

NASA'S HIDDEN POWER: NACA/NASA PUBLIC RELATIONS AND THE COLD
WAR, 1945-1967

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DISSERTATION ABSTRACT

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During the 1960s, NASA's human spaceflight program commanded national and international attention. The program created American images infused with heroic values. What were these images? How and why did the process of image creation occur? The answers to these questions lie in the way the National Advisory Committee for Aeronautics (NACA) and NASA interpreted and articulated their aviation and space achievements to the public. Their Public Affairs Offices, or "Offices of Public Information," purveyed information from the agencies to journalists, media outlets, and the American public.

I use the term "saltation" to explain the dramatic qualitative and quantitative change in NASA public relations practices with the initiation of the human spaceflight program. Initially, NASA's Public Information Office relied on the modest "NACA style" of operation, which included one public information head at Washington

Headquarters, two or three employees working with him, and a single public information representative at each “field center.” The NACA, due to its small size and modest means, could be successful with such a staff, and with a reactive rather than proactive public relations methodology. Yet NASA leaders realized that, due to the explosion of public interest in the human spaceflight program, its public relations effort would require more concerted analysis and planning, a larger and more organized staff, and stronger centralized control.

As NACA and NASA Public Information provided its constituencies with information, it presented this information through particular narratives. NACA and NASA public relations borrowed the thematic refrain of the Cold War: the necessity of the triumph of “good” capitalist democracy over “evil” communist totalitarianism. The NACA, America’s aeronautical research agency, needed to legitimize its continued existence in the changing aerospace world. Its successor, NASA, needed to justify its much larger budget and the importance of civilian spaceflight, an essentially “symbolic” technology with few “practical” ramifications, for the waging of the Cold War. The NACA and NASA portrayed their technologies as imbued with democratic “American” meanings and as harbingers of infinite technological, social, and political progress.

By January 1967 and the Apollo One Fire, NASA’s public relations operation had grown large and complex, with a high degree of centralized control. The Public Affairs Office handled the tragedy more effectively than it could have during its earlier years. Yet it still suffered from discord, both internal to the organization and external in terms of public support for NASA.

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INTRODUCTION

During the second half of the twentieth century, the National Advisory Committee for Aeronautics (NACA) and the National Aeronautics and Space Administration (NASA) created American and international meanings of aviation and space technology. Throughout NACA and NASA history, the agencies' programs, culminating in the July 1969 lunar landing, have commanded national and international attention. In many ways, the high-speed research airplane and human spaceflight programs of the 1950s and 1960s were the most powerful, dramatic, and glamorous aspects of America's Cold War endeavor. Both at home and abroad, NACA and NASA programs created American images infused with heroic values. How did the NACA and NASA portray this dramatic technological change and development? With what meanings did the NACA and NASA endow its air and space technologies? How and why did the process of image creation occur? Vital answers to these questions emerge in the ways that the NACA and NASA interpreted and articulated their achievements to the public. Their Public Affairs Offices, or "Offices of Public Information," purveyed information from the agencies to journalists, media outlets, and the American public. In so doing, NACA and NASA Public Affairs enshrined flight, and especially human spaceflight, in the American and international consciousness.

In order to answer these questions, which are crucial to an understanding of Cold War technology and culture, we must begin with a study of the origins of the NACA/NASA public affairs office itself. We must identify the political and institutional context of the office. What made the office necessary? The NACA and NASA were government agencies in a “democracy” that was fighting to spread its ideology; the agencies worked hard to justify their use of American tax dollars.

World War II and the commencement of the Cold War caused a mushrooming of the federal budget and a new federal infrastructure devoted to high technology. The NACA, which had first gained its footing in the early days of aviation, had escalating concerns that a new, more modern agency might make its work obsolete. The agency’s new public relations office, or Office of Public Information, helped it address such concerns and helped the agency gain vital public support as the NACA worked to redefine its purpose in the “brave new world” of the Cold War. The office smoothed relations between the NACA, the military, and industry, helping the NACA to remain a minor cooperative partner within the exploding military-industrial complex exemplified by such agencies as the Air Force’s RAND and the National Science Foundation (NSF).

The NACA, in part because of its successful public relations practices, became the agency picked for transformation into NASA. It was within NASA, during preparations for Project Mercury, that a public affairs and public relations “saltation,” or watershed, occurred. Walter A. McDougall, in his seminal work ...*The Heavens and the Earth: a Political History of the Space Age*, was the first historian to use this term, which originated in the field of biology. For McDougall, saltation meant “an evolutionary leap in the relationship of the state to the creation of new knowledge.” This saltation,

according to McDougall, caused the birth of an American “technocracy,” or “the institutionalization of technological change for state purposes, that is, the state-funded and -managed R & D explosion of our time.” He argues that the early NASA human space program gave birth to the scourge of “technocracy.”¹

I use the term “saltation” to explain the dramatic qualitative and quantitative change in NASA public relations practices with the initiation of the human spaceflight program. Before the announcement of Project Mercury, the NASA public information office relied on the modest “NACA style” of operation. This included one public information head at Washington Headquarters, two or three employees working under him in the Washington office, and a single public information representative at each “field center.” The NACA, due to its small size and modest means, could be very successful with such a staff, and with a public relations methodology that was reactive rather than proactive. In contrast, NASA leaders quickly realized that, due to the explosion of public interest in the human spaceflight program, its public relations effort would require more concerted analysis and planning. It would also necessitate a larger and more organized staff at NASA Headquarters and NASA field centers, and stronger centralized control. In 1947, just over a year after the creation of the NACA Office of Public Information, office chief Walter Bonney oversaw the distribution of approximately fifteen news releases, most of which went no further than to members of the aeronautical community. In 1959, the year NASA began pursuing Project Mercury in earnest, Bonney and his sizeable staff oversaw the distribution of several hundred news releases to the general public, and were virtually overwhelmed by the work this entailed.

¹ Walter McDougall, ...*The Heavens and the Earth: a Political History of the Space Age* (New York: Basic Books, 1985), 5.

When one considers the fact that preparing news releases was only one part of the total public relations mission, one can see how dramatically the scope of the human spaceflight “saltation” must have affected NASA public relations.

As NACA and NASA public information worked to provide its constituency with information, it of course presented this information in a particular style, using particular narratives. Indeed, NACA and NASA public relations employed a certain rhetoric in “promoting” the new air and space age. They borrowed the thematic refrain of the Cold War: the necessity of the triumph of “good” capitalist democracy over “evil” communist totalitarianism for the salvation of the world. They used this refrain to gain public and congressional support for specific agency needs, and many of the public relations practitioners truly believed in this rhetoric. The NACA, America’s aeronautical research agency, needed to legitimize its continued existence in the changing aerospace world. Its successor, NASA, needed to justify its much larger budget and the importance of civilian spaceflight, an essentially “symbolic” technology with few “practical” ramifications, for the waging of the Cold War. Both the NACA and NASA portrayed their technologies as imbued with democratic “American” meanings and as harbingers of seemingly infinite technological, social, and political progress. With this air and space technology, the agencies said, America would save the world from the menacing red tide of communism. In various contexts, historians such as Roger Launius and Asif Siddiqi have emphasized the importance of key narratives, tropes, or motifs that have historically defined spaceflight and continue to shape space policy and the contemporary cultural meanings of spaceflight. The NASA Public Affairs Office employed several such narratives to garner support for the United States on an international level, for the agency on a national level

and within the aerospace community, and for NASA field centers on the local level. Sometimes the office had success in persuading the public with these narratives, and other times it did not. Because NASA public relations had such a strong geopolitical context, the most fervent and dominant strand in the era's public relations rhetoric centered on the necessity of American democratic-capitalist triumph over Soviet Communism. This triumph would emerge out of American excellence in air and space technology.

This meta-narrative about NASA was not static. It grew and changed over time and was in fact composed of several discrete narratives. One of these intertwined narratives included a narrative of technological indigeneity, in which public affairs officers emphasized the importance of "homegrown" expertise to the creation of the United States air and space program and often downplayed the role of international technology transfer. Another important motif was a narrative of American national identity or exceptionalism, in which public relations personnel claimed that the air and space programs were an almost inevitable outgrowth of uniquely American values and experiences, such as westward expansion, the frontier lifestyle, "technological ingenuity," and "ruggedly individualistic" capitalism. An ideal of corporate benevolence also emerged within NASA public relations, as the agency drew on the era's dominant ideals of industrial public relations and added to a narrative of the large corporation (particularly the aerospace corporation) as a savior of American values and as essential to American life.

Perhaps most significantly for the international implications of American space technology, NASA public relations constructed a strong narrative of "America-first"

globalism. Neil Armstrong and Buzz Aldrin may have landed on the moon “in peace for all mankind,” but this ideal of globalism was a “nationalist” globalism in which NASA public relations extended America’s “frontiers” into outer space and conflated America’s interests with the world’s interests. In this way, NASA public relations discourse helped to build a particular brand of American global hegemony. I borrow this conceptual framework from Jennifer Van Vleck’s article *The “Logic of the Air”: Aviation and the Globalism of the “American Century,”* and the documentary evidence certainly supports this view.² This dissertation will begin to show how NASA public relations helped the United States to consolidate the cultural and economic control that it enjoyed throughout the world in the second half of the twentieth century.

As Project Mercury progressed, the NASA Public Affairs Office, along with the agency as a whole, became more aligned with corporate America. Simultaneously, corporate America became more aligned with the Cold War. The most dramatic example of this phenomenon was the Mercury 7 *LIFE Magazine* contract, finalized in 1960, which paved the way for a decade-long relationship between *LIFE Magazine*, NASA astronauts, and the NASA Public Affairs Office. Although the *LIFE Magazine* contract certainly fulfilled the Public Affairs Office’s goal of bringing NASA information to the public, it moved the office further away from its original purpose of informing the public about the use of federal tax dollars, or of acting as a “precision mirror” of NASA activities. It facilitated the view of human spaceflight as a “product” sold by *LIFE Magazine* and helping to sell *LIFE Magazine*. This was just one example of how, during the Cold War, the corporate profit motive became increasingly institutionalized within American

² Jenifer L. Van Vleck, “The ‘Logic of the Air’: Aviation and the Globalism of the ‘American Century,’” *New Global Studies* 1, no. 1 (2007), <http://www.bepress.com/ngs/vol1/iss1/art2>.

“democracy.” It was a unique manifestation of a larger phenomenon within the mushrooming military-industrial complex: the government channeling of federal resources to companies for the purposes of rapid technological growth and development. This was a phenomenon, of course, that NASA public relations had to defend, uphold and even promote.

I will conclude the dissertation’s analysis of NASA public relations with a discussion of the Apollo One Fire of January 1967. By the time of this tragedy, NASA’s public relations operation had grown large and complex, with a high degree of centralized control under Public Affairs head Julian Scheer at NASA Headquarters. The NASA Public Affairs Office handled the tragedy much more effectively than it could have during its earlier years, in terms of practical managerial concerns and in its creation of powerful narratives for public persuasion and consumption. Yet NASA public relations still suffered from discord, both internal to the organization and external in terms of public support for NASA. This public support had begun to falter somewhat after the assassination of John F. Kennedy as the Vietnam War escalated and the Lyndon B. Johnson-era federal government, particularly projects associated with the “Great Society” initiative, came under intense scrutiny.

In essence, the work of early NASA public relations intensified the government institutionalization of corporate, capitalist public relations practices during the Cold War. This is parallel to a broader phenomenon within the “military-industrial complex”: strong government support of industrial capitalism for the purposes of creating Cold War military and space technology. At the height of the Cold War, in fact, NASA public relations practices “sold” this government institutionalization of industrial capitalism

through the use of public relations techniques that had emerged to support industrial capitalism itself. Indeed, NASA Public Affairs “sold” the very system that created its public relations techniques.

This dissertation contributes to the historiographies of technology and space as well as the historiographies of American corporate public relations and American consumer culture. The work engages in the key debates within space historiography. For instance, this study of NACA and NASA Public Affairs illuminates the American public’s role in the growth of NASA as part of the burgeoning military-industrial complex. Works such as Walter A. McDougall’s ...*The Heavens and the Earth: A Political History of the Space Age* (1985) and Dale Carter’s *The Final Frontier: the Rise and Fall of the American Rocket State* (1988) lament the decline of democracy and political egalitarianism in the second half of the twentieth century. They blame the increasingly autonomous military-industrial complex, that is, the partnership of American government, military, and industry. McDougall describes this development as the rise of “technocracy.” Both McDougall and Carter cite NASA, the successor to the NACA, as a prime example of this stifling military-industrial complex. My examination of NACA and NASA Public Affairs starts to reveal the American public’s role in these developments.

Space historians and political scientists also debate over where the impetus for human spaceflight in the 1960s emerged. Although few scholars can deny that the creation of the human space program was politically inspired, they continue to debate the relative importance of the President, Congress, the American public, and the geopolitical situation of the Cold War to the program’s emergence. For example, works such as John

Logsdon's *The Decision to go to the Moon: Project Apollo and the National Interest* (1970) and Roger Launius' and Howard McCurdy's *Spaceflight and the Myth of Presidential Leadership* (1997) stress that John F. Kennedy played a limited role in the birth of human spaceflight and that, in fact, other social, political, and economic situations truly began the "space age." Studies such as James Lee Kauffman's *Selling Outer Space* (1994) and Carter's *Final Frontier* (1988), however, argue that Kennedy's persona and presidency played a large role in the development of manned space programs. William Sims Bainbridge, in his book *The Spaceflight Revolution* (1976), argues that American and international social and cultural trends provided the largest impetus for the emergence of manned space programs. A study of NACA and early NASA Public Affairs in the 1960s begins to more clearly present the role played by the agency's own public information practices in the emergence of manned spaceflight. A number of important works examine the powerful effects of preexisting American cultural paradigms, such as the "frontier" image and images from science fiction, on the birth and sustenance of the space age. These works include Howard McCurdy's *Space and the American Imagination* (1997) and James Lee Kauffman's *Selling Outer Space* (1994). However, these studies have not systematically explored the specific ways in which NACA and NASA promoted and justified their existence through the use of such images and ideas. In my study of NACA and NASA Public Affairs, I begin to show how and why the agencies chose certain paradigmatic and archetypal images and narratives for public consumption. How did these images and narratives affect public support for the NACA and NASA? How did they contribute to American perceptions of flight,

especially human spaceflight, and of Cold War technology in general? How did they affect American cultural and political life?

A study of NACA and NASA Public Affairs also sheds light on the nature of large-scale corporate and government public relations and advertising enterprises in the 20th century. Historians and social scientists have produced a fairly substantial body of work that explores the development of public relations in American “big business” over the course of the 20th century. Several pertinent issues have emerged in this area. Scholars have argued over the extent to which public relations “advertised” for companies or conveyed the desires, opinions, and suggestions of the public to companies, promoting an egalitarian exchange of information benefiting democracy. Alan Rauscher, in his book *Public Relations and Business, 1900-1929* (1968), argues that public relations did in fact uphold this democratic ideal. In *Keeping the Corporate Image* (1979), Richard Tedlow argues that while public relations in some ways facilitated the free flow of information, it also served as a method of social control that escalated over the course of the century. Scott Cutlip’s book, *The Unseen Power* (1994), asserts that although public relations claims to support democracy, it instead supports the domination of corporations with large budgets who can afford to manipulate publicity in the way they want. I begin to show how the NACA and NASA “used” publicity for their own purposes.

Other scholars explore the relative importance of the public relations enterprise to larger managerial strategies attempting to bring corporations closer to customers. Were public relations strategies planned, or were they “quick fixes” in times of crisis? Most works, such as Tedlow’s book, show that over the course of the century, public relations

became an increasingly integral part of management strategies. Yet others argue that public relations remained a peripheral concern in many companies. I begin to show how the cases of the NACA and NASA compared.

Still other works examine the influence of public relations and advertising imagery on American social and political life and thought. In *Image Worlds, Corporate Identities at General Electric, 1890-1930* (1985), David E. Nye argues that advertising and publicity helped to create a highly stratified American social reality in which society's structure reflected corporate hierarchies. On a larger scale, Roland Marchand's seminal work, *Creating the Corporate Soul: The Rise of Public Relations and Corporate Imagery in American Big Business* (1998) shows that visual images grew increasingly important to corporate strategy over the course of the 20th century and that these images usually succeeded in defining the dominance of big business in the changing American social order. Moreover, these images almost always had the effect on the American public that business desired. Scott Cutlip asserts that public relations strategies have had a hidden power in American history, because most consumers have accepted a profusion of publicity without questioning the origins and motivations of that development. To some extent, this must have also been true of NASA public relations. How did this public relations power manifest itself? How did NASA imagery help to create or reproduce a certain American (and international) social or political order? How did it work to promote the agency, and what kinds of images were needed to promote the agency? A study of NASA public affairs helps to answer these vital questions. This dissertation should also become part of the historiography regarding the place of advertising and promotion in the burgeoning "consumer culture" of the 20th century and

in the evolving American consciousness. Several significant works, particularly William Leach's *Land of Desire: Merchants, Power, and the Rise of a New American Culture* (1983) and Stuart Ewan's *Captains of Consciousness* (1976) stress the role of big business in creating consumer culture and social submission to capitalist, corporate organization and examine advertising as a cultural text. I start to shift the focus to NASA's role in influencing the expanded consumerism of the Cold War era through its public affairs and "advertising" techniques.

NASA public relations claimed to uphold democracy, helping to educate the public so that they could make informed decisions about NASA's activities. Did "technocracy" ever allow the public to participate in technological decision-making, or did it prohibit such decision-making and therefore produce spaceflight as a non-democratic technology serving the interests of the few and not the many? This dissertation begins to show the reality of public participation in the development of spaceflight and the implications of this participation for American democracy in the second half of the twentieth century. Because Americans make decisions about their government on the basis of information, it is important to understand the "creation" of information released by government agencies.

A study of NACA and NASA Public Affairs goes to the heart of the issue of how Americans hold their government accountable. Information about government agencies may be channeled through the press, but it has to originate somewhere: in these agencies' public information and public affairs offices. Between 1945 and 1961, many political and institutional forces shaped the changing NACA and NASA Public Affairs Offices and their products. It is clear, though, that a saltation, or "evolutionary leap" in public

relations knowledge and practice, occurred during the first months of Project Mercury, NASA's first manned spaceflight initiative. This saltation, while inextricably entwined with the era's growing military-industrial complex, continues to have importance for the nature of government public information practice.

CHAPTER ONE

RESTRUCTURING AND RE-IMAGINING: THE NACA AND WORLD WAR II

From 1939 to 1945, the second Great War shook the world and transformed everything in its wake. Although the United States did not enter World War II immediately, its government and its people were nonetheless drawn into the deadly European conflict well before Pearl Harbor. The decisions made by American leaders in the early 1940s would transform the American industrial and technological landscape, including industrial public relations practices, and alter the course of the twentieth century. These decisions would also transform the role of the National Advisory Committee for Aeronautics (NACA), America's aeronautical research agency, and the NACA's public relations policies.

Shortly after President Franklin Delano Roosevelt's second re-election in 1940, as bitter disagreements between isolationists and internationalists flared, Congress passed his Lend-Lease Act. In committing the substantial economic power of the United States to the aid of a weakened Great Britain that had already been fighting Nazi fascism since 1939, American leaders took the early steps towards the creation of a domestic military-industrial boom. America would become the Allies' "arsenal of democracy," an arsenal that would include such technologies as planes, submarines, and naval ships, as well as direct military assistance. The great strides in aviation development made

by the United States since World War I would benefit the Allies during this era.

American planes, all of which were tested in the modestly publicized laboratories of the NACA, would play a pivotal role in determining the war's outcome.

A new era began on December 7, 1941. A striking force of Japanese aircraft carriers launched an overwhelming attack on America's naval fleet and air force in Hawaii, beginning a horrifying new chapter in the tense story of American-Japanese relations. Four days after the attack on Pearl Harbor, which destroyed almost 200 American planes and killed approximately 2500 men, Germany and Italy declared war on the United States. The U.S. Congress then declared war on them. The United States now had to fight a war on multiple fronts across the globe, and had to mobilize the vast resources necessary to do so.

The government's immediate problem was the production of the machines and weapons for global warfare. During the first half of 1942, the government placed more than \$100 billion into war contracts with private industry. In these six months alone, the government ordered, and paid for, more goods than the U.S. economy had ever produced in a single year. Although the military controlled a substantial amount of this money, so did a number of relatively new civilian agencies, such as the U.S. Maritime Commission and the Office of Scientific Research and Development. In a very short time, America was out-producing every other nation on Earth.

This high level of mobilization lasted for the duration of the war, leading to unprecedented American prosperity as well as to the creation and production of improved weapons of war. The most notable of these were the atomic bomb, created out of a "crash program," the Manhattan Project, in which the government devoted a

concentrated amount of resources to achieving a single short-term goal. By the end of the war, the government had spent approximately \$2 billion on the endeavor.

Only vast mobilization could hope to ensure American victory in the war, which meant that the hesitant nation of 1938, still reeling from the Great Depression, all but disappeared within the superpower of 1945. World War II transformed the scope and structure of nearly every American industrial and government entity. It also greatly changed the advertising and public relations practices upon which these organizations depended. Each institution, whether private or public, whether old or new, had to work harder to create a favorable public image in order to gain and sustain the support of the American people. The National Advisory Committee for Aeronautics (NACA) was one such organization.

In creating an official public relations office, the NACA took its place within American public relations history and added its own chapter to the narrative. Although the NACA was a government agency, its new public affairs office (formally called the Office of Public Information, or OPI) had to work within the existing public relations milieu. In its early years, the NACA public affairs office had little in common with the public relations operations of large companies and corporations. Yet its successor, the National Aeronautics and Space Administration (NASA), would have a much larger budget, much stronger relations with industry, and a politically explosive mission to sell. For these reasons, NASA's Public Affairs Office, although based on the NACA's Office of Public Information, would have much more in common with the public relations offices of large corporations. Unfortunately, no widely available, published historical study of a United States government agency's

public relations practice exists for the pre-World War II and World War II periods. Historian Craig Lloyd has published a very good study of Herbert Hoover's panoramic public relations activities called *The Aggressive Introvert: Herbert Hoover and Public Relations Management, 1912-1932* (1972), but this work focuses on Hoover's career advancement and individual accomplishments in the realm of public relations and does not focus deeply on a single government organization.

Although deliberate devices for influencing public opinion had existed in the United States since the colonial era, large-scale public relations and advertising truly began in the late nineteenth century. In the United States, the Industrial Revolution gave birth to a uniquely American public relations. The rise of companies and corporations, and their relationships to constituents inside and outside their walls, resulted in the development of the public relations profession. As business developed during the first half of the century, it intersected with, and helped to shape, tumultuous events such as the Progressive movement, the Great Depression, and especially World War II. Businesses' public relations practices necessarily grew and changed as well.

Webster's Dictionary defines public relations as "the business of inducing the public to have understanding for and goodwill toward a person, firm, or institution." A distinction should be made between "public relations" and "advertising." Webster's defines advertising as "the action of calling something to the attention of the public, especially by paid announcement."¹ Public relations is much broader in scope than

¹Victoria Neufeldt, ed., *Webster's New World College Dictionary* (New York: MacMillan, 1997).

advertising, referring to a company or institution's entire effort, usually organized in a single office or division within the firm, to communicate, on a large scale, with the public. Advertising has a narrower purpose: to market specific goods or ideas. While advertising is often a vital part of public relations, public relations consists of far more than advertising.

According to many scholars of public relations history, public relations practitioners have "played a far more important role than the public believes."² Indeed, "public relations" has influenced nearly every arena of America's social and cultural life—not merely the arenas of politics and business. In short, public relations practitioners have played a great role in shaping public opinion. Sympathetic historians and social scientists cite "the good for society that can be accomplished through ethical, effective public relations." They distinguish between public relations and mere "publicity," describing public relations as a "useful profession." "Good" public relations, they say, does not deceive or manipulate. Historian Scott Cutlip says, "the social justification for public relations in a free society...is to ethically and effectively plead the cause of a client or organization in the free-wheeling forum of public debate."³ Scholars point out the obvious problem that a wealthy organization can persuade much more effectively than a modest one due to its larger public relations budget.

Public relations history has a tragic and often unethical side. The practice often falls short of the aforementioned ideals. Over the course of the twentieth

² Scott Cutlip, *The Unseen Power: Public Relations: a History* (Hillsdale, N.J.: Lawrence Erlbaum, 1994), x.

³ Cutlip, *The Unseen Power*, xi.

century, public relations, mostly in the service of big business, has broken strikes, fought government regulations, and “eliminated” complaints about unsafe products. Public relations helped to build the Ku Klux Klan in the early 1920s, and the Nazis used public relations to gain support for Hitler in the 1930s.

Throughout the history of American industry, public relations practices have helped to “buffer” certain industries from vocal critics. Interestingly, public relations campaigns “created” many trends and fads that became significant parts of American and global culture. These have included motor boating, contract bridge, and skiing, hobbies which for all practical purposes did not exist before a company focused publicity campaigns around the products needed to perform them. Industry public relations also helped to convince a skeptical and fearful public to pursue commercial aviation, a function that helped the NACA immensely.

Events in the first half of the twentieth century shaped the public relations ethos inherited by the wartime NACA and its partners. Public relations of the early century saw a vast increase in the advertising of mass-produced goods, the growth of stronger relationships between companies and their advertising and PR agencies, and a growth in business leaders’ political and cultural ambitions. As large corporations grew from the companies of the early twentieth century, creating new divisions that had a tendency toward independence, public relations began to face both “outwards” towards the consuming public and “inwards” towards increasingly scattered company units and employees. A milieu of “image construction” helped to promote solidarity and morale building within huge firms.

First and foremost, the purpose of a company's public affairs office was to improve the company's relations with its customers. As companies became richer, larger, and more complex, the first corporations emerged. These new entities amassed vast amounts of capital from many different sources; they expanded vertically and horizontally. Public relations had to grow with corporations, helping to keep them financially and politically viable. During the twentieth century, top executives increasingly engaged in public relations campaigns depicting their businesses not as mere producers of modern goods but as social services, defenders of democracy, and drivers of progress, technological and otherwise. During the first half of the century, many Americans tended to mistrust corporations; this was a tendency that the corporations had to fight throughout the era.⁴

Advertising remained a key aspect of companies' and corporations' public relations practices. According to several historians, mass advertising accustomed people to modernization, rationalization, and the "assembly-line" homogeneity wrought by the Industrial Revolution. In his 1994 book *Fables of Abundance: A Cultural History of Advertising in America*, Jackson Lears writes that early twentieth-century advertising tried to "disconnect human beings from the material world...dematerial[izing] desire."⁵ In concert with such developments as Fordism, it replaced the nineteenth-century American tendency to have a "natural, carnal" attachment to goods with a more rational viewpoint toward products. Lears depicts twentieth-century advertising as an intensification of the "plain-speaking" Protestant

⁴ Roland Marchand, *Creating the Corporate Soul: the Rise of Public Relations and Corporate Imagery in American Big Business* (Berkeley: University of California Press, 1998), 50.

⁵ Jackson Lears, *Fables of Abundance: a Cultural History of Advertising in America* (New York: Basic Books, 1994), 4.

work ethic that had associated lack of self-control with animism and the fertile earth. Overt physical sensuality and earthly fertility were qualities Protestant Americans largely associated with nineteenth-century southern European immigrants. Although historian Roland Marchand, in his *Advertising and the American Dream* (1985), agrees with Lears that the vast majority of advertisers were a homogenous group of white, educated, “provincially urban,” upper-middle-class men who looked down on and felt distant towards the working immigrant masses, he also believes that advertisers ultimately had to “adjust” to the tastes and desires of the ordinary people—people who, for the first time in American history, had disposable income.

Lears asserts that American admen created “an ideal of unified, controlled, sincere selfhood—a bourgeois self.” Just as factories and other amenities of modern production separated goods from the earth, late nineteenth- and early twentieth-century advertising imagery evolved from the utilization of images of fertility to images of sterile, efficient, quantitatively productive machines. As the century progressed, advertising became more institutionalized in corporate public relations settings. As advertising agents sought professional stature and respectability, their mission became the “containment of carnival” in the creation of a managerial philosophy. The new admen taught people to pick products rationally rather than instinctually. In the end, according to Lears, “managerial rationality” won out over “carnavalesque sensuality.”⁶

In the midst of these changes, Progressivism took hold. The Progressive movement (1900-1920) was comprised of politicians, writers, artists, and other activists who wanted to improve the lives of people, such as workers and children,

⁶ Lears, *Fables of Abundance*, 30.

who had been left behind by industrial prosperity or who had been exploited by the capitalist system of industrial expansion. Progressives wished to fight corruption in government, which they believed facilitated corruption in business. The hallmark of the Progressive Era was government legislation, passed largely under Presidents Woodrow Wilson and Theodore Roosevelt, which regulated business and busted trusts. Marchand, in his examination of the advertising developments begun in the 1920s, argues that the Progressive era gave strong impetus to advertising and public affairs, because of the “contests over corporate power.”

In looking at the sources for advertising, Marchand argues that mass advertising derived much of its power by “learning” from earlier and more-developed forms of popular culture such as radio, cartoons, soap operas, and tabloids. Expanding on the ideas of Jackson Lears, Marchand discusses the nature of visual imagery in advertising, saying that through their use of “luminous” images, advertisers even in the age of mass production preyed on the spiritual and religious longings of their constituents. “Without directly competing with religion,” writes Marchand, “advertising had appropriated the image of the sublime.”⁷ Institutional advertising first countered images of the “soulless corporation” and expanded with the employment of company public relations staffers and consultants during the early decades of the century. Advertising, perhaps more than any other form of popular culture, helped Americans from 1920 to 1940 adjust to the new and complex character of modern life, including urbanism, the individual’s place in a large system,

⁷ Roland Marchand, *Advertising and the American Dream*, (Berkeley: University of California Press, 1985), 50.

the idea of “material progress,” and science and technology. Advertising responded to human needs, both real and imagined, created by these changes.

Advertising glamorized and otherwise celebrated the goods of mass production, and its images translated into a “symbolic significance” for the object sold. Advertising implied that goods could give people individual freedom, and it gave “expert advice” on how to use and how to choose the vast variety of objects for sale. According to one reviewer of Marchand’s book, “advertising pretended to provide an antidote to the anonymity of mass society by speaking directly and personally to consumers as individuals and by invoking images of intimate, small-town experience.”⁸ Advertising exploited personal fears and anxieties, making people believe they “needed” mass-produced products, but also reassured people that they could have everything they desired if they became truly devoted consumers.

In key ways, World War I interrupted the thrust of the Progressive movement. As often happens in time of war, the growth of federal power allowed certain agencies an immense amount of control over the minds of the American people. This growth of federal power gave rise to President Wilson’s creation, in 1917, of the Creel Committee on Public Information, a body that would shape the era’s government public relations and contributed to industrial public relations.

The CPI was named for its chair, George Creel, who worked out an agreement with newspapermen to censor sensitive information while keeping the public “reasonably well informed.” The CPI pushed two major ideologies. The first was the belief that America’s only purpose in the war was to fight for freedom and

⁸ William R. Leach, review of *Advertising and the American Dream*, by Roland Marchand, *The Journal of American History*, June 1986, 233-234.

democracy; the second was that the Germans were all diabolical monsters who deserved no mercy. Although the initiative gained much support for the war, its main result, especially in the eyes of journalists, was that all dissent became suspicious and often resulted in witch-hunts and “kangaroo courts.”⁹

Although this was a dark chapter for government public information, it led to a “boom” of corporate public relations growth in the 1920s. Former committee workers who had learned the public relations “craft” and the power of certain propaganda techniques gave new energy and ability to corporate public affairs offices. The economic “boom” of the roaring twenties, of course, also gave companies more goods to publicize and more resources with which to publicize them.

Although public relations practices focused primarily on attracting new customers, they took another form as corporations continued to grow. The corporation integrated new divisions and factories under a single umbrella, many of which were located in different buildings or even in different cities. Company presidents had to bring managers and workers under their control.

This kind of “internal” public relations emerged in part because of late nineteenth-century businessmen’s need to force the “working class,” and especially immigrants, into the strict routines of industrial discipline and mechanical time. Eventually, however, businessmen, using the ideas of psychologists, social scientists, and advertising propagandists working in their service, realized that it was necessary to control workers “beyond the realm of the factory and into the very communities and structures within which they lived” in order to maintain their complete loyalty

⁹ Lloyd, *Aggressive Introvert*, 46; James Mock, *Words that Won the War* (Princeton, New Jersey: Princeton University Press, 1939), vii-xi, 44-58. For a spirited defense of the Creel Committee’s work, see George Creel’s own *How we Won the War* (New York: Harper and Row, 1920).

and obedience.¹⁰ At this juncture, advertising took on new meanings. According to historian Stuart Ewen, businessmen “aspired to be the captains of consciousness,” trying to control the entire social realm by selling goods to the workers, consuming their leisure time and their income. These attempts often clashed with the workers’ desires to maintain their own indigenous cultural mores.

Public relations spokesmen insisted that manufactured goods fulfilled all needs. They therefore encouraged the idea that the industrial corporation, rather than the family or the immigrant group, was the center of American group identity. The passive consumer, engaged in consumption and mass leisure, would forget about pursuing other forms of change. In this milieu, the essential issues of industrial capitalism were reduced to “trivialities.” For example, women were sold new commodities to improve their sexual attractiveness, resulting in a compulsive quest for self-improvement. According to Ewen, advertisements created a “vision of social amelioration that depended on adherence to the authority of capitalistic enterprise.”¹¹

Public relations of the period, especially for the purposes of internal control, took many media forms other than print advertising and information releases. In his study of General Electric’s photographic archive during the years 1890 to 1930, David Nye shows how industrial leaders marshaled General Electric’s photographs for various internal purposes—to influence and subjugate its mass of workers, to advertise its products, and to otherwise construct good public relations. Nye himself perceived a certain coded system of communication and has “discovered” the use of

¹⁰ Stewart Ewen, *Captains of Consciousness: Advertising and the Social Roots of the Consumer Culture* (New York: McGraw-Hill, 1976), 15-16.

¹¹ Ewen, *Captains of Consciousness*, 85, 109.

this photography as ideology: an ideology that involved leaders of a corporation subjugating its workers, and manipulating a public for its own ends. Says Nye, “General Electric was nothing if not a hierarchical system of politico-legal-economic positions in which many forms of evaluation divided people from one another.”¹² In a similar vein, Roland Marchand shows how a unity of purpose in advertising could “rein in” different company divisions as it helped to sell more products.

The public lost much of its confidence in business during the Great Depression. PR expanded its purview still further in the 1930s because of corporations’ ideological clashes with New Deal policy. Businesses happily accepted monetary help from FDR’s National Recovery Administration (NRA) after the “Hundred Days” of 1933, which provided the side benefit of increased publicity. By 1935, business had made great strides towards recovery. Business groups, particularly the National Association of Manufacturers, began lobbying the skeptical government to “sell” business’s centrality to the “common man.” “Image Managers” subsequently rose in status within companies; for instance, the public relations manager of General Motors became its corporate Vice President in 1940.¹³

Businesses would not have to wait long for increased government support to become the “status quo.” During World War II, capitalism strengthened, as did consumerism, the power of advertising, and “mass culture.” World War II brought change on a new scale to public relations. Roland Marchand calls World War II a “public relations war.” Indeed, during a war in which companies played a role more

¹² David E. Nye, *Image Worlds: Corporate Identities at General Electric, 1890-1930* (Cambridge, Mass.: MIT Press), iv.

¹³ Marchand, *Creating the Corporate Soul*, 210.

vital than ever before, it became harder for corporate executives, including public relations executives, to distinguish between the best interests of the American people, the nation, and the corporation.¹⁴ War contracts given by the federal government included a healthy percentage for publicity, and starting in 1942, companies began to receive a hefty tax deduction for advertising and public relations. Public relations budgets escalated from \$1 million nationally in 1939 to \$17 million in 1944. Public relations offices added new and more specialized personnel just as quickly, institutionalizing even more vast and intricate PR functions. During this time, corporations worked on “tastefully” advertising their contributions to the war effort, which gave them moral legitimacy in the eyes of the public.

The relative importance of big business to the American economy more than doubled from 1939 to 1944. Ironically, as corporations grew bigger and more powerful, they more often reached out to a “small town” audience, portrayed themselves as “neighborhood-friendly,” and worked on attracting Americans of different ethnicities to their products. They also devoted themselves to promoting a new and stronger free enterprise and high-tech “visions of tomorrow,” many of which featured imaginary aviation technology. By the end of World War II, the “mistrust” of business that had marked much of the century had all but disappeared as America was indoctrinated into the Cold War era of gargantuan industrial enterprise that promised unlimited bounty to almost everyone.¹⁵

The fusion of government policy to industrial forces had defined the NACA since its inception, but this relationship would become even more important to the

¹⁴ Marchand, *Creating the Corporate Soul*, 317.

¹⁵ Marchand, *Creating the Corporate Soul*, 380.

NACA and NASA in the subsequent two decades. With the creation of the NACA's public affairs office, run by Walter T. Bonney, the modest government aviation agency would join forces with multi-million dollar corporations in selling postwar American dreams and nightmares.

Congress founded the United States' National Advisory Committee for Aeronautics (NACA), an institution unique in America's aviation history, in 1915. The early agency had a headquarters in Washington, D.C. and a single laboratory: the Langley Aeronautical Laboratory in Hampton, Virginia. The Committee faced serious responsibilities because it emerged at such a critical time in aviation development. Despite the American triumph of the Wright Brothers in 1903, Europe led the world in aeronautical research during the first World War, and American leaders realized that the nation had to "catch up." A crucial step was the formation of the first national aeronautical laboratory.

The NACA was born during an era of almost religious public zeal for aviation. According to historian Joseph Corn, "[in the first half of the twentieth century], the idea of flying evoked enthusiasm and romance, and airplanes were considered wondrous, even miraculous machines." Indeed, during the period from 1910 to 1950, "aviation literally was the future...many viewed airplanes as prophetic machines, promising enhanced mobility, enlarged prosperity, cultural uplift, and even social harmony and perpetual peace in the emerging 'air age'...these expectations were part of what in the 1920s was sometimes called the 'winged gospel.'"¹⁶ The

¹⁶ Joseph J. Corn, *The Winged Gospel: America's Romance with Aviation* (Baltimore: Johns Hopkins University Press, 1983), x.

NACA, therefore, did not need to use public relations to persuade a recalcitrant public to take aviation technology seriously. Instead, throughout the agency's history, the NACA used public relations to advance the organization's particular needs. And, as Jenifer van Vleck states, "In the context of World War II, the so-called 'air age' entailed new conceptions of American national identity and global responsibility."¹⁷ NACA public relations would help to construct these conceptions.

In order to understand the public relations practices of the NACA and its successor, NASA, one must first understand the functions of the agency as well as the dramatic changes withstood by the agency during the early twentieth century, the interwar period, and the two World Wars. Dramatic changes in the agency's direction, funding, and relative importance to the federal government's technology infrastructure converged to produce the NACA's first official Office of Public Information (OPI) in 1945. This was the seed from which NASA public relations grew. For the NACA, public affairs became a line of defense and a form of self-preservation in the tenuous post-World War II era.

In the words of John F. Victory, Executive Secretary of the NACA, the agency's official mandate was to "supervise and direct the scientific study of the problems of flight with a view to their practical solution" and to "direct and conduct research and experiment in aeronautics."¹⁸ Although this mandate featured the rhetoric of science, it nonetheless described an organization focused on engineering.

¹⁷ Jenifer L. Van Vleck, "The 'Logic of the Air': Aviation and the Globalism of the 'American Century,'" *New Global Studies* 1, no. 1 (2007), <http://www.bepress.com/ngs/vol1/iss1/art2>, 28.

¹⁸ National Advisory Committee for Aeronautics, John F. Victory, Speech, "The Public Relations of the National Advisory Committee for Aeronautics," 25 September 1951, Box D, Floyd Thompson Collection, Langley Historical Documents Collection, NASA Langley Research Center Archives, Langley, Virginia.

The achievements of flight, many NACA staff members believed, were the “result of practical engineering solutions to the outstanding scientific and technical problems of flight.” In other words, the NACA treated aeronautics as an avenue for engineering research and development.¹⁹

The mandate’s subterfuge was helpful in preserving a certain public, and politically advantageous, image for the modest agency. In the realm of aviation, the naïve American populace often gave scientists credit for problems solved by engineers. For instance, in 1929, when the NACA won its first of four Collier Trophies for its cowling work to improve engine efficiency, almost everyone outside the aviation industry lauded science, rather than engineering, as the source of NACA success. Most “aviation publicists,” i.e., journalists for privately-owned aviation and popular publications, were “rabid technological enthusiasts” who did not understand the process through which the cowling achievements emerged. Indeed, “in the era from Lindbergh to the New Deal, the United States’ aviation publicists—devout believers in a ‘winged gospel’ and in an airplane symbolic of the boundless promise of the American future—did not understand the technology well enough to see any advantage in making practical qualifications about the engineering of cowlings.”²⁰

As Vannevar Bush, chairman of the NACA from 1939 to 1941, once said, “a scientist may sell a bill of goods to Congress when an engineer could not get a street

¹⁹ James R. Hansen, *Engineer in Charge: a History of the Langley Aeronautical Laboratory, 1917-1958* (Washington, D.C.: National Aeronautics and Space Administration, 1987), xxviii.

²⁰ James R. Hansen, “Engineering Science and the Development of the NACA Low-Drag Engine Cowling,” in *From Engineering Science to Big Science: the NACA and NASA Collier Trophy Research Project Winners*, ed. Pamela Mack (Washington, D.C.: National Aeronautics and Space Administration, 1998), 1-2; Corn, *The Winged Gospel*, x.

car token on Capitol Hill.”²¹ Yet as historian James R. Hansen has demonstrated, engineers and engineering principles led almost every level of Langley activity. Indeed, the cutting-edge wind tunnels and other pieces of test equipment, whose very construction required engineering knowledge and design, formed the Langley laboratory’s backbone.²²

In order to fulfill its mandate, the NACA evaluated the status of civil and military aircraft development, anticipated aviation research needs, and developed “scientific” (actually mostly “engineering”) staff and research facilities. The “Main Committee” members themselves served as an unpaid “board of directors.” The NACA began with a very small number of members. By 1951, at the twilight of the agency’s history but at the height of its size and complexity, the Main Committee had 17 members appointed by the President. Members included scientists from the private sector, industry executives, and representatives of the government agencies most directly concerned with aeronautics, including the Air Force, Navy, and Department of Commerce. Monthly, the Main Committee met to discuss research programs and budgets, to survey present and future problems, to initiate research, and to plan for new research facilities. Assisting the Main Committee as it determined research programs were five major and twenty-two subordinate committees, whose members also served without compensation. The Committee members, “aware of the great costs in dollars and manpower implied by...aeronautical research and development,” worked to “maintain effective teamwork among the various

²¹ Hansen, *Engineer in Charge*, xxvii.

²² Hansen, *Engineer in Charge*, xxviii; William F. Trimble, *Jerome C. Hunsaker and the Rise of American Aeronautics* (Washington, D.C.: Smithsonian Institution Press, 2002), 162.

government and private agencies, and the aircraft industry itself, with regard to furthering aeronautical research and development.”²³

While the Main Committee and Subcommittees determined the specific problems upon which the NACA would focus, the Langley staff, consisting primarily of engineers, honed solutions to the problems themselves. In terms of agency organization, the Main Committee members “ruled the roost,” advising members of the Washington office, which included the Director of Aeronautical Research and the Executive Secretary. The Subcommittees advised, and often worked in concert with, the Main Committee. In turn, the Washington Office advised the Langley center officials who headed divisions with titles such as Aerodynamics, Technical Services, and Power Plants. In later years, NACA divisions included such exotica as the Pilotless Aircraft Research and the Theoretical Mechanics Division. Engineers within these divisions performed the NACA’s core work.

NACA work procedure was direct and straightforward. The military services, industry, technical committees, and the laboratories would suggest research projects to headquarters in Washington. Some requests, particularly those from the military, were quickly approved in the Director of Research’s office. The director referred others to a technical committee for analysis. Officials then assigned the projects to a laboratory, which would schedule the research for a test facility, such as a wind tunnel. During the project’s progression, engineers prepared preliminary reports for

²³ Hansen, *Engineer in Charge*, xxviii.

the group requesting the project. At the project's completion, the NACA published a formal project report and then closed the research authorization.²⁴

The NACA Langley Research Center in Hampton, Virginia emerged at a pivotal time in American history, aviation development, and public relations development. Langley Research Center performed most of the technical work of the NACA. During the First World War, Langley performed important work with plane engines, bringing together leaders from industry and the military. Out of these negotiations emerged the groundbreaking Liberty Engine. In 1917, the NACA helped to construct a cross-licensing agreement establishing that the American aeronautical industry would operate without major patents. This opened the field to widespread airplane manufacturing within many different companies. During World War I, the NACA served the War Department and its work "was essentially advisory."²⁵

Nonetheless, it was during World War I that the NACA formed its first true partnerships with the new, full-scale aviation manufacturing industry, which had grown to maturity during the war. These crucial early relationships would profoundly shape the emergence and the inevitably "industry-friendly" character of NACA and NASA public relations policies and practices.

Although still at the forefront of the American imagination, the thriving aviation industry took economic hits in the 1920s, after the aviation "war boom." The NACA played a key role in helping to publicize and gain support for the Kelly Air Mail Act of 1924, the Air Commerce Act of 1926, and the Army Air Corps Act of

²⁴ Alex Roland, *Model Research: the National Advisory Committee for Aeronautics, 1915-1958* (Washington, D.C.: National Aeronautics and Space Administration, 1985), 179.

²⁵ Roland, *Model Research*, 41.

1926. The last of these provided for expansion of the Army Air Forces and Naval Air Services and for the appointment of an Assistant Secretary of War for Air. Together, these laws provided a strong degree of federal support to the aviation industry, support for which the NACA had been trying since 1918. The government's aid to the weakened industry was its first substantial aid since the invention of the airplane.²⁶ This assistance freed the NACA to focus on research rather than on providing direct guidance to the military and industry.

The situation pleased the agency's staff immensely. During the interwar era, the NACA focused on basic and applied research that would benefit the aircraft industry. Perhaps most notably, Langley developed a method for the cowling of radial engines. Cowling, a removable metal covering for the aircraft engine, helped to reduce the total drag on an aircraft while also maintaining a cool engine temperature. The NACA won the prestigious Collier Trophy for this work in 1929.²⁷

One "public relations" boon for the NACA, and for aviation in general, during this era was Charles Lindbergh's solo New York to Paris transatlantic flight of 1927. Along with the flights of Amelia Earhart and other aviation pioneers, Lindbergh's flight gave rise to new heights of aviation "hysteria" in the United States.²⁸ The flight represented a "high-water mark for aviation enthusiasm and was itself a major stimulus to air-mindedness in the period...[it] catalyzed a celebration unlike anything ever witnessed in American life." Newspapers, whether sensationalist or stolid,

²⁶ Roger Bilstein, *Flight in America: From the Wrights to the Astronauts* (Baltimore: Johns Hopkins University Press, 1984), 51-52, 75.

²⁷ Hansen, *Engineering Science*, 1.

²⁸ Van Vleck, *The Logic of the Air*, 6.

devoted much of their May 1927 coverage to Lindbergh and his flight. For instance, the May 22, 1927 edition of the New York Times devoted its first five pages to Lindbergh's flight, "and for days afterwards let news of his activities dominate the front page." The public read detailed accounts of the flight including descriptions of the weather encountered and of plane instrumentation. They also learned about Lindbergh as "hero" while internalizing his vision of aviation's future, his family background, and his ideas about the future of aviation. Joseph Corn says, "by fitting Lindbergh to an already mythologized vision of their frontier past...Americans reassured themselves of their continuing vitality as a people and a nation...[they] took Lindbergh's flight as affirming the continued strength of pioneer instincts and virtues."²⁹ During the Cold War, such uniquely American "mythological" constructs would help NASA public relations workers use Lindbergh's cultural successors, the astronauts, as vehicles for NASA's own "pro-America" narratives.

Lindbergh's achievement enthralled the public and inspired new support for aviation, which meant increased public awareness of the NACA. Lindbergh joined the NACA's Main Committee in 1931. His seat on the Committee further benefited the NACA's public image because of his freedom from public ties to industry. Such ties could make Congress suspicious. Also, Lindbergh's "enormous prestige and popularity lent weight to the NACA letterhead."³⁰

Although the Great Depression brought some difficulties to the NACA, the agency's federal status largely protected it from the slings and arrows of the 1930's

²⁹ Corn, *The Winged Gospel*, 25.

³⁰ Roland, *Model Research*, 125.

marketplace. The agency garnered significant support from its admirers in both military and industrial circles; this support translated into survival on Capitol Hill. Over the years, the NACA earned a remarkable reputation for efficiency of operations.³¹

The NACA Langley Research Center developed its uniquely efficient operating style from 1915 to 1930, a time when pure scientific theory seemed particularly ineffectual in solving the practical aircraft design problems of the post-World War I era. Small wooden biplanes, covered with cloth and powered by hand-carved wooden propellers, ruled the skies. Experimenters would be able to dramatically improve planes' aerodynamic efficiency once they solved such basic mysteries as how to reduce drag while maintaining a cool engine, how to shape wings to increase lift at low speeds and decrease drag at high speeds, and how to work flaps efficiently.³²

Pilots and designers identified these problems as practical concerns, and the problems therefore had to be solved through applied fundamental research. Engineers had to utilize their talents, as well as facilities such as the famous variable-density wind tunnels and other experimental equipment unique to Langley. The NACA was uniquely situated to handle such problems. The professional character of those who worked at Langley and led the research—i.e., the engineers, such as George Lewis, the Director of Research for the NACA from 1919 to 1947—helped to ensure that Langley pursued an empirical approach. This was an approach that the NACA

³¹ Roland, *Model Research*, 130-138.

³² Bilstein, *Flight in America*, 47.

maintained through its basic and applied research until its transformation into the National Aeronautics and Space Administration (NASA) in 1958.

With the advent of World War II emerged the need for vast numbers of weapons. Through the budding military-industrial complex, the war led to a new era of even stronger partnerships between government and industry and also to new government institutions devoted to scientific and technological development. The war also brought change, on an unprecedented scale, to the NACA and its nascent public relations practices.

World War II caused a general shift in American attitudes towards aviation technology. Indeed, mid-century aviation changed the way Americans viewed themselves in relation to the rest of the world. Airplane enthusiasts, including many journalists, began to perceive and promote the airplane as a tool of geopolitical manipulation and an instrument of allied strategy instead of a tool that would unequivocally “save” every human on Earth. Indeed, “Only by assuming Allied victory could [enthusiasts] consider the airplane an ‘instrumentality of world peace.’” Throughout the war, the airplane was envisioned as a tool of liberation, but only for the Allies. According to Joseph Corn, “the ceremonies at Kitty Hawk in 1949 illustrate the changed spirit. Hundreds of airplanes participated in the rituals that day, but every one of them belonged to the military...although some of the civilians made remarks that echoed the purer gospel of old, it was strategic and military air power that dominated the proceedings not only at the podium but also in the sky.” World War II proved beyond a shadow of a doubt that control of the “universal sky,” to quote historian Roger Bilstein, was a prerequisite for world leadership. As Jenifer

van Vleck demonstrates, in the context of World War II, aviation inspired rhetorical internationalist visions of “one world” while simultaneously sustaining a nationalist vision of an ‘American Century’ “defined by U.S. geopolitical, economic, and ideological power...aviation both instantiated American Empire and denied that it was such.”³³ Military use of air power also introduced a certain anxiety about the destructive power of airplanes into the American psyche.³⁴

The war changed the spirit of aeronautical research on the United States government level, as well. As it was for other technologically-oriented government agencies, World War II was a watershed for the NACA. After World War II, the newly independent Air Force and mushrooming aeronautical industry developed more of the kinds of research and testing facilities on which NACA had had a monopoly prior to the war. John Victory and Hugh Dryden ultimately decided to hire Walter Bonney, who became the NACA’s first officially designated “public affairs officer.” NACA leadership made a concerted effort to expand the NACA public affairs function, largely because of threats posed by the military (particularly the Air Force), by industry, and by new government institutions encroaching on NACA territory. For the NACA, public relations would become a line of defense and a form of self-preservation.

With the sheer size of its military effort, the war expanded the work and the size of the NACA in numerous ways. During preparations for the war, the NACA constructed two new research laboratories: the Ames Aeronautical Laboratory at Moffett Field in Sunnyvale, California, and the Aircraft Engine Research Laboratory

³³ Van Vleck, *The Logic of the Air*, 1.

³⁴ Corn, *The Winged Gospel*, 67-71.

(AERL) in Cleveland, Ohio. The Ames laboratory would construct and utilize new high-speed wind tunnels for the next generation of aircraft, while the Cleveland laboratory would perform engine research. These new installations consumed vast amounts of NACA resources and led to dramatic changes in the agency's operations.

Over the course of World War II, the NACA's workload grew faster than its staff. Although this had also been true in the past, prior to the war this had been because of lack of money. Now, the NACA had abundant funds—the problem was that it had too many work orders for its engineers and its facilities. Although the NACA “farmed out” some of its research to universities, this hardly dented its massive quantity of work. Yet the NACA's most significant personnel problem during the war was military service, to which many of its engineers were conscripted. Also, because the military recruited talented young men who may have otherwise joined the expanded NACA, the agency had a difficult time finding abundant new talent.³⁵

As the United States prepared for total war, the NACA treated requests from the military as its highest priority. When the military requested technical information from the NACA, it “followed streamlined procedures for returning authoritative recommendations at the earliest possible moment. All this was a change in degree, but not in kind, from the service that NACA had for years provided to the military.” When Jerome Hunsaker succeeded Vannevar Bush as committee chairman in 1941, he wondered how much the NACA would have to abandon basic research, its primary

³⁵ Roland, *Model Research*, 176, 183.

mission, in favor of the “applied research” required by the military.³⁶ By 1940, fifty percent of the Committee’s fundamental research projects had been displaced by urgent military research projects. A year later, shortly before Pearl Harbor, this figure had risen to seventy-one percent. According to Alex Roland, “The NACA faced the real possibility of losing its identity in the war, but even Hunsaker was powerless to change things much.”³⁷

Speaking for many at the NACA, Executive Secretary and informal public relations “head” John Victory wrote in 1944, “Never was life more interesting...Never have I been so busy. I take a keen delight in getting work done and we are rendering service of truly great value to the war program.” During the war, the NACA’s work procedure remained almost the same as it had been prior to the war. The military services, industry, the technical committees, and the laboratories suggested research projects to headquarters. Some requests, particularly those from the military, were quickly approved in George Lewis’s office. Lewis referred others to a technical committee for analysis. Then officials assigned the projects to a laboratory. The laboratory then scheduled the research for a test facility, such as a wind tunnel. During the project’s progression, engineers prepared preliminary reports for the group that had requested the project. At its completion, the NACA published a final, formal project report and then closed the research authorization.³⁸

³⁶ Trimble, *Jerome C. Hunsaker*, 163-165.

³⁷ Roland, *Model Research*, 177-178; Trimble, *Jerome C. Hunsaker*, 165.

³⁸ Roland, *Model Research*, 179.

During this era, the NACA used its minimal public relations and “public information” practices almost exclusively to document its work for the government and aviation industry. Before the war, the NACA’s two major technical publications were the Technical Report, which featured major research conclusions, and the Technical Note, which consisted of “interim and less important results.”³⁹ These publications formed the core of the NACA’s modest public image. Generally, the NACA distributed this unclassified material widely. Notes containing proprietary information, or information considered so beneficial to the United States that it should not be shared, had only limited distribution.

However, during World War II, the NACA suspended nearly all Technical Reports and Technical Notes. It replaced these publications with classified wartime reports, which were narrowly distributed among the involved industry contractors and within the military services. The result was that the agency distributed a much larger number of publications to a much smaller audience, “concentrating more on interim reports of research in progress than on conclusive reports when all the results were in—a luxury that neither the NACA nor its customers could afford in the frantic rush to get new and better aircraft from prototype to construction to operations.”⁴⁰ During these years, therefore, the NACA’s “public information” became much less democratic.

The war changed the agency’s public image in another significant way, as well. Instead of using the customary word, “conference,” for the 1939 annual industry meeting, John Victory gave it the title of “Fourteenth Annual Inspection for

³⁹ Roland, *Model Research*, 179.

⁴⁰ Roland, *Model Research*, 181.

the NACA Laboratories.” The word “inspection” had generally only applied to meetings at military installations. However, during the war, the NACA had for most practical purposes become a military installation. At this time, it did most of its work in the service of the military branches, and much of its research had become confidential in nature. After 1939, the NACA held no “annual laboratory meetings” at all. Instead, information exchange took place in personal contacts between NACA staff and industry representatives and was much less accessible to the public. The meetings were resumed following the war.⁴¹

Despite the NACA’s major contributions to the war effort, Langley had been left behind on a major front of aviation development. The supposed “failure” of the NACA to develop jet propulsion before other nations led to mistrust of the NACA among its military and industrial partners, and made the military and industry less dependent upon the NACA for research.⁴²

According to Alex Roland, the NACA’s failure to develop jet propulsion before other nations was “the most damaging failure of its history.” Since World War I, the NACA had focused primarily on aerodynamics rather than on propulsion. Many believed that propulsion was mostly a “finished” technology. Yet by 1941, jet aircraft had flown in Germany and England. American “tardiness” in terms of jet propulsion was no more the NACA’s fault than it was the fault of any other American institution with which it shared responsibility. Although the military services felt somewhat responsible, they also blamed NACA for the “failure,” believing that NACA had “let them down.” They kept a lid of secrecy on all subsequent jet

⁴¹ Roland, *Model Research*, 182; Trimble, *Jerome C. Hunsaker*, 170-173.

⁴² Trimble, *Jerome C. Hunsaker*, 170-173.

propulsion development, rationalizing that if they kept information from the NACA, it would be less likely to fall into the wrong hands. According to Roland, “not only did this policy shut out the NACA more completely than ever before from developments in military aviation, but it also prevented the manufacturers from freely exchanging information on their projects.” Although the written record shows that the NACA and the military remained outwardly cordial to one another, “beneath the surface and between the lines was a cooling of attachments and a keeping of distances such as the NACA had never known.” As a result, the NACA tried to establish itself as the leader in the separate but related field of jet engine aerodynamics.⁴³

Despite this “failure,” the NACA made substantial contributions to American victory in World War II. Says Roland, “Without the NACA, American aerial superiority would have been less complete, less early.”⁴⁴ The NACA had tested every American aircraft, as well as every engine, involved in the war. Its icing research and development of low-drag wings were its most substantial individual World War II achievements. The NACA received significant accolades and medals following the war.

In 1945, the agency began to make its case for a return to its pre-war role as a “national advisory committee.” In many ways, the wartime NACA had become a “service station” for the Army and Navy. But, to industry and the military, the jet engine incident had cast doubt on its record. Captured German scientists, documents, and aircraft did nothing to prove that the NACA was ahead of its time in aeronautical research. Instead of a return to the “good old days,” the Committee instead entered a

⁴³ Roland, *Model Research*, 191-192.

⁴⁴ Roland, *Model Research*, 195.

period of serious questioning from within and from without. Roland says, “The choice was not really between total independence or total service, all fundamental research or all testing, for throughout its history the NACA had in fact combined the two. The question was what the mixture would be in the postwar world.”⁴⁵

The monumental growth of the aviation industry during World War II meant that the private sector formed more partnerships with the government. Industrial participation and power within the NACA skyrocketed. The necessary introduction of industry representatives into the NACA’s committees and subcommittees meant that the newly powerful aircraft companies influenced NACA policy to an unprecedented degree.⁴⁶ At this time, the aviation industry (including the airline industry) produced many publicly consumed, self-promoting images of aviation development, which promoted a “nationalistic globalism” that would profit the industry.⁴⁷

In 1948, industry gained three seats on the NACA’s Research and Development Board. According to Jerome C. Hunsaker, “as a result of the war, [industry had] become large and responsible and had come of age.” Although industry generally admired the NACA’s work, it also had a few complaints. Some industry insiders believed that the NACA published research too slowly; that it hid negative results of its research; and that it did not always handle proprietary information carefully. Through its criticism, industry wished to obtain a more significant voice in NACA affairs and therefore make the NACA more responsive to

⁴⁵ Roland, *Model Research*, 196; Trimble, *Jerome C. Hunsaker*, 175-181.

⁴⁶ Roland, *Model Research*, 173-177; Trimble, *Jerome C. Hunsaker*, 167-169.

⁴⁷ Van Vleck, *The Logic of the Air*, 10.

its needs.⁴⁸ Concerned parties within and outside the NACA worried that industry insiders on the Committee would serve their company's needs at the expense of the country's needs, or at least appear to be doing so.

To members of industry, a seat on the committee held high prestige. It allowed a company to keep abreast of the latest aeronautical developments, provided contacts with expert engineers, and provided a way to influence the direction of NACA research. The NACA tried to balance positions among the different aircraft companies, so that each would be equally represented and no single company would get the "upper hand." Yet "publicly it had to maintain that members were chosen on their merits as private individuals and in no way represented their firms." While the NACA welcomed industry members onto the Main Committee, the Industry Consulting Committee, and the main technical Committees, the NACA decided that industry insiders could not be allowed onto the technical subcommittees, where the basic components of research projects were decided.⁴⁹

Members of industry decided that they would push the NACA to pursue research more in line with their needs and to publish the results more quickly. Also, companies stipulated that the NACA should not infringe on development, which industry believed to be its domain and its domain alone. To achieve the first demand, industry used its increased clout with the Committee. To achieve the second, it used its growing influence with both Congress and the Executive Branch of the U.S. government.

⁴⁸ Roland, *Model Research*, 206-207.

⁴⁹ Roland, *Model Research*, 207-210.

The war started a new era of institutionalization of science and technology research in the federal government. Because of this, the NACA's "ground" became less defined. It ultimately used public relations to "fight back" from its weakened position. Although it would take several years to determine what the relation of the new research would be to national defense, some trends were already emerging in 1944. For example, the military increasingly "contracted out" research to universities and private institutions. Prior to 1944, the military had either performed such research itself or had gone without. Also, believing that American scientists had "let them down" in the pre-war years, the military began to recognize a need for "standing mechanisms" to provide scientific advice. For their part, the scientists did not want to be ignored now that the war was over. Both groups found their answer in "permanent institutions through which the military could get advice and the scientists could make their voices heard." Although the NACA would in some respects be a model for these institutions, "[it]...would not be the model it wanted to be."⁵⁰

Indeed, research and development had started to merge during World War II, leaving the NACA's mission of "basic research" somewhat by the wayside.⁵¹ If the NACA engaged in both, would it not be infringing on military and industrial territory? To what "use" would the NACA now be put? How could it justify itself to Congress? Questions of contracting out and the mix of basic research and development were only the first of the NACA's dilemmas. NACA's relationships to industry and the military were not clear, and its leaders did not know which direction to turn. The NACA would have to reinvent itself, developing an internal structure

⁵⁰ Roland, *Model Research*, 197.

⁵¹ Trimble, *Jerome C. Hunsaker*, 162-165.

that fit its new role. To do this, the NACA first made the “aeronautical revolution of World War II” (i.e., the jet revolution, which would ultimately, thanks to NACA research, allow humans to fly faster than sound) the signature of its requests for increased funding and expanded research programs in the postwar years.

Yet another “revolution” had taken place during World War II: the new structure of the American aeronautical community. The aircraft-manufacturing industry had become the largest in the United States, and the Army Air Forces had grown into its own military service: the United States Air Force. The NACA had also grown during the war, but not as quickly or as substantially as these other sectors. Industry and the Air Force, traditionally NACA allies, now had new problems with the NACA. Since these sectors now had more significant clout, their criticisms would hurt the NACA more. Roland says, “The national aeronautical-research policy that Hunsaker wanted to formulate in the wake of the jet-propulsion revolution was going to be hammered out by a community that was not as neatly in the NACA camp as it once had been.”⁵²

Major national political trends also worked against the NACA’s plan for a new policy. World War II had made the American public realize that they should institutionalize science and technology, vitally important in the new world, for their nation’s benefit. Also, the military establishment itself went through a major restructuring after the war, with a new focus on the atomic age. The National Defense Reorganization Act of 1947 separated the Navy, Army, and Air Force into discrete entities.

⁵² Roland, *Model Research*, 200; Trimble, *Jerome C. Hunsaker*, 182-209.

The large-scale institutionalization of science and technology within the federal government, a process labeled “technocracy” by historian Walter McDougall, had actually begun as a wartime measure but continued into the post-war era. One end result of this trend was the creation of the National Science Foundation (NSF) in 1947. Members of the NACA had suggested a committee structure like its own for the NSF, but instead, the Truman-era government decided to go with what it believed would be a more efficient and practical structure: “a director and a consultative board with parallel and complementary powers and functions.” The military would have its own institutionalized scientific guidance. For example, General Hap Arnold created a Scientific Advisory Group (SAG) within the Army Air Forces. Later, he created a Scientific Advisory Board, signaling the end of NACA’s “unofficial” role as scientific advisory board to the Air Force.⁵³

Congress, through its Mead Committee, formally criticized the NACA for its wartime failings, particularly its “timidity” and “lack of forcefulness” in keeping abreast of the latest aeronautical research and in allowing Germany to get ahead. The Air Force also harshly criticized the NACA for similar reasons. At this time, Jerome C. Hunsaker, Committee Chair, began developing a research policy that he hoped would correct the NACA’s past mistakes while “reconcil[ing] the traditional role of the Committee with newly emerging policies on science and national defense.”⁵⁴

Hunsaker worked out a scheme with Congress that would definitively divide certain tasks between the NACA, the military services, and aeronautical industry.

⁵³ Roland, *Model Research*, 202-203.

⁵⁴ Roland, *Model Research*, 205.

This was the division of labor that had already existed, albeit informally, between the two World Wars. Although some minor changes occurred, the National Aeronautical Research policy, in the end, basically stated that the NACA would perform fundamental research while industry would develop aeronautical technologies and the military would evaluate the final product.⁵⁵ Yet the policy did not explain whether research actually could be separated from development in the post-World War II milieu.

After World War II, the NACA had very few friends in Congress. This posed yet another threat to the organization, to which the NACA would react through more deliberate public relations. In many ways, the post-war years were “hard times” for the NACA. There was a “let-down” feeling among NACA staff, and workers in government and industry as well. This feeling caused some people to be more critical of NACA than they might have otherwise been. Unfortunately, many of NACA’s friends in Congress started to disappear just as they were needed most: Senator Hiram Bingham had been defeated in 1933, and Congressman Clifton Woodrum in 1945, following 22 years of representing Virginia’s sixth Congressional District. Woodrum had looked out for NACA Langley’s needs, particularly its financial needs, as a chair of the Independent Offices Appropriations Subcommittee.

Woodrum’s successor on the Subcommittee was Albert Thomas of Texas, who was “unfamiliar with the NACA’s golden days and [harbored] no NACA laboratory in his home state.”⁵⁶ In 1950, Thomas further reduced (by almost half) the Committee’s already “shrunk” share of the unitary wind-tunnel plan, dominated

⁵⁵ Trimble, *Jerome C. Hunsaker*, 182-194.

⁵⁶ Roland, *Model Research*, 221.

largely by the private aeronautical giants. In subsequent years, Thomas would solidify his reputation as an “enemy” to the NACA. In retrospect, this is quite ironic when one considers Thomas’s extremely strong support of Houston’s NASA Manned Spacecraft Center, which was, of course, located in Thomas’s home state.

NACA chairman Jerome Hunsaker had the unenviable task of staking out an acceptable field of activity for the NACA in this brave new world of postwar American aeronautics. Hugh Dryden, who succeeded George Lewis as Langley’s Director of Research in 1947, had to create the new research programs. Dryden’s job had four major categories: to start procedural and organizational reforms; to complete unfinished business from World War II; to respond to industry demands; and to identify new areas of NACA research. All of these projects would ultimately bear Dryden’s unique stamp. Dryden worked quite comfortably with Committee Chair Hunsaker; both were glad to share the postwar workload with a trusted colleague.⁵⁷

Transonic research, culminating in the development of planes that would surpass the speed of sound several times over, became an important hallmark for the NACA in the years immediately following the Second World War. Incredible advances in air speed achieved by the NACA would help to make up for NACA “failure” in the realm of jet propulsion. Historian Steven Corneliussen says, “The word *urgent* recurs concerning transonics throughout NACA documents of the early postwar era, when air-war memories were fresh, Cold War worries were intensifying,

⁵⁷ Roland, *Model Research*, 221-225.

and NACA bureaucratic-war strategies were beginning to target the Army Air Forces.”⁵⁸ Publicity of these advances would be essential to NACA’s survival.

For these many reasons, the NACA needed to create a strong Public Affairs office. And create one it did. The NACA needed a new and more effective line of defense. The agency had failed to develop the jet engine “on time,” which led to a loss of trust with its military and industrial allies. Private industry and the military encroached on NACA’s research territory in the post-war era, along with new government institutions devoted to scientific and technical research. Congressional support for the NACA was flagging. In short, the NACA had to “stake out” an entirely new field of activity, and a strong public affairs office would help them do this.

The NACA did, of course, have some public relations activities before the creation of its “official” Office of Public Information. To a large extent, the story of the NACA’s earliest public relations practices is the story of John Victory, the NACA’s Executive Secretary and infamous first employee. Victory’s work significantly shaped early NACA public relations policy.

Although John Victory took responsibility for early NACA public relations, he performed many other jobs for the NACA, as well. One of Dryden’s first “revisions” upon joining the NACA was his definition of his own responsibilities and of his relationship to Victory. Since 1944, NACA rules had stipulated that Victory, “upon authorization by the Chairman, may exercise functions required by law to be

⁵⁸ Steven T. Cornelliussen, “The Transonic Wind Tunnel and the NACA Technical Culture,” in *From Engineering Science to Big Science*, ed. Pamela Mack (Washington, D.C.: The National Aeronautics and Space Administration, 1998), 92.

performed by a head of department or agency.”⁵⁹ Victory had essentially been on equal footing with Lewis: he had been the secretary, handling all administrative matters of the agency, while Lewis had been “Director of Research,” or of Langley’s technical activities. However, Dryden was now “Director” of the entire agency and under him were two deputies: Executive Secretary John Victory and Associate Director for Research John Crowley. Although technically a “promotion” for Victory, this change in position meant that he was subservient to Dryden in a way he had not been to Lewis.

Nonetheless, Victory was a very important figure in the new, post-war NACA. In many ways, Victory was responsible for the agency’s long-standing reputation for efficiency and economy, not to mention its public image. Even Victory’s strongest critics admired his knowledge of Washington’s political maneuverings.

In his book *Engineer in Charge*, historian James Hansen vividly characterizes John Victory’s influence on the early NACA. Hansen says that, along with George Lewis, Director of Research from 1919 to 1947, Victory “took firm control of routine NACA affairs” and “left [his] lasting...impressions on Langley.” In June 1915, only three years after Congress enabled the NACA, the Committee had hired Victory as its office clerk, making him the agency’s first employee. Before he was hired, Victory did NACA paperwork for Committee member Holden C. Richardson at the Washington Navy Yard. As he worked for Richardson, Victory learned some of the basic tenets of aeronautical research while also learning about public relations.⁶⁰

⁵⁹ Roland, *Model Research*, 227.

⁶⁰ According to Hansen, Victory “took a keen delight in showing lady visitors around the Yard, taking them into its wind tunnel, shutting the door, and turning on the breeze” (*Engineer in Charge*, 24).

After going on the NACA payroll, Victory's first job "was handling requisitions from NACA contractors, depositing them with the bureau of supplies and accounts. The secretary's lean and tenacious constitution mirrored that of the upstart organization he was joining."⁶¹

One of Victory's strongest hallmarks was his strict attitude towards office correspondence. He constructed a complicated central correspondence system for the NACA. Some engineers, such as John DeKlyn, engineer in charge of buildings and construction, clashed violently with Victory over his fastidious attitude towards administrative details, such as the mechanics of submitting travel vouchers. NACA correspondence and editorial review policies illustrated the strict attitudes of John Victory and George Lewis, respectively, both of who left an indelible mark on the agency's public and private "personalities." Both wanted only perfect products to emerge from the laboratory and the administrative offices. According to Hansen, "Victory wanted all routine business conducted by the book, down to the smallest detail of epistolary style and grammar. Lewis wanted published reports to be accepted as holy writ." These strict controls could be time-consuming and sometimes traumatic to staff involved, and promoted a conservatism that could slow down the flow of NACA information. However, within Victory's and Lewis's constraints, a certain freedom blossomed. Hansen says, "[Lewis's] editorial policy heightened self-confidence in the NACA product and method of quality control and freed researchers to work creatively on novel ideas without the fear of preliminary reports building up too much industry anticipation of and pressure for future advances." At the same time, Victory's correspondence system allowed employees to focus on research rather

⁶¹ Hansen, *Engineer in Charge*, 24.

than on paperwork. Says Hansen, “In sum, the organization exhibited throughout its history a delicate blend of careful bureaucratic constraint with research freedom.”⁶²

Unfortunately, John Victory’s perfectionism had a dark shadow side. Victory was “officious and priggish,” and in later years “grew downright pompous and oracular.” Victory viewed himself as a sort of “dean” to the aeronautical community, “by longevity and association if not by importance.” Although always sycophantic to Main Committee members and other members of the aeronautical community who he considered “touched by greatness,” he would lecture “lesser mortals” on any topic and at any occasion.⁶³

Throughout his career, John Victory kept a “bouquet file” in the NACA’s main office for purposes of good public relations. This file contained praises of the NACA from a variety of sources: Congressmen, members of the American public, industry members, military leaders, and others. Sometimes, Victory took these praises out of context and incorporated them into larger documents that he had vigorously edited. In this “bouquet file,” military endorsements often took center stage. George Lewis once said that “if the NACA ever sets itself aside from the Army and the Navy, it is a dead duck.”⁶⁴ Victory would use “bouquet file” praises to advance the NACA, and himself, at any occasion and any time. Although not entirely inauthentic, this group of documents contained none of the criticisms that the NACA

⁶² Hansen, *Engineer in Charge*, 39-40.

⁶³ Roland, *Model Research*, 229-230.

⁶⁴ Hansen, *Engineer in Charge*, 160.

did in fact receive over the years. Victory, it seems, took his file of praises too much to heart, perceiving himself and his achievements as infinitely valuable.

After the war, Victory delivered many speeches and lectures across the country; according to Roland, the postwar John Victory was “armed with anecdotes and sermons about the contributions of the NACA and the transcendent importance of aviation.” Victory started written histories of aviation and of the NACA during the 1950s, but never finished them. Roland says, “He yielded to his less becoming traits and neglected the habits of a lifetime that had indelibly marked the style and reputation of the Committee...[although] his job was guaranteed as long as he wanted it...to some...it was not clear that his worth was any longer increasing with the years.”⁶⁵ As Victory’s career entered its twilight and the NACA faced new dilemmas, the agency needed a new public affairs leader.

In his heyday, however, Victory ran the NACA’s most important single public relations event: its annual aircraft engineering conference. This conference would be vital to public relations throughout the NACA’s history. The NACA’s first conference took place on May 24, 1926, four days after the Air Commerce Act assured appropriations for the procurement of military aircraft and fifteen months after the Kelly Act authorized the contract air transport of the U.S. mail. The conference provided a substantial response to the aircraft industry’s requests for NACA services. The Committee was convinced that the new age of commercial aircraft would necessitate the solving of new problems in aerodynamics. The official purpose of the meeting was to decide which technical problems were of ultimate importance so that the NACA could incorporate them, “as far as [was] practical,” into

⁶⁵ Roland, *Model Research*, 230.

its research programs. The conference was held through 1939, with the exception of 1938, when the NACA built its two new labs, and became a regular way for industry to make requests of the NACA. The NACA discontinued the conferences during World War II, but resumed them in 1946 under a “slightly different format.”⁶⁶

The annual conference, held in mid-May, was actually a combined technical meeting and public relations extravaganza. It allowed the NACA to showcase its accomplishments to industry and high-ranking military officers. Many members of these groups “seldom had time to read NACA reports.” NACA engineers exchanged information with “the other leading minds in American aviation,” and showed their achievements in front of Congress and other public officials who “had neither the time nor the qualifications to read the technical reports and judge whether the agency’s output justified its appropriations.” In 1926, the event was both relaxed and modest, but by 1936, it had become a two-day spectacle. The first day was devoted to “executives and engineers of the aircraft and operating industries, and Government officials” and the second to “personnel of the governmental agencies using aircraft, representatives of engineering societies, and members of professional schools.”⁶⁷ In 1936, more than 300 people attended each session; this included many aviation writers who reported on laboratory presentations in newspapers and journals, such as *Aviation* (later *Aviation Week*) and *Air Affairs*. Such reports were read by the approximately 15,600 subscribers to these trade periodicals.⁶⁸

⁶⁶ Hansen, *Engineer in Charge*, 148.

⁶⁷ Hansen, *Engineer in Charge*, 149.

⁶⁸ “Winds Over Langley,” *Aviation* 5 (1936): 22-23; “Would you be Embarrassed?” (advertisement), *Aviation* 4 (April 1936): 59.

Both John Victory and George Lewis, with their political and administrative savvy, left a dramatic mark on the annual conference. Victory, while handling all of the event's administrative details, took it upon himself to ensure that the guests enjoyed themselves. He met with the "important people" the day before the meeting. In the late afternoon, he joined them on a steamship which sailed, overnight, from Washington to Hampton via the Chesapeake Bay. Victory, the "Cruise Director," assigned cabins with the intention of facilitating conversation. The ship docked at Old Point Comfort, Virginia the next morning, and conference participants enjoyed a lavish breakfast at the Chamberlin Hotel. They then traveled to Langley via automobile caravan. During the tour, Victory "seemed to be everywhere," smoothing over fiascoes, organizing the place cards for lunch, and collecting individuals for the group photograph. However, Victory's "most cherished" moments came after the conference adjourned, when participants returned to the Chamberlin to enjoy cocktails and dinner. He also enjoyed the return trip, by steamship, to Washington, and entertained conference participants with repartée.⁶⁹

Meanwhile, George Lewis shaped the technical portion of the program, which started with a technical session at Langley Field. Sharply at 10 a.m, a facility tour began. NACA organized the visitors into color-coded groups according to "compatibility of membership," and took the visitors on a strict schedule through the wind tunnels, hangar, shops, and along the flight line. At each location, a very well-prepared engineer demonstrated current work in a way deemed acceptable, by Lewis and Victory, to laypeople and professionals alike. Indeed, "no pains were spared in

⁶⁹ Hansen, *Engineer in Charge*, 148-149.

helping the visitor to visualize tests and understand results.”⁷⁰ After lunch, key staff members offered more technical reports, allowed comments, and answered questions.

In the weeks prior to the program, engineers worked diligently on their presentations, finishing preparation well before the start of the meeting. The NACA formally changed the name of the conferences to “Inspections” in 1939, although most Langley employees already considered them as such. This approach could work against spontaneity. Over time, NACA policy dictated less audience participation in the “inspections.” Nonetheless, the NACA conference succeeded in initiating a year’s discourse within the American aeronautical community.

With George Lewis’s death in July 1948, Langley lost one of its major links to its past and to its “golden age.” Lewis had been sick during the war but had nonetheless pushed ahead stubbornly, overseeing research details in each NACA laboratory. Lewis’s replacement, Hugh Dryden, did not have Lewis’s political “zest” for dealing with research appropriations and procurements, but he did have more scientific knowledge and ability than Lewis. Says Hansen, “Under Dryden’s more formal and less paternal management, Langley researchers would extend their vision beyond the subsonic aeronautics of Lewis’s era to the supersonic, hypersonic, and space frontiers.”⁷¹

There were many reasons, then, for the NACA to hire Walter Bonney as its first Public Affairs officer in 1946, creating its first official Office of Public Information (OPI). Outside forces and organizational tensions continued to challenge the NACA until its “demise” in 1958. This meant that Bonney’s work, and the work

⁷⁰ Hansen, *Engineer in Charge*, 151.

⁷¹ Hansen, *Engineer in Charge*, 217.

of the growing public affairs staff, continued to have special relevance to the agency. When the NACA hired Walter Bonney, it created its first office devoted exclusively to public information and public relations. No longer would an assistant to the administrator perform the public relations and information function as one of many duties. This would be the beginning of a new era for the NACA, when World War II and post-World War II trends converged to threaten the agency's very existence. These threats forced the agency to more deliberately create and enhance a public image, however modest and restrained compared to the public image of its successor, NASA. The deliberate creation of public image was an activity that private industry had engaged in for years. In practice, private companies' more deliberate public relations policies would provide a template for those of the NACA and NASA.

CHAPTER TWO

**TOWARDS A VICARIOUS VICTORY: NACA PUBLIC RELATIONS ON
THE COATTAILS OF THE COLD WAR, 1946-1958**

The end of World War II brought a new era. The Cold War, which embraced the mid-century world in its gripping chill, brought unprecedented prosperity and anxiety to American hearts and minds. The struggle for world influence between the two postwar superpowers, the U.S. and the USSR, often manifested itself as a struggle for technological supremacy. This struggle could be literal: for example, the U.S. and the USSR each wanted to have superior aircraft in the event that one attacked the other's territory through the delivery of the atom bomb. Each wanted to be the first to gain an "upper hand" in hydrogen bomb development.

Just as often, however, the nations fought to gain influence over countries throughout the world, and used technological rhetoric to do so. Both the U.S. and the USSR worked to persuade their citizens and the world that their respective political and economic systems were superior and that their "enemies" worked constantly to undermine them. The global superpowers used high technology as a symbol in this struggle, and the public relations programs of the companies and government agencies creating this technology helped to construct its symbolic meanings. In the case of the NACA, early leaders such as John Victory, Hugh Dryden, and Walter Bonney endowed the agency's technology with symbolic power, beginning the

agency's grand meta-narrative of public relations that would evolve continuously and persist into the NASA era and evolve continuously. In this meta-narrative, NACA aviation technology, as an embodiment of superior American democratic-capitalist values, would save the world from the deadly scourge of Soviet Communism and preserve freedom.

As they sought public support for the agency, early NACA public relations practitioners also described NACA achievements through several smaller narratives, some of which had little to do with actual NACA technical activities. To a great extent, World War II and early Cold War industrial public relations "products" inspired the NACA public relations rhetoric that the agency used to promote its particular "brand" of aviation R&D.

Despite the fact that aviation development had relied largely on international technology transfer, NACA public relations created a narrative emphasizing the importance of American technological indigeneity when it claimed that purely American industrial "know-how," assisted and upheld by the NACA and its aviation technology, would keep the United States and its allies free from the world's "slave systems." NACA public relations built a narrative of corporate benevolence with its adoption of the industrial public relations refrain characterizing the corporation as a "benevolent giant" that would protect "freedom" and bring unlimited technological development to the United States and the world while providing indispensable moral leadership.

During these years, NACA public relations also started the narrative construction of an “America-first” globalism in which the United States, through NACA aviation technology, would “save the world” for capitalism, preserving world peace through an American “arsenal of democracy.” Although on the surface, the NACA’s globalist rhetoric often sounded benevolent and even compassionate toward the nonaligned world, it was enmeshed with an American imperialist nationalism that left no room for the Soviet Union, or any other nation, to enter the realm of world leadership. NACA public relations utilized a particular Cold War version of “The Logic of the Air,” a phrase coined by aviation booster Wendell Wilkie and used by historian Jenifer Van Vleck to explain the way in which American aviation commentators and policymakers created the rhetoric of “nationalist globalism,” a form of “anti-conquest ideology,” during World War II.¹

Also informing early NACA public relations rhetoric was a narrative of American national identity, or American exceptionalism. During the late NACA years and throughout NASA history, public relations workers created imagery of the agencies and their technologies out of existing tropes that had historically shaped the meanings of what it meant to be an American. One of these tropes was a belief in frontier expansion and the frontier experience as a key force in shaping a unique American culture and course of technological development. An important proponent

¹ Van Vleck, *The Logic of the Air*, 3; John Fousek, *To Lead the Free World: American Nationalism and the Cultural Roots of the Cold War* (Chapel Hill: University of North Carolina Press, 2000), 2. Van Vleck writes, “Discourse on aviation reveals how nationalist globalism worked on a cultural level: how it cohered, in spite of its apparent contradictions, into a persuasive worldview; how it circulated throughout American popular culture; and how it authorized a particular kind of foreign policy” (3).

of this idea was, of course, turn-of-the-century historian Frederick Jackson Turner, who explained the concept in his work “The Frontier in American History.”² Scholars of United States history have engaged and wrestled with the “frontier thesis” ever since. The concept of the frontier denoted the “incredible abundance” of a vast “virgin continent.” According to Leo Marx, “some historians believe that this incredible abundance is the most important single distinguishing characteristic in American life. In our time, to be sure, the idea is less closely associated with the landscape than with science and technology.”³ Richard Courtwright argues that the technology of aviation in particular opened up a new American frontier—the sky—which both echoed and complicated the original concept of the American frontier. Once the routinization of air travel closed the adventurous frontier of the sky, this frontier moved into space.⁴

Despite the fact that historians such as Thomas Hughes have long demonstrated the importance of large systems and system-builders to modern American technological development,⁵ other tropes engaged by NACA and NASA public relations included a belief in individualism, especially in association with “ruggedly individualistic” capitalism, and a related belief that life in the United States

² Frederick Jackson Turner, *The Frontier in American History* (1920: reprint, Tucson: University of Arizona Press, 1992). For a brief but well-balanced introduction to Turner and his critics, see John Mack Faragher, *Rereading Frederick Jackson Turner* (New York: Henry Holt, 1994).

³ Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (Oxford, England: Oxford University Press, 1964, 2000), 40.

⁴ David Courtwright, *Sky as Frontier: Adventure, Aviation, and Empire* (College Station: Texas A&M University Press, 2005), 171.

⁵ Thomas Hughes, *American Genesis: A Century of Innovation and Technological Enthusiasm* (New York: Viking Penguin, 1989), 8-9.

brought a greater degree of “freedom” and personal choice to an individual’s human experience than any other nation could provide. American technological innovation itself, many believed, allowed this freedom. Not only was modern technology “made in America,”⁶ but in American literary and popular culture, the machine, or physical embodiment of technology, had become, by the early twentieth century, a “symbol for America itself” and “a token of the possibilities of democracy. It [promised] unbelievable abundance, hence a more...just way of life...than mankind has ever enjoyed.”⁷

During the late NACA years in particular, another particular aspect of American national identity—American religious identity—shaped the agency’s public relations narratives. Twentieth-century Americans, perhaps more than citizens of other Western nations, cherished religion as a core aspect of their identity and often imbued their technology with religious meanings. According to the “Winged Gospel,” which had developed during the early years of the twentieth century, aviation, and particularly American aviation, would achieve the ultimate in both Christian idealism and technological progress—world peace. As Joseph Corn says, “Long before the airplane was even a dream, human beings had associated flying with spiritual matters. This was particularly true of Christianity, where angels flew and the heavens constituted the divine sanctuary of God. As Americans searched for language appropriate to the excitement they felt for the airplane, they inevitably

⁶ Hughes, *American Genesis*, 9.

⁷ Marx, *Machine in the Garden*, 190.

borrowed from this Christian tradition.”⁸ Corn demonstrates that many Americans, even as late as the 1950s, perceived the “conquest of the skies” as a somehow supernatural, divine, and spiritual activity that would allow the achievement of perfection in earthly affairs.⁹

Organizations in the new Cold War-era America required novel public relations strategies in both private and public enterprise. The NACA required a new public relations strategy as well: one that grew out of its tenuous post-World War II situation. The acceleration of NACA public relations practice in the late 1940s and early 1950s resulted directly from new threats to the agency, especially industry expansion, military re-organization, and the mushrooming federal R&D apparatus. Nonetheless, the NACA incorporated larger Cold War public relations trends with its own postwar needs in creating its public relations strategy. The grand meta-narrative of NACA public relations—that aviation technology, as an embodiment of superior American democratic-capitalist values, would save the world from the abyss of Soviet Communism—drew inspiration not only from the early 1940s “Logic of the Air” and the “Winged Gospel” but from the political and industrial rhetoric of the postwar era.

Indeed, the entire ethos of American government public affairs, and most corporate public affairs, in the late 1940s and 1950s was built around Cold War national security and the ideal of a worldwide American democratic-capitalist influence that should unequivocally triumph over the Soviet system. This ethos was

⁸ Joseph Corn, *The Winged Gospel: America's Romance with Aviation, 1900-1950*. New York: Oxford University Press, 1983, x.

⁹ Corn, *Winged Gospel*, xi.

reflected and encoded in numerous government and industry portrayals of technology. Such Cold War milestones as the implementation of the Marshall Plan, or European Recovery Program, with which the United States provided \$13 billion between 1948 and 1952 for Western European economic recovery, served to build this ethos. So did the Korean War, fought between Soviet-aligned North Korea and U.S.-aligned South Korea from June 1950 to July 1953, the era's major "hot war" unfolding within the larger Cold War.

Ideals of industrial capitalism that shaped the era's corporate public relations also molded the era's government public relations. Such ideals helped give rise to the NACA's narrative of corporate benevolence. Throughout World War II, corporations had mobilized particular images, in words and pictures, of American industrial capitalism for publicity purposes. During the second World War, public relations and advertising continued early twentieth-century narratives that portrayed the corporation as "an efficient and benevolent giant, ever attentive to the welfare of the tiniest entity," and as sponsoring "educational and cultural activities which have so enriched Americans in all walks of life." Roland Marchand says that, early in the twentieth century, young corporations had "aspired to become institutions." Yet "by the mid-1940s, the great corporations had attained a conventional, largely uncontested standing that most corporate leaders could recognize as an acceptable substitute for soul."¹⁰ The large corporation's "hard-won status as America's representative social institution" gave business leaders confidence in exerting Cold War leadership on the

¹⁰ Roland Marchand, *Creating the Corporate Soul: The Rise of Public Relations and Corporate Imagery in American Big Business* (Berkeley: University of California Press, 1998), 5.

home front. During the Cold War, business leaders acted as spokesmen for the American social system abroad.¹¹

In their World War II-era publicity, corporations usually gave first priority to “the narrow enhancement of their own corporate images,” but many also used the war to defend a “fifth freedom,” or freedom of enterprise, that they added to President Roosevelt’s wartime list of “four essential freedoms.” In advertising and other forms of communication with the public, companies emphasized the indispensability of “America’s system of free enterprise” to winning the war. In 1944, Armour and Company wrote that “the modern corporation works for the nation as a whole, not merely for its own stockholders...[it] exalts the individual, recognizes that he is created in the image of God, and gives spiritual tone to the American system.”¹²

The wartime attention of the nation focused on the evils of “enemy” political systems. Corporate executives found it “increasingly plausible to frame their defense of the fifth freedom as a fight against ‘regimentation.’” The enemies’ way of life contrasted starkly with the American experience due to its material impoverishment and lack of freedoms. Yet through “the inevitable postwar ‘rebirth of free enterprise’...Americans could look forward to ‘the more abundant life to come.’” By infusing free enterprise boosterism into their ads and other forms of publicity,

¹¹ Marchand, *Creating the Corporate Soul*, 363.

¹² Marchand, *Creating the Corporate Soul*, 323.

corporations connected political rights to the standard of living made possible by industrial capitalism.¹³

Corporate leaders and public relations specialists, therefore, needed to travel only a short distance from their World War II-era publicity when they constructed Cold War-era publicity. The “regimentation” and lack of freedom perpetuated by Soviet communism would be portrayed, in many instances, as even more menacing than that enabled by Nazi fascism or Japanese imperialism. In the world of Cold War-era government and corporate publicity, as in the realm of World War II-era publicity, benevolent American industrial capitalism would save the United States, and the rest of the world, from tyranny.

Early Cold War-era public information officers themselves worked in a climate of tension and urgency as they awaited the seemingly imminent encroachment of Soviet military aggression. This general climate inevitably influenced the content of specific public relations products that pitted American democratic capitalism against Soviet communism. Walter Bonney, the NACA’s first public relations officer, kept in his files a summary of a 1948 memo to Stephen F. Leo, National Security Resources Board, from Oscar H. West, President of the Public Relations Society of America (PRSA) Washington Chapter. The memo discussed PRSA and government concerns regarding public relations during times of national security, and gave government workers guidelines for how to react during an “emergency.” This directive served to heighten federal public affairs workers’

¹³ Marchand, *Creating the Corporate Soul*, 324.

urgency about the possibility of disaster and helped to define their mission as agency-level Cold Warriors. The following is an excerpt:

In time of total national emergency, it will be necessary for the government to enlist full cooperation of the people in every program adopted to hasten ultimate victory. To assure cooperation, the people will have to be told about these programs...every tool available to the public relations profession, in the hands of thoroughly competent practitioners, will be needed. This is not policy...it seeks to provide assistance and counsel to the government in the operation of the vitally important function of public relations WORK...public attention should not be over-emphasized.¹⁴

In the late 1940s, leaders believed that the Cold War necessitated a government public relations practice that protected certain sensitive information, such as information regarding development in military technology, and did not promote such information. This approach was more on a par with traditional wartime public relations practices, such as the World War II-era restrictions on NACA technical reports discussed in Chapter One, than with peacetime practices. Nonetheless, public relations workers, as they pitted “democratic” industrial capitalism against communism, would be vital to educating the public about the importance of the U.S. government’s work in bringing about America’s “ultimate victory.” This “victory” would depend largely on the strength of corporately-built American military technology, including aviation technology, and would also depend on solid public support of the government agencies helping to create this technology.

The document also suggested possible types of service that could be performed by various Washington public relations personnel. It showed them

¹⁴ National Advisory Committee for Aeronautics, Stephen F. Leo, Memo to Oscar H. West, December 1949, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

practical ways that they could use their work to fight the Cold War. These types of service included:

1. Conducting a “manpower survey” of PRSA membership to determine special public relations qualifications and facilities, availability for government service, either full-time or part-time, in the event of a national emergency.
2. Analyzing specific programs and suggesting techniques to be used.
3. Running “quick check surveys” to determine the degree of success achieved by government programs.

The memo said that an additional “advisory committee” including press, radio, photographic, advertising, and public relations representation might be helpful when planning for these fields of communication. West concluded, “The PRSA wishes to make the maximum contribution to the government in its time of need.”¹⁵ By instructing public relations workers in this practical way, the PRSA influenced the NACA’s public relations narratives. Most federal public relations workers belonged to the PRSA, and Bonney and his successors carefully considered PRSA guidelines when formulating public relations policy.

A particular file in the Bonney papers vividly illustrates how industrial public relations portrayed the United States as the superior purveyor of “democratic” technological dynamism to the postwar and Cold War world. The file, consisting of press releases from General Electric, concerns the achievements of German-born electrical engineer Walter Steinmetz, who emigrated to the United States in 1892. These press releases helped to build the NACA’s narratives of corporate benevolence

¹⁵ Leo, Memo to West, December 1949.

and of the importance of technological indigeneity to helping the United States “save the world.” When considered in the context of the Cold War and especially the Marshall Plan, the story of Steinmetz emerges as a classic American fable of technological “progress.” Indeed, the figure of Steinmetz himself symbolizes a mid-century war-torn Europe “saved” by the United States. In some ways, Steinmetz’s story parallels that of Wernher von Braun, the famed rocket scientist who came to America, and NASA, from Nazi Germany after World War II and designed the rockets that took humans to the moon. The press releases also continued a World War II-era publicity trend, utilized by Ford Motor Company, among other corporations, of emphasizing the “industrial know-how,” “American know-how,” “engineering genius” and “brainpower” that would keep capitalist America and its allies “free” from the “slave systems” of the world.¹⁶

The crippled Steinmetz, characterized by GE as a “latter-day Vulcan,” worked at General Electric as a leading engineer from 1892 until his death in 1923. GE portrayed Steinmetz, best known as the first man to duplicate the destructive effects of natural lightning, as a genius. One release set his success in the context of his arrival in America; out of the broken ruins of Bismarck’s Germany, Steinmetz came to the American mecca of individualism and technological achievement. For example:

Until he came to this country, Steinmetz’s outlook on life was most discouraging. His physical deformity prevented his participation in the games and associations of neighborhood youngsters. But on arrival in the United States, conditions changed. He found freedom to do the things that government regulations in ‘the old country’ did not permit.

¹⁶ Marchand, *Creating the Corporate Soul*, 339.

To him, America was the land of opportunity...he's one of the greatest electrical and mathematical wizards of all time.¹⁷

The entire piece has a rhetoric built around an ideal of infinite technological progress and wonder. The American experience made this ideal concrete. Steinmetz's participation in American technological progress allowed him to overcome his own limitations as a handicapped German immigrant and become a "genius."

Another release from General Electric, formatted as a storybook with vivid illustrations and titled "Steinmetz—Latter-Day Vulcan," first described Steinmetz as a "hump-backed gnome" and then told the dramatic story of how he escaped arrest in Bismarck's Germany by coming to the United States. Forever after, according to the release, Steinmetz proclaimed his joy at living in America and was an ardent "Americanist." In America, he could succeed where in Germany he could only fail.¹⁸

These press releases illustrate the general climate of high-technology, industrial public relations during Walter Bonney's tenure at NACA. The press releases equated Steinmetz's success and genius with his American experience. Just as the U.S. would rehabilitate Western Europe with the Marshall Plan, G.E. and the United States "rehabilitated" Steinmetz and his career with the tonic of American, corporately-produced technological innovation, and made him a part of this innovation. The fact of Steinmetz's German birth all but disappeared as he was "transformed" into an American. In the public relations narrative asserting the

¹⁷ National Advisory Committee for Aeronautics, General Electric Corporation, Press Release, "Walter Steinmetz," 7 April 1950, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

¹⁸ National Advisory Committee for Aeronautics, General Electric Corporation, Press Release, "Steinmetz—Latter Day Vulcan," 7 April 1950, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

importance of American technological indigeneity, also developed by the NACA and NASA, no technological development important to the United States should have a blatant foreign origin. Bonney kept numerous press releases like this in his active office files. He certainly consulted them while formulating NACA and NASA publicity and public affairs policy.

The “Logic of the Air,” along with the “winged gospel” and the postwar era’s corporate public relations and general political atmosphere, provided concrete ideological inspiration for the NACA’s public relations. The NACA’s meta-narrative of American triumph over the Soviet system through aviation technology, and the smaller narratives of corporate benevolence and American technological indigeneity, provided the most basic and persistent strata of NACA, and NASA, public relations rhetoric and would continue to shape the meanings of the agencies’ technologies through the beginning of the next century.

While strongly influenced by these powerful, large-scale public relations trends, the NACA certainly had its own particular reasons for expanding and transforming its public relations practices in the late 1940s and 1950s. Not the least of these was the growth of the agency during and after World War II. Along with the financial difficulties faced by the NACA, this institutional growth shaped public relations policy to an unprecedented degree.

After the war, the NACA returned to peacetime operations after five years in the “military harness.” Leaders pushed for a return to fundamental research,

declassification of wartime reports, and clarification of NACA personnel postwar draft status. Ultimately, the NACA continued its wartime practice of performing more applied than basic research. Roland says, “pressures from industry and the military as well as the strengths and weaknesses of its own staff ensured that the NACA would ...engage in both fundamental and developmental research. Of course, it claimed only fundamental research, but [conceded] ...that there was really no clear dividing line between the two.”¹⁹

Between 1946 and 1948, NACA staff eagerly published declassified wartime reports in the plainly-titled series “Wartime Reports.” Leaders wished to have the NACA’s recent achievements known by industry and the public. Yet many results could not be declassified, and the NACA deferred to the military in such cases, erring on the side of classification. This sometimes “sacrificed on the altar of national security the personal advantages its staff members might have gained from early publication of their research results.”²⁰ Ostensibly, the NACA also sacrificed on this altar some achievements that may have brought the agency public admiration and a more dramatic and positive public image.

NACA director Hugh Dryden had many problems to solve following the war. One of his herculean tasks was to satisfy the demands of a hungrier industry. Industry representation on the NACA’s technical committees and subcommittees grew exponentially after the war: indeed, “as industry grew after the war to hold up to

¹⁹Alex Roland, *Model Research: The National Advisory Committee for Aeronautics, 1915-1958* (Washington, D.C.: National Aeronautics and Space Administration, 1985), 239.

²⁰ Roland, *Model Research*, 249.

fifty percent of the seats on these committees, it came to have the strongest single bloc voice in how [NACA] influence should be exerted.”²¹ Hence, it was not only the general climate of industrial public relations that contributed to the NACA public relations narrative of corporate benevolence. As industry grew exponentially more important to the agency, its priorities became solidly institutionalized within the agency and in its public relations.

Another challenge for Dryden was his consolidation of new fields for committee research. The three dominant research areas of the era, “overshadow[ing] others in urgency, importance, and glamor,” were high-speed flight, missiles and rockets, and nuclear power for aircraft propulsion. Dryden had helped to create all three fields with his wartime technical committee work.

The NACA had a clear, although not exclusive, mandate to research high-speed, supersonic flight. Dryden had to find a feasible way to perform this research because supersonic tunnels were not yet available to the NACA. The solution was the Research Aircraft Program, a joint venture between the NACA, the aviation industry, and the military to develop and fly supersonic aircraft. Cooperation between the triad illustrated a “seamless web of coordination” that had in fact emerged during World War II. Such coordination was now “an indispensable ingredient of radical aircraft development.” The Langley group initiated the project, urging on a more reluctant and conservative Washington headquarters.²² The project would bring the NACA more publicity than any initiative of the decade.

²¹ Roland, *Model Research*, 249.

²² Roland, *Model Research*, 249.

The military provided money and a purpose to the program. The NACA provided fundamental concepts of instrumentation and design. Industry contributed facilities for design, development, and production. Each of the three partners also had expertise and talent in areas outside their official purview. The three-pronged collaboration succeeded in breaking the sound barrier, with Colonel Charles E. “Chuck” Yeager’s flight in the Bell X-1, on October 15, 1947, less than three years after the partners signed the first contract.²³

This dramatic project served to extend NACA institutional growth still further. Early in the program, the Committee sent a small group of Langley engineers to the Muroc Air Base in the southern California desert to develop the program. The Air Force initially controlled the group, but Muroc expanded over the years, becoming the NACA Muroc Flight Test Unit in 1947, the NACA High-Speed Flight Research Station in 1949, and finally the High Speed Flight Station (HSFS) in 1954. With this change, the NACA Muroc group became an autonomous research organization ranking just below the “three great NACA laboratories.”²⁴

Undoubtedly, the NACA used the achievements of these years to win support from Congress, the general public, and the Bureau of the Budget. Although the earliest flights had been classified, the shattering of the sound barrier particularly captured the American imagination. Pilot Chuck Yeager claimed that reporters “sniffed around” Muroc and the classified X-project for months. On December 21,

²³ Harold B. Hinton, “Sonic Flight ‘nice,’ says Capt. Yeager,” *New York Times*, 15 June 1948, 20.

²⁴ Roland, *Model Research*, 249.

1947, the *New York Times* reported on an *Aviation Week* story that an “experimental rocket plane” had flown faster than the speed of sound “a number of times recently.” The article continued, “persistent rumors that a new plane had traveled faster than sound have never been confirmed by the Defense Department.”²⁵ Yeager did not officially confirm the story for the *New York Times* until June 15, 1948. On December 17 of that year, public admiration of the X-1 achievements and presentation of the Collier Trophy for these achievements formed the centerpiece of Wright Brothers’ anniversary celebrations in Washington, D.C. Here, the Smithsonian Institution officially “enshrined” the Wright Flyer in a public ceremony. Yet experts postulated that the Soviets could soon catch up or surpass the U.S. in supersonic speeds.²⁶

The *New York Times* published over forty articles on the X-program over the next five years; prior to the X-program, during World War II and its aftermath, the *Times* had published fewer than ten articles centerpiecing the NACA’s work. Yet as those who had a glimpse “behind the scenes” understood, despite the NACA’s successes, internal dissent and unprecedented criticism from industry and the military continued to weaken the agency.

Although largely outpaced by the military’s new Research and Development Board, the NACA performed some rocket and missile research at this time. NACA staff members sat on military committees coordinating the programs. The NACA

²⁵ Jay Walz , “Plane Said to Fly Faster than Sound,” *New York Times*, 21 December 1947, 17.

²⁶ Charles Hurd, “Tripled Supersonic Speeds Predicted on Wright Day,” *New York Times*, 17 December 1948, 20.

acquired Wallops Island off the Virginia coast, where engineers tested missiles and rockets. From 1938 to 1948, four new research facilities had been created from the Langley nucleus. This was “a pattern that was to repeat itself, though not without exception, when the NACA became NASA.”²⁷

Before World War II, the NACA had usually received the funding it needed and wanted. Roland says, “it was a small, efficient organization, operating in a field where few bureaucrats or lawmakers were qualified to criticize its work.” Even immediately after the war, funding increased. But nothing could prepare the Committee for the devastating funding shortages it faced in the early 1950s. In fact, such shortages “dominated” these years. An analysis of these money crises becomes an analysis of the Committee’s political history and continually evolving political economy. The crises were very difficult for the agency as a whole and certainly hastened public relations planning.

During World War II, the NACA had quadrupled in staff, funding, and facilities. Many NACA leaders and staff members believed that the Korean War would result in a similar expansion. The Korean conflict, even according to “nuts and bolts” engineers like John Stack, showed the surprising strength of Soviet air forces and proved the existence of a broad-ranging Soviet research and development infrastructure. In a memorable 1951 “VIP briefing,” Stack vividly illustrated how the U.S. had been “left behind.” Citing intelligence reports, he compared current Soviet strength to Nazi strength prior to World War II. Emphasizing a large gap in research and development facilities between the Soviets and the Americans, and a need for

²⁷ Roland, *Model Research*, 264.

more “man-hours” to accelerate the transonic era, Stack called for a doubling of the number of NACA staff and facilities over the 1951 level—from 7000 to 14,000 staff-- by 1953. Although perhaps overly dramatic, Stack’s speech illustrates general NACA thinking on the issue of Cold War-era expansion.²⁸ Such thinking is understandable in the context of NSC-68, written by members of the State Department and National Security Council during the Truman administration, which in 1950 definitively codified American containment strategy and called for a large buildup of U.S. military forces.²⁹

Despite Stack’s impassioned plea, agency funding decreased. Starting in 1953, NACA funding fell for three consecutive years. These were the first such declines in the agency’s history and were particularly dramatic when compared to other government expenditures for technology. By 1953, U.S. military aircraft production had quadrupled over the 1950 level. The national military budget had tripled, and military expenditures on research and development had quadrupled. At the same time, the NACA’s operating budget increased only fifteen percent. The NACA was receiving a “smaller slice of a larger pie,” even as it demanded a larger budget “to keep the United States abreast of the Soviet Union in an increasingly expensive area of international competition,” i.e. aviation development.³⁰

²⁸ National Advisory Committee for Aeronautics, John Stack, “VIP Briefing,” June 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

²⁹ National Security Council, NSC-68, 14 April 1950, http://www.trumanlibrary.org/whistlestop/study_collections/korea/large/week2/nsc68_1.htm.

³⁰ Roland, *Model Research*, 263-264.

The personality and decisions of Dwight D. Eisenhower also shaped the NACA's new era. President Eisenhower, who took office in 1953, achieved a negotiated settlement in Korea in July of that year. Although this did not eliminate the national emergency, it certainly reduced its urgency. "Ike" pushed to balance the federal budget and introduced skepticism about research and development with his foreboding discussions of escalating military-industrial relations. The National Security Council declared that "the Federal Government is spending too much money on research and development and is not spending it very well."³¹

Congress, however, would inflict even more serious wounds upon the NACA. Albert F. Thomas, chairman of the Independent Offices Appropriations Subcommittee of the House Appropriations Committee, "spoke for a very troublesome Congress"³² when he criticized the NACA. Thomas called for immediate reductions in the agency's size and ambitions. Thomas also seemed to have a personal "bone to pick" with the NACA in the area of expansion. He fought for legislation that would allow Congress to annually authorize all of the NACA's functions; this would make the agency less independent. Thomas believed that the NACA had outgrown its original organizational "committee" structure, and he wanted to streamline this structure.³³

³¹ Quoted in Roland, *Model Research*, 264.

³² Roland, *Model Research*, 264.

³³ Roland, *Model Research*, 264.

By the early 1950s, the NACA's Jerome C. Hunsaker began openly referring to the military and industry as "clients."³⁴ NACA leaders resisted antagonizing these "clients" just as they resisted the urge to lambast Congress. They helped these "clients" in any way they could, whether the research was "basic" as per NACA tradition or highly "applied" to specific military and industrial projects. Such deferential courting of the military and the aviation industry would help the agency to survive.

In 1953, through its domination of technical committees and subcommittees, the aviation industry ultimately "won the voice in NACA affairs that it had wanted all along." Victory and Bonney put the "Bouquet File" of documents praising the NACA to work especially intensely during this year. Says Roland, "the faults and shortcomings of the Committee were kept within chambers, and the public image of a devoted, competent, efficient agency was polished and propagated in hopes of reversing the funding trend of recent years...[but this] was not all puffery." Although the NACA had recouped many of its losses with its primary clients (the military and industry), it had reduced itself "to being almost entirely a service agency to those clients." Roland writes, "No longer was it the...premier aeronautical research institution in America, the central clearinghouse of aeronautical intelligence and information, the coordinator and arbiter of research priorities... the pioneer on the frontiers of flight blazing a trail through a forest of fundamental mysteries."³⁵ The

³⁴ William F. Trimble, *Jerome C. Hunsaker and the Rise of American Aeronautics* (Washington, D.C.: Smithsonian Institution Press, 2002), 206-224.

³⁵ Roland, *Model Research*, 274.

NACA would increasingly support the priorities of private industry, further institutionalizing the ideals of industrial capitalism within the agency and the American government.

Monetary shortages began to hurt the NACA's ability to attract qualified personnel, and the public relations office itself devised plans to solve this problem. The quandary had begun in World War II, when the "mushrooming aircraft industry paid top dollar" to the best engineers. The NACA never recovered from the drain on its potential workforce. During its last ten years, the agency tried to stem the downward spiral by securing higher employee pay, mainly through the work of John Victory. Government-wide salary measures introduced after World War II helped somewhat, but also prompted the NACA to reward "novice whizkids" over seasoned and loyal professionals in an attempt to attract "the best" engineers for the field of aeronautics. Public relations strategies, including the creation of recruitment films, were very important to attracting new staff. The NACA instituted a training program for key personnel that would allow them to work for the agency while keeping abreast of the latest military and industry advances.³⁶

In short, the NACA's further expansion of its public relations practices in the late 1940s and 1950s reacted to crucial agency crises. The NACA faced numerous difficulties with its return to peacetime operations after World War II. Despite its achievements in the realm of transonic flight, the agency faced a triple threat of internal dissent, intense criticism from the military, and censure from prominent

³⁶ Roland, *Model Research*, 277.

industry leaders. The NACA's budget shrank significantly in the early 1950s, a time when the agency urgently needed to consolidate its institutional growth.

Eisenhower's critique of mushrooming military-industrial relations and congressional complaints about the NACA weakened the agency's position within the growing federal technology infrastructure. Financial tensions hurt the NACA's ability to attract qualified personnel. NACA leadership utilized the new Office of Public Information in various ways to preserve the agency's integrity.

One important way that NACA leadership crafted a new "Cold War" image for the agency during the late 1940s and 1950s was through the public delivery of carefully worded, rhetorically dramatic speeches. Even after he joined the NACA as its first official public relations officer, Walter Bonney was certainly not the only staff member to publicize the agency or to shape its public affairs ethos. In fact, NACA director Dr. Hugh Dryden made many speeches on the organization's behalf, even after Bonney's arrival. In this work, he was helped, and sometimes overshadowed, by his executive assistant John Victory. Bonney also assisted Dryden on occasion. With their speeches, which were very serious and dramatic in tone, the cautious scientist Dryden and the colorful promoter Victory worked to convince the public, and particularly those in powerful aviation industry circles, of the NACA's pertinence to the Cold War world. At stake was the fate of the NACA.

Simultaneously, Victory, Bonney and Dryden built the NACA's public relations narratives, starting the construction of an agency "mythology." Most dramatically, they continued to build the meta-narrative of American democratic-

capitalist triumph over Soviet Communism through aviation technology. These speeches also addressed and drew inspiration from a unique aspect of American national identity—American religious identity. Victory, Dryden and Bonney employed imagery of the 20th-century’s “winged gospel.” Yet they added a new dimension to the “gospel.” In their formulation, the triumph of NACA aviation technology over the “menacing” technology of the Soviets and other Communists would bring about a spiritually enlightened world.

Dryden delivered a speech entitled “Aviation Research—Life Blood of National Security” on November 23, 1949.³⁷ Dryden, with Victory’s help, portrayed the airplane as a tool that, although used an instrument of war, would make a violent world more peaceful. Armed Forces magazine reprinted the speech for its readers in December 1949. In the speech, Dryden argued, with an ironic turn of phrase, that supremacy in aviation, particularly military aviation, was an essential element of the strength necessary to “continue peace” against a potential aggressor.

This theme would reappear frequently during the era in various speeches by NACA and government leaders. In fact, President Harry S. Truman used an almost identical theme in a letter to those assembled for the annual ceremonies at Kitty Hawk in December 1949. In the letter, which was read aloud by Congressman Herbert C.

³⁷ National Advisory Committee for Aeronautics, Hugh Dryden, Speech, “Aviation Research—Life Blood of National Security,” 23 November 1949, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

Bonner of North Carolina, Truman “preached the more political and military message of air power and anticommunism.”³⁸ Truman wrote:

The task which faces us today is no less challenging than the task which faced the Wright brothers on that historical December day...It is for us to use the instrument they gave us as a force for peace; to make the peoples of the world spiritual neighbors as well as physical neighbors...This is a responsibility which free men the world over owe each other. We Americans and many of our neighbors across the seas stand ready to do our part—to make the world’s airways paths of peace—to use our planes...for all the peaceful pursuits that make up our daily lives.³⁹

The speeches delivered by NACA leaders can be viewed as an important part of the Cold War-era technological rhetoric, constructed by government and industrial leaders and by journalists, that framed the decade’s aviation development and the NACA’s public relations meta-narrative. In this rhetoric, every American aviation development guaranteed peace and freedom throughout the aligned world, while every Soviet development threatened to annihilate these values across the globe.

Dryden also said that certain elements were required to keep the United States strong in the air: “scientific” know-how (provided, of course, by the NACA) and a strong private industrial base with excellent facilities and trained manpower. Dryden asserted that people must be thoroughly informed about military threats from abroad and about American advances in aviation technology. He admonished that Americans be willing to “pay a price” for good aviation.⁴⁰

³⁸ Joseph Corn, *Winged Gospel*, 67.

³⁹ Joseph Corn, *Winged Gospel*, 68.

⁴⁰ Dryden, “Aviation Research—Life Blood of National Security,” 23 November 1949.

As head of the NACA, Dryden laid out traditional NACA research principles for Cold War-era public consumption. As it had always been, the NACA's mission was to "supervise and direct the scientific study of the problems of flight with a view to their practical solution." Yet despite the NACA's officially civilian status, Dryden argued that certain NACA technical information, which would give the U.S. a military advantage, should be kept secret when national security was at stake.⁴¹

Dryden outlined the NACA's recent contributions to civil and military aircraft, concluding with a statement that, in retrospect, seems quite ironic when one considers the later history of the NACA and its successor, NASA: "Should the day come when the research program is determined solely on the basis of immediate production and procurement problems, on that day we abdicate our position of leadership."⁴² During this era, Dryden "sold" the NACA to the public as a necessarily modest organization that, through its engagement in slow and steady research, ensured national security in the new Cold War world. In the 1960s, NASA leaders and public affairs officers would argue the exact opposite: that NASA's lightning-speed "crash program" to the moon, rife with Cold War symbolism, would ensure national security. Later in the year, Dryden delivered a similar speech entitled "Aviation as an Instrument of Peace," which he delivered to the American Society of Mechanical Engineers. In his talk, Dryden again emphasized the necessity of using

⁴¹ Dryden, "Aviation Research—Life Blood of National Security," 23 November 1949.

⁴² Dryden, "Aviation Research—Life Blood of National Security," 23 November 1949.

“a tool” such as the airplane for peaceful good, “despite its notoriety as an instrument of destruction.”⁴³

Carrying Dryden’s themes to the extreme, the NACA’s strong-willed executive secretary and promoter John F. Victory (or “Mr. NACA”) argued that “air power becomes the key to the problem of preserving our own security as well as preserving world peace.” He asserted this in the context of Truman’s 1950 acceleration of hydrogen bomb development. Victory said, “because of geography, our transport of the bomb against our present potential enemy is substantially limited to the air route.” In an era before reliable missile delivery systems became feasible, he also declared that, without air power, the hydrogen bomb would be useless.⁴⁴

Victory rhetorically constructed the airplane as the essential technology for winning the Cold War. Despite American success with the X-program, Victory expressed anxiety over Soviet development of supersonic aircraft, “which the Kremlin guards zealously.” Asserting the narrative of American technological indigeneity, he offered continuing NACA-style research and development, wedded to private, uniquely powerful capitalist American industry, as the way to ensure the American superiority so urgent to success: “Future wars will be won...or lost...in the [NACA’s] research laboratory, in the development centers, and in the production

⁴³ National Advisory Committee for Aeronautics, Hugh Dryden, Speech, “Aviation as an Instrument of Peace,” December 1949, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

⁴⁴ National Advisory Committee for Aeronautics, John F. Victory, Speech, “Air Leadership in a Troubled World,” 24 February 1950, Speeches of John F. Victory, RG 255.2.1, National Archives, College Park, Maryland.

plant.” According to Victory, Americans’ support of this system would make success possible on “mobilization day.”⁴⁵

World War II was still a recent memory in 1951, and Dryden invoked the American wartime aviation experience to gain support for the NACA and to justify its recent institutional growth. He drew direct comparisons between the seemingly inevitable “aggression” of the Soviet Union and the actions of Nazi Germany during the war. On the tenth anniversary of Ground Breaking at the Lewis Flight Propulsion Laboratory in Cleveland, Ohio, Dryden delivered an eloquent speech entitled “Jet Engines for War.” He began by recalling the first spadeful of earth dug to begin the new NACA Lewis Laboratory. He said, “the world climate was even more stormy [in 1941] than it is today...then as now aggression was on the march.” Dryden described Germany’s “overwhelming” of Europe and discussed the United States taking the first steps necessary to become “an arsenal of democracy...a most important move among these first steps was construction of the Lewis Flight Propulsion Laboratory.”⁴⁶

Dryden then discussed the acceleration of the NACA’s aeronautical research in the wake of German aeronautical developments from the mid-1930s. The NACA alone, he argued, had called attention to the slow pace of aeronautical research in the United States during World War II when compared to Germany and Britain. Many industry and military leaders would have taken issue with the statements accuracy;

⁴⁵ Victory, “Air Leadership in a Troubled World,” 24 February 1950.

⁴⁶ National Advisory Committee for Aeronautics, Hugh Dryden, Speech, “Jet Engines for War,” 23 January 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

nonetheless, Dryden committed himself to shedding a glowing light on “indigenously American” NACA achievements. He discussed how the U.S. had made “tremendous progress” in the improvement of engines and power plants, helped in large part by Lewis Laboratories. Dryden then shifted the focus to the “current” state of aeronautical research—namely, supersonic flight powered by jet engines.⁴⁷

Dryden summarized recent American developments in jet technology and, employing elements of the “winged gospel,” used colorful statistics to impress upon his audience the almost “supernatural” might of jets. In doing this, Dryden met a public audience receptive to such impressions. The power of aviation had impressed people since the technology’s inception, and so the power of jets would seem particularly stunning. Aviation’s firm “grip” on the American imagination may have helped Dryden’s speech to succeed in convincing his public of the NACA’s continuing importance to the Cold War world.

Dryden argued that the United States must increase its efforts at the rate that “the enemy” (i.e., the USSR and Korea) progressed with aircraft engines. He also argued for an acceleration of jet-engine technology development. Dryden believed that the NACA could use new scientific research, as well as past experience and accomplishments, to reach this maturity. He then outlined the role of Lewis Laboratory equipment in perfecting the testing methods of theoretical and conceptual ideals. Unlike work being done at other locations, “at Lewis Laboratory all the problems are being considered as parts of a single, over-all problem, and attacked as

⁴⁷ Dryden, “Jet Engines for War,” 24 January 1951.

such...the laboratory has [many] research tools which themselves are in the ‘only one in the world’ category.”⁴⁸

The complexity of today’s problem, Dryden said, called for group effort and cooperation for better understanding, and the solutions “must be sufficiently practicable to be used by the industry member of the team who designs and manufactures the engines...The military services...must make clear to the manufacturers and the researchers what they expect from the engines they want...we are learning, all of us, how to do our share as members of the team.”⁴⁹ Continually, through its public relations products, the NACA portrayed itself as “part of the team,” an idea that Walter Bonney, along with Dryden, continually espoused in order to fight for his agency’s survival.

Dryden concluded his speech with more Cold War rhetoric, and the NACA public relations meta-narrative, invoking Truman’s State of the Union message in which he had stated that the United States must stop Communist conquest in order to protect the “right to govern [itself] as a free nation” and because “peace is precious...we will fight, if fight we must, to keep our freedom and to prevent justice from being destroyed.” Dryden emphasized the “state of perpetual mobilization” in Soviet Russia and its satellite nations, declaring that “the enemy” had large air and submarine forces. He said, “That, most briefly, is why today’s airplanes and engines will never be quite good enough for the United States.”⁵⁰

⁴⁸ Dryden, “Jet Engines for War,” 24 January 1951.

⁴⁹ Dryden, “Jet Engines for War,” 24 January 1951.

⁵⁰ Dryden, “Jet Engines for War,” 24 January 1951.

As NACA public relations engaged its particular narratives, it also strove to explain itself and its policies to its public, categorically denying that it employed any tools of public persuasion. John F. Victory himself delivered a well-written and dramatically phrased, if perhaps somewhat paranoid, speech entitled, “The Public Relations of the National Advisory Committee for Aeronautics” at a meeting entitled “The Functions of Public Relations in Research Management,” held on September 25, 1951 at the University of Michigan, Ann Arbor.⁵¹ Like Dryden’s speeches, this speech was designed to portray the NACA as an essential tool in the Cold War conflict. Yet, the speech had other purposes, as well. It outlined many of Victory’s ideas for new NACA public relations policy, but it avoided any meaningful discussion of the difficulties faced by the agency that had caused a need for increased public relations in the first place. In the speech, Victory insisted that changes in NACA public relations policy would never change the character of the agency. Here, Victory misled his audience, because major changes in the function and structure of the agency had made changes in public relations practice necessary. Public relations would combat these changes, and contribute to several fundamental shifts in agency policy.

Victory dedicated the first part of his speech to his exploration of the meaning of “the thing the world calls public relations.” In doing this, Victory wished to publicly portray the NACA, and its public relations practices, in the most positive light possible. Victory explained that both Webster’s New International Dictionary

⁵¹ Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

and the Public Relations Society of America (PRSA) defined public relations to be “the activities of an industry, union, corporation, profession, government, or other organization in building and maintaining sound and productive relations with special publics such as customers, employees, or stockholders, and with the public at large, so as to adapt itself to its environment and interpret itself to society.” Victory said that, if one were to question the man on the street, “I fear his definition of press relations would make the term synonymous with propagandizing, press-agentry, and drum-beating.” Ironically, Victory himself was the NACA employee who engaged most often in such “propagandizing” activities. Victory acknowledged that over the years, Congress had guarded against the possibility that federal funds could be misused, under the guise of public relations, in order to influence legislation.⁵² During this tenuous phase of NACA history, indirectly “influencing legislation” was just what the NACA hoped to do with its public relations; yet such activities could never be discussed before the public.

“Mr. NACA” gave another definition for public relations that had appeared in the May, 1949 issue of Fortune magazine: “...good business public relations is good performance—publicly appreciated.”⁵³ Victory described this as a positive meaning, calling first for an honest product, and only then requiring the use of communication techniques to insure [sic] public acceptance. The NACA, said Victory, believed that

⁵² Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

⁵³ Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

“...good NACA public relations is good performance...little concern has been given to the business of ‘public appreciation.’ Our public relations activity, rather, has been concentrated upon maintenance of good relations with those whom we serve.”⁵⁴

Victory said that, because the NACA’s “product” was research information, its effort to distribute this information comprised a major part of its public relations program.

Victory, of course, did not emphasize certain facts about the current public information program. For instance, much more NACA information was classified at this time than it had been before the war due to national security concerns. Nor did he emphasize the recent and significant changes made by the NACA in the arena of public relations strategy. Instead, he simplistically portrayed NACA public relations practices as mere conduits for information on agency activities, categorically denying any possibility that they could have their own significance for the agency, the nation, or the Cold War.

Victory devoted much of his speech to a discussion of the annual “open house” activities, discussed in Chapter One, but he also described other major NACA “public relations” activities, such as its technical conferences with representatives of the military services, the aviation industry, and universities. These conferences were separate from the annual “open house.” Participants examined research conducted in a specific field by the NACA. The Committee controlled attendance at these meetings due to the presentation of classified material. In 1951, nine of these conferences were held on the subjects of aircraft structures, aircraft loads, supersonic

⁵⁴ Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

aerodynamics, results of X-1 flight research, propeller controls, thrust augmentation in turbojet engines, hydrodynamics, fuels, and aerodynamics.⁵⁵

Victory believed that such efforts as personnel involvement in professional organizations such as the Manufacturers Aircraft Association, the Institute of Aeronautical Sciences, and the National Aeronautic Association constituted public relations effort. Victory said, “Up to this point, the activities of the NACA which I have discussed were conceived and executed for the purpose of making more effective the services which the tax-supported NACA provides. If these activities have resulted in ‘good public relations,’ that was incidental.”⁵⁶ Certainly, Victory wanted to convince the public that the NACA was a bargain for taxpayers, and that public relations, instead of draining NACA resources or trying to persuade the public of a certain point of view, only helped to make the agency more efficient.

The wily Victory chose to emphasize a single reason that NACA Public Affairs took a dramatic turn in the late 1940s. He said that in 1949, the NACA employed its first public relations specialist, with the stated purpose ‘to spread knowledge of the NACA in order to attract superior scientific personnel to NACA employment’ (emphasis mine). Victory stressed the major competition that NACA faced for good personnel. By explaining this in a public speech, Victory made his own plea for recruitment of talented workers to the agency.

⁵⁵ Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

⁵⁶ Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

In the new information program, Victory said, three basic truths were emphasized: “1. NACA’s research accomplishments, financed by public appropriation, represent a sound investment in national security, justifying continued support; 2. The nation’s leadership in aeronautics depends upon effective cooperation among the military, industry, and NACA in research and development; and 3. The NACA is a ‘good place to work.’ This [public relations] program has been conducted with scrupulous regard to plain truth and good taste.”⁵⁷

Victory listed the “common tools” of public relations used in the NACA’s program: the information release, the specially-prepared article, the motion picture, the radio interview, the television presentation, the story-telling photograph, and the story-producing interview. Victory aptly labeled the program, which had produced only seven news releases from January to August 1951, “low-pressure” as opposed to “high-pressure.”⁵⁸

He then discussed the possibility of criticism directed toward the NACA, as a federal institution, with regard to its information services. He said, “the NACA is properly sensitive...as every federal institution [should be].” He understood that Congress remained “zealously watchful” of federal funds, for fear that they might be misused for the purpose of influencing members. Victory cited the 1919 legislation “prohibiting the use of any part of an appropriation for services or publications to influence any member of Congress in his attitude toward legislation or

⁵⁷ Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

⁵⁸ Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

appropriations...[this legislation] is rigidly invoked by appropriations committees of the Congress. With such safeguards we can of course have no quarrel.”⁵⁹ Behind the scenes and “unofficially,” of course, NACA leaders worked to influence Congressional opinion, and sometimes used public relations strategies to do so.

In describing, and formulating, NACA public relations policy, Victory synthesized NACA public relations narratives with the specific problems faced by the NACA. However, in crafting his public portrayal of the NACA and its public relations practices, he avoided any discussions of the NACA’s “behind-the-scenes” public relations maneuvers or strategies.

In a speech entitled “Aeronautical Research In a Time of World Crisis,” delivered to a luncheon of the Aviation Writers Association, Hugh Dryden employed the narrative of American technological indigeneity, characterizing the NACA as an essential tool of purely American, morally faultless technological development. He outlined his own ideas for public information regarding aviation, and particularly the NACA. He said:

Upon your informed reporting of events in the science and art of flight everyone in this nation of ours must...depend for information. Yours is a man-sized job, one which is growing in...importance...you are called upon to tell your customers, the 150,000,000 people of our country, not only the day-to-day happenings in the world of aeronautics, but also what those happenings mean, both now and for the future...it is up to you to tell America what is meant when the Congress appropriates billions of dollars for new military

⁵⁹ Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

airplanes...yes, even when we at the NACA do something in the field of research that the security regulations permit us to talk about.⁶⁰

The speech is filled with critiques of Communism and discussions of how an increase in NACA aviation research would help to combat Communism: “In the matter of brains, and what we do with our brains, we do have a potential very big edge over the Communist aggressor. Advantage, that is, if we make proper use of our brains, and of our industrial strength.”⁶¹ Dryden made a point of mentioning the American alliance with South Korea and explaining the importance of air power—and, by extension, NACA research—to the Korean War and the American-Soviet struggle in general.

Dryden rigorously educated conference attendees on recent NACA achievements in research, and also on the process the committee went through in order to perform research. In closing, Dryden invoked Victory’s call for new personnel when he said, “as tough as... [the manufacturing of wind tunnels] is, all of us wish we could produce scientists and other research personnel on such a manufacturing basis. Because no matter how successful we are in designing and building these new research tools, they’ll be of little good unless we have the trained and talented brainpower to make proper use of them.”⁶² Yet again, an NACA leader practically emphasized the importance of increased “manpower” to NACA success. Without adequate staff, the agency would never retain its strength.

⁶⁰ National Advisory Committee for Aeronautics, Hugh Dryden, speech, “Aeronautical Research in a Time of World Crisis,” 14 February 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

⁶¹ Dryden, “Aeronautical Research in a Time of World Crisis,” 14 February 1951.

⁶² Dryden, “Aeronautical Research in a Time of World Crisis,” 14 February 1951.

Victory delivered a speech entitled “Some Problems of Really High-Speed Flight” to the Rochester Engineering Society at the University of Rochester, New York on November 8, 1951. Victory’s Cold War and “winged gospel” rhetoric, drawing many connections to the NACA, was more strongly worded than ever. He began with his ever-present assertion that “[high speed flight] is more than a problem which dares solution; it is vital to the security and protection of our nation.” Invoking the Korean conflict, Victory discussed how the United States, since World War II, had “dozed and [been] kept warm by dreams of a confraternity of nations dedicated to the blessings of fellowship and good will,” while other nations “occupied themselves with methods of devising and forging new, sharper weapons of war.” Using religious language, Victory said, “Somehow, with the guidance of God, we must bring to reality the dream of a confraternity of nations dedicated to the blessings of fellowship and good will.” NACA aviation development would be essential to the creation of this sacred “confraternity.”⁶³

Such a spiritual and religious conception of flight’s power was certainly not new to the Cold War era. It had been a part of American national identity since the early decades of the twentieth century. Yet in articulating this idea, Victory added his own chapter to the “winged gospel.” Many aviation enthusiasts of the era from 1903 to the 1950s viewed flight as a “holy cause” that required “not only total devotion but

⁶³ Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

also dedicated...evangelizing.”⁶⁴ John Victory, along with other devout aviation publicists, would certainly fall into the category of “aviation evangelist.”

The feeling of goodwill and the desire for “the guidance of God” did not, of course, extend to the population of communist countries. Victory allowed the communist “enemy” no mercy in this speech, describing them as “international bandits armed with terrible weapons.” While fighting these enemies as ruthlessly as possible, he said, we should “buttress our intentions of good will with determination to resist oppression and aggression.” Victory then, in his typical style, outlined how the work of the NACA (in cooperation and harmony with the military and industry) would make the United States internationally supreme in air power.⁶⁵

The speeches delivered by Hugh Dryden and especially John Victory in the late 1940s and 1950s reveal much about the meanings of early Cold War technology in general, NACA aviation technology, and the specific problems faced by the NACA as they created technology for the post-war era. As Dryden and Victory portrayed aviation as an essential weapon in the war against Communism, they helped to make aviation technology itself an emblem, or symbol, of the struggle. However, Dryden and Victory did not work solely for American supremacy in the Cold War. They carefully planned their speeches to portray the NACA as an agency that would be essential to the struggle, and they tapped into deeply-held American emotions regarding flight. In doing so, they also upheld the ideals of industrial capitalism.

⁶⁴ Corn, *Winged Gospel*, 26-52.

⁶⁵ Victory, “The Public Relations of the National Advisory Committee for Aeronautics,” 25 September 1951.

NACA public relations upheld these capitalist ideals not only because the narratives of NACA public relations mimicked those of industrial public relations but also because, as industry became a “client” of the agency, the NACA institutionalized industry priorities at nearly every level. This trend would become stronger during the NASA era. Victory and Dryden believed that their tactics would attract more workers, attention, and money to the agency. The NACA desperately needed such resources during its problematic twilight decade.

The narrative strands of the era’s NACA public relations rhetoric emerged out of the “Logic of the Air,” the “winged gospel,” and the general climate of industrial public relations and government policy. We see them embodied in the speeches delivered by NACA leaders during the late 1940s and early 1950s. The most pronounced of these strands, of course, was the meta-narrative pitting “good” American industrial capitalist aviation technology against “evil” Soviet communist aviation technology. The narratives of corporate benevolence and American technological indigeneity would become much stronger during the NASA era. Yet their foundation was laid here, during the twilight years of the NACA.

In one of his speeches, John Victory discussed the nature of NACA “public relations” itself. While doing so, he did not wish to reveal every reason that the NACA had only recently created an “Office of Public Information.” Nor did he wish to reveal every strategy that the office used. To do so would have been to bring the NACA’s difficulties directly into the public eye and to admit the agency’s imperfections, a strategy that no public relations leader would support. Perhaps

understandably, Victory and Dryden rather simplistically portrayed NACA public relations as an uncomplicated mechanism facilitating a free information flow between a preeminent federal organization and its loyal American public.

These speeches were vital components of the era's NACA public relations effort and were often delivered before groups important to influencing public opinion on aviation technology, such as the Aviation Writers' Association and public relations specialists working for both public and private organizations. These groups either directly or indirectly translated the information they received into newspaper and magazine stories and into public relations products. Some speeches were published verbatim in national magazines aimed at the aviation and military communities, such as *Aviation Week* and *Armed Forces* magazines.

The success of Dryden and Victory in convincing the public of their central message through the use of key narratives is largely demonstrated by the hard-won survival of the NACA during these difficult years. Without preserving the NACA, the agency's leadership, including its public relations leadership, would not have had the chance to lobby for the agency's ultimate success: its transformation into the National Aeronautics and Space Administration (NASA) in 1957

CHAPTER THREE

THE WORK OF WALTER T. BONNEY, 1948-1957

The single most important change in postwar NACA public relations was the hiring of Walter T. Bonney, the agency's first "official" public affairs officer, in 1948. The agency hired Bonney because of its many problems finding its way in the new federal infrastructure for technology. As Victory emphasized in several public speeches, the agency did indeed need to attract more workers. Yet NACA leaders, who faced threats to the agency from many different directions, also needed new ways to show Congress, the military, industry, and the American public that the NACA remained important for the new Cold War era. Like Victory and Dryden, Bonney harnessed Cold War rhetoric to his public relations work. In this, the NACA's twilight, Bonney particularly stressed cooperation with the military and industry. Although Bonney took a modest approach to NACA public relations policy, his work added an unprecedented level of efficacy to NACA public relations and helped broaden the agency's sphere of influence.

Bonney and the young Office of Public Information helped to solidify and clarify the link between industry and the NACA and helped the NACA to more effectively serve both industry and military interests. Public relations needed its own task force and efforts, separate from the NACA's engineering mission, and Bonney's approach made

public relations a part of the NACA's organizational structure. The many challenges surrounding the Research Aircraft Program's publicity illustrate the difficulties that NACA public relations workers faced in convincing engineers of publicity's importance and complexity. Such difficulties would continue into the NASA years.

Bonney was the first official public relations officer for both the NACA and the National Aeronautics and Space Administration (NASA). He brought a specific set of experiences to his job. Indeed, although a generation younger than John Victory, Bonney can be grouped with the "aviation publicists" identified by Joseph Corn as a major force for boosting aviation enthusiasm during the first half of the twentieth century.¹ Bonney was born on May 27, 1909. He graduated from the University of Massachusetts in 1931, with a Bachelor of Science degree in Journalism and Communications. For a decade, he wrote news stories for the Springfield, Massachusetts Republican, many of which focused on aviation or other technologies. Before beginning work for the NACA as the Assistant for Public Relations to Executive Secretary John Victory, Bonney was Director of Public Relations and Publications for Bell Aircraft Company in Buffalo, New York. At Bell, Bonney's reputation with the Republican had preceded him, and Bell leaders welcomed him enthusiastically.²

Bell Aircraft Corporation occupies an important place in the history of the aviation industry. The company had close ties to the NACA. Lawrence Bell, originally of the Glenn Aircraft Company, founded the company on July 10, 1935, in Buffalo, New

¹ Joseph Corn, *The Winged Gospel: America's Romance with Aviation* (Baltimore: Johns Hopkins University Press, 1983), 9-10.

² National Advisory Committee for Aeronautics, Bell Aircraft Company, letter to Walter Bonney, 7 March 1946, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

York. Bell Aircraft obtained its first military contract in 1937. Planes designed by Bell for the U.S. Army Air Forces during the second World War included fighters such as the YFM-1 Airacuda, the P-39 Airacobra, and the P-63 Kingcobra. Perhaps most importantly, Bell, along with the NACA and the Air Force, designed the X-1, the first aircraft to surpass the speed of sound. Bell also built many of the X-1's successors. In 1960, the Textron Corporation purchased Bell Aircraft, which then became Textron's Bell Aerospace Corporation subsidiary. Bell developed the Reaction Control System for NASA's Project Mercury spacecraft and continues to design helicopters. Although Bell Aircraft was not the largest aviation corporation of the World War II and Cold War eras, it was certainly one of the most significant.³ Because industry had become such a vital NACA "client," the NACA served its own interests when hiring Walter Bonney, who had experience with the industry side of aviation public relations.

Bonney's arrival at the NACA heralded a new era of public relations work, for the agency and for the government as a whole. Government public relations had already enjoyed two twentieth-century "booms" by the time Walter Bonney joined the NACA. Although the Creel Committee had helped to rally support for World War I and resulted in expansion of government public relations, this growth was small compared to the expansion of government public relations during World War II. American entry into the war prompted President Roosevelt to create the Office of War Information (OWI). The OWI "became in a sense the predecessor agency to today's worldwide U.S. Information

³ Alain J. Pelletier, *Bell Aircraft Since 1935* (Annapolis: Naval Institute Press, 1992), 10.

Agency, the nation's public relations agency.”⁴ According to historian Scott Cutlip, the U.S. armed forces had only “skeleton” public information staff prior to the war. During World War II, they developed their first “massive public information and public relations programs.” In doing so, they trained more than 100,000 new public relations practitioners. Cutlip says, “The war also brought paid public relations advertising to the fore as a major means of public communication.”⁵

Government public relations, like corporate public relations, proliferated still further during the Cold War era. This was because U.S. government agencies, including the NACA, had “new postwar problems.” Interestingly, Cutlip says that much of the impetus for this proliferation came from the same 100,000 public information officers who learned their calling with U.S. military units around the world. The government's wartime mobilization of public opinion accelerated understanding of the need for public relations.⁶ Despite the new availability of public relations workers trained by the military, Bonney's Bell Aircraft pedigree fit very well with the NACA's ethos as a small and modest government agency increasingly concerned with industrial interests.

When Bonney applied for the NACA job in 1948, he received a glowing recommendation letter from Frederick R. Neely, Aviation Editor of Collier's Magazine. Neely had previously worked as Director of Public Relations and Washington representative for Bell Aircraft in New York. Neely regarded Bonney's work for the Republican as exceptional “in a field that was, and still is, sadly lacking in a broad

⁴ Scott M. Cutlip, *The Unseen Power: Public Relations: a History* (Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1994), 528.

⁵ Cutlip, *The Unseen Power*, 528.

⁶ Cutlip, *The Unseen Power*, 528.

knowledge of the important subject of aeronautics.” Neely said that Bonney helped to repair bad press relations, “which...were endangering national security because the press was being fed on war developments through private pipelines in the plant.” According to Neely, Bonney performed admirably in both “the local job” (i.e., performing daily tasks of publicity for Bell Aircraft) and “the national job” (i.e., guarding sensitive information and protecting national security).⁷

When Bonney, a reserve officer in the Army Air Forces, had returned to Bell in 1944 after two and a half years of active duty, he was named Director of Public Relations and Advertising. Neely wrote, “[Bonney] has established such a high degree of confidence among the press of the nation that his word is gospel, and he would not submit material to the press until he had satisfied himself that it was in that category.” He called Bonney “the best in the business.”⁸

Photos of Bonney show a smiling, congenial man. His personal correspondence files reveal his love for the aeronautical community of which he was a part, and show his great affection for his family and the many friends he made during his professional life. They also reveal Bonney’s personal and professional modesty and occasionally self-effacing sense of humor. His personality was a good match for the NACA, an agency that survived most of the 1950s through alliances and teamwork rather than through cutthroat competition or ruthless self-promotion.

⁷ National Advisory Committee for Aeronautics, Frederick Neely, memo to John Victory, 21 December 1948, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

⁸ Neely, memo to Victory, 21 December 1948.

According to his personal letters, Bonney made the move from Bell to the NACA primarily because his daughter had bronchial and lung problems, such as pneumonia, and could no longer tolerate the harsh winters of Buffalo, New York, where Bell Aircraft was located. His daughter, Jean Luise “Jeannie” Bonney, would indeed have a healthier life in Washington, D.C., where her father would work primarily at NACA headquarters. Bonney’s wife, Dorothy or “Dottie,” had peace of mind knowing that the family lived in a healthier climate for Jeannie. Although “stationed” in the capitol, Bonney usually traveled to Langley Research Center, Ames Aeronautical Laboratory, and other NACA installations several times a month.⁹

Bonney’s immediate supervisor was executive secretary John Victory. Bonney’s job description required first and foremost that he keep thoroughly informed of the agency’s work in order to perform effectively as a public relations specialist. Bonney’s official duties included planning, directing, and carrying out the agency’s information program to help the general public achieve a broader understanding of the NACA’s work. More specifically, Bonney’s program would inform segments of the public from which new scientific, engineering, and other specialized personnel could be drawn.¹⁰ Furthermore, Bonney had responsibility for planning, directing, and coordinating information programs of all NACA laboratories; keeping in touch with news writers,

⁹ National Advisory Committee for Aeronautics, Walter Bonney, letter, 5 April 1949, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

¹⁰ National Advisory Committee for Aeronautics, Walter T. Bonney, Experience and Qualifications Sheet, Personnel File, 1 October 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

television producers, and radio producers; and preparing articles and speeches for presentation to non-technical audiences.¹¹

On October 14, 1951, Bonney was officially promoted from “Information and Editorial Specialist,” a GS-14 position, to “Assistant to the Executive Secretary” (i.e. John Victory), a GS-15 position. Bonney’s new job description, presumably crafted by Victory, expanded with this promotion. As a specialist in the field of public relations, Bonney would investigate “specific problems and situations presented to the Executive Secretary and the Director, involving delicate inter-agency and industry relationships and personal interests where misinformation, misunderstanding, or incomplete information is involved.” Bonney would use personal contacts, correspondence, and carefully planned information releases to clarify such misunderstandings. Through recommendations on these problems and other public relations matters, he would participate “in the determination of the agency’s public relations policies and practices.”¹²

Bonney would plan, direct, and carry out a “multi-phased program” to spread interest in and understanding of the NACA’s “functions, objectives, facilities and achievements” among the public. Bonney would prepare comprehensive articles for lay audiences about the NACA’s work and its implications and secure their publication. He would maintain contact with members of the press, television and radio leaders, freelance authors, and others to arouse and maintain their interest in aeronautical research and

¹¹ Bonney, Experience and Qualifications Sheet, 1 October 1951.

¹² National Advisory Committee for Aeronautics, Walter T. Bonney, Notification of Personnel Action, Personnel File, 14 October 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

in NACA achievements. He would assist them in obtaining “full and authoritative” information, and in maintaining channels for the effective utilization of NACA material. Bonney would cooperate with writers of books and encyclopedia articles “within the limits of national security” and take charge of NACA-themed motion pictures.¹³ But Bonney sometimes had to warn the press away from certain classified projects. He also had to approve every photograph and story for national security reasons before it went to press, even if the story was a press release written by the contractor company who built the technology.¹⁴

Bonney would prepare articles for publication and speeches for presentation by NACA personnel before lay groups and before “other [groups] where technical content must be presented in language understandable to the layman, and the policies, programs, problems, and expectations of the NACA... must be appropriately presented.” Similarly, Bonney had to review and edit speeches prepared by others “to assure they are in accord with Headquarters policies governing security and propriety of statements.”¹⁵ Finally, Bonney would follow legislation affecting the agency, keep in contact with individuals associated with such legislation, and remain “alert to evidences of incomplete or misinformation on the part of such groups,” filling in gaps as necessary.¹⁶

The new NACA public information program grew quickly. In FY 1949, the NACA had two employees working full time on publicity and public relations, and one

¹³ Bonney, Notification of Personnel Action, 14 October 1951.

¹⁴ National Advisory Committee for Aeronautics, Daniel Wentz, Letter to Walter Bonney, 14 December 1954, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

¹⁵ Wentz, Letter to Bonney, 14 December 1954.

¹⁶ Wentz, Letter to Bonney, 14 December 1954.

employee working part time. In FY 1950, the Committee had four employees working full time, and one working part time. At NACA headquarters, the number of full-time employees engaged in public relations was reduced from two to one, while one full time employee was employed at each of the three NACA research centers: Langley Research Center in Virginia, Ames Aeronautical Laboratory in California, and Lewis Flight Propulsion Lab in Ohio.¹⁷

Bonney described 1949 as a year in which public relations activity increased dramatically from what he described as its near nonexistence prior to his arrival. From March to September 1949, Bonney went through an intensive training period during which he traveled and familiarized himself with the work and labs of NACA.¹⁸ Later in the year, the NACA hired Don C. Wiley as NACA/Ames Public Information Specialist. Bonney was confident in Wiley's abilities because of his history as a newspaperman working with aviation public relations. Indeed, Wiley's professional background was very similar to Bonney's own.¹⁹

One of the highlights of Bonney's job was his participation in the NACA's annual industry conferences. Although the multiplication of NACA labs made the postwar revival of the annual industry conferences somewhat difficult, these conferences continued to be the most high-profile and dramatic manifestation of NACA public

¹⁷ National Advisory Committee for Aeronautics, Walter Bonney, Letter, 12 June 1950, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

¹⁸ National Advisory Committee for Aeronautics, Walter Bonney, Letter, 15 March 1949, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

¹⁹ National Advisory Committee for Aeronautics, Walter Bonney, Letter, 4 April 1949, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

relations until the agency's demise. In the late 1940s and 1950s, there were several laboratories to visit, hundreds of industry, academic, and government specialists to accommodate, and a very intricate NACA research program to explain. George Lewis said, "it is not like the old days when we could have all the group down in one day."²⁰

To solve this problem, the NACA began a series of rotating inspections at the various laboratories. These inspections were "modeled upon the military inspection routine adopted just before World War II but [retained] the old NACA tradition of carefully orchestrated and exhaustively rehearsed presentations by the working engineers." Langley and Ames laboratories alternated as annual hosts of the conference. Inspections were also held every year at the Cleveland installation, which in 1947 became the Flight Propulsion Research Laboratory and in 1948, upon the death of George Lewis, became the Lewis Flight Propulsion Laboratory.²¹

As even Dryden appreciated, a major purpose of these conferences had always been to showcase NACA achievements before the public. Dryden therefore let Victory "have his way" with the conferences, which greatly resembled the prewar conferences in style and content. Indeed, "[Victory turned] them into glossy extravaganzas, hosting hundreds of guests at the laboratories over the course of several days, and taking poetic license with technicalities of research in order to impress his guests with the complexity of the NACA task and the skill with which it was being accomplished." Dryden, on the other hand, supervised the many smaller technical conferences on specific topics

²⁰ Alex Roland, *Model Research: The National Advisory Committee for Aeronautics, 1915-1958* (Washington, D.C.: National Aeronautics and Space Administration, 1985), 232.

²¹ Roland, *Model Research*, 232-3.

delivered before engineering- and project-minded guests. As Roland says, “One set of conferences was for substance, one for show. Both served the purposes of the Committee.”²²

Bonney received an “advance copy” of an article written by Fred Hamlin, journalist and editor and publisher of *Aero Digest* magazine, during the summer of 1951. Although the article did not reach millions, as the *LIFE* Magazine articles on the Mercury Seven astronauts would ten years later, it nonetheless provided very good publicity for the NACA in aviation circles. The article reviewed the twenty-fifth annual NACA Inspection and Open House, which began the week of May 17, 1951.

Hamlin’s piece vividly captured the flavor of the Open House and Inspection. He wrote that “[NACA’s] current work, owing to defense needs, is...of more-than-usual interest.” Hamlin believed this was the major reason that over 1,800 guests attended the event. He described the first day of the Open House, “reserved for top aeronautical engineers and newspapermen and magazine writers, of which I was one” as “a curious blend of college old home week and scientific wonderland.” “Scores” of engineers, despite their “heavy defense schedules,” attended the open house. The list included such greats as renowned aircraft engineer Alexander Kartveli and aviation pioneer General J.H. “Jimmy” Doolittle, among others. These engineers joined with experienced journalists to “form a congenial, reminiscing group.”²³

²² Roland, *Model Research*, 233.

²³ National Advisory Committee for Aeronautics, Fred Hamlin, manuscript article, “The Moon Will Take Longer,” 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland; Fred Hamlin, “The Moon Will Take Longer,” *Aero Digest* (June 1951), 20.

Engineer John Stack, the “father of supersonic wind tunnels,” created a “scientific wonderland” with his presentation of achievements made in sub- and supersonic speeds with the Langley transonic tunnel: “Aerodynamically, though he did not say it, this is one of the longest forward strides in recent years, and of world significance.” The Langley wind tunnels themselves provided Hamlin’s most dramatic memories of the Open House. Hamlin noted that Stack and the other engineers “spoke without gesture, jokes, or oratory.” Their highly informative speeches were brief and to the point. Using lapel microphones, they spoke in hangars, stock rooms, and beside wind tunnels.²⁴

One of Hamlin’s tour guides was Melvin N. Gough, who had been the NACA’s colorful and high-achieving chief test pilot at Muroc and was Langley’s flight research division chief. Gough was “a stocky, dark man with bright blue eyes whom some had mistaken for a grease monkey...when he greeted us at our plane, he wore khaki jumpers and black leather gloves and announced that he considered himself on vacation.”²⁵ Yet Gough appeared in a business suit for the tour, and although smiling and congenial, was highly organized and informative.

In an interview for the article, Hugh Dryden told Hamlin that he spent as much time as possible trying to recruit young engineers to the NACA. Dryden noted that the average age of all NACA engineers was 28. The engineers came to the NACA as a sort of “super-post-graduate course” before going into industry at a higher rate of pay, although a few did stay. Hamlin wrote that he was so fascinated with the presentations, which included viewing test models, that “he barely realized the demonstrators had

²⁴ Hamlin, “The Moon Will Take Longer,” 1951.

²⁵ Hamlin, “The Moon Will Take Longer,” 1951.

purposely left out the star features at Langley because security cloaks NACA's most vital defense developments."²⁶ Here, again, is a demonstration that despite all claims to the contrary, NACA public relations could not be an entirely faithful mirror of NACA activities. Whether for security reasons or for publicity purposes, certain key developments had to be omitted, and others emphasized beyond their technical importance.

Hamlin turned to the plain-spoken Walter Bonney when he was "desperately eager to talk to someone about something that could easily be identified with the work-a-day world." With Hamlin, Bonney discussed the preparation for the inspection program and speeches. Bonney started work on the program one month prior to the event, on location at Langley: "it took that much of the time because everybody else was too busy keeping up with their regular work to help." The presenters wrote their own speeches, but Bonney had to edit the speeches for length and to protect information for reasons of national security. Most of the charts used in the presentation had already been drawn up during the research process. Bonney said, "NACA is essentially an information service, and charts are used constantly in depicting findings." Bonney thought that the presenters had probably rehearsed fairly thoroughly, although they knew the information so well that they did not need much formal preparation time.²⁷

Hamlin discussed Victory's propensity to "spot trouble," contact VIPs, greet friends, and simplify hotel and boat reservations. Hamlin described Victory as "a wirey [sic], lively man who will be sixty next year, looks ten years younger, usually carries a

²⁶ Hamlin, "The Moon Will Take Longer," 1951.

²⁷ Hamlin, "The Moon Will Take Longer," 1951.

bulging briefcase in the hurrying attitude made famous by Old Dutch Cleanser, has the humorless face of a crusader, and is sometimes called ‘Mr. NACA.’” Hamlin defined Victory’s job as full-time secretary and liaison between the committee and the bureaucracy of the aviation industry, the White House, and Washington.²⁸

For much of the conference, Victory dominated the journalist’s attention; indeed, Hamlin “gave him the opportunity to beg off till morning, but [Victory] was enthusiastically against it.” Victory said that the Open House was part of the NACA’s duty as a research information unit: “these open houses are to give our customers—the American public—a first-hand view of what we are doing, and to ask questions. The number of guests has grown because today there are more questions, more technical problems, and a much larger industry.”²⁹ To the public, or his “customers,” Victory always emphasized that NACA publicity was neutral, fulfilling no political needs of the agency. Nonetheless, he was the leader who engaged most often in endeavors that would bring some political advantage to the agency.

Towards the end of the inspection, Dryden, who Hamlin described as “[looking] somewhat clerical, a bespectacled, soft-spoken man of medium height,” told journalists that if the time lag between NACA research findings and public use remained comparatively constant, people would be crossing the Atlantic in jet transports in four hours by 1965. This information prompted Hamlin to ask Dryden how long he thought it would take to develop the technology necessary to reach the moon, “a question which, a few years ago, would have been answered by any scientist with a don’t-talk-like-Buck-

²⁸ Hamlin, “The Moon Will Take Longer,” 1951.

²⁹ Hamlin, “The Moon Will Take Longer,” 1951.

Rogers stare.” In a “calm, undramatic monotone,” Dryden replied, “the moon will take longer—it will probably be more than a decade before we can devise rockets that will reach the moon.”³⁰ Dryden’s statement epitomized NACA thinking on the issue of space exploration. Although Dryden and other post-war NACA leaders viewed rocket research and space travel as worthy of investigation, and the agency was indeed in the early stages of such research, these leaders conceptualized space exploration as an eventual achievement built on incremental research rather than as a Project Apollo-style rapid achievement emerging from a crash program.

Although the Open House was vital to NACA publicity, it was certainly not the only avenue for such publicity. As the leader of the Office of Public Information during this pivotal time in NACA history, Bonney had much autonomy in shaping the expanded public affairs function. For example, Bonney made use of his new recruit, Don Wiley, in areas other than simple publicity for the Ames Aeronautical laboratory. He required Wiley to cover events at Edwards/Muroc, to maintain closer liaison with public relations representatives of the West Coast and other aircraft companies participating in the high speed, full-scale research airplane program, and to form relationships with principal aviation writers located in the Los Angeles area. Wiley’s expanded role helped to create networks and relationships that would facilitate public relations in the 1950s and into the NASA years, when maintaining press contacts and staff relations among the various space centers would occupy much of the NASA public relations director’s time.

³⁰ Hamlin, eagerly anticipating the Space Age, concluded the article on a poetic note: “On reaching my cabin, I looked out the porthole. The sky had cleared. The moon, near full, looked as if it were just at the end of the bright path it made across the wind-tossed bay.”

In the early 1950s, Bonney handled a few requests for information regarding the future plans of the NACA to send rockets to the moon and other destinations in outer space. However, the volume of these requests (approximately one per month) was extraordinarily low compared to the several hundreds of requests per week that the NASA Public Affairs Office received in the 1960s. In response to such a letter dated April 1951, from a Joseph Lysniewski of Brooklyn, New York, Bonney said, “Rocket travel to the moon, or elsewhere outside the earth’s atmospheric envelope, is a subject which the National Advisory Committee for Aeronautics has had to leave for others to consider while it applied its energies to the solution of more immediate aeronautical problems.” In fact, Bonney did not even have any NACA-produced information on space travel to send Lysniewski; he had to send him a photostat of an article by a Mr. Eric Burgess.³¹ Bonney apparently had little means to handle requests for such material; he did not even have another extra copy of the article. He requested that Mr. Lysniewski send the photostat to Ted Huggins of Santa Barbara, California, because “Mr. Huggins has almost simultaneously asked for the same general material as did you.”³² This situation is particularly interesting when juxtaposed with the situation in which NASA public affairs officer Julian Scheer found himself during the 1960s. Scheer and his staff sometimes sent a hundred NASA press releases per week in response to public requests for information.

³¹ National Advisory Committee for Aeronautics, Walter Bonney, letter, 20 April 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

³² Bonney, letter, 20 April 1951.

During his tenure at the NACA, Bonney delivered his share of public speeches, and proved that he took the ideas of Victory and Dryden seriously in formulating his own view of NASA public relations. He spoke at the Fifth Annual Conference for the Administration of Research at the University of Michigan in Ann Arbor on September 25, 1951. Bonney chose a rather prosaic title for his presentation: “The Public Relations of the National Advisory Committee for Aeronautics.” Bonney stressed to Henry O’Bryan, chairman of the conference’s Program Committee, that the NACA had undertaken very little public relations activity “in the narrow sense of press promotion” during its thirty-six years. On the other hand, declared Bonney, virtually everything the NACA did was public relations “in the larger sense,” because NACA’s “product” was information. An example of its information dissemination was the biannual inspection/open house, which “represent[s] definitely relations with the NACA’s public, i.e. public relations...I propose to discuss NACA’s public relations in these terms.”³³ Like Victory, Bonney wished to portray NACA public relations in the best possible light, as a completely neutral tool of information dissemination.

Bonney had his own way of responding to general public requests for information. In response to an individual’s request, Bonney would typically send a variety of materials, not written by him, and explain that “the organization always has been more interested in finding answers to aeronautical problems than in blowing its own horn.” In one instance, Bonney sent a total of thirteen documents, including items such as Senate Appropriations Committee reports and testimony; the June, 1951 issue of *Aero*

³³ National Advisory Committee for Aeronautics, Walter Bonney, letter, 12 July 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

Digest magazine, which included Hamlin's article, "The Moon Will Take Longer," about the Biennial Inspection; an article from *Popular Science* magazine; John F. Victory's speech of July 1950, entitled "Security Through Air Supremacy," and Dryden's speech "Jet Engines for War"; and technical reports on activities from various NACA offices.³⁴

In the early 1950s, journals such as *Aero Digest* and *Air Affairs* were major conduits for NACA information (although the *Air Affairs* operation collapsed soon after Bonney's arrival at the NACA). Bonney, Dryden, and Victory were the major correspondents with the staff of *Aero Digest*. Dryden wrote a letter of congratulations to editor and publisher Fred Hamlin when the magazine received the annual "editorial achievement" award from *Industrial Marketing Magazine*. Dryden said, "Although you were too modest to say so, it is my understanding that this is one of the most coveted honors available to industrial publications." Hamlin thanked Dryden for his letter, writing, "If modesty is a vice, you NACA people are bigger sinners than we are."³⁵ Hamlin copied the letter to Bonney, extending a jovial lunch invitation to both Dryden and Bonney.

During the average workday, Walter Bonney busied himself with a variety of activities. For example, on August 8, 1951, Bonney worked from his office in Washington, D.C. He met with a coworker about gathering information on new employees for internal newsletters; saw Bob Wertman of Standard Oil to discuss a NACA story for the "Sohioan;" held a telephone conference with Charles Junge of

³⁴ National Advisory Committee for Aeronautics, Walter Bonney, letter, 13 July 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

³⁵ National Advisory Committee for Aeronautics, Walter Bonney, letter, 17 July 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

Cleveland Graphite Bronze about a speaker for the business meeting of the American Society for Metals to be held in February 1952; worked with the photo lab on requests for John Victory's photo book; and met with Lew Rodert on plans for the 1951-1952 Aviation Information Services (AIS) Regional program. He also held a session with Jesse Hall on the clearance of ad layout and copy requested by Douglas Fir Plywood Association. Several of Bonney's "daily records" for 1951 exist; each describes a wide variety of public relations, or "public information," activities.³⁶ Such interactions occurred on a much more personal level than did the daily activities of NASA "pr men." NASA public relations employees often had to deal with many layers of NASA bureaucracy when forging relationships with companies and individuals outside the agency.

Despite his mandate to understand all NACA activities, Bonney nonetheless had problems, as some non-engineers would, understanding the technicalities of NACA work. In a letter dated July 27, 1951, Bonney wrote, "I've just come back from one of those sessions in which a couple of very grand and very patient guys have been trying to explain to me in one syllable words, the only kind I can understand, what an expansion wave is, and after that, how it differs from a shock wave." Bonney then proceeded to explain as well as he could exactly what an expansion wave was. Indeed, NACA public affairs personnel did not always fully grasp the high-technology achievements of the agency, despite their mandate to understand them: the situation would continue with NASA. The talents and motivations needed to publicize technology were not always the

³⁶ National Advisory Committee for Aeronautics, Walter Bonney, memo to self, 20 August 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

same as those needed to create the technology. An engineer was not a journalist, and vice-versa.³⁷ This could lead to tensions between public affairs staff and more technically-oriented engineers (and ultimately, astronauts). It resulted in publicity that, although effective in key ways, could not always be “true” to the engineers’ vision.

John Victory and other NACA senior staff members certainly recognized the importance of Bonney’s public relations work to a potential Cold War conflict. Bonney, along with other NACA headquarters employees, received a special notice from Victory on August 13, 1951, instructing him on what to do in case of Soviet military aggression against the United States. The memo explained that NACA headquarters would be relocated to Langley in case of “devastating enemy attack on Washington, D.C.” A “skeleton staff” at Langley would carry on emergency Headquarters’ activities until full-scale operations could be resumed. Victory informed Bonney that his duties would be vital to the agency and the nation during an emergency of this kind. He gave Bonney explicit instructions to proceed to Langley “by the most expeditious means of transportation...available.”³⁸

Bonney would then report to the NACA director (or acting director). He would be reimbursed for necessary traveling expenses. If Bonney were to survive the attack, but could not report promptly for duty, he would have to notify the NACA director and give his reasons. The notice, Victory wrote, should also indicate when Bonney expected to report for duty. Victory warned that as a precautionary step, his designated beneficiary or

³⁷ National Advisory Committee for Aeronautics, Walter Bonney, letter, 27 July 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

³⁸ National Advisory Committee for Aeronautics, John Victory, memo, 13 August 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

next of kin should be instructed “to notify the NACA Director in case you [the worker] are injured or killed in a bombing attack.” Victory requested that workers safeguard the instructions for later use.³⁹

In the early 1950s Cold War milieu, the perception of danger was very real to NACA workers, and especially to John Victory. Bonney, as an information officer, was considered a particularly important member of NACA staff during such situations because the task of informing the public of an imminent threat to America’s air resources would fall on his shoulders. In the NACA as in other branches of government, public information was an integral part of the Cold War American government. Without public relations and information programs to communicate news of activities to journalists, Americans would have had very little knowledge of government progress and participation in the Cold War. Such knowledge would be particularly important if the Cold War turned “hot.”

One of Bonney’s more important duties was to oversee the production of a motion picture of material presented at the various inspections. Such films became one of the NACA’s most effective public relations tools for staff recruitment and promotion of public interest, particularly in presentation to groups, such as engineering societies and Kiwanis Clubs.⁴⁰ Bonney worked on ways he could use the inspection movies for recruitment of engineers to NACA, and he also considered the possibility of making

³⁹ Victory, memo, 13 August 1951.

⁴⁰ National Advisory Committee for Aeronautics , Ed Chamberlin, memo, 29 November 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

movies specifically for recruitment that would air on tv stations local to the various laboratories,⁴¹ although such plans never came to fruition.

A relatively high-profile NACA publicity event in 1953 was the December *National Geographic* article, written by Hugh Dryden, about the agency.⁴² Bonney was the main NACA contact for National Geographic during the six-month preparation of the article. He corresponded most often with Allan Fischer Jr. of the magazine's editorial staff and Andrew Poggenpohl of the Illustrations Staff. Bonney was in charge of sending all pertinent NACA photographs to the magazine and of relaying guidelines such as article length and format to Dryden.

In a letter to Bonney, Fischer suggested that Dryden briefly discuss aviation medicine and answer questions about the difficulties and problems encountered by humans in flight. Fischer wished Dryden to discuss the "limiting human factor" in flight and whether it might lead to an acceleration of pilotless aircraft development. This was a theme of interest more for the magazine staff and readership than for NACA engineers. Yet this interest in "the human factor" foreshadows the intense public curiosity in the astronauts that Bonney would face during Project Mercury and illustrates a general public attitude of fascination toward the human experience of extreme flight.

Fischer also suggested that Dryden discuss the development of electronics in aviation. He urged Bonney and Dryden: "tell your own story fully and make other material subordinate to it. Doubtless you intend to do that, but let's not be overly

⁴¹ National Advisory Committee for Aeronautics, Walter Bonney, memo to self, 21 November 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

⁴² Hugh L. Dryden, "Fact-Finding for Tomorrow's Planes," *National Geographic*, December 1953, 104.

modest!”⁴³ Fischer believed that this issue of *National Geographic* would be very popular in aviation circles and would interest the general public. Dryden briefly discussed the “human factor” issue in the article, but kept the focus on “nuts-and-bolts” technology.⁴⁴ The following year, *National Geographic* started a story focusing entirely on the “human factor” and aviation medicine, investigating the X-3 and X-5 supersonic aircraft projects.

As his work during the first half of the 1950s with *National Geographic* and other magazines reveals, Bonney had an excellent relationship with the press. Not only did the members of the press with whom he worked often write letters of admiration about Bonney to Dryden, but Bonney corresponded regularly with press members who worked with him in the Public Relations Society of America (PRSA).⁴⁵

In the opinion of Alex Roland, the NACA’s Research Aircraft Program was a success “more clearly as a psychological breakthrough and a public-relations coup than as a research enterprise.” The shattering of the sound barrier brought the NACA its second Collier Trophy, popular and political support, and worldwide acclaim, particularly from the international aeronautical community. Nonetheless, some members of this community thought that the money could have been spent on more effective research programs.⁴⁶ When NACA engineer John Stack won the Collier trophy in 1947, he shared

⁴³ National Advisory Committee for Aeronautics, National Geographic Society, Allan Fischer, letter, 15 May 1953, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

⁴⁴ Dryden, “Fact-Finding for Tomorrow’s Planes,” 105.

⁴⁵ National Advisory Committee for Aeronautics, Walter Bonney, letter, 27 September 1954, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

⁴⁶ Roland, *Model Research*, 250.

the Collier award with industry and the military, as Dryden had insisted; this gave the NACA favorable publicity. The project, of course, had been born out of cooperation among the triad. All Collier award publicity identified the NACA with the military-industrial teamwork “that had dominated aircraft development in World War II.”⁴⁷

Particularly in the view of the public, the Research Aircraft Program was the centerpiece of NACA programs during the late 1940s and 1950s. An exploration of the publicity issues surrounding the Research Aircraft Program illustrates the era’s major trends and conflicts in NACA public relations, perhaps the most important of which was the dramatic clash of perspectives between the NACA’s engineers and its publicists.

The NACA’s Research Aircraft Program resulted in the creation of the many record-setting supersonic airplanes of the 1940s and 1950s. The planes created by the program emerged out of partnerships among the NACA, the military, and the aviation industry. The goals of the program were to determine and demonstrate that sustained and controlled flight was possible at transonic and supersonic speeds, and to test technologies related to these goals. In the case of the X-program, the NACA joined with the Air Force and Bell Aircraft to create a line of experimental aircraft that was usually kept highly secret. Perhaps the key plane of the program was the X-1, nicknamed the “Glamorous Glennis” by pilot Chuck Yeager after his wife; this was the first plane to surpass the speed of sound. Many other X-planes followed, some of which reached to the very edge of the Earth’s atmosphere, although North American Aviation built many of the later planes. In the case of the Douglas Skyrocket Program (including the D-558-1 and D-558-2 planes), the Douglas Aircraft Company built rocket- and jet-powered research

⁴⁷ Roland, *Model Research*, 256.

aircraft for the U.S. Navy, with flight research performed by the NACA at Muroc.

Historian James Hansen says, “the research airplane program seems to have furthered the cause of the NACA almost as much as the NACA furthered the cause of the research airplane program.”⁴⁸

Walt Williams, engineer and head of the NACA high-speed flight research station at Muroc, California, felt that the high-profile publicity surrounding the D-558-II (Skyrocket) airplane slighted the already low-profile NACA. He expressed his grievances to Bonney: “I realize that the Public Relation[s] offices of the Navy and the Douglas company wanted to have a spectacular story, but we feel that it should also be factual! Very little of the publicity mentioned...that research airplanes such as the Skyrocket have been joint efforts of both services and the NACA.”⁴⁹ In some cases, Bonney’s necessarily low-profile publicity style, which emphasized cooperation with and sometimes even subservience to the military and industry, seemed to dismay even members of the NACA.

Walt Williams took particular offense at a *Time* magazine article, published December 5, 1949, which incorrectly stated that the Skyrocket had crashed.⁵⁰ The article also misidentified two pilots participating in the program. Williams noticed that in previous articles, Douglas and Navy personnel had been lauded for their achievements, but no mention had been made of the NACA. Even in the publicity surrounding Chuck

⁴⁸ James R. Hansen, *Engineer in Charge: A History of the Langley Aeronautical Laboratory, 1917-1958* (Washington, DC: National Aeronautics and Space Administration, 1987), 309.

⁴⁹ National Advisory Committee for Aeronautics, Walt Williams, letter, 2 December 1949, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

⁵⁰ “Dual Power,” *Time* Magazine, 5 December 1949, 56.

Yeager's X-1 flight in *Time* and *Aviation Week*, journalists barely mentioned the NACA.⁵¹ Despite the fact that the X-program had brought more publicity to the NACA than any other program had, such publicity was nonetheless very unassuming.

Protests against the omission of the NACA's participation had been made to *Time* in the form of letters to the editor, but Williams called such procedure "childish" public relations. He believed that a joint release from the Air Force, Navy, and the NACA, showing the "true story" of the project and focusing not only on flight activity at Muroc but also on "the overall picture showing the tremendous research effort so far by the NACA Laboratories before the airplanes were built, and which has continued as new information [is] learned from the flight tests," should be released. Williams believed that such a press release, while more thoroughly informing the public, would also help the morale of NACA employees.⁵²

Such a press release never materialized. In a reply to Williams, Bonney explained several reasons why the NACA "might never get the headlines." He sympathized with Williams, noting that several personnel, including a Pentagon officer, had already criticized the D-558-II stories from Muroc. Bonney explained that, unfortunately, the research work of the NACA was in essence less spectacular for headlines than the "record-making flights" themselves. Nonetheless, he reassured Williams that such flights were less important than NACA work from a research standpoint. Taking a modest view of the NACA, Bonney said that "Data-producing efforts...have little popular appeal." Indeed, "[even] the NACA work which presently could be declassified would, I'm afraid,

⁵¹ Williams, letter, 2 December 1949.

⁵² Williams, letter, 2 December 1949.

look unimpressive.”⁵³ Bonney’s priority was to work to preserve good NACA relations with the military and industry. He could hardly have done otherwise as the NACA fought to survive. Yet Bonney’s approach did not please those inside the NACA who wanted stronger recognition of the agency’s achievements—those who concerned themselves with the straightforward engineering work behind those achievements and not with the shaded nuances of publicity or politics.

Another key activity for NACA Public Affairs during this time was the filming of documentary footage for the supersonic airplane projects. Bonney oversaw the creation of a comprehensive documentary movie about the Research Aircraft Program. The NACA, along with Muroc, had different “movie projects” to document programs such as the X-1, the X-1A, and the D-558-2; these would be synthesized to produce the final documentary, and would also lead to the creation of other public affairs “products.” Don Wiley, NACA public information and public affairs officer for Ames and Edwards, played a large role in the filming. Wiley said, “By and large, things look pretty good, although there are some less encouraging aspects.” Wiley had concerns about “the Muroc idea of what they want in ‘their’ [the engineers’] version as opposed to what I feel should be included.”⁵⁴

The deadline for completion of the X-4 movie was April 29, 1950. As of April 15, several technical sequences had been filmed. Wiley said, “On the surface, this sounds terrific, but there are several flies in the ointment.” Most of the footage, Wiley said, was

⁵³ National Advisory Committee for Aeronautics, Walter Bonney, letter, 28 December 1949, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

⁵⁴ National Advisory Committee for Aeronautics, Don Wiley, letter, 15 March 1950, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

“fuzzy as hell” and he feared the sequences would have to be re-shot. Another drawback was the lack of pilot close-ups, which Wiley thought necessary to bring the viewer in for a feeling of intimacy with the pilots. This would involve the audience in the human process of flying; Wiley wished to attract viewers with close-up, “human factor” shots of the pilots. Wiley had those close-ups spliced in. Throughout most of the footage, cameras followed the X-4 planes and shot them in flight maneuvers demonstrating the planes’ technical sophistication; Wiley found these sequences “impressive.”⁵⁵

They were impressive, perhaps, but not sufficient. In the film, Wiley wanted include “incidental activities which would accentuate the human angle and put emphasis on the scientific methods of data collection.” Wiley probably thought that the public would be more impressed by the film if it had more of an emphasis on “science” than on the pure engineering that had produced the planes and was demonstrated by their performance. Wiley worried that this brought him into conflict with the “engineering approach” exemplified by NACA personnel and Walt Williams. This minor conflict between the science and engineering perspectives hints at an agency culture clash that would manifest in a variety of ways during the NASA years. Perhaps more importantly, as public relations men, Wiley and Bonney saw the value in putting a “human face” onto the technology, but ran into problems when trying to convince engineers of the importance of such strategy.

In the same letter, Don Wiley said that “Walt Williams...does seem to be dead set against dragging in the cooperative angle.” During the filming of another movie, Williams (and other station personnel) protested shooting Skyrocket footage of Walter

⁵⁵ Wiley, letter, 15 March 1950.

Jones, the NACA pilot, with U.S. Air Force pilot Chuck Yeager, flying the F-86 chase plane, because they felt that Yeager had a general tendency to “hog the show” at the expense of the NACA. The construction of “cooperative public affairs” between the NACA, industry, and the military was complicated for all parties involved.

Wiley felt that he, with the help of Bonney and other public affairs personnel, would have to shoot most of the “cooperative” and “sympathetic” footage at a later time, after the basic footage of planes in flight, which Williams believed showed the important “engineering” aspects of the flights, was completed. Bonney and Wiley wanted a “story film,” while Williams wanted a “high flight” engineering film. Wiley complained of the “disorganized approach” to filming and public relations at Muroc, and did not believe that Williams placed enough importance on public affairs endeavors.⁵⁶

Despite any unease that Walt Williams and other NACA engineers on the ground at Muroc may have felt about Chuck Yeager’s strong personality and tendency to overshadow the NACA’s work, “public relations man” Bonney recognized the importance of incorporating Yeager, a dramatic and popular figure in the history of flight, into NACA publicity where possible. He understood the “glamour” of pilots in general. In a memo to Don Wiley, dated April 19, 1951, Bonney requested that Wiley obtain a photo including “General Boyd, Major Yeager, and possibly [pilot] Jack Ridley, together with Williams and/or other NACA personnel. If [there are] any company pilots or personnel handy, [you] might include them in one or more photos.”⁵⁷

⁵⁶ Wiley, letter, 15 March 1950.

⁵⁷ National Advisory Committee for Aeronautics, Walter Bonney, memo, 19 March 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

To NACA committee members and to Victory and Dryden, Bonney gave an update on the Full-Scale Research Airplane program documentary, summarizing many of the problems Wiley had discussed with him the previous year, few of which had been solved between April 1950 and April 1951. Although Wiley believed that he could make the movie with the footage he had, he was unable to get desirable footage, or even still photographs, showing clear cooperation among “the Military, the Industry, and NACA.” Also, according to Wiley, Williams believed that the Air Force had previously monopolized all editorial treatments of Muroc work, and that the NACA was therefore not obliged to include the Air Force in any of their current publicity.⁵⁸

Although Bonney agreed that the NACA had been neglected in “service-sponsored articles” about the program, he did not agree with Williams’s approach; even the diplomat, he wrote, “There is little question in my mind that our willingness to admit that there are other partners in this activity will enhance, rather than weaken, our own position...Such an attitude might even result in being ‘counted in’ when the roll is called again by someone else.” Bonney requested money for Wiley and cameramen from Ames to return to Muroc for a few days, because of “lack of competent photographic personnel stationed at Muroc and lack of adequate photographic equipment there.”⁵⁹ Wiley’s return trip, Bonney believed, would contribute to a much more balanced picture of the project. Finished works would include an article in *Aero Digest*, a documentary about the Full-Scale Research Airplane Program, which would be made available to news organizations,

⁵⁸ National Advisory Committee for Aeronautics, Walter Bonney, letter, 25 March 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

⁵⁹ Bonney, letter, 25 March 1951.

and a movie presentation for the next NACA Inspection and Open House.⁶⁰ The final products would reflect the “cooperative angle,” despite Williams’s rather fierce protests.

Williams was not the only NACA engineer to protest the agency’s publicity style. In fact, Walter C. Orr, Aviation Information Specialist (or “public relations man”) from Lewis Laboratory, related personnel complaints about the quality of NACA publicity to Bonney. Some personnel had concerns about the lack of identification of prominent NACA members and engineers in various news stories. Although the stories mentioned the names of these individuals, they did not refer to the NACA or to the individuals’ participation with NACA. Orr closed with the question, “Couldn’t we plant further data where it will help? Consider for possible discussion later on.”⁶¹ But if the NACA were to survive, it would have to continually stress the “cooperative angle” throughout its involvement with supersonic aircraft projects well into the 1950s, whether or not NACA engineers approved of the Public Affairs Office’s methods. During the NASA era, many of the goals of engineers and public relations men would diverge still further, although usually for different reasons.

The NACA marked the years between 1951 and 1955 with continuous pleas for funding. Although NACA news stories of the era were primarily descriptive of NACA technical achievements, NACA spokespeople, of whom Jerome Hunsaker was the most often identified, occasionally invoked the NACA public relations meta-narrative and smaller narratives. Hunsaker consulted with Bonney on ways to present information to

⁶⁰ Bonney, letter, 25 March 1951.

⁶¹ National Advisory Committee for Aeronautics, Walter Orr, letter to Bonney, 21 April 1951, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

the press, and Bonney screened all information released for reasons of national security. Bonney remained the NACA's chief press contact for the decade, although he was rarely named explicitly as a source in news articles.

The agency achieved much in the realms of supersonic and transonic flight during these twilight years. In July 1951, Douglas Aircraft Test Pilot Bill Bridgeman reached 1300 miles per hour in the Skyrocket. Two years later, Marine Pilot Lt. Col Marion E. Carl set a new world altitude record in the plane.⁶² During much of the 1950s, the agency worked on swept- and variable-wing research resulting in much thinner, "delta-shaped" wings that would help planes to better withstand air friction and shock wave instability at supersonic speeds and beyond.⁶³ The Douglas X-3 had the thinnest wings of any plane yet developed and provided far more information on high speed flight than any previous flight had. It could reach speeds of 2000 miles per hour. As usual, "Douglas design followed NACA concepts."⁶⁴

News stories about the Skyrocket continued to elaborate more on Douglas and Navy contributions than on the NACA's work. The agency was usually mentioned briefly, in the final paragraphs of news articles. Yet NACA conflicts over publicity did not at all prevent the Skyrocket from continuing to set records. Early in November 1953, NACA test pilot Scott Crossfield reached a world speed record of 1272 miles per hour at

⁶² "1300 MPH Speed Test of Navy Plane Verified," *Los Angeles Times*, 16 July 1951, 2; Marvin Miles, "Plane Climbs to Record: Almost 16 Miles High," *Los Angeles Times*, 1 September 1953, 1.

⁶³ Marvin Miles, "Skyways," *Los Angeles Times*, 31 August 1952, 12.

⁶⁴ "Thinnest Wings Yet on Douglas' New X-3 Plane," *Chicago Daily Tribune*, 22 October 1952, B9.

Muroc.⁶⁵ Later in the month, the Skyrocket again smashed a record, reaching more than twice the speed of sound, or 1327 miles per hour.⁶⁶ These dramatic events of 1953, the “golden anniversary of powered flight,” led Los Angeles Times aviation reporter Marvin Miles to call it “aviation’s greatest year.”⁶⁷

The NACA continued to fight for a pay scale that would guarantee its engineers as high of a salary as those who worked for private industry. NACA requests would have increased the salaries of scientists and engineers in other federal agencies, as well, but the requests were continually ignored by Congress.⁶⁸ 1955 brought further changes in fortune for the NACA. Early in the year, Hunsaker and Dryden, in an “emergency meeting” with Eisenhower, requested and received more money to complete programs such as unitary wind tunnels and related research for the X-15, one of the next generation of supersonic planes. The timing of the NACA approach to Eisenhower was excellent: the president had recently received intelligence that told him Russia was further along in aircraft development than he had thought. Following the advice of James Killian on his Technical Capabilities Panel, Eisenhower said he wished to “get the military R and D program moving again with carefully established priorities better related to the existing

⁶⁵ Marvin Miles, “Skyrocket Flies All-Time Mark of 1272 Miles Per Hour,” *Los Angeles Times*, November 18, 1953, 1.

⁶⁶ “U.S. Plane Flies 1372 Miles Per Hour: Over Twice Speed of Sound,” *The Washington Post*, 22 November 1953, M1.

⁶⁷ Marvin Miles, “Aviation Ending Greatest Year,” *Los Angeles Times*, 27 December 1953, 19.

⁶⁸ Jerry Klutts, “Competitive Pay Scale for NACA may Receive Nod,” *The Washington Post*, 24 December 1954, 23; Jerry Klutts, “Civil Service Studies Plan to Hike Pay of Engineers, Scientists,” *The Washington Post*, 2 January, 1955, 21; “The Federal Diary: New Survey is Reported Buried,” *The Washington Post*, 17 March 1957, A17.

threats to our security.” NACA funding would increase as a result.⁶⁹ Indeed, the TCP report of March 1955 set the course of American policy for many years. It inspired the crash program creating the first American ICBM, the program creating the U-2 spy-plane, and amplified military R&D in virtually every field.⁷⁰

During the first half of the decade, the NACA had often requested significant funding for projects such as atomic airplane engine and guided missile research that had gone unanswered.⁷¹ In the more favorable climate of 1955, Hunsaker specifically requested and received funds for the early development of an atomic airplane, on which the NACA and American intelligence sources believed the USSR was already working.⁷² Although it was an interesting experiment, the airplane never made it to the “operational” stage.

An important mid-decade joint project for the NACA and the Navy was the development of the “Coke bottle,” “wasp-waist” or “Marilyn Monroe” design of supersonic fighter planes. The resulting planes, which included Grumman’s F9-F Tiger and Convair F-102A, were of course industrially produced. Although the NACA had been working on the design since 1951, it kept the story a secret until 1955 “for security reasons.” The secret was very well-guarded until an “irate” Fred Hamlin of Aero Digest broke a story about the new plane design after keeping it hidden in his desk for a year. He decided to do so because he learned that the NACA was about to release a similar

⁶⁹ Roland, *Model Research*, 280; McDougall, ...*The Heavens and the Earth*, 120.

⁷⁰ Roland, *Model Research*, 280; McDougall, ...*The Heavens and the Earth*, 122.

⁷¹ Joseph Hearst, “House Told U.S. Lags in Training of Scientists,” *Chicago Daily Tribune*, 6 April 1953, 14; Charles W. Corddry, “U.S. Rocket Has 4 Times Sonic Speed,” *The Washington Post*, 6 April 1953, 3.

⁷² “Atomic Plane is Probability, House Advised,” *Chicago Daily Tribune*, 21 March 1955, A-2.

story imminently, without consulting him; he had first written his story after hearing about the new design months before, and had kept it a secret at the NACA's request.⁷³ This disagreement between NACA leaders, including Walter Bonney, and the usually admiring Fred Hamlin was an atypical instance of NACA discord with the press.

The design was based on NACA engineer Richard T. Whitcomb's principle of "area rule." Use of the "area rule" involved slimming down the "waist" of a fighter plane. This reduced drag on an aircraft by up to twenty-five percent as it passed through the turbulent airflow just below, at and above the speed of sound, and therefore greatly increased a plane's speed without an increase in engine power. The use of the "area rule" also cut down on some of the "detailed, time-consuming analyses which previously have been required whenever wing geometry...[is] involved."⁷⁴ Whitcomb won the Collier trophy for his achievements.⁷⁵

In the 41st annual report of the NACA to Congress and the President, Hunsaker said, in a clear allusion to the USSR, "There is evidence to indicate that our present position of leadership in the air has been challenged by a potential enemy. To maintain at manageable cost the necessary air power of requisite quality demands continuous research to anticipate the requirements of tomorrow's weapons." Following the report's

⁷³ "Jet Design Secret Aired By Magazine," *Los Angeles Times*, 8 September 1955, 24.

⁷⁴ "U.S. Bares New Wasp Waisted Plane Design," *Chicago Daily Tribune*, 12 September 1955, 17; Associated Press, "Radical Shift in Air Design Bared by U.S.," *Christian Science Monitor*, 12 September 1955, 17.

⁷⁵ Hansen, *Engineer in Charge*, 338-339; Vern Haugland, "Aviation Enters Jet Age," *The Washington Post*, 4 January 1956, 51.

release, Eisenhower sent Congress his own report calling for resources to support atomic energy for aircraft propulsion and the development of ICBMs.⁷⁶

Cold War aviation was reaching the height of speed and technical sophistication. In 1956, NACA spokespeople had the task of publicly disclosing the existence of a new Air Force plane, which could reach 10-mile altitudes and might, according to some news stories, be important to detecting Soviet atomic detonations. The NACA would perform weather experiments during tests of the new plane, which would soon be christened the “U-2.”⁷⁷ Later news stories would assert that the U-2’s sole purpose was to provide the NACA with a platform from which conduct such weather experiments. The next year, private contractors, with guidance from the NACA, began to build preliminary versions of the X-15 hypersonic research aircraft, a plane designed to reach to the edge of space.⁷⁸

Between 1946 and 1957, Walter Bonney successfully pioneered the modest public information and public relations program of the NACA. Bonney, a well-known, well-liked, and mild-mannered member of the aeronautical community, was a perfect match for the NACA. The agency needed a program that would continue to help it fit into the changing paradigm rather than setting it apart. Bonney’s pedigree was that of aviation journalist turned industry public relations man. He particularly understood the priorities of industry and helped the NACA adjust to them.

⁷⁶ “Ike Stresses A-Power for Planes,” *The Washington Post*, 24 January 1956, 6.

⁷⁷ Charles Corddry, “U.S. Unveils New Plane which Reaches 10-mile Altitude in Routine Flight,” *The Washington Post*, 7 May 1956, 1; “New Jet Plane Flies 10 Miles Above Earth,” *Los Angeles Times*, 7 May 1956, 10.

⁷⁸ Marvin Miles, “Skyways: X-15,” *Los Angeles Times*, 28 April 1957, A12.

During the first half of the 1950s, the NACA struggled to redefine itself in the postwar world of military, industry and government obsession with large-scale technology, particularly the aviation technology which the NACA always felt was its purview. The developments of 1955 brought a somewhat improved position for the NACA. This position, although still uncertain, would benefit the agency in a way that would not be entirely apparent until after October 1957.

CHAPTER FOUR

**SELLING SYMBOL AND SCIENCE: SPUTNIK AND THE NASA OFFICE OF
PUBLIC INFORMATION**

The Space Age started with a shot heard around the world. Scientists, engineers and politicians who had pinned their hopes on the nascent U.S. space exploration endeavor reeled in shock on October 4, 1957. On this date, the Soviets launched Sputnik I, the world's first artificial satellite, from their covert rocket testing facility in the Kazakh desert.¹

Weighing 183 pounds, the Soviet-made heavenly body circled the globe once every ninety minutes. Moscow's official news organization, TASS, broke the story to the world. Although the new technological marvel carried a powerful, "beeping" radio beacon and could pinpoint locations on the earth through telemetry, it had little concrete military use. However, Sputnik I carried possibly more symbolic power than any technological initiative of the Cold War 1950s.

The chaotic political cloud surrounding Sputnik gave birth to the National Aeronautics and Space Administration (NASA). Government leaders built the nation's space agency around the nucleus of the NACA, whose public relations and information

¹ Roger Launius, *NASA: A History of the U.S. Civil Space Program* (Malabar, Florida: Kriger Publishing, 1994), 24.

practices had successfully promoted the organization for its selection as the core of the new space agency. NACA Office of Public Information practices would provide a foundation for NASA public relations. Yet the NASA OPI would be much larger and more active than that of the NACA, and would engage in strategically more sophisticated public relations practices.

In NASA's earliest years, the agency's public relations concerns seemed relatively modest and manageable. Yet Walter Bonney quickly recognized that the transition to NASA would mean a major shift, or "saltation," in public relations and information practices. Bonney realized that, unlike the NACA, NASA would be an instrument of U.S. policy. He knew that information coming from NASA would strongly influence national and international opinions of the United States; such information would have geopolitical consequences for the nation. Although Bonney struggled valiantly to plan for the OPI's shift to NASA, he did not realize that his planning would be, to a large extent, futile. Few government leaders at the NACA or elsewhere could have anticipated the quantity and quality of public attention that early NASA human spaceflight activities would attract. Fewer still could have planned for the skills and organizational infrastructure that NASA would need to manage this attention. Bonney was correct in anticipating a NASA public relations "saltation," but this "saltation" would not come to full fruition under his leadership.

The Office of Public Information, and particularly Walter Bonney, pushed for the NACA to "take the lead" in answering Sputnik on a civilian basis. Bonney explained how a new space program would affect the agency. Once the NACA became NASA,

Bonney planned to make the agency's public relations an "instrument of U.S. policy" and to make the OPI much more visible. He wanted the OPI to engage in diverse secondary activities, from obtaining congressional funding to acting as a "watchdog" of sorts and smoothing the agency's internal relations.

Walter Bonney engaged the narrative of technological indigeneity when he stressed the urgency of uniquely American scientific and technological development above all else in answering the Soviet "challenge." He characterized the NACA as a national organization whose intrinsically American methods of research and development would bring America and its allies into the "Space Age." According to its own publicity, the NACA had "made" mid-century American aviation, which it characterized as indisputably the best in the world. Bonney built on the narratives of American national identity and corporate benevolence when he emphasized the "free," civilian character of the United States space program and the importance of "resourceful," democratic-capitalist industry to space success. Along with Bonney and NASA administrator T. Keith Glennan, President Eisenhower contributed to narratives of corporate benevolence in his earliest public characterizations of the agency, providing a template for later public relations portrayals of the agency. Bonney, Glennan and Eisenhower accelerated the narrative of "America-first globalism," often stating unequivocally that American triumph in space would bring potentially transformational scientific knowledge to the entire world.

Many of these speeches and memos, written by Bonney, Glennan, and Eisenhower, addressed practical concerns about the future of NASA and its public

relations, and were not specifically designed to communicate NASA “ideology.” Nonetheless, each of these discussions provided a template for the earliest public portrayals of NASA, thus contributing to the construction of NASA’s early public relations narratives.

Scholars agree that the events surrounding the flight of Sputnik mark the true beginning of the Space Age. A particular set of historical circumstances had allowed the Soviets to develop the world’s first functional, heavy-lifting Intercontinental Ballistic Missile (ICBM). Stalin’s rocket program, which he had approved in 1947, was intended to culminate in the production of an ICBM. Along with the United States, the Soviet Union utilized the survivors of Nazi Germany’s military rocket teams, recreating the German V-2 rocket through its creation of the SS-I and SS-II rockets.¹ The Soviets built their first ICBM, the SS-6 or R-7, to carry their heavy nuclear warhead.²

Soviet authorities deliberately publicized an early flight of the SS-6 that occurred on August 21, 1957. The Soviet State Commission released an official communique on the launch. It was unusual for Soviet leaders to publicize any success in the military field; this release was intended largely to intimidate the United States. Historian Asif Siddiqi writes:

Clearly [this launch] did not have the intended effect on the U.S. public or media, because, for the most part, little attention was given to it. Those

¹ Asif Siddiqi, *Challenge to Apollo: The Soviet Union and the Space Race, 1945-1974* (Washington, D.C.: National Aeronautics and Space Administration, 2000), 23-56; James Oberg, *Red Star in Orbit* (New York: Random House, 1981), 20.

² Oberg, *Red Star in Orbit*, 30.

who did pay attention spoke only to dismiss the claim—a stance justified partly by the black hole of information on Soviet ballistic missiles in the open press...it would take 38 more days before the entire world would take notice that a new age had arrived, heralded by that same ICBM.³

Indeed, the most important flight of the R-7 occurred when it launched Sputnik I.

The day after Sputnik I's flight, at an International Geophysical Year (IGY) conference that had convened in Washington, D.C. to discuss worldwide scientific progress on satellites, Soviet chief delegate Anatoli Blagonarov discussed launch details. Conference attendees congratulated the Soviets. Yet American members of the scientific and political communities feared that the Soviets, under Premier Nikita Khrushchev's leadership, had staged a highly effective "propaganda coup." Indeed, the Soviet Union's prestige soon skyrocketed in the eyes of the world.⁴ Sputnik illustrated advances in Soviet education, science, and technology. If the Soviets were capable of launching a satellite to fly over American soil, were they not also capable of launching a nuclear weapon to the United States? And why hadn't the United States launched a successful satellite first? Many American leaders and laypeople believed that Sputnik proved Soviet leadership in the arena of military and space technology.

Sputnik I produced a Cold War technological drama of the highest order. According to historian Howard McCurdy, "Sputnik I was the media event of the decade" and shattered the "sense of public security" based on the assumption that the Soviets were inferior in the realms of science and technology. The Soviet Union had succeeded in

³ Siddiqi, *Challenge to Apollo*, 161.

⁴ Siddiqi, *Challenge to Apollo*, 62-63.

becoming the first nation to “break free from earthly bonds.”⁵ Asif Siddiqi agrees: “with only a ball of metal, the Soviets had managed to achieve what they were unable to convey with decades of rhetoric on the virtues of socialism.”⁶

For the superpowers, the satellite’s orbit had immediate ramifications in the realms of international opinion and diplomacy. In nations such as England, France, Germany, Italy and Norway, journalists and survey respondents described space activities in the context of “a race between Russia and America”—a race that Russia was winning.⁷ Citizens of developing nations showed more passionate admiration for the Soviet achievement of Sputnik. Indian Prime Minister Jawaharlal Nehru described Sputnik I as “a great scientific advancement.” Cairo Radio announced that Soviet booster capabilities “undermined the significance of all kinds of pacts and military bases and would make countries think twice before tying themselves to the imperialist policy led by the United States.”⁸

News stories and opinion polls give further evidence of Sputnik’s impact on the American and international psyche. Newspapers published literally thousands of articles on Sputnik in October 1957 alone. During this month, The New York Times published stories on Sputnik every day, and usually published more than one. The Times called Sputnik the achievement of “the new socialist society” and “of profound scientific

⁵ Howard McCurdy, *Space and the American Imagination* (Washington, D.C.: Smithsonian Institution Press, 1998), 100.

⁶ Siddiqi, *Challenge to Apollo*, 60.

⁷ Oberg, *Red Star in Orbit*, 34.

⁸ Dale Carter, *Final Frontier: The Rise of the American Rocket State* (London: Haymarket Press, 1988), 120.

significance.”⁹ One article admonished that “the National Security Council...take immediate measures to remedy deficiencies and put the US again in the lead in a race that...is not so much for arms or even prestige, but a race for survival.”¹⁰ Taking issue with historians who believe that Sputnik journalism reflected rather than produced public hysteria, Walter McDougall suggests that the media may not have been “responding to a grassroots movement when they played up the space story and guessed its ominous meaning...in its initial stages, the national response to Sputnik was rather an aimless, agitated ‘media riot.’”¹¹

In January of 1958, the Opinion Research Corporation (ORC) conducted a poll asking respondents to compare Soviet and American technological strength. 82 percent of respondents agreed that the USSR had surpassed the US in the development of advanced weaponry. Sixty-seven percent felt that Americans had been “too smug and complacent about our national strength.” Seventy-seven percent of respondents to a Survey Research Center (SRC) poll said that Sputnik should “make a difference in what we are doing about the defense of this country.”¹² Beyond American borders, surveys performed by the United States Information Agency (USIA) in the mid-1960s showed that “Sputnik made a big impact.” Reports based on the surveys said that most Western nations perceived Moscow as “winning the space race” and believed Moscow would

⁹ New York Times, “Round the World: In 96 Minutes,” 6 October 1957, *New York Times*, 19.

¹⁰ New York Times, “Reply to the Sputnik.” 11 October 1957, *New York Times*, 26.

¹¹ McDougall, ...*The Heavens and the Earth*, 145.

¹² Donald Michael, “The Beginnings of the Space Age and American Public Opinion,” *Public Opinion Quarterly* 24 (1960), 575-579; Gabriel Almond, “Public Opinion and the Development of Space Technology,” *Public Opinion Quarterly* 24 (1960), 568.

remain “ahead” until the mid-1970s.¹³ Clearly, Sputnik was a public relations problem of the highest level for the United States.

Despite President Eisenhower’s methodical planning of U.S. military strategy, including space strategy, he and his advisors tragically underestimated America’s intense psychological reaction to the perceived “technological Pearl Harbor” that was Sputnik. Eisenhower unsuccessfully tried to downplay Sputnik’s significance. According to journalist and historian William Burrows, Sputnik was “unquestionably the most pernicious problem of the Eisenhower presidency.”¹⁴ The event caused the powerful illusion of a “technological gap,” or “missile gap” as Democratic presidential candidate John F. Kennedy would call the phenomenon in his 1960 campaign. Although on a smaller scale than World War II, Sputnik “provided the impetus for increased spending for aerospace endeavors, technical and scientific educational programs, and the chartering of new federal agencies to manage air and space research and development.”¹⁵ Sputnik, however, was not the dramatic “saltation,” or watershed growth, of the United States’s military-industrial complex invoked by Walter McDougall¹⁶; this “saltation” had in fact occurred during American preparations for entry into World War II. Long before America had adjusted to the idea of Sputnik I, the Soviets launched Sputnik II, on November 3, 1957, atop another SS-6. This satellite, which weighed 1,120 pounds as

¹³ Oberg, *Red Star in Orbit*, 34.

¹⁴ William Burrows, *Deep Black: Space Espionage and National Security* (New York: Random House, 1986), 93-94.

¹⁵ Launius, *NASA*, 24; McDougall, *...the Heavens and the Earth*, 40.

¹⁶ McDougall, *...The Heavens and the Earth*, 300.

opposed to Sputnik I's 200 pounds, carried the first living being to go into space, the dog Laika. Unlike Sputnik I, Sputnik II was theoretically heavy enough to carry a nuclear weapon.¹⁷

Although Eisenhower did not understand Sputnik's symbolic power, he was in fact a savvy Cold War military strategist and a fiscal conservative who did not want to spend money on unnecessary and expensive space initiatives.¹⁸ Unfortunately for his public image, as many historians including Walter McDougall, Roger Launius, and Alex Roland explain, most of the rationale behind his position was highly classified.¹⁹ Eisenhower knew that although the Soviet Union had built a heavier missile than the United States, the United States was nonetheless superior to the Soviet Union in terms of military technology. American intermediate-range missiles, miniaturized nuclear warheads, bases near the Soviet Union in allied countries such as Turkey, and sophisticated spy planes meant that the United States had many advantages over the USSR should a military conflict actually occur. Also, by freely allowing the Soviets to send a satellite into orbit first, Eisenhower helped to establish American (and

¹⁷ McCurdy, *Space and the American Imagination*, 62.

¹⁸ Fred Greenstein, *The Hidden-Hand Presidency: Eisenhower as Leader* (New York: Basic Books, 1982), 50; Ivan W. Morgan, *Eisenhower versus 'the spenders': The Eisenhower Administration, the Democrats and the Budget, 1953-1960* (London: Pinter, 1990), 61; Chester J. Pach, Jr., and Elmo Richardson, *The Presidency of Dwight D. Eisenhower* (Lawrence: University Press of Kansas, 1991), 239; Robert A. Divine, *The Sputnik Challenge* (New York: Oxford University Press, 1993), 160.

¹⁹ Roland, *Model Research*, 290; David Callahan and Fred Greenstein, "The Reluctant Racer: Eisenhower and U.S. Space Policy," in *Spaceflight and the Myth of Presidential Leadership*, ed. Roger Launius and Howard McCurdy (Champaign: University of Illinois Press, 1997), 17-24.

international) freedom to legally orbit satellites of all kinds, including military reconnaissance satellites, over the Soviet Union and all regions of the world.²⁰

The geopolitical, technological high drama of Sputnik started a sea-change in general Cold War U.S. policy, as well as in space policy. Many government institutions competed for the plum role of becoming the nucleus from which the post-Sputnik National Aeronautics and Space Administration would mushroom. America's first successful "response" to Sputnik, Wernher von Braun's Army satellite Explorer I, was launched on January 31, 1958. Yet Senator Lyndon B. Johnson's congressional review found major flaws in both current and long-term plans for American involvement in space. It was clear to many that the space program needed broader horizons. This meant the creation of a federal agency devoted to space initiatives.

The NACA, along with several other civilian and military agencies, had staked an early claim in the realm of spaceflight technology with its various missile and "man-in-space" projects. The NACA had successfully fought to survive the tenuous years following World War II. It now had to fight for its survival within the new paradigm of the Space Age. While the NACA OPI pursued its agency's survival, Walter Bonney fought for the survival of his career and his own public relations ideology.

Interestingly, NACA leadership had been initially as unmoved as Eisenhower by Sputnik. In fact, at the annual Committee meeting in late October 1957, two weeks after the launch of Sputnik I, the subject never came up. Many traditionalists at the NACA, as well as Eisenhower himself, felt that "to indulge the fantasies of the space enthusiasts—"space cadets" was the contemporary sneer—would divert attention and resources from

²⁰ Launius, *NASA*, 27-28; McDougall, *...the Heavens and the Earth*, 157-177.

the more crucial missile program.”²¹ Yet the national political winds raged against this conservative position. As Cold War actors of the executive branch and the NACA considered the dramatic public and congressional reaction to Sputnik, they realized that spaceflight would be at least as important on a symbolic level as on a military level. NACA leaders realized that in order to survive, they would need to “sell themselves” and their abilities in the spaceflight arena. The NACA Office of Public Information (OPI) played a key role in the “selling” of the NACA to Eisenhower and his advisors and to Congress. NACA public relations contributed to the NACA’s successful selection for, and transformation into, the National Aeronautics and Space Administration (NASA).

During the first half of 1958, Eisenhower and his advisors had to consider whether the new agency would be civilian or military, whether it should be built from the “ground up” or should incorporate a pre-existing agency, and how aggressive the agency and administration should be in exploring space. During these months, Congress considered various branches of the Department of Defense (DOD) because of the department’s long-standing involvement with the Navy-run Vanguard and Army-run Explorer satellite programs and with military rockets. Some members of Congress also recommended the Atomic Energy Commission (AEC).²²

Eisenhower, however, did not want the new agency to have such dramatic military overtones. Ultimately, under the recommendation of science advisor James Killian and other members of the President’s Science Advisory Committee (PSAC), Eisenhower picked the NACA as the nucleus from which the new space agency would

²¹ Roland, *Model Research*, 290-291.

²²Launius, *NASA*, 30.

grow. The NACA attracted Eisenhower with its civilian character, quiet, research-focused image, and reputation for technical excellence. It also helped immensely that the NACA, in large part because of its public information office, had maintained a good working relationship with the military services and industry. These positive relations, nurtured through the storms of the preceding years by the Office of Public Information, contributed to the agency's selection as the starting point for NASA.

Giving the new space program a civilian basis and endowing it with symbolic rather than military power would allow it to serve as a "smokescreen" for military space activities. According to Roger Launius, "[the NACA] could fill the requirements of the job without exacerbating Cold War tensions with the Soviet Union." Using the NACA as the core of NASA would also help to assuage Eisenhower's fears of mushrooming military industrial relations and avoided the problems of inter-service rivalry at the Pentagon.²³ It would also provide the United States with a favorable public image; a civilian space program would seem to promote the American ideals of "freedom" and "democracy" more than a military one.

Eisenhower's decision to build the new agency around the NACA did not happen in a vacuum. In fact, the NACA deliberately prepared itself for this new fate. NACA leaders, in the charged atmosphere of the time, became eager in due course to ride the tide of the Space Age. In many ways, spaceflight was a logical extension of the NACA's missile research, hypersonic research, and atmospheric flight programs. Yet NACA leaders worried that an entirely new space-oriented organization might be able to perform pioneering space initiatives in addition to NACA's traditional duties and that the NACA

²³ Launius, *NASA*, 31.

might be left in the dust. According to Alex Roland, “In self-defense the Committee would have to decide how to respond to the challenge and where it would fit institutionally into the emerging controversy over developing a national space program.”²⁴ In doing so, the NACA emphasized how it would partner with private industry and, when necessary, draw on U.S. military resources, while maintaining its devotion to basic research.

In response to the challenge, the NACA created a Special Committee on Space Technology (or Stever Committee, after chairman Guy Stever). The committee brought together all American scientists and engineers who wished to participate in space policy. Roland says, “the Stever Committee was more political than technological, intended to co-opt possible critics of the NACA and guarantee it the best available grip on the course of events.”²⁵

However, construction of concrete and substantial NACA policy towards space initiatives began on December 18, 1957, when a meeting of key staff personnel from headquarters and NACA laboratories debated the agency’s options. Later that night, Chairman Jimmy Doolittle hosted an even larger gathering of staff members, known as “the Young Turks’ Dinner” in NACA/NASA folklore. In the words of Walter McDougall, “After Sputnik, NACA leaders still held back...until internal protest and talk of new space agencies forced them to choose between pushing NACA forward or

²⁴ Roland, *Model Research*, 292.

²⁵ Roland, *Model Research*, 292.

floundering in the backwash of the Sputnik tide.”²⁶ At the “Young Turk’s Dinner,” younger engineers had a chance to explain how they wanted the NACA to participate in space endeavors. In most cases, the young men wanted the NACA to campaign for a broad new role in space, while the “old hands” more cautiously advocated an incremental expansion of the NACA’s existing space activities. After some conflict, “old hand” Hugh Dryden proceeded to “[explain] the approach that would be taken.” The NACA, through a series of studies and papers, would make its formal claim for selection as the agency that would perform the majority of America’s space research. These studies included the staff study, completed January 14, 1958, entitled “A National Research Program for Space Technology,” which was subsequently “swallowed whole” by the NACA Executive Committee and later reappeared as a “Resolution on the Subject of Space Flight.” Other papers included “A Program for Expansion of NACA Research in Spaceflight Technology with Estimates of the Staff and Facilities Required” and “NACA Research into Space.”²⁷ Indeed, “by mid-January, NACA director Hugh L. Dryden, Doolittle, and chief counsel Paul Dembling had in hand a coherent space program based on NACA in cooperation with the DoD, NSF, NAS, universities, and industries. The David challenged Goliaths for the limitless and potentially richest fiefdom of all—space.”²⁸

Walter Bonney himself distilled the key points of the NACA reports into non-technical language to promote, both within and outside the agency, the key NACA ideas

²⁶ McDougall, ...*The Heavens and the Earth*, 165.

²⁷ Roland, *Model Research*, 292.

²⁸ McDougall, ...*The Heavens and the Earth*, 165.

about space research. On behalf of the NACA, Bonney worked devotedly to “sell” the NACA as the appropriate agency for space research. Along with other NACA leaders and spokespeople, he used Sputnik and the debates over space policy to argue for a continuation of the NACA’s role as America’s premier, civilian science- and technology-based research organization and to strengthen employee morale for the coming transformation. Also, as he had for the past eight years, he built the meta-narrative of NACA public relations, portraying the agency as the organization whose valiant yet modest qualities, when focused on the new realm of space research, could “save” America, and the world, from Cold War Soviet aggression. He also built the smaller narrative of “America-first” globalism, emphasizing that the triumph of the NACA and the United States in space travel would bring knowledge and enlightenment to the entire world.

In January 1958, in the midst of government-wide deliberations over how to build the new space agency, Walter Bonney distributed a speech template to each NACA installation leader and several committee members that contained key themes and arguments necessary for promoting the NACA in public settings. The speech was then adapted for delivery at each NACA installation. Audience members for these speeches included journalists on the aviation and aerospace “beat,” aerospace industry leaders, congressmen, state and local leaders, and NACA employees, all of whom had considerable interest in, and some of whom had significant lobbying power for, the development of the new space agency.

In the speech, Bonney mobilized the narrative of an Ameri-centric globalism, emphasizing the symbolic value of American scientific and technological achievement for enlightening the world and for gaining American influence over the international psyche. He opened: “In our technological age the country that advances most rapidly in science will have the greatest influence on the emotions and imagination of man, will have the greatest military potential, and will command the respect of the world.” To meet the “challenge to the United States and the Western World,” both in military terms and in terms of prestige, that the Soviet Union had presented with the success of its satellite program, the United States would need an “energetic program of research and development for the conquest of space.”²⁹ During the post-war era, the NACA had promoted research and development. The agency had particularly promoted and consolidated research as its area of expertise, and had emphasized private industry’s role in development. In the speech, Bonney worked to show the potential importance of the NACA’s particular strengths for the new era of spaceflight.

Bonney listed major fields of concern for the new era as: Space Mechanics, Space Environment, Energy Sources, Propulsion Systems, Vehicle Configuration and Structure, Materials, and Launch, Rendezvous and Re-entry and Recovery. Other fields included Communication, Navigation and Guidance; Space Biology; Flight Simulation; and Measurement and Observation Techniques.³⁰

²⁹ National Advisory Committee for Aeronautics, Walter T. Bonney, speech, 9 January 1958, Box B, Floyd Thompson Collection, Langley Historical Documents Collection, NASA Langley Research Center, Hampton, Virginia.

³⁰ Bonney, speech, 9 January 1958.

Bonney asserted that “a major, coordinated national effort is required for efficient execution of these researches.” Because the objectives had civil as well as military ramifications, Bonney said, a national civilian agency (the NACA) rather than a military organization should spearhead the space effort. The military services would need their own applied research and development groups for space weapons. Coordination of civilian and military space efforts could follow the pattern already in place through the NACA and the military services for aviation efforts.

As a “system in being,” the NACA could take quick advantage of the preexisting interest and technical training of scientists qualified to help develop space technology. The NACA’s “set-up,” with its research laboratories and technical subcommittees, as well as its sponsorship of other institutions’ basic research, would allow it to serve as an effective national coordinating and research body for the space program.³¹

Bonney explained that the NACA had played a major role throughout the century in making America the world leader in aviation. Simultaneously, he stressed the importance of American private industry to NACA success, building on the narrative of corporate benevolence. In this context, Bonney characteristically emphasized NACA’s role as a “research organization...[working]...in partnership with the military services, other branches of government and industry.” NACA research programs (in cooperation with the military services) were already examining the problems of spaceflight with man-carrying vehicles. Yet, the Soviet challenge to American space leadership was one of “such scope and vigor” that the United States needed to “tremendously” accelerate its

³¹ Bonney, speech, 9 January 1958.

progress. Said Bonney, “The NACA is capable, by rapid expansion of its efforts, of providing research leadership in developing our space technology.” Such expansion could occur quickly through an immediate increase in the use of existing NACA facilities. The formation of contracts with private industry, the acquisition of additional staff, and the construction of new research facilities would be necessary problems to solve.³²

The laboratory-specific versions of the speech, such as the version modified by Floyd L. Thompson for delivery at the Ames Aeronautical Laboratory, showed even more rhetorical flourish as NACA installation leaders promoted the idea of space exploration to their constituencies. Thompson began, “This paper points out the obvious importance and urgency of space exploration to our national survival.” He asserted the significance of fundamental research in the areas of space technology and “demonstrat[ed] that the NACA by reasons of experience, ability, and economy is the logical agency to direct, coordinate, and conduct this basic research.”³³

The paper, building the narrative of America-first globalism, argued that the “final victory” in the struggle against the Soviet Union “may never be decided in a major war” but would go to the country that offered “mankind” its greatest scientific achievements. This country would have the greatest military potential, command the respect and allegiance of the world, and therefore “gradually assume world leadership.” If the Soviet Union did this, “their way,” or communism, would be “the way,” and the

³² Bonney, speech, 9 January 1958.

³³ National Advisory Committee for Aeronautics, Walter Bonney and staff, speech, “NACA’s Position in Space Technology,” 21 January 1958, Box B, Floyd Thompson Collection, Langley Historical Documents Collection, NASA Langley Research Center, Langley, Virginia.

democratic-capitalist United States “will have lost the struggle without knowing just when and how our defeat occurred.”³⁴

In the case of the ballistic missile, NACA research already provided the key to problems of re-entry; this meant that the NACA was well-positioned for development of new missiles needed for space exploration. In terms of human spaceflight, the NACA had provided technical guidance for “the first logical step into space:” the X-15 research airplane. The NACA would provide research results demonstrating the feasibility of the first manned satellite. Additionally, the NACA was an agency of “acknowledged competence with vast experience in conducting and coordinating large-scale fundamental research in the field of aeronautics...to extend its responsibilities to the closely allied technical area of space technology seems only logical.” The good reputation of the NACA for economy and efficiency of operations and its close relations with government, industrial, and educational organizations in the aeronautical field also made it an excellent choice for the space agency.³⁵

The structure of the technical committee system meant that members of aeronautically-oriented organizations, especially members of the aviation and aerospace industries, already worked with the NACA, as volunteer committee members, on a regular basis. According to Bonney and Thompson, “these committees represent[ed] a system in being designed to take advantage of the technical training and interest of scientists qualified to help in the direction of fundamental space technology.” The

³⁴ Bonney, “NACA’s Position in Space Technology,” 21 January 1958.

³⁵ Bonney, “NACA’s Position in Space Technology,” 21 January 1958.

NACA was therefore “eminently qualified and organized” to assume the burdens of spaceflight.³⁶

The agency would need an increase in its authority, more flexible operations, and more funding to handle the civil space program. Increase in staff, contracts with universities, construction of additional research facilities, and acquisition of a new field flight station/space flight laboratory would make this possible. “The ultimate goal, of course, is a space-based laboratory [ie, a space station] but much pioneering from a land-based station is required to achieve this end.” However, using the NACA labs as a basis would move things along much more quickly. The speech described facilities that the NACA would need to truly enter the “space age” and also outlined a possible plan for an orbiting laboratory from which mankind could reach the moon.³⁷ Bonney successfully distilled key NACA ideas about the feasibility of spaceflight for the agency’s public, always emphasizing the importance of American triumph over the Soviets and the benefits that “the world” would enjoy when this victory occurred.

These early project ideas, while congruent with Eisenhower’s modest conception of space policy, had little to do with the human spaceflight initiatives to which NASA actually devoted its resources in the 1960s. In the end, Eisenhower and his advisors, influenced in part by NACA lobbying, did decide to use the NACA as the basis for a new organization, NASA. The new agency rejected the committee system of leadership in favor of a more streamlined agency structure headed by a single administrator, appointed by the President and Congress and accountable to the President. Nonetheless, in a very

³⁶ Bonney, “NACA’s Position in Space Technology,” 21 January 1958.

³⁷ Bonney, “NACA’s Position in Space Technology,” 21 January 1958.

real sense the NACA had “won out” over organizations such as the Air Force or Navy, largely because of its excellence in technological endeavors and its modest, non-combative image. Despite Alex Roland’s hypothesis that internal weakness “killed” the NACA, the selection of the NACA for NASA speaks to the agency’s successes more than to its failures. It also speaks to the success of the NACA’s “public relations” campaigning, particularly within the government, on the part of the NACA, during the postwar years.

Walter Bonney and other NACA/NASA public relations employees partially based their earliest portrayals of NASA on President Eisenhower’s descriptions of the new agency. In a memo he wrote to Floyd Thompson, Director of Langley Research Center, following Eisenhower’s decision to create NASA, John Victory said, “The existing NACA will, with some changes, be the basis for the new organization and will technically cease to exist when the new legislation becomes effective.” Victory, still serving as public affairs liaison between the larger government and the NACA, had attached copies of Eisenhower’s preliminary statements to Congress regarding the new agency.³⁸

In these statements, Eisenhower laid out the principles of the NACA/NASA transition. In doing so, Eisenhower characterized the new agency with a Cold War rhetoric that that would guide the Office of Public Information, and NASA leaders, in their public portrayals of the agency and its technology. He strongly emphasized the

³⁸ National Advisory Committee for Aeronautics, John Victory, memo, 2 April 1958, Box B, Floyd Thompson Collection, Langley Historical Documents Collection, NASA Langley Research Center, Hampton, Virginia.

scientific and technical side of space exploration and stressed the continuities between NASA and the NACA. He subtly engaged the narratives of American national identity and “America-first” globalism.

Eisenhower asserted that the new agency would be based on the present NACA but would orient itself towards new programs and problems including civil spaceflight, space science, and space technology. In typically cautious manner, Eisenhower said that the “ultimate potentialities” of spaceflight could not be fully grasped, although “they are clearly of significance from the standpoint of our national security...the Department of Defense will have a continuing interest in the programs to be undertaken and will continue to sponsor programs which may be...primarily associated with weapons systems or military operations.” Furthermore, Eisenhower wanted the skills and experience developed within the Department of Defense to be “fully utilized” in support of civil space programs. Yet he wished to develop a civilian agency to take the lead in space activities.³⁹

Eisenhower considered it “especially felicitous” that the NACA would provide NASA’s basic organization. The NACA, he said, already had a firm understanding of the key problem areas involved and a tested method of approaching these problems. Additionally, the NACA and the Department of Defense had “long enjoyed a highly productive working relationship.” The relationship, said Eisenhower, would “ease the

³⁹ National Advisory Committee for Aeronautics, Dwight D. Eisenhower, memo, 2 April 1958, Box B, Floyd Thompson Collection, Langley Historical Documents Collection, NASA Langley Research Center, Hampton, Virginia.

period of transition that lies ahead and will provide a basis for the close cooperation that will be needed to solve the difficult problems that will be encountered.”⁴⁰

Understandably, it was important to Eisenhower, and to his tarnished public image, that NASA’s urgent work proceed without any loss of momentum. It was also important that Eisenhower define a solid place for NASA in the new federal infrastructure for technology. Eisenhower therefore stipulated that the DOD and the NACA take certain actions. First of all, the NACA would present to the appropriate Congressional committees a full explanation of proposed legislation and its objectives. Secondly, the NACA would formulate the detailed plans required to adjust its current programs, internal organization, and management structure to carry out new NASA functions. The agency would also propose any additional actions “necessary to implement the proposed legislation.” Thirdly, the DOD and NACA would jointly review pertinent programs underway or planned by the Department. Fourthly, the NACA should discuss with the National Science Foundation (NSF) and related bodies the matter of NASA’s participation in the scientific community. Finally, the DOD should identify and report needed space programs in support of military requirements. The Advanced Research Projects Agency (ARPA) would continue to serve as the focal point for these programs within DOD.⁴¹

The President’s message to Congress of April 2, 1958, a copy of which was attached to Victory’s memo to Thompson, authorized the true and official creation of NASA. The President’s press secretary, James Hagerty, delivered the message to Victory

⁴⁰ Eisenhower, memo, 2 April 1958.

⁴¹ Eisenhower, memo, 2 April 1958.

with the following caveat prohibiting Victory from publicizing the information ahead of schedule: “the following message of the President scheduled for delivery to the Congress today, April 2, 1958, MUST BE HELD IN STRICT CONFIDENCE (sic) and no portion, synopsis or intimation of its contents may be given out or published UNTIL RELEASE TIME (sic).”⁴²

The message began with background on the current state of Soviet and American space initiatives, emphasizing the importance of “free” democratic-capitalist industry to American success. The cool and assured Eisenhower said, without the colorful rhetoric of a Bonney or Victory, “It is now within the means of any technologically advanced nation to embark upon practicable programs for exploring outer space...enactment of appropriate legislation will help assure that the United States takes full advantage of the knowledge of its scientists, the skill of its engineers and technicians, and the resourcefulness of its industry in meeting the challenges of the space age.”⁴³

Eisenhower listed the factors which, in his judgment and in the opinion of the Science Advisory Committee and James Killian, his Special Assistant for Science and Technology, gave “urgency and inevitability” to advancement in space technology. These factors were, first of all, “the compelling urge of man to explore the unknown;” secondly, “the need to assure that full advantage is taken of the military potential of space”; thirdly, “the effect on national prestige of accomplishment in space science and exploration”; and fourthly, “the opportunities for scientific observation and experimentation which will add to our knowledge of the earth, the solar system, and the

⁴² Eisenhower, memo to Congress, 2 April 1958.

⁴³ Eisenhower, memo to Congress, 2 April 1958.

universe.” These factors, Eisenhower said, had a direct bearing on the future progress as well as the security of the United States. Eisenhower listed his expectations of the new organization for supporting scientific inquiry, developing space vehicles, aiding the military with its discoveries, and promoting cooperation with other nations in the arena of space exploration.⁴⁴

Contributing to the early NASA’s narrative of Ameri-centric globalism, the President explained his desire to have a civilian agency take charge of the space program “except for those projects primarily associated with military requirements.” This was, he said, because American space exploration held the promise of adding to mankind’s knowledge of the universe and because “a civilian setting for the administration of the space function will emphasize the concern of our nation that outer space be devoted to peaceful and scientific purposes.” He therefore recommended that NASA, a new organization, take responsibility for administering the civilian space science and research program. It would absorb the NACA and continue to perform NACA duties. Additionally, “the new Agency would be headed by a Director appointed by the President by and with the advice and consent of the Senate.”⁴⁵

In order to assist the President and the Director of NASA, Eisenhower created a National Aeronautics and Space Board for advisory purposes. Some board members would come from government agencies with direct interest in aeronautics, space science, and space technology. One member would come from the Department of Defense. Members appointed from outside the government (i.e., from industry or academia) would

⁴⁴ Eisenhower, memo to Congress, 2 April 1958.

⁴⁵ Eisenhower, memo to Congress, 2 April 1958.

be eminent in a related field and would be selected “because they have established records of distinguished achievement.” NASA would have the authority to administer the new programs.⁴⁶

Eisenhower stipulated that salaries for NASA workers be made competitive with those of other organizations (including private companies) and that NASA should have the power to contract with private companies. Any military projects that could come under the NASA umbrella would be transferred from their installation, along with all NACA programs. Eisenhower encouraged Congress to pass the new legislation at the earliest possible date.

Eisenhower painstakingly explained to the NACA how the new agency, NASA, would operate—with industry participation, military cooperation, carefully chosen projects, and scientific integrity. By couching his explanations in a restrained Cold War rhetoric, he also provided the NACA Office of Public Information, and the young NASA OPI, with a template for their public portrayals of the new agency. In doing so, he built upon the NASA public relations meta-narrative and the narratives of American national identity and “America-first” globalism.

The final National Aeronautics and Space Act of 1958 declared that NASA should “provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof.” The ubiquitous John Victory retired with NASA’s creation, leaving Walter Bonney as the Public Information “top dog” in a brave yet uncertain new world. Bonney, who had spent some of his time at the NACA

⁴⁶ Launius, *NASA*, 30.

strategizing for public relations excellence through his work with the Public Relations Society of America (PRSA), saw an opportunity to implement his ideas of public relations on a larger stage—the NASA stage. During the first half of the 1950s, Bonney had successfully encouraged the PRSA to take a more government-friendly, Cold War-oriented, pro-America stance. He believed that his ideas, if given the opportunity, could affect real change in the national and international spheres.⁴⁷ On a more practical level, Bonney surely wished to secure a place for himself in the new agency as the wise practitioner of government public relations.

Walter Bonney had many plans for the early NASA Office of Public Information. He recognized that public relations would be far more important for NASA than it had been for the NACA. He was determined to tell the NASA story well, and to everyone, using a variety of media. He wanted to use the OPI as an instrument to obtain Congressional funding, to exchange information within the agency, and to “use the truth to counter the Communist lie.”

As a NACA leader riding the tide of the space age, Walter Bonney almost immediately began to plan the new NASA public information program. Shortly before Congress signed the legislation that officially brought NASA into existence, Bonney wrote a passionate memorandum to NASA administrator T. Keith Glennan on the subject of the nascent NASA Information Program. In it, he argued for a very prominent role for public information in the new agency. Bonney realized that NASA would be much more than a greatly expanded NACA. For one thing, NASA would be more engaged in

⁴⁷ National Advisory Committee for Aeronautics, Public Relations Society of America, Walter T. Bonney memo and reply, July 1955, Public Affairs File, NASA History Office Historical Documents Collection, NASA Headquarters, Washington, D.C.

development than the NACA had been. Indeed, “It will be an operating agency; it will buy and launch the space vehicles needed to obtain scientific data and to explore the solar system.”⁴⁸ This would mean interacting with a much broader and larger segment of the American public in the regular course of business. It would also mean that NASA, even more than the NACA, would be continually entwined with the priorities and profits of the aerospace industry, both in reality and in public image.

Eisenhower’s influence on Bonney’s ideas was apparent, as were the NASA public relations narratives of “America-first” globalism and corporate benevolence. Bonney believed that there was one aspect of the NASA mission that would require the new agency to develop a status and structure entirely differently from that of the NACA. Bonney cited section 102 of the Space Act as an example of United States space policy: “that activities in space should be devoted to peaceful purposes for the benefit of all mankind...these activities should contribute to the preservation of the role of the United States as a leader in aeronautical and space science and technology and in the application thereof to the conduct of peaceful activities.” The activities should also lead to “cooperation by the United States with other nations and groups of nations in work done pursuant to this act.” In other words, Bonney said, “as never was the case with the NACA, the NASA will be employed as an instrument of U.S. policy (*italics mine*).” Bonney’s recognition of this fact—that information about NASA activities would have far-reaching geopolitical effects--would be crucial to the forging of new NASA public relations and information techniques, and to their effects on their public, during Bonney’s

⁴⁸ National Advisory Committee for Aeronautics, Walter T. Bonney, memo, 9 August 1958, Public Affairs File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

era and beyond. This, according to Bonney, was the reason that NASA public relations should be and would be more important, and more necessary, than NACA public relations: “the competence of NASA to communicate—to use effectively the techniques of information transmission—must be expanded to an extent very much greater than was ever conceived as necessary or desirable for NACA.”⁴⁹

Bonney quoted the President’s “introduction to outer space,” prepared by science advisor James Killian, in which Eisenhower said, “Failures of equipment and uncertainties of schedule are to be expected. It therefore appears wise to be cautious and modest in our predictions and pronouncements about future space activities---and quietly bold in our execution.” The programs of NASA, said Bonney, whether successes or failures, would be matters of intense national and international interest. Therefore, the information policy of NASA needed to be positive in character as well as execution. NASA certainly needed to tell the truth, “modestly, clearly, and with enough vigor to be heard.” In most cases, talk should follow, and not precede, performance, “but this will not always be possible or even desirable.”⁵⁰

Although NASA would officially perform under a policy of open information, this did not mean that the public would have instant, unlimited access to every single NASA activity. Much of the agency’s work, Bonney anticipated, would have to be performed in a “goldfish bowl.” Therefore, a positive, intelligently planned information policy would provide at least partial control of “the situation” and keep “failures” from

⁴⁹ Bonney, memo, 9 August 1958, 1.

⁵⁰ Bonney, memo, 9 August 1958, 1.

being wrongly or prematurely criticized.⁵¹ Bonney believed that NASA had a definite obligation to tell its story, and that the agency had to bring some attention to its work or risk being ignored in favor of the military space program, because “NASA is not alone in the business of space technology” and “there are those who would have all, or at least most, of this country’s space activities performed under ARPA or other military direction....if NASA were to prosecute its programs so quietly that they were not understood, the pressures would mount for others to tackle the jobs.”⁵² Working within the confines of Eisenhower’s modest space policy, Bonney could not anticipate the developments of the early NASA human space program, and certainly not the massive public interest that would coalesce around these initiatives. Bonney was certain that Congress and the general public needed to know as early as possible how much NASA was accomplishing and how rapidly.

Although he believed in restraint regarding the NASA OPI, Bonney was not entirely without criticism of the NACA’s historically modest public relations tactics. The NACA had not enlisted professional public relations assistance until 1949 to promote a broader national awareness of the agency’s work. Bonney said that in planning these activities, which he had led, it became apparent that the NACA had been so successful for 34 years in “hiding its light under a basket” that it was “almost unknown,” even by many in the aircraft industry and military services, who were “the direct beneficiaries of its technical information...only the designers who depended so heavily upon NACA data seemed to know much about the agency.”

⁵¹ Bonney, memo, 9 August 1958, 3.

⁵² Bonney, memo, 9 August 1958, 3.

According to Bonney, two extremely valuable public relations goals had been established early in his career with the NACA, one of which was immediate and one of which was longer-range. Both of these, he believed, would greatly benefit NASA public relations practices. The first was the acceptance of the NACA as an equal partner serving with the industry and the military services on the “air power team,” and the second was “greater public recognition that the work of the NACA represented one of the taxpayers’ best investments.” That effort had included winning and keeping the confidence of press representatives, including the trade press, industry house organs, and service publications. The second objective was to give public information service “of a quality not always found elsewhere in government. Indeed, “We sought to earn a reputation for accuracy, honesty, and knowlegeability in our field.” Bonney, in typical fashion, had wanted to leave it to others to praise NACA Public Information, but “was very proud of the fact that in 1956 the Aviation Writers Association’s first public relations trophy was awarded to the writer and the information staff of NACA.”⁵³

Based on his years of experience with the NACA, Bonney made some recommendations for NASA’s new information program. One requirement would be to tell the agency story to those whom NASA had a definite interest in keeping informed: “[The] task is to recruit able people and weld them into a smoothly functioning [public information] staff so that the NASA story will reach all the American people.” NASA, said Bonney, must inform with integrity and confidence. “Information” or public relations personnel should first and foremost be reporters, to keep current with the

⁵³ Bonney, memo, 9 August 1958, 4.

research, development, and operational programs of NASA, and to prepare material about these programs in a form and content that would be useful to “the general press, trade press, radio, television, magazines, and writers of non-technical books about space.” The NASA Information Office should provide a “question answering” service, as the NACA staff had, to save NASA management and technical staff from siege by reporters.⁵⁴ The time saved would allow such staff to devote more energy to space initiatives.

An entirely new initiative for NASA public information would be the creation of materials about NASA programs for use in the American educational system “from the primary grades to the college level.” NASA needed sufficient staff to produce brochures, special articles, and other materials. NASA would also need to handle information requests from Congress and other federal leaders: “It is recommended that this function be performed by NASA Headquarters information staff.”⁵⁵

Bonney asserted that one of the most effective ways for NASA to tell its story “to audiences and in ways of its choosing” was by strategic speech-making, a practice in which he had engaged and helped others to engage in during the NACA years. The Administrator and Deputy Administrator would be under constant pressure to accept invitations, “but their acceptances should be “limited so as to maintain a high level of interest (with, of course, their speeches containing “real news” in every instance).” NASA should encourage other key employees to give speeches, and the information staff should operate a “speakers’ bureau” and provide assistance in speeches. The staff should

⁵⁴ Bonney, memo, 9 August 1958, 4.

⁵⁵ Bonney, memo, 9 August 1958, 5.

frequently prepare motion pictures, “non-technical in content,” for dissemination to the media and ultimately the public.

Bonney wanted the OPI to act instrumentally in gaining funding for NASA activities. Regarding the Semi-Annual and Annual Reports to Congress, Bonney recommended a significant departure from the NACA method, in which preparation had been “a dreary chore to be disposed of with a minimum of effort.” Instead, NASA should work hard to prepare reports with Congressmen in mind. This meant that the reports should resonate with the American taxpayer, “whose support NASA needs for its programs.” He wanted the Information Office to systematically prepare these documents, and to prepare the “budget presentation” from information provided by the NASA Budget Office. These documents would be reviewed by the Space Council, the Security Council, various Appropriations Committees, and the Bureau of the Budget. Therefore, the presentations should be in “non-technical” language and should make use of motion picture and other dramatic visual materials. In fact, he said, these documents should be explicitly considered as “sell presentations” for NASA.⁵⁶ In Bonney’s vision, such public relations products, aimed at Congress, would be created by the OPI.

According to Bonney, NASA Public Information would also have to take a solid, consistent stance regarding its portrayals of the American space program. Bonney revealed his own position as ideological Cold Warrior and “America-first” globalist, influenced by John Victory, when he said, “The United States must wage peace not only by what we do but by what we say. Our problem is not only to explore outer space for

⁵⁶ Bonney, memo, 9 August 1958, 7.

peaceful rather than military purposes but to insure that the world knows what we're doing. We must use the truth to counter the Communist lie." In this case, Bonney recommended that NASA work with the USIA, the State Department, and the United Nations news and information agencies. Specialists in "international news dissemination" should be employed to provide these agencies with written and visual material about NASA programs, suitably prepared for overseas use.⁵⁷

Taking part in the internal, "company management," function of public relations, Bonney also discussed his ideas of how NASA Public Information would work internally, within the agency. On a continuing basis, much general information would have to be transmitted from NASA Headquarters to personnel at the laboratories and field stations. Bonney recommended the exchange of weekly newsletters between Headquarters and field centers and within NASA Headquarters, which was growing dramatically in size. To satisfy such requirements, the public information staff would need to grow significantly.

The "Special Events and Services" function of NASA Public Information would have to expand. Planning and preparation for coverage of a "satellite shoot" presented many complications and necessitated special arrangements for the wire services and daily press, photographers, radio, and TV personnel and equipment. NASA headquarters Public Information staff would need new "Information Specialists" who could serve as project officers on major satellite shoots.

In Bonney's view, the OPI should also work to improve NASA's relationship with other government branches. "Public Information" would help NASA to coordinate

⁵⁷ Bonney, memo, 9 August 1958, 7.

with other government agencies involved in aeronautics and space projects, and would help improve NASA relations with the White House secretary. Bonney wanted NASA to coordinate its Division of Research Information with the National Office of Research Administration. He said, “involved are such matters as security classification of information, timing of news releases to coincide with issue of technical documents, exploitation for news purposes of technical papers, etc.” NASA would have to make sure all technical documents reached their audience, and should in fact expand this audience. Bonney said of the NACA: “too frequently, such materials have been issued in the past without coming to the attention of most of the engineers and scientists for whom they were prepared.”⁵⁸

Shortly before NASA’s “official” birth, Bonney wrote a news release for United Press International (UPI) describing the new agency. The release, intended for publication in national newspapers, is dated September 10, 1958. This would be the first OPI-created “image” of NASA produced for the public press. In the release, Bonney introduced T. Keith Glennan, NASA’s first Administrator, who had taken a leave of absence as president of Case Institute of Technology in order to fulfill his new obligations. Lyndon B. Johnson, majority leader of the Senate and Senate Chairman of the Special Committee on Space and Astronautics, described the limits of Glennan’s job as “no less than the limits of the universe.”⁵⁹ Glennan, said Bonney, had a determination to “do things first, and talk about them second.” At that time, Glennan was refusing

⁵⁸ Bonney, memo, 9 August 1958, 8.

⁵⁹ National Aeronautics and Space Administration, Walter Bonney, press release, 10 September 1958, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

requests for interviews, speeches, and articles. He believed that there would be time for such activities after, in Bonney's words, he "chart[ed] the way into outer space that will be a highway to peace."⁶⁰

Bonney astutely described the NACA as NASA's "nucleus." NASA would expand on the NACA by engaging heavily not only in research, but in development and operations through its purchase and launch of NASA-designed, industrially-produced "space vehicles needed to obtain scientific data and explore the solar system." Bonney reported that NASA had an initial annual budget of \$300 million for space science and technology, and for putting men into space.⁶¹

Certainly, early NASA leadership visualized the problems of spaceflight as "NACA style" technical and scientific problems to be solved gradually. Bonney said that earlier in the year, NASA deputy administrator Hugh L. Dryden stated that the ultimate purpose of NASA activity would be to gather scientific data by satellite and "to send heavier, more complex instrumentation into orbit so they could learn more about the universe and, no less importantly, about the earth itself." Dryden believed that in the arena of spaceflight, NASA was at about the point the Wright Brothers had been in 1903 in the realm of aviation.⁶² Characteristically, Dryden promoted an almost apolitical view of NASA and spoke of it almost as an extended NACA, "gather[ing] scientific data," when in fact it was already a bird of a much different feather.

⁶⁰ Bonney, press release, 10 September 1958, 2.

⁶¹ Bonney, press release, 10 September 1958, 2.

⁶² Bonney, press release, 10 September 1958, 4.

In this earliest phase, the OPI portrayed the Eisenhower-era NASA to the American public alternately as a symbolic instrument of American Cold War might and a purely scientific endeavor with the goal of learning more about space. Although these dual public portrayals would continue, Bonney grasped the core of the situation when he said that NASA would be an “instrument of U.S. policy,” unlike the NACA. As NASA grew, it would become much less an information-gathering, research-oriented agency like the NACA and much more an agency devoted to technically sophisticated but largely symbolic “space shots” built on “crash programs” and demonstrating the quintessential Cold War “U.S. policy” of geopolitical cultural imperialism against Soviet communism. It would do this not only with space technology and exploration, but with the words, or narratives, that it used to describe this technology and exploration.

Many of Walter Bonney’s ideas did in fact shape this earliest stage of NASA’s public image and the development of its Public Information Office. Administrator T. Keith Glennan’s welcome message to his NACA (soon-to-be NASA) employees lent a “can-do” tenor to the transition, for Public Information staff and for all staff. Walter Bonney co-authored the message, which, in typical Bonney fashion, emphasized the continuities between NACA and NASA. Glennan addressed his employees’ future with NASA. In doing so, he provided another template of how employees, including public relations employees, should understand and describe the young NASA.

Glennan, a former movie studio mogul, served at NASA while on leave from the position of president of Case Institute of Technology. He said that one of his incentives for accepting the job as NASA’s first administrator was “the knowledge that the NACA

would be the first and most substantial unit to be absorbed into NASA.” Glennan had met many impressive NACA employees through the Lewis Laboratory and recognized that NACA staff members were deeply loyal to their organization. But, he said, “You can be justly proud of the fact that your past achievements made NACA the choice of all governmental agencies out of which to build the new agency.” Although NASA would be different from NACA in many ways, Glennan wanted the new agency to be like the NACA “in the qualities of strength and character that make an organization great.” He reported that, with Dr. Dryden, he had made much progress in the transition and that the shift from NACA to NASA would occur at the close of business on Tuesday, September 30, 1958.

Glennan, with Bonney’s help, outlined key points of NASA’s “total mission” for the employees. NASA had a “mighty big job to do.” The prospects, said Glennan, were both challenging and exciting. Glennan invoked the stirring words of Lyndon B. Johnson: “we do know certain things. We want outer space to be a highway to peace and prosperity and not a road to war. We seek a maximum development of all the potentialities and not just a narrow production of new weapons.”⁶³

In the context of such dramatic institutional growth, NASA’s new Office of Public Information, located at NASA Headquarters in Washington, D.C. would require an intensive escalation of physical resources and a larger staff over the next five to ten years. Many of Bonney’s earlier suggestions were in fact implemented. Several

⁶³ Bonney, press release, 10 September 1958, 7.

assistants joined Bonney at his Headquarters office, including former journalist Paul Haney, who would later lead Public Affairs at NASA's Manned Spacecraft Center in Houston. Haney and his brethren worked on virtually every aspect of Headquarters public relations activities.⁶⁴ New space requirements were divided into two categories: Supporting Facilities and Office Facilities. Headquarters staff of many stripes would utilize "Supporting Facilities." For example, the auditorium would be used for NASA press conferences and other high-priority requirements, but if it was not scheduled for such use, any group within NASA could use it. General motion picture and photo-art "supporting" facilities would be needed within the year. However, the OPI would eventually need its own in-house capability. A "supporting" combined recording and photographic studio would also be required within the year.⁶⁵

By the end of 1958, the OPI would house 21 total staff at NASA Headquarters in Washington, D.C. They would soon need to increase this number. The OPI would need much more storage space than the usual NASA office. Great quantities of "paper-press" releases, reports, pictures, "special documents," brochures, etc. would have to be stored for long periods of time, protected from dust and handling, yet instantly accessible. In laboratories, some flammable and toxic chemicals would have to be stored: "each laboratory will have its own special storage problems that will have to be handled on an individual basis."⁶⁶

⁶⁴ James Schefter, *The Race: The Uncensored Story of how America Beat Russia to the Moon* (New York, Doubleday, 1999), 50.

⁶⁵ National Aeronautics and Space Administration, Joe Stein, memo, 23 December 1958, Public Affairs file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁶⁶ Stein memo, 23 December 1958.

The total new supporting facilities needed included: a “high-tech” auditorium with seating capacity of 200; a Motion Picture Viewing Room with seating capacity for 20; a Motion Picture Laboratory; a Combination Recording and Photographic Studio; an Art Studio for preparing displays and visuals of all kinds; a News Headquarters, or “permanent quarters for members of the press charged with reporting NASA activities.” It was expected that, in time, NASA would become the “full-time beat” for many reporters, “much as in the Pentagon, for the major news disseminators.” This room would need to be large, about 20 feet by 30 feet, with excellent lighting, typewriters, tables, and “many telephones.” Also needed were a teletype-news wire room, a Communications Control Room, and a Film and Pictorial Depository.⁶⁷

In terms of office space, or “Office Facilities,” the OPI would need space for a greatly expanded staff. This staff would include: A Director, a Deputy Director, an Administrative Assistant, a Chief Information Officer, a Reports Chief, a Special Events Chief, a TV and Motion Picture Chief, researchers, Five Special Events personnel, seven secretary-typists, and 6 typists. Although some of the staff could be absorbed into preexisting facilities, new offices would have to be built for most.⁶⁸

New institutional concerns regarding NASA public relations, or public information, emerged almost instantly upon the agency’s creation. The agency immediately began to attract increasing amounts of attention. Walter Bonney had concerns about the influx of new staff into the agency and fretted about statements they

⁶⁷ Stein, memo, 23 December 1958.

⁶⁸ Stein, memo, 23 December 1958.

might make that would reflect on the agency, over which he had no control. Bonney wrote, “there is a need to exercise control over the public statements made by the NASA staff. With the influx of new people into the organization, regulations inherited from NACA governing dissemination of information are being ignored largely because they are unknown.” Bonney attached a copy of this information, which stipulated that all inquiries from the press, by telephone, letter, or in person, should be referred to him. He wrote that no information about NASA activities should be given to the press without his official approval or the approval of his staff.⁶⁹

Interestingly, Bonney attached a second page to his memorandum, a “draft copy” of a new memo regarding procedures for dissemination of public information to the news media. This “draft,” written by Bonney, had Glennan listed as its author. Like the older NACA document upon which it was modeled, the new document recommended that “dissemination of information to news media be properly coordinated with our organization...the Office of Public Information has been designated to coordinate these activities.” Members of NASA headquarters staff (as well as research center and field station staff) should refer any inquiries received from news media to the OPI. Also, written or oral information for release to the media should not be made without prior approval by the OPI, and “written material must be sent to the Office of Public Information at least one week in advance of the release...Media, in this instance, means newspapers, magazines, radio, television, and trade conventions or meetings.” Such procedure did not apply to technical papers presented to technical audiences, “provided

⁶⁹ National Aeronautics and Space Administration, Walter Bonney, memo, 5 January 1959, Public Affairs file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

the presentation is limited to technical material.” Eventually, Glennan sent out his own separate memorandum supporting these ideas, asserting that the more work the information office did in this regard, the more time the scientific staff would have to work on the new problems of spaceflight.⁷⁰

Despite NASA’s modest beginnings, Sputnik and the transition from the NACA to NASA certainly heralded a new era for agency leadership, Walter Bonney, and the American people. From this time forward, NASA Public Information would be a deliberate instrument with which to draw public and congressional support for the United States civilian space program, one of the most symbolically powerful fronts of the Cold War. It would also be an instrument portraying imagery of NASA technology and of the democratic-capitalist United States to the world, building on the narratives first created by NACA public relations. Walter Bonney believed that his experience with the NACA and his work with the PRSA would allow him to plan and perfect the NASA Public Information Office into a well-oiled machine. Yet Bonney would suffer blows in the coming years, as NASA’s highly-charged activities released concentrated energies in American hearts and minds. One man could not hope to contain NASA within such a restless public.

⁷⁰ National Aeronautics and Space Administration, T. Keith Glennan, memo, 2 February 1959, Public Affairs file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

CHAPTER FIVE

COLD WAR, HOT WATER: THE U-2 CRISIS OF 1960

During NASA's tumultuous early years, Walter Bonney had a difficult time solving the myriad problems he faced as the head of the Office of Public Information (OPI). Particularly during the infamous U-2 crisis of 1960, Bonney had to walk a fine line between NASA's policy of "open information" and the political sensitivity of America's use of aerospace surveillance technology. The media storm surrounding this crisis discredited Walter Bonney before the public, the press, and NASA leaders. In fact, NASA administrator T. Keith Glennan, reacting to Bonney's role in the crisis, "encouraged" him to take a non-NASA job in 1960. Despite his use of Space Age- and Cold War-themed public relations rhetoric, Bonney ultimately remained too entrenched in NACA public relations principles to reach his goal of becoming NASA's chief public relations visionary. As NASA's involvement in the U-2 incident illustrated, the very aspects of NASA that made it so different from the NACA necessitated the development of a new public relations ethos.

NASA grew and developed at an accelerated pace from 1958 to 1960. During this time, the agency incorporated several preexisting military space projects, such as the Navy's Project Vanguard and other important satellite, lunar probe, and rocket programs. NASA leadership decided to pursue Project Mercury, a plan to put a man into earth orbit

shortly after the agency's creation. This would be the dramatic and highly visible centerpiece of the civilian space effort for the next several years.

The agency expanded institutionally as well. From the Army, in 1960, NASA acquired Wernher von Braun's "German Rocket Team" at the Redstone Arsenal in Huntsville, Alabama. At this time, Von Braun and his colleagues were developing the three-stage Saturn rocket, which would produce over 1.5 million pounds of thrust. This rocket would eventually take the first human beings to the moon. NASA now had seven installations across the country, including NASA Headquarters in Washington, D.C.; Lewis Flight Propulsion Laboratory in Ohio; Langley Research Center in Virginia; Goddard Spaceflight Center in Maryland; Dryden Flight Research Center and Muroc High Speed Flight Station in California; and Marshall Spaceflight Center in Alabama.¹

Of course, one of NASA's earliest duties was to incorporate all preexisting NACA programs. One old "project" that NASA could have done without, from a public relations perspective, was the NACA's cooperation with the CIA in producing a "cover story" for the state-of-the-art U-2, the Cold War's first true spy plane. This plane, built in 1956 by Lockheed under contract to the CIA, grew out of the 1955 military-industrial "mini-boom" funded by the Eisenhower administration after American intelligence discovered major Soviet advances in missiles and aeronautics. For reasons of national security, the plane's true purpose, which was to perform military reconnaissance over the Soviet Union, could not be revealed to the American public. In conjunction with the CIA, NACA Administrator Hugh Dryden released an "official" story in 1956 that the U-2 would serve solely as a "flying test bed" for high-altitude NACA weather experiments.

¹Roger Launius, *NASA: A History of the U.S. Civil Space Program* (Malabar, Fla.: Kriger Publishing, 1994), 30-34.

This myth, although questioned by some in the United States and never accepted by Khrushchev as fact, remained official until early May 1960.² The disclosure of the U-2's true purpose during the infamous incident of 1960 intensified Cold War tensions between the United States and the Soviet Union while effectively ending Walter Bonney's NASA career.

The story of the U-2 crisis is a familiar one in the annals of Cold War history. It occurred when the Soviets shot down an American U-2 spy plane over their territory and accused the United States of aerial spying. Initially, American leadership tried to deny the purpose of the plane. Nonetheless, leaders had to reveal the mission's true nature when the Soviets produced the living pilot, Francis Gary Powers, along with the largely intact U-2 wreckage, including its camera system and exposed film.³

Powers, a United States Air Force pilot, left Peshawar, Pakistan, aboard the U-2 on May 1, 1960, fifteen days before the scheduled opening of an East-West summit conference in Paris. He intended to overfly the Soviet Union and land in Norway. The mission's goal was to photograph ICBM development sites in the regions of Sverdlovsk and Pletsetsk in the Soviet Union. Soviet fighters tried to annihilate the plane, but failed due to the U-2's extreme altitude. Ultimately, a 14 SA-2 Guideline surface-to-air missile managed to shoot down the plane. The Soviets captured Gary Powers near Sverdlovsk in

² National Aeronautics and Space Administration, "U-2 Spy Plane with Fictitious NASA Markings," *NASA GRIN Images Online*, <http://grin.hq.nasa.gov/ABSTRACTS/GPN-2000-000112.html>.

³ Robert A. Divine, *Eisenhower and the Cold War* (New York: Oxford University Press, 1981), 101; William E. Burrows, *Deep Black: Space Espionage and National Security* (New York: Random House, 1986), xiii-xiv.

the Ural Mountains after he made a parachute landing. They then obtained the remnants of his U-2.⁴

Four days after Powers's disappearance, on May 5, NASA issued a press release claiming that a "weather aircraft" had "gone missing" north of Turkey. The release speculated that the pilot might have lost consciousness due to lack of oxygen while the autopilot was engaged. To support this claim, NASA obtained a U-2 plane, painted it in NASA colors, and put it on display for the press at the NASA Flight Research Center at Edwards Air Force Base. Khrushchev made a counter-statement insisting that the plane was, in fact, a spy plane. After a few verbal volleys back and forth, during which Khrushchev eventually admitted that Powers was alive, the United States had to confirm the truth.⁵

The young NASA Office of Public Information had to process much of the media interest in the incident. The U-2 crisis would prove to be a watershed event for NASA public relations. On May 5, 1960, as the office handled its usual problems of intense public interest in NASA's Project Mercury and the "Mercury Seven" astronauts, Bonney and his staff members received an anonymous memorandum, actually written by Hugh Dryden and the State Department, advising them on how to publicly handle questions about an incident involving the U-2. The memo said that, according to a morning Moscow announcement, Khrushchev (referred to as "Mr. K") had reported that an unmarked American plane had been shot down after violating Russian territory. A

⁴ William E. Burrows, *By Any Means Necessary: America's Secret Air War in the Cold War* (New York: Farrar, Straus and Giroux, 2001), 234-246; Felix Belair, "President Asserts Secrecy of Soviet Justifies Spying," *New York Times*, 12 May 1960, 1; Burrows, *Deep Black*; xiii-xiv; Walter McDougall, ...*The Heavens and the Earth: A Political History of the Space Age* (New York: Basic Books, 1985), 259.

⁵ NASA, "U-2 Spy Plane with Fictitious NASA Markings," <http://grin.hq.nasa.gov/ABSTRACTS/GPN-2000-000112.html>.

journalist, Peter Hackes, had tied the Khrushchev announcement to the U-2 that had gone down in Turkey the previous Sunday. According to the memo, “[This] is a situation where NASA must be very careful to say only what we know, and not let ourselves be trapped into, even by implication, some speculation that could be troublesome.”⁶ The memo then outlined the “known facts” to which the OPI staff members were advised to adhere. Dryden clearly worried that Bonney and the staff might reveal the larger “truth,” however they understood it, about the U-2’s reconnaissance purposes.

Dryden’s “facts,” numbered one through seven, asserted that NASA had been using the Lockheed U-2 for upper air weather studies since 1956, that the plane was originally built as a “flying test bed,” and that it was a private venture of Lockheed. Also, NASA (then the NACA) had made arrangements to get ten airplanes for the weather studies when it became apparent that the plane could maintain flight at 55,000 feet. The memo insisted that the weather programs had been carried out by the Air Weather Service by Lockheed test pilots on contract to NASA; that the flights had been made in the U.S., the Far East, and the Middle East; and that NASA had put out technical notes about the research data acquired by the use of the U-2 for public viewing. The last statement is followed by an underlined order from Glennan: “Someone look these releases up, so they can be made available to press queries.”⁷

The memorandum continued with a cursory description of how the plane had “officially” disappeared, most likely in or near Lake Van, Turkey. Dryden declared that the “unmarked plane bit has me greatly puzzled, because all the U-2...repeat, all...planes

⁶ National Aeronautics and Space Administration, T. Keith Glennan, memo, 5 May 1960, U-2 File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁷ Glennan, memo, 5 May 1960.

we're using carry the NASA markings on the tail as big as life. One troublesome thing is the use of the word "reconnaissance." Weather reconnaissance, as I understand it, is a military phrase. We should be careful to use...weather observation, or upper atmosphere research."⁸ Dryden's phrasing shows that he was aware of the mission's military importance when the story broke.

Later that day, Walter Bonney delivered his report of the incident at a press conference. Reporters asked him innumerable questions after receiving copies of the statement and hearing his delivery of the statement. One reporter asked if Bonney's report was necessarily the result of the President's inquiry. Bonney said it was not. Bonney also said that the plane had ventured so close to Russia because it was trying to obtain information about large-scale global weather patterns. The reporters seemed very skeptical about Bonney's answers. Bonney said he "could not" tell them what the Air Force knew of the NASA planes, and asserted repeatedly that the U-2 pilot had been a civilian Lockheed test pilot. The reporters remained doubtful throughout the interview, second-guessing Bonney for question after question. Indeed, Bonney knew about the spy plane's existence, but denied that NASA knew anything about the plane.⁹ It seems that he was not a very practiced liar. This could be due to Bonney's strong belief that the public information man "is not there to cover up bad news, to make weak actions look good, to build up a department or agency, or to make a cabinet member look like a statesman. Unless he can see himself as a public servant, paid to help the people know

⁸ Glennan, memo, 5 May 1960.

⁹ National Aeronautics and Space Administration, Walter Bonney, stenographic transcript, "Conference of NASA's U-2 Research Airplane," 5 May 1960, U-2 File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

exactly what their government is up to...he had better get into some other line of work and get there promptly.”¹⁰

Bonney adhered to the official “truths,” in loyalty to his agency and his country. Unfortunately, his loyalty burned him. In an interview on November 27, 1971, Bonney finally spoke to NASA historian Eugene Emme about the U-2 incident. Bonney said that on May 1, 1960, his suggestion that the OPI’s pre-prepared cover story about the U-2 incident be released was overruled by “NASA leaders.” No story was released that day. Brief note was made of an incident in the Washington Post through a prepared release by a U.S. Air Force sergeant in Adana, Turkey. On May 3, 1960, the State Department put out a “terse advisory that a U.S. weather aircraft was missing.”¹¹ Dryden then called to consult the State Department, where staff members told him that he had done the right thing by not making a release.

NASA’s “big day on the U-2” was Thursday, May 5, 1960. Bonney recalled that he believed James Hagerty, the President’s press secretary, “had been cued in from the start.” Yet Hagerty had “forgotten” about the information plan Dryden had shown to Bonney, which Hagerty had also apparently been requested to follow.¹²

Then, as Bonney spoke in his NASA office to John Finney, Bill Hines, and other Public Information staff members, discussing various “lines” on the U-2 story, the Washington Press Corps “trooped in” from the White House and asked Bonney for NASA’s statement on the U-2 incident, which Hagerty had told them Bonney would

¹⁰ Bonney, “Conference of NASA’s U-2 Research Airplane,” 5 May 1960.

¹¹ Bonney, “Conference of NASA’s U-2 Research Airplane,” 5 May 1960.

¹² Bonney, “Conference of NASA’s U-2 Research Airplane,” 5 May 1960.

have.¹³ Bonney, after “kicking out everyone,”¹⁴ called Hagerty, exclaiming “What have you done to me?”¹⁵ He then “whacked out” a misdated draft of the infamous NASA press release, edited and retyped by secretary Caroline Baucom. As Bonney typed, “the U-2’s crunched and twisted carcass was either still lying outside [Sverdlovsk] or was already on its way to the capital, where it would shortly go on display in Gorki Park.”¹⁶ The press release essentially contained Dryden’s “official facts” about the incident, claiming that the plane went down because of oxygen equipment failure, and added some of the U-2’s research history. The only mention of military involvement was when Bonney said that “overseas logistic support for NASA’s continuing use of the U-2 is provided by Air Weather Service Units for the USAF.” However, he asserted that the pilot of this particular U-2 plane was a civilian. ¹⁷ Newspapers across the nation, including the New York Times, published Bonney’s statements almost verbatim.¹⁸

When he had first heard about the U-2 incident, Bonney had asked Emme to prepare a list of all open information known about the “NACA-NASA high-altitude U-2 research program.”¹⁹ Emme wrote, “I do recall asking Joe Stein, Bonney’s deputy, about

¹³ Rose McDermott, *Risk Taking in International Politics: Prospect Theory in American Foreign Policy* (Ann Arbor: University of Michigan Press, 1998), 113.

¹⁴ Bonney, “Conference of NASA’s U-2 Research Airplane,” 5 May 1960.

¹⁵ Bonney, “Conference of NASA’s U-2 Research Airplane,” 5 May 1960.

¹⁶ Burrows, *Deep Black*, 54.

¹⁷ National Aeronautics and Space Administration, Walter Bonney, news release, 5 May 1960, Walter Bonney Biographical File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

¹⁸ Jack Raymond, “Capital Explains: Reports Unarmed U-2 Vanished at Border After Difficulty,” *New York Times*, 6 May 1960, 1, 7.

¹⁹ National Aeronautics and Space Administration, Eugene Emme, Memorandum for Record, 28 November 1971, Walter Bonney Biographical File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

the incorrect date...as well as asking if full coordination with the State Department had really taken place. He said as much as ‘it is none of your damn business.’ I also recall complimenting Bonney the next morning, which I reminded him, of ‘how pretty he looked on TV,’ for the Press Conference was fully covered on the evening news.”²⁰ In the meantime, the State Department had also put out a statement that demonstrated the lack of coordination Hagerty had facilitated by “passing the buck” to NASA.

Then, on Saturday, May 7, UPI Aviation Reporter Vern Haugland called Bonney to report that Khrushchev had said the American plane had been shot down. Bonney had, of course, already known this, but told Haugland that the White House and the “weather bureau” apparently did not. Bonney also pointed out that the National Security Council had met on the morning of May 5 and that the U-2 incident had not been discussed at that time. The competing statements from NASA, the White House, and the State Department showed vast inconsistencies with each other—inconsistencies that were not lost on journalists or the American public. The State Department eventually broke the real story.²¹ William Burrows says, “In a perverse sort of way, Bonney might have been given credit for succeeding in misstating almost everything” about the U-2 mission.²²

The information for the “cover story” prepared by Bonney, based on a memo from Hugh Dryden, actually originated with Richard Bissell, John Foster Dulles’s special assistant for the U-2 project at the CIA, as political scientist Rose McDermott demonstrates. Neither the White House, the State Department, nor the CIA cleared

²⁰ Emme, Memorandum for Record, 28 November 1971.

²¹ John W. Finney, “Space Unit Upset over Repudiation,” *New York Times*, 9 May 1960, 1; “Flight to Sverdlovsk,” *Time Magazine*, 19 May 1960, 20.

²² Burrows, *Deep Black*, 54.

Bonney's statement prior to its release. According to McDermott, the major problem with the NASA release was that it was much more specific in content than the State Department release; "as a result, there were many more details in this statement that the Soviet government could easily refute on an evidentiary basis." Acting Secretary of State Douglas Dillon was "flabbergasted" by the NASA statement because "it contained so much information that could be directly disproved."²³

News articles criticized the government's sloppy handling of what was, in the words of two journalists, "one of the most critical statements of the Cold War."²⁴ One *New York Times* journalist bemoaned the "melancholy evidence that our right hand in Washington did not know what our left hand in Turkey or Pakistan was doing" and called the timing of the flight (two weeks before the Paris Summit), and the U.S government's response to the crisis, exercises in "political stupidity."²⁵ Describing Bonney's delivery of the NASA news release for the *Washington Evening Star*, journalists David Wise and Thomas Ross wrote, "Mr. Bonney began reading...like a Bach fugue, [he] richly orchestrated the theme originally stated in the cover story issued at Adana [Turkey] by the Air Force sergeant and repeated by Lincoln White"²⁶ of the State Department. According to the news article, "[Presidential Press Secretary] Mr. Hagerty may have erred; or he may have acted on instructions...accounts conflict."²⁷ The article said that Bonney had been "tapped" by Dr. Hugh Dryden, NASA Deputy Administrator, as the

²³ McDermott, *Risk-Taking in International Politics*, 117.

²⁴ David Wise and Ross Thomas, "The U-2 Affair: Memo to Press Hastily Drawn," *Washington Evening Star*, 8 May 1960, A2.

²⁵ "Crisis in the Cold War," *New York Times*, 9 May 1960, 28.

²⁶ Wise and Thomas, "The U-2 Affair," 8 May 1960.

²⁷ Wise and Thomas, "The U-2 Affair," 8 May 1960.

one man in Public Information to know the full details of the program. Given the content of Bonney's remarks to Eugene Emme, as well as the remarks in Dryden's memo, which had been drawn up in conjunction with the CIA, it is highly likely that Bonney knew the full story.

The U-2 crisis shifted the course and mood of the Cold War. Some American-aligned foreign diplomats in Washington expressed irritation "over what they considered the irresponsibility, ineptitude and confusion in the case of the U-2 plane downed in the Soviet Union."²⁸ Soviet leaders themselves immediately reacted with "various expressions of injury and disappointment."²⁹ In the words of Walter McDougall, "Eisenhower refused to repudiate the surreptitious mission or save face for all parties by blaming subordinates, whereupon Khrushchev exploded the Paris summit and Ike's last hope for a nuclear test ban." The crisis also served to accelerate the development of American spy satellites.³⁰

Historian Arthur Levine interviewed Walter Bonney about three months after the U-2 incident, on August 31, 1960, about the role of public relations in the NACA and NASA. According to Levine, Bonney felt that the NACA's committee structure made it successful as an independent scientific agency. Yet he thought that with the aging of the organization, the committee had become somewhat less dynamic. Bonney pointed out that due to the agency's increased responsibility in the wake of the NASA changeover, it was good for NASA to make a "fresh start" under Glennan.

²⁸ Dana Adams Schmidt, "Diplomats and the U-2," *New York Times*, 13 May 1960, 10.

²⁹ Max Frankel, "Moscow is Bitter: Pilot Becoming Focus of Criticism of U.S.," *New York Times*, 9 May 1960, 1.

³⁰ McDougall, ...*The Heavens and the Earth*, 220, 259.

Bonney believed that the reason the NACA did not seek publicity in its early days was because agency members felt that it would get better cooperation and support if the agency did not make itself seem to be “the fountainhead of knowledge.” Bonney said, “[The NACA] saw itself as a partner in a team of industry and the military and the NACA for aeronautical accomplishments...starting in about 1949, as NACA’s budget began getting bigger...it was necessary to begin a public relations effort on a larger scale...only for the sake of acquainting the public with [NACA’s work] so that...support could be gotten for the increases in appropriations and so forth. This is the explanation for NACA’s public relations or lack of public relations policy. It was not purposely to avoid it but more or less not to appear any more than a part of the team.”³¹ During the interview, Bonney continually emphasized aspects of the NACA he admired. As a man who respected the NACA and its “traditional” public relations policy so much, Bonney would of course have a difficult time formulating groundbreaking new NASA public relations policy.

NASA chief administrator T. Keith Glennan’s remarks regarding Bonney illuminate the negative side of Bonney’s somewhat nostalgic attitude toward the NACA. Although Glennan blamed the CIA for the U-2 publicity debacle, the public relations crisis did little to improve his opinion of Bonney. Glennan did not hold Bonney’s public relations skills in high regard. Glennan thought Bonney lacked the appropriate leadership and planning skills to perform superbly as NASA public relations director. Glennan said of a January 1960 meeting that included Bonney, “Walt Bonney presented one of his

³¹ National Aeronautics and Space Administration, Arthur Levine, interview notes, 31 August 1963, Walter Bonney Biographical File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

usual round statements that really got us no place. It is becoming increasingly clear that his abilities are limited...the planning of well-thought-out developmental programs in public information is not his ball of wax.”³²

A month later, Glennan described Bonney as “a person who ingratiates himself by a certain sort of subservience but who has less than the desirable best ‘on the ball’ when the chips are down.”³³ Glennan’s interpretation of Bonney’s “team player” attitude is hardly favorable. Perhaps Glennan’s dislike of Bonney was, in part, irrational. Glennan said, “I cannot accept the recommendations that Bonney brings me—part of it is just an antipathy towards him because of my lack of confidence in his ability to plan.”³⁴

However, Glennan likely underestimated the difficulty of the transition between NACA and NASA, having not been involved with the NACA itself. Glennan tactfully encouraged Bonney to take a job offer from the Aerospace Corporation in Los Angeles, saying that his work had been good, but not excellent.³⁵

Despite Bonney’s difficulties with the U-2 incident, *Aviation Week* cited him in its “Laurels for 1960” as doing “the best job of any government information officer at keeping the press and public adequately informed on the progress of space technology in the face of extremely difficult official problems.”³⁶ As T. Keith Glennan himself said,

³² T. Keith Glennan, *The Birth of NASA: the Diary of T.Keith Glennan*, ed. J.D. Hunley (Washington, DC: National Aeronautics and Space Administration, 1993), 53.

³³ Glennan, *The Birth of NASA*, 72

³⁴ Glennan, *The Birth of NASA*, 116.

³⁵ Glennan, *The Birth of NASA*, 170.

³⁶ “Laurels for 1960,” *Aviation Week* 20 (26 December 1960), 11.

Bonney had many friends in the aviation industry. This surely helped to assuage any discouragement Bonney may have been feeling.

By January 1961, Walter Bonney had taken a job with the Aerospace Corporation in Los Angeles as its Director of Information. The corporation was “a systems management firm organized to serve the United States Air Force.”³⁷ Yet Bonney still kept in touch with NASA friends and colleagues, many of whom respected him greatly. Actually, NASA belatedly implemented one of Bonney’s key suggestions regarding public information. Jack Maher, of the Office of Public Information, sent Bonney an article which appeared in the January 5, 1961 edition of the *NASA Current News* that said “The National Aeronautics and Space Agency plans to release full information well in advance of its future space shots...the agency has been issuing data in advance of launchings, but embargoing the material until after launchings. Prior to that, it had withheld any news of NASA space tries until the launchings.” Glennan confirmed the change of policy in a letter to the National Association of Science Writers.³⁸ Bonney, however, had presciently suggested such a policy years before, in late 1958. Maher believed that Bonney’s suggestion, if it had been implemented sooner, could have benefited NASA tremendously. He declared, “Aerospace’s gain is NASA’s loss.”³⁹ Bonney, ever the faithful correspondent, promptly returned a letter to his friend Maher. He humorously remarked, in an obvious reference to the infamous U-2 incident:

I must admit that I, too, had the feeling of wonderment [regarding the decision]...why couldn’t it have happened when first recommended [by

³⁷ “Aerospace World: Walter T. Bonney,” *Air Force Magazine*, June 1975, 24.

³⁸ “Aerospace World: Walter T. Bonney,” June 1975, 24.

³⁹ National Aeronautics and Space Administration, Jack Maher, letter, 5 January 1961, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

me], or even a year ago, when it would have been so helpful to the enhancement of NASA's public image! Maybe, if I live to be a thousand or more years of age, I'll develop the necessary degree of patience that the Chinese are credited with having; meantime, I guess I'll have to keep working on the problem.⁴⁰

Even when Bonney showed the ability to handle NASA public relations problems, higher officials failed to see the wisdom of his suggestions.

Nonetheless, it was clear that NASA needed to somehow change the mechanism through which it handled its public image. After all, the U-2 project did not even technically come under its purview. What would happen in the case of a major failure involving Project Mercury or another manned space project that did not even have practical military utility? Manned spaceflight had already proved to be of immense interest, caused in part by extensive media coverage of Bonney's and Glennan's "circus-like" introduction of the Mercury Seven astronauts during an April 1958 press conference.⁴¹ A series of articles in *LIFE Magazine* on the Mercury Seven, published from 1958 to 1962, inspired further public interest in manned spaceflight. In case of a serious controversy or disaster involving Project Mercury, the press, public, and Congress would question and criticize the agency's necessity, practicality, and accountability much more harshly than it had during the U-2 incident. It needed a public relations (or Public Information) office that could truly plan for such emergencies in a practical way and that could work well within the agency and among the various branches of government.

Although Walter Bonney had many ideas for public relations, he had a difficult time practically implementing them with the explosion of interest in NASA programs. He did not handle pressure well before the press. During his time at the NACA, he had

⁴⁰ National Aeronautics and Space Administration, Walter Bonney, letter, 12 January 1961, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

⁴¹ Launius, *NASA*, 40.

faced little experience with large press conferences or in handling public relations under pressure. When he did have to face such duties, he had shared them with the zealously vocal and confident John Victory. Despite his wish to look to NASA's future, Bonney was a relic of the NACA system of modest budgets, little publicity or need for publicity, and an attitude of cooperation—indeed, almost of subservience—towards the military and industry. While his abilities had been perfectly suited to the NACA, he did not have the qualities necessary for a NASA public affairs “commander-in-chief.” It did not help that he had taken the fall for NASA's first major public affairs debacle.

Perhaps most importantly, Glennan did not trust Bonney to “learn the ropes,” and he needed a public relations leader with whom he could identify. Because of Bonney's work with the NACA, he had his own specific ideas about how NASA public information should be run that were largely exclusive of Glennan's ideas.

While Walter Bonney was a decent and loyal public relations officer, he relied too much on the “status quo” to break extensive new ground through a revolutionary NASA public relations plan. As his work with Project Mercury publicity would prove, however, he likely did the best job that any NACA-trained “publicity man” could have done during the new space agency's earliest and possibly most enthusiastic years.

CHAPTER SIX

MERCURY RISING

From 1959 to 1963, Project Mercury was the focus of NASA and its Office of Public Information. The Mercury 7 astronauts' infamous contract with *LIFE Magazine* meant that publicity for NASA would now come from a profit-oriented, corporately-owned mass media source and would reach many more American households. Meanwhile, the arrival of John "Shorty" Powers, a new NASA Space Task Group employee assigned specifically to handle astronaut publicity, added a ruthless, more promotional character to OPI operations.

As Project Mercury exploded into the Cold War American imagination, NASA itself began to mature into a large government bureaucracy. The agency's ties to the aerospace industry multiplied and strengthened due to NASA contracts. The OPI itself formed stronger relationships to the private sector, and it now had to solve some of the same problems that corporate, industrial public relations offices had faced for decades. During this era, the OPI had to transform into a focused, organized, and truly multifunctional entity that could logistically handle a vast amount of public interest. The NACA-trained Walter Bonney would prove unequal to this task.

Public interest in the space program intensified with Bonney's announcement of Project Mercury in April 1959, and Bonney shifted the focus of NASA's public relations

narratives. He began to use the narrative of American national identity to describe the work of the OPI itself. NASA public relations workers asserted that the agency needed to “openly” report its technological failures and mistakes, as well as its successes, to prove the United States’s historical devotion to “freedom” and democracy. NASA’s narrative of an “America-first” globalism intensified with the Eisenhower administration’s growing belief that the Sputnik challenge would cause the U.S. and the USSR to remake world politics into a “total competition in which prestige was more important than power.” In this context, Bonney and his colleagues emphasized that, if the United States put the first man into space, the world would credit the United States with being scientifically superior to the USSR, and would enjoy the many benefits of American space superiority. When this did not happen, the OPI used similar rhetoric to gain support for subsequent manned space projects.

The engineering principles that shaped Project Mercury, America’s first human spaceflight program, emerged prior to NASA’s inception in the years immediately preceding Sputnik. After Sputniks 1 and 2, American leaders recognized that the Soviets had won the “prestige race” for satellites. The next logical “race” would involve rocketing a man into space and then into Earth orbit. Both the Air Force and the Army had developed prototype missions designed to place a man into orbit, and had hoped that these programs would help them to become successful candidates for the new space agency. Also, in the spring of 1958, a group of NACA Langley engineers led by Robert Gilruth had started work on a similar piloted spacecraft program. In October 1958, only

days after NASA officially came into existence, Gilruth's team presented their program, called Project Mercury, to Administrator Glennan.

Mercury had three phases. First, pilots would go on suborbital ballistic flights atop Army Redstone missiles. Then, they would go on to longer suborbital trajectories with Jupiter missiles; Gilruth's team later deemed this step unnecessary. Thirdly, manned "capsules" would achieve earth orbit with an Atlas missile. Glennan and the Space Council quickly approved the project despite the fact that NACA veteran Hugh Dryden believed it had little practical or scientific value and called it "a circus stunt."¹

President Eisenhower approved NASA's Project Mercury for both technical and political reasons. According to Walter McDougall, "NACA's frontier faction had drafted a credible, low-cost plan for manned capsules." The American democratic-capitalist image required that "such a high-profile" human spaceflight program be civilian in nature. Despite Eisenhower's uneasiness with the concept of a "space race" against the Soviets, he had begun to understand that the Sputniks were helping the USSR to transform world politics into a "total competition" in which prestige was as significant as concrete military power. Eisenhower felt that the United States, working within the boundaries of fiscal responsibility, had to counter the challenge.²

Administrator Glennan quickly established a Space Task Group (STG), led by engineer Robert Gilruth, to develop Project Mercury. This group, housed at NASA's Langley Research Center during the Project Mercury years, would move to Houston in

¹ Roger Launius, *NASA: A History of the Civil Space Program* (Malabar, Fla.: Kriger Publishing, 1994), 40.

² Walter McDougall, *...The Heavens and the Earth: A Political History of the Space Age* (New York: Basic Books, 1984), 200.

1962 and form the core of the NASA Manned Spacecraft Center (renamed NASA Johnson Space Center in 1973). The Manned Spacecraft Center (MSC) would develop Project Apollo, the NASA endeavor that would place the first human beings on the moon.³

During the months following approval of Project Mercury, the STG vigorously tackled development of the project's hardware and support structure. Engineer Maxime Faget was the chief designer for the Mercury spacecraft, a very compact, cone-shaped vehicle that relied mainly on automatic controls. It needed only minimal pilot input to fly successfully and could sustain a single person in orbit for up to twenty-four hours. In late 1959, NASA chose the McDonnell Aircraft Corporation as the spacecraft's prime contractor.

Of course, many test flights had to precede any actual astronaut flights. The first Mercury test flight occurred on August 21, 1959. NASA launched a capsule carrying two rhesus monkeys with a cluster of Little Joe solid-fuel rockets. Subsequent tests used Redstone and Atlas boosters; some carried chimpanzees, while others launched astronaut dummies. On January 31, 1961, the chimpanzee Ham flew 157 miles into space in a 16-minute, 39 second flight in a Mercury/Redstone combination and was successfully recovered by support crew.

Selection and training of the first astronauts began in January 1959, concurrently with the development of Mercury hardware. Although NASA initially wanted the pilots to be civilians, President Eisenhower decided they would instead come from the armed forces. By subjecting astronaut contenders to grueling tests of all kinds, Gilruth and his

³ Launius, *NASA*, 40-45.

colleagues eventually narrowed a field of thousands down to seven pilots, most of whom had experience in aerial combat.

Project Mercury inspired Bonney and Glennan to engage the narratives of “America-first” globalism and American national identity. Bonney prepared an elaborate list of questions and answers for the OPI staff to use as reference when speaking with the press or public. Bonney wrote, “from our position of world leadership, it is vital that the United States achieve first place in space exploration: in our society, the curiosity and imagination that are the hallmarks of the creative scientist are encouraged instead of directed toward rigid ‘party line’ goals.” In the world of NASA public relations, the United States was the steward of free thought; indeed, freedom of thought was an ultimate aspect of American national identity that NASA would uphold. Bonney continued: “The struggle for the minds of men is crucial to the future of our planet...practically every nation seeking independence in the last hundred years has looked to our system as a model. [We have] provided a strong shield, ideologically as well as physically, for weaker countries...if we give over leadership to a totalitarian nation, then we have betrayed our tradition and ... failed the rest of the world that places its trust in us.”⁴ In Bonney’s world, American triumph over the Soviet Union in the could only enhance the experience of other nations, even if the outcome would leave the United States as the only nation with any true ideological, political or economic power.

Some months later, in introduction to a UCLA lecture series on “The Peaceful Uses of Outer Space,” Glennan, assisted by Bonney, embraced similar themes, describing

⁴ Walter T. Bonney, memo, “Questions and Answers on Space Exploration,” 10 June 1959, Public Affairs File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

space exploration as dramatically affecting “the welfare and security of the United States” and as having results which will “be of benefit to all mankind.” He tied the narrative of American national identity to NASA public information, exclaiming that the functions of the democratic process determined the rate of American space progress and that “wise decisions can be assured only if our citizens possess a good understanding of the technical, economic and social implications of the possible peacetime uses of space.”⁵

Such strong public relations ideology underlay nearly every NASA public relations event and “product” of the early 1960s. Most of these events involved the Mercury Seven astronauts. In the words of Roger Launius, “[Administrator] Glennan and Washington politicians [including Walter Bonney] publicly unveiled the astronauts in a circus-like press conference on 9 April 1959.”⁶ This conference began “the elevation of the astronauts to heroic status.”⁷ Prior to the conference, Bonney’s assistant Paul Haney told the “nervous astronauts” about the questions they would face. Haney recognized that the middle-class American taxpayers who were NASA’s chief constituency would want to identify the astronauts with qualities they viewed as valiant. He warned, “They won’t just ask you about your flying...they’ll ask you about your religion, do you go to church regularly? They’ll ask about your wife and kids. What’s your political affiliation? Were

⁵ Walter T. Bonney, Memo for the Administrator, 21 March 1960, Public Affairs File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁶ Roger Launius, *NASA: A History of the U.S. Civil Space Program* (Malabar, Florida: Kriger Publishing, 1994), 40.

⁷ Dale Carter, *The Final Frontier: The Rise and Fall of the American Rocket State* (London: Verso, 1988), 168.

you a Boy Scout as a kid?”⁸ From the Marine Corps came Lt. Col. John H. Glenn, Jr. and from the Navy came Lt. Cdr. Walter M. Schirra Jr., Lt. Cd. Alan B. Shepard Jr., and Lt. M. Scott Carpenter. Three Air Force officers rounded out the group: Capt. L Gordon Cooper, Capt. Virgil I. “Gus” Grissom, and Capt. Donald K. Slayton. The astronauts would be stationed at NASA Langley Research Center with the Space Task Group, not at NASA’s Washington Headquarters with Glennan and Bonney.⁹ Historian Dale Carter writes, “The astronauts were from the outset presented by NASA as figures for public consumption. And it was as leading men, as stars, that they retained their elite status. Millions of Americans prepared dinner, checked lists, and adjust television aerials daily, but only a few did so in front of an audience composed of the same millions.”¹⁰ In fact, the astronauts and the Space Task Group, as they became more important parts of NASA, would need their own separate public relations task force.

Bonney’s introduction of the Mercury Astronauts provided NASA with its biggest public relations “splash” of the year. The astronauts, after careful coaching by Bonney and Haney, provided the press with an invigorated, updated image of traditional American national values. On April 10 alone, the *New York Times* published four stories on the heroic astronauts,¹¹ and published more stories on Project Mercury throughout the

⁸James Schefter, *The Race: the Uncensored Story of How America Beat Russia to the Moon* (New York: Doubleday, 1999), 60.

⁹ Launius, *NASA*, 40.

¹⁰ Carter, *The Final Frontier*, 167.

¹¹ John W. Finney, “7 Named as Pilots for Space Flights Scheduled in 1961,” *New York Times*, 10 April 1959, 1; “Biographies of Seven Men Selected as Nation’s First Space Pilots,” *New York Times*, 10 April 1959, 3; “Scientists Give Space Trip Data,” *New York Times*, 10 April 1959, 3; “News Summary and Index,” *New York Times*, 10 April 1959, 31.

week. Supposedly “objective” articles about the pioneering, almost superhuman astronauts and their news conference appearance flooded the newsstands with descriptions that continued NASA public relations narratives. John Norris of the *Washington Post* wrote, “America’s first true spaceman...will be a married man in his 30s with at least one youngster waiting at home to see Daddy on TV...married men are usually healthier than single men.” This spaceman would “soar” into space with “quiet confidence.” The *Los Angeles Times* called the astronauts “pioneers,” quoted Glennan’s description of their “superb adaptability” for “survival,” and described their “trim, tanned, athletic” appearance.¹² Several months later, the *Christian Science Monitor* called 1958 and 1959 the “first giddyingly spectacular years of space adventure” and noted that the astronauts did not see the Mercury missions as involving “any great personal risk.”¹³ The astronauts were fearless, latter-day American settlers, with solid Cold War-era middle-class values, conquering space instead of the western American wilderness. From the pages of newspapers and magazines, they would take the public with them into the “final frontier.”

As Project Mercury took center stage, the promise of human spaceflight began to transform NASA Headquarters public information practices. Many of Walter Bonney’s requests in late 1958 for increased office space and more staff members had been quickly approved by NASA’s administration. Nonetheless, much to Administrator Glennan’s chagrin, the increased attention NASA received in the wake of Project Mercury, along

¹² John G. Norris, “Family Men Favored as Best Risks,” *The Washington Post-Times Herald*, 10 April 1959, A1; “U.S. Names Seven Men Pioneer Space Fliers,” *Los Angeles Times*, 10 April 1959, 1.

¹³ Courtney Sheldon, “Man in Space: Adventure Dawns,” *Christian Science Monitor*, 25 November 1959, 10.

with the dramatic emergence of field center and astronaut information programs, gave Walter Bonney far more difficult work than his experiences had prepared him for.

While many of Walter Bonney's explicit articulations of Mercury-era public relations policy were made in internal NASA memos rather than public speeches, they nonetheless illustrate how Bonney guided early NASA public relations, both ideologically and organizationally. Bonney elaborated on the scientific salvation and triumph that NASA "firsts," publicized by the OPI, would bring the world. He wanted the OPI itself to continually prove America's historical devotion to "freedom" and democracy through its open reporting of failures and mistakes. Here, he engaged the narratives of "America-first" globalism and American national identity. On a more practical level, Bonney understood the vital importance of the OPI's work for NASA, but was unable to create a truly viable system for managing the office's increased workload or for taking administrative control of field center and STG public information practices.

With enthusiasm, Bonney worked to prepare his staff for a tempestuous media storm. On April 10, 1959, one day after the introduction of the astronauts to the American press and public, Bonney released a comprehensive memo entitled "NASA INFO," intended "for Information Officers," meaning Bonney's own NASA Headquarters staff as well as all field information officers. The memo would inform public information officers as they handled publicity in the furor following the astronauts' introduction. The tagline read "SPACE UNLIMITED---It was a press relations' man's dream last week: NASA was on Page One of every newspaper in the world and rolling off the tongue of every broadcaster." Even before the Mercury press

conference, wrote Bonney, “enterprising reporters” had started to spread NASA’s fame through lengthy stories about various aspects of the project, such as the construction of two Mercury test capsules at Lewis Research Center. The story “even found its way on into [sic] the comic pages. Cartoonist Milton Caniff planned to put Steve Canyon through the astronaut evaluation tests.”¹⁴

In the release, Bonney discussed the OPI’s imminent creation of NASA’s first procurement guide: a 14-page, visually stunning pamphlet titled “Selling to NASA. NASA’s OPI was, on the most basic level, becoming more tied to industry through the NASA contracting process. Of course, Bonney had never needed to create anything like this for the NACA, which had engaged in research and not development or production. The guide contained sections on private contracting with NASA, including general instructions for prospective bidders. NASA headquarters and field information staff met with NASA procurement staff on April 8, 1959 and agreed that information staff would have a working knowledge of pending contracts “so that proper handling and public announcement [could] be made when necessary.”¹⁵

During the whirl of Project Mercury preparations, other NASA projects continued. The OPI staff was highly involved in publicizing NASA’s successful launch of the second Vanguard satellite on February 17, 1959. Vanguard proved to “draw a very moderate press” compared to the Mercury astronaut announcement. Yet the launch

¹⁴ National Aeronautics and Space Administration, Walter Bonney, memo, 10 April 1959, Public Affairs File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

¹⁵ Bonney, memo, 10 April 1959; National Aeronautics and Space Administration, T. Keith Glennan, memo to Walter Bonney, 23 September 1959, Public Affairs Office File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

provided valuable experience for staff members who would soon be fully immersed in the drama and complexity of Mercury publicity. The Public Information “mission plan” that Bonney would use for every space mission was first used during this launch. Every staff member received a copy of this plan, which contained basic launch information that the worker would distribute to reporters and members of the public. Each staff member would cover a different, pre-designated location in the vicinity of NASA Headquarters or a field center, where groups would gather to learn about the launch.

Shorty Powers and Paul Haney noted a certain awkwardness resulting from the fact that many of NASA’s early projects had originally been Department of Defense (primarily Air Force) projects. Many facets of Mercury operations had to have DOD support, and NASA officials had to obtain access to military facilities, especially operating networks.¹⁶ Haney went as far as to call the “early NASA” a kind of “paper title” manager; he said that the same industry and military people who had controlled the individual programs over a period of one year or more were still very much in charge in some cases, and resentful of the “infant organization,” NASA. This, according to Haney, could complicate the information officer’s job; he sometimes had to negotiate among hostile allies.¹⁷

Day-to-day astronaut publicity would require entirely new tactics, as even the highest levels of NASA leadership recognized. In April 1959, at the time of the Mercury

¹⁶ Walt Williams, interview by Robert B. Merrifield, 13 December 1967, Box 4, Merrifield Interviews, Center Series, Johnson Space Center History Collection, Alfred R. Neumann Archives, University of Houston-Clear Lake.

¹⁷ Paul Haney, interview by Robert B. Merrifield, 8 April 1968, Box 2, Merrifield Interviews, Center Series, Johnson Space Center History Collection, Alfred R. Neumann Archives, University of Houston-Clear Lake.

astronaut announcement, Administrator Glennan officially hired Air Force Lt. Col. John “Shorty” Powers to the Space Task Group. His unofficial title was “Astronaut Public Information Officer” (PIO), but with his dominant personality he would come to be known as the “voice of the astronauts” and “the eighth astronaut.” He was stationed at NASA Langley Research Center with the astronauts and would travel with the astronaut team when necessary. Powers emerged out of the World War II and post-war government and military public relations “boom,” as discussed by historian Scott Cutlip.¹⁸ He came to NASA from the Air Force Ballistic Missile Division, where he was public information officer. His job was to “handle press relations realistically” for the astronauts. The 38-year-old Powers, a pilot veteran of both World War II and the Korean War, had already worked closely with NASA on Air Force-NASA space probes in 1958.¹⁹ According to Robert Merrifield, who served as NASA Manned Spacecraft Center historian in the late 1960s, “Powers’ appointment was especially significant, as it presaged the metamorphosis of the small task force into a major NASA center [ie, Houston’s Manned Spacecraft Center]...Powers...had a knack for public information activities and a flair for generating national interest in the space program.”²⁰ According to Julian Scheer, who would serve as NASA’s head of Public Affairs for Projects Gemini and Apollo under

¹⁸ Scott Cutlip, *The Unseen Power: Public Relations: A History* (Hillsdale, N.J.: Erlbaum Associates, 1994), 528.

¹⁹ Bonney, memo, 10 April 1959.

²⁰ Robert Merrifield, *Man in Space*, unpublished manuscript, Merrifield Biographical File, Center Series, Johnson Space Center History Collection, Alfred R. Neumann Archives, University of Houston-Clear Lake, 2-58.

Administrator Webb, Powers largely reacted, in his policies and actions, to local and national enthusiasm toward the escalating human spaceflight program.²¹

John Powers was born in Toledo, Ohio, on August 30, 1922 and grew up near Chicago, Illinois. In March 1942, he enlisted in the U.S. Army Air Corps and was appointed an aviation cadet. He completed pilot training and was commissioned Second Lieutenant in the Air Corps Reserve. During World War II, Powers flew in the Troop Carrier Command. He was one of the first Air Corps pilots to become a Glider Pickup Specialist, which involved the pick-up of massive cargo- and troop-carrying gliders by an airborne Douglas C-47.

Powers flew over Europe during the war's final months and returned to the United States in the fall of 1945, remaining an Air Corps pilot for two years. He then spent two years in civilian life before he was called back to active military service. From Celle, Germany, he flew 185 round-trip flights to Berlin, carrying coal and food to the West German population during the Berlin Airlift. He returned to the United States in August 1949, and in February 1952, he volunteered for duty in Korea, where he served as a Squadron Operations and Executive Officer in the 3rd bomb wing, flying 55 night intruder missions as a B-26 Bomber Aircraft Commander. Powers was awarded the Air Medal and Distinguished Flying Cross. Later, he received the Bronze Star Medal for his planning and directing of the 5th Air Force's night attack program from November 1952 to June 1953.

²¹ Julian Scheer, interview by Robert B. Merrifield, 20 July 1967, Merrifield Interviews, Box 4, Center Series, Johnson Space Center History Collection, Alfred R. Neumann Archives, University of Houston-Clear Lake.

After his return to the United States, the Air Force assigned Powers to the Office of the Secretary of the Air Force as Deputy Chief of the Community Relations Division, in Washington, D.C. From 1954 to 1955, “he was one of the basic architects of the Air Force’s Community Relations Program and was assigned responsibility for...working out ways of bring[ing] the civilian and military members of the community together in the face of new and unusual sounds—jet noise and sonic booms.”²²

In 1956, the Air Force assigned Powers to the Office of the Secretary of Defense. He would serve as staff officer on the Defense Advisory Committee on Professional and Technical Compensation (the Cordiner Committee). In this capacity, Powers contributed to regulations forming the basis for “all military manpower and compensation actions.” Then, because of his experience with this “very complicated and sensitive situation,” the military chose Powers to “assume responsibility for the planning and organization of the Air Force Ballistic Missile information program.”²³

In this role, Powers planned, organized, and directed Defense Department information policies related to military ballistic missile and space research technology. He directed the Air Force Lunar Probe Information Center during the fall of 1958. Then, in Spring 1959, NASA selected the seven space pilot trainees for Project Mercury. According to a news release, “Lt. Col. Powers possessed the combination of military jet pilot—missile and space program information experience desired by NASA and was

²² National Aeronautics and Space Administration, John “Shorty” Powers, Biographical Information Sheet, 1962, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

²³ Powers, Biographical Information Sheet, 2.

detailed to the civilian space agency by the Department of the Air Force on April 6, 1959.”²⁴

Powers’ career experiences contrasted sharply with those of Walter Bonney. While Powers had experience with the highest level of Air Force public relations policy during the high-productivity heyday of the 1940s and 1950s, Bonney had aviation journalist training and experience with the small, 1940’s era Bell Aircraft Corporation and the modest NACA. Even in the Air Force, Powers had specialized in information about space technology. Powers was much more experienced in handling the many kinds of crises that could befall a large government agency focused on grand technological projects. His experience as a fighter pilot, NASA leaders believed, would give him a rapport with the astronauts, who had similar experiences. Perhaps NASA leaders also felt that hiring a former Air Force OPI would help to heal old wounds inflicted by the selection of the NACA, rather than the Air Force, as the core of NASA.

Despite Bonney’s enthusiastic promotion of the NACA’s selection, he was unprepared for the realities of the transformation to NASA. Bonney felt considerable anxiety about NASA’s rapid expansion and escalating public role, which essentially “upset” the careful public relations planning in which he had engaged during his years with the NACA. His anxiety worsened upon the arrival of Shorty Powers. On August 20, 1959, Bonney sent a rather long-winded general memorandum to Administrator Glennan. As Glennan has revealed in his diary, he had no particular fondness for Bonney, and believed him to be meek, disorganized and generally ineffective.

²⁴ Powers, Biographical Information Sheet, 3.

Bonney called for greater precision and clarity in public information policy from NASA leaders. He reiterated the necessity of following Congressional dictates and not using public information as a vehicle for propaganda to influence the American public or Congress. Borrowing the words of Bruce Catton, Washington correspondent for the Cleveland Plain Dealer, Bonney asserted that the public information worker “is not there to cover up bad news, to make weak actions look good, to build up a department or agency, or to make a cabinet member look like a statesman. Unless he can see himself as a public servant, paid to help the people know exactly what their government is up to...he had better get into some other line of work and get there promptly.”²⁵ This simple and straightforward policy had often worked for Bonney at the NACA, particularly with John Victory present to handle the political “dirty work.” Yet it would be more difficult to uphold during the highly politicized NASA era, when public relations leaders would have responsibility for handling the public image of the agency in the wake of expensive, highly visible disasters and triumphs. These leaders would also face the challenge of constructing a complex and sensitