be a mere attempt. The trip reassured Anderson that navigating underneath the polar ice cap was no easy feat, as damage was incurred from the ice. Though the damage was not life-threatening, Anderson realized he needed to rethink the passage and reach "ninety degrees North" from a different angle.

After spending a month stationed in Hawaii to repair both damage and strategy, the *Nautilus* and her crew made the second attempt at Operation Sunshine, attacking the voyage from a different direction. The attempt proved successful, as the *Nautilus* reached the North Pole on August 3, 1958. Upon receiving word of the mission's success via the Chief of Naval Operations, Eisenhower relayed a message to the *Nautilus* and her crew via helicopter, commending them on their "magnificent achievement."²¹ Anderson then left the USS *Nautilus* and her crew on the same helicopter, reaching Washington D.C. on August 7, 1958. Once there, Eisenhower greeted the new American hero in person before holding a press conference to announce the mission and its success to the entire nation. With this announcement, an unprecedented national frenzy began.

Though Eisenhower had hoped the success of the USS *Nautilus* would merely quell the outrage of those unsatisfied with the government's actions in the Cold War, the overwhelming response to the *Nautilus*'s journey indicated a distinct change in American attitudes. Flocks of people gathered in New York to greet the submarine upon her arrival back to the States.

Newspapers across the nation celebrated a long-awaited victory over the Soviets, with headlines claiming the feat as a “major U.S. blow.”²² Submarines became a popular aspect of American culture as well, and, as the frenzy continued, *Nautilus* fever was expressed in more ways than one.

Anderson as a Star

To many Americans, the *Nautilus*’s story was so appealing due to the star quality of its protagonist. People across the country were instantly drawn to Captain Anderson, admiring his qualities of bravery, leadership, and patriotism that were so strongly asserted in Eisenhower’s press conference. This admiration was only bolstered on August 9, 1958, when Eisenhower presented Anderson with the Legion of Merit, a highly respected military decoration awarded to those who perform outstanding feats in the name of the United States. As a result, newspapers and magazines across the country became eager to run stories specifically about Anderson, focusing on various aspects of his life. Some newspapers opted to focus on Anderson’s role as a leader on the *Nautilus*, going so far as to call him a “Modern Captain Nemo.”²³ Others featured his relationship with his family, printing pictures of him with his wife and sons as well as noting the pride of his parents. One newspaper interviewed Anderson’s mother, noting her pride when she asserted that “The *Nautilus* skipper displayed a yen for the sea at an early age...at the age of 10 he asked for and was promised an appointment to the Naval Academy by his Congressman.”²⁴ Many newspapers complimented his appearance as well, citing his masculine features and providing a new heartthrob for women nationwide. In a society so inundated with propaganda, stories about Anderson served as a breath of fresh air, with one article noting Anderson as “a unique figure in our age of publicity, when propaganda value seems to be the measure of all things.”²⁵ Within weeks, Commander Anderson’s ascension from a respected naval officer to

national hero made it clear to both the government and the public that this was no ordinary ship captain.

In an attempt to share in this historical moment, thousands of people sent letters to Anderson congratulating his achievements. Aware of Anderson's emerging celebrity status, many others wrote to ask for autographs and souvenirs from the mission to add to their prized personal collections. Fan mail came from nearly every demographic -- men, women, and children of all ages. Congratulatory letters were sent from entire school classes, requesting autographs, photos, and interviews for school projects. Admirers from both home and abroad bestowed gifts upon the Captain -- even an egg-packing station in Dorset, England sent him eggs "as a mark of the esteem of the farmers and poultry-men...on the occasion of [his] historic achievement."²⁶ One American woman even asked for a kiss from "the idol of the nation" before requesting him to write a book on Operation Sunshine. "Please do," she says. "It would make thrilling reading for the general public."²⁷ Little did the woman know, Anderson was one step ahead of her.

In 1959, less than a year after Operation Sunshine was completed, Anderson published no less than two books retelling his journey to the North Pole. The first book, titled *First Under the North Pole: The Voyage of the Nautilus*, was sixty-two pages with large print and many pictures. With hopes that it would be enjoyable for fans of all ages, Anderson dedicated the book to his sons, Michael and William. However, this book was not enough to satiate the curiosities of the American people. Many citizens wanted more details about Operation Sunshine and its back story, as people felt that Anderson would provide an honest perspective on the government and its role in the Cold War. Later that year and much to the public's satisfaction, Anderson collaborated with news correspondent and former sub officer Clay Blair Jr. to write and publish

Nautilus 90 North, a tell-all book concerning Operation Sunshine and its conception. Despite its “tell-all” nature, however, much of the information regarding the mission was still classified, giving Anderson more room to discuss his personal feelings about the mission along with his humble beginnings. Anderson often tinged his anecdotes from the mission with reassurance of his qualifications masked with both humility and gratitude. Discussing his appointment to *Nautilus* skipper, Anderson noted that his life “seemed like a fairy tale.”²⁸ However, he also made sure to reinforce his qualifications for the position, tactfully listing his previous submarine experience in context of a conversation with his superior. Overall, his humble tone intermingled with the supposed “behind-the-scenes” look into Operation Sunshine reinforced Anderson’s reputation as the reliable American servant while also providing the public with evidence of the government’s persistence in the war against the Soviets, slowly rebuilding the public’s trust.

Overall, Captain William Robert Anderson blossomed into a celebrity within months of the *Nautilus*’s success. The abundance of press that he received, combined with the publication of his books, provided him with a persona that could only be matched in adventure stories. In the press, he was a leader who doted on his family and loved his country. He acted quickly and efficiently in the face of danger. The President and people all around the world respected him. With all of these qualities, it was no surprise that he was declared a suave hero, straight out of Jules Verne’s story book. In the midst of the Cold War, he was the protagonist that America needed, and the government did not turn a blind eye.

The *Nautilus* On Air and Screen: Submarines in Radio, Television, and Film

Though Anderson, the *Nautilus*, and Operation Sunshine had their fair share of attention in print media, they were embraced by broadcast media as well. By the late 1950s, both radio and television were seen as stable and reliable sources of news coverage. In his book *Radio*

Journalism in America: Telling the News in the Golden Age and Beyond, radio-programming historian Jim Cox asserts that broadcast media often proved more popular than print, as broadcasting was more efficient “in the province of immediacy.”²⁹ In other words, radio and television broadcasts were able to relay news faster, which people especially appreciated during wartime. However, news coverage was not the only purpose for radio and television programs. Broadcast media became a form of entertainment also, and the *Nautilus*’s success story gave radio and television producers new material of both informative and entertaining nature. Though well-preserved radio broadcasts and television programs surrounding the events of the *Nautilus* are hard to locate and access in present day, the historian can analyze the impact of broadcast media through the broadcasts still readily available in addition to instances of broadcast media mentioned in fan mail and media contracts from the era.

By the late 1930s, most American households had a radio, by then considered to be “America’s chief news medium.”³⁰ However, the late 1930s also saw radio entertainment abound, with the release of entertainment radio shows such as Orson Welles’s *The Mercury Theatre on Air*. Although shows such as these – especially ones of sci-fi nature – did not come without their flaws, they incited a trend with entertainment radio, and the sci-fi radio show was still popular twenty years later.³¹ Consequently, late-1950s radio journalists took advantage of Operation Sunshine’s appeal as an exciting sci-fi story come to life. Popular 1950s radio personality Herb Shriner, for example, produced a specialty show about the *Nautilus* within months of its success. The show, simply titled *Nautilus*, featured real recordings from the voyage. Furthermore, Shriner used harrowing music and suspenseful narration to emphasize the mission’s danger. It was then released on vinyl so that the public could listen to it as they pleased.

Although radio broadcasts served as an excellent medium for *Nautilus* news and entertainment, television made sure to partake in the submarine frenzy as well. In her book *Make Room for TV*, historian Lynn Spigel asserts that “between 1948 and 1955, television sets were installed in nearly two thirds of the nation’s homes.”³² Therefore, by the time of the *Nautilus*’s accomplishment, most households could learn about the voyage right in their own living room. Anderson was interviewed on a variety of networks, as indicated by those who wrote to him. Out of all the TV interviews and features mentioned by his loyal fans, however, NBC’s *Meet the Press* was perhaps the among the most prominent. Still available to view in film archives today, the interview aired on September 14, 1958 and was moderated by Ned Brooks. The interviewers included *Meet the Press* producer Lawrence E. Spivak with reporters Charles Corddry, Richard Clurman, and Marquis Childs. The questions spanned a variety of subjects including Operation Sunshine, naval technologies, communism, and consumer culture. However, the interviewers’ most significant question concerned the ship itself: “What would be the major usefulness of the *Nautilus* in time of war?” In the recording, Anderson answers without hesitation, noting that its job was “to go out and sink ships, whether they be surface ships or other submarines. In wartime [the *Nautilus*] would be employed in that very important role.”³³ In giving this answer, Anderson and *Meet the Press* indirectly threatened an attack on the Soviets in the case of a nuclear fallout, while also providing Americans with evidence that the government had a plan of action should a nuclear war occur. Though one of many interviews, *Meet the Press* is an excellent example of how television used the *Nautilus* and newfound celebrity William Robert Anderson to entertain their audiences and spread information that reassured Americans of their safety, and the government did not object to this message.

While radio and television were the main audiovisual forms that featured Operation Sunshine and the USS *Nautilus*, the American film industry capitalized on the subject too. The science-fiction and technology genre had reached Hollywood long before the *Nautilus*, often as visual replicas of the science adventure magazines that many Americans had read since their childhood. Therefore, it wasn't too hard for the submarine-drama subset of sci-fi films to break through, as many considered Operation Sunshine to be a sci-fi adventure come to life. The early 1950s saw movies such as *The Thing From Another World* (1951) and *The Beast From 20,000 Fathoms* (1951) hit the big screen, featuring strong male protagonists navigating and employing science and technology to defeat large unknown monsters, symbols of the nation's real-life enemy, the Soviets, and their unknown power. A few years later, the atom was incorporated into sci-fi/adventure films, with characters dealing with atomic guilt, fear, and radioactivity in movies such as *Above and Beyond* (1953) and *Island in the Sky* (1953). Consequently, when the American public became infatuated with *Nautilus* in 1958, filmmakers found that they need only to add a submarine into the sci-fi mix to draw Americans even closer to science fiction films, as a trip to the theater could make American feel as if they were on the *Nautilus*. Spencer Gordon Bennet's film *The Atomic Submarine* was released in theatres in 1959, and the public flocked to theater to watch the *Nautilus*-like nuclear ship, the USS *Tigershark*, destroy a UFO. In the following years many more films featuring submarines would be released including but not limited to *Operation Petticoat* (1959), *On the Beach* (1959), and *Voyage to the Bottom of the Sea* (1961). Overall, because of film's appeal to the public and ability to create distance from reality, film became another venue for American's to participate in the *Nautilus* craze and the atomic conversation as a whole.

PART 3

Propaganda Embraces *Nautilus* Pop Culture

Propaganda Transformed: The Government Emphasizes Adventure

As the story of Anderson and the *Nautilus* made waves among American pop culture and its patrons, the government was taking notes. Though Eisenhower had hoped that Operation Sunshine would make a difference in public attitudes towards the government and its role in the Cold War, he never expected a response of such a large scale. Furthermore, the mission had succeeded in its goals to advance US naval technologies while also assuaging American fears and doubts. However, it also distracted the public from war, which had plagued America almost constantly since the turn of the century. The success of the *Nautilus*, though intrinsically war-related, did not represent a wartime victory to every American. For some, the return of the *Nautilus* represented America's continued progress in science and technology. For others, its success represented the return of brave men to families. For most, it represented the completion of a feat that had only been dreamed of, and only successful in adventure magazines like *Frank Reade Weekly*. Together, all of these elements of victory helped Americans momentarily forget imminent nuclear threat. People were able to get lost in the adventure, almost as if they were watching a movie. Yet this time, the movie was real. Aware that the *Nautilus's* success was working better than any of their previous propaganda campaigns, the government realized that they had to create propaganda that emulated the adventure-like aspects of the *Nautilus's* story so that they could be assured that the public's positive attitude would last.

One of the first pieces of post-mission propaganda about the *Nautilus* was released in 1958, shortly after the mission was announced. A short documentary was created by the United States Navy to provide the public with more information about the voyage and general life in the submarine. Though merely a twenty-minute summary of the operation, the film employed theatrical elements such as music and exaggerated narration to emphasize the mission's

excitements and dangers. This method -- also used in Herb Shriner's *Nautilus* production -- aimed to highlight the adventurous qualities of the mission, with the narrator specifically highlighting the fact that while "success was by no means assured," the men of the *Nautilus* knowingly chose to complete the operation.³⁴ However, as more and more *Nautilus* and sub-related tropes bombarded popular culture, the government knew that they could take their propaganda a step further.

Perhaps surprisingly, the government employed the help of the Walt Disney Company to create new, relevant, and adventurous propaganda. However, participating in propaganda campaigns was nothing new to the company, as it had helped produce the animated propaganda film *Our Friend the Atom* in 1957. In the film, Walt Disney himself discusses the benefits of the USS *Nautilus* and her nuclear fuel.³⁵ This previous endorsement only strengthened the government-propelled campaign in 1959, when Disneyland installed an atomic submarine attraction for its guests. The attraction consisted of eight air-conditioned "atomic" submarines that parkgoers could ride. Moreover, the submarines were built by General Dynamics, the same company that built the real USS *Nautilus*. In his article "Why the Atom is our Friend: Disney, General Dynamics, and the USS *Nautilus*," historian Mark Langer notes that although the installation of this "underwater armada" was part of a multi-million dollar refurbishment of the park, it also served as a way to keep the *Nautilus* "craze" alive.³⁶ Furthermore, the construction of a park ride wasn't inherently associated with the government or nuclear fallout. Disneyland patrons weren't expected to think of the government or the dangers of the atom when riding the attraction, so, like the real *Nautilus*, the ride served as propaganda in its ability to distract from the realities of the Cold War. Ergo, the "atomic" submarine ride at Disneyland was arguably the government's most successful post-Operation Sunshine propaganda piece, as 24,000 visitors

attended the opening day alone.³⁷ While a lot of people attended simply to see the vice president – Nixon and his family led a parade to the attraction. Nevertheless, others surely came to be reminded of the joys of science and technology probably because, according to a contemporary reporter for the Christian Science Monitor, “all things were turned, by Disney magic and with Disney color, to sheer fun, as though the real purpose of technological achievement after all was human happiness.”³⁸

Conclusion

By analyzing America's reaction to the world's first nuclear-powered submarine, the historian gains substantial evidence of the public's shifting attitudes towards science and technology over the course of the twentieth century. By putting the USS *Nautilus* and Operation Sunshine in context, it becomes clear that the submarine and its 1958 arctic mission played an especially prominent role in this attitude shift -- its use of science and technology served as a tangible example of the US government's action against the Soviets. However, the significance of the *Nautilus*'s impact of public attitudes towards science and technology was not inherent in the success of the mission itself, but in the mission's ability to distract Americans from the promise of imminent nuclear fallout. Because the story of the *Nautilus* and its men seemed to be straight out of an adventure magazine or a movie, it served as a reminder to despairing citizens that science and technology did not have to mean destruction -- it held the promise of an exciting future as well. However, in light of these conclusions, one cannot simply assume that this distraction was created by the submarine or the mission alone. The mid-twentieth century saw mass communication flourishing, and American popular culture became more readily available as a result. Therefore, as the public became more excited about the *Nautilus* and its storybook adventure, media outlets lunged at the opportunity to capitalize on the futuristic submarine fad, and the public's appreciation of the *Nautilus* -- as well as their distraction from the war -- was only further propelled.

Though an analysis of *Nautilus* media and popular culture's impact on the American public holds significance in its own right, the government's response to the *Nautilus* frenzy displays the ways in which popular culture and public media can affect propaganda. After recognizing the growing prevalence of the *Nautilus* and the submarine trope in print and

broadcast media alike, the government realized that they could take advantage of entertainment methods in their own propaganda by using the *Nautilus*'s fame as a tool to mask their messages as entertainment. Therefore the government used *Nautilus* culture to insert propaganda into the public's greater conversation, rather than advertising to its citizens from a pedestal. By using popular entertainment outlets such as Disney to reach the masses, the government was able to promote both government credibility and the post-war benefits of science and technology as a whole. Overall, the USS *Nautilus* and its popularity marked a change in the way in which the American government persuaded its people while also demonstrating pop culture's influence on views of science and technology.

NOTES

¹ Robert McCarthy, "Nautilus Gets The Works: 250,000 Cheer Crew At Heroes' Parade," *New York Daily News*, August 28, 1958.

² Allen Trachtenberg, *The Incorporation of America: Culture and Society in the Gilded Age* (New York: Hill and Wang, 1982), 45-46.

³ Ernest Freeberg, *The Age of Edison: Electric Light and the Invention of Modern America* (New York: Penguin Press, 2013), 151-152.

⁴ *Ibid.*, 116-117.

⁵ William Larsen, "The Pre- and Early History of Cinema" (lecture, The University of Tennessee, Knoxville, TN, January 11, 2017)

⁶ Other popular men's adventure magazines from the early 20th century included *Wild West Weekly* and *Uncanny Tales*. These entertainment magazines paved the way for 1950s magazines that sought to define post World War II masculinity such as *Playboy* and *Esquire*.

⁷ Propaganda is defined as "official government communications to the public that are designed to influence opinion. The information may be true or false, but it is always carefully selected for its political effect." See *The New Dictionary of Cultural Literacy: What Every American Needs to Know*, 3rd ed., s.v. "propaganda."

⁸ An example of such a poster is "The Greatest Team in the World, AFF, Armed Air Forces, 1944. See "See the Rare Propaganda Posters of World War II," last modified January 27, 2017, accessed May 5, 2017, <http://time.com/4650257/rare-world-war-ii-posters/>

⁹ See Sara Harington, "Women's Work: Domestic Labor in American World War II Posters." *Art Documentation: Bulletin Of The Art Libraries Society Of North America* 22, no. 2., 2003, 41-44.

¹⁰ Lindsey Freeman, *Longing for the Bomb: Oak Ridge and Atomic Nostalgia* (Chapel Hill: The University of North Carolina Press, 2015), 38-39.

¹¹ Buck Rogers was a fictional space opera character created by Phillip Francis Nolan, first appearing in August 1928.

¹² Leonard S. Cottrell, Jr., and Sylvia Eberhart, *American Opinion on World Affairs in the Atomic Age*, (Princeton, New Jersey: Princeton University Press, 1948), 21-29.

¹³ Susan Roy, *Bomboozled: How the U.S. Government Misled Itself And Its People Into Believing They Could Survive A Nuclear Attack* (New York: Pointed Leaf Press, LLC, 2010) 29.

¹⁴ *Ibid.*, 31.

¹⁵ Federal Civil Defense Administration. *Survival Under Atomic Attack*, YouTube Video, 00:08:44. 1951. Posted by wdtvlive42. Viewed on March 10, 2017. <https://www.youtube.com/watch?v=lsHUIxt1iMw>

¹⁶ Roy, *Bomboozled: How the U.S. Government Misled Itself And Its People Into Believing They Could Survive A Nuclear Attack*, 104.

¹⁷Federal Civil Defense Administration. *Duck and Cover*, YouTube Video, 00:09:14. 1951. Posted by Nuclear Vault. Viewed on March 15, 2017. <https://www.youtube.com/watch?v=IKqXu-5jw60&t=476s>

¹⁸Roy, *Bomboozled: How the U.S. Government Misled Itself And Its People Into Believing They Could Survive A Nuclear Attack*, 63.

¹⁹ Robert J. McMahon, *The Cold War: A Very Short Introduction* (Oxford: Oxford University Press, 2003), 75.

²⁰ Audra Wolfe, *Competing With the Soviets: Science, Technology, and the State in Cold War America* (Baltimore: The John Hopkins University Press, 2013), 40-41.

²¹ Letter from Eisenhower, August 7, 1958. Captain William Robert Anderson Collection, MS.3806. University of Tennessee Libraries, Knoxville, Special Collections.

²² David Lawrence "The Nautilus Opens A New Era," August 1958. USS Nautilus 571 Collection. The United States Submarine Force Library and Museum. Groton, Connecticut.

²³ News article clipping, 1958. USS Nautilus 571 Collection. The United States Submarine Force Library and Museum. Groton, Connecticut.

²⁴ Ibid.

²⁵ "Captain Anderson" magazine article, 1958. USS Nautilus 571 Collection. The United States Submarine Force Library and Museum. Groton, Connecticut.

²⁶ Letter from Early Eggs, August 11, 1958. Captain William Robert Anderson Collection, MS.3806. University of Tennessee Libraries, Knoxville, Special Collections.

²⁷ Letter to Anderson from Mrs. Ada Nowlan, September 15, 1958. Captain William Robert Anderson Collection, MS.3806. University of Tennessee Libraries, Knoxville, Special Collections

²⁸ Commander William R. Anderson, U.S.N. and Clay Blair, Jr., *Nautilus 90 North* (New York: The World Publishing Company, 1959), 31.

²⁹ Jim Cox, *Radio Journalism in America: Telling the News in the Golden Age and Beyond* (Jefferson, North Carolina: McFarland & Company, Inc., Publishers, 2013), 38.

³⁰ Ibid., 30.

³¹ Orson Welles's radio narration of H.G. Wells's *War of the Worlds* on October 30, 1938 received major backlash as many people thought that it was a real news report of a UFO landing.

³² Lynn Spigel, *Make Room for TV* (Chicago: The University of Chicago Press, 1992), 1.

³³ *Meet the Press*, September 14, 1958. Produced by Lawrence E. Spivak. NBCUniversal. Accessed May 8, 2017.

³⁴ United States Navy, *USS Nautilus – Operation Sunshine*, aired 1959 (International Historic Films, Inc., 2004), DVD.

³⁵ Walt Disney Company, *Our Friend the Atom*, YouTube Video, 00:49:44. 1957. Posted by Disneytv4me. Viewed on May 6, 2017. <https://www.youtube.com/watch?v=QDcjW1XSN0&t=171s>

³⁶ Mark Langer, "Why the atom is our friend: Disney, general dynamics and the USS Nautilus." *Art History* 18, no. 1, (March 1995), 86.

³⁷ Ibid., 86.

³⁸ See “Nixon Ambles Back Home,” *Christian Science Monitor* (15 June 1959), 15.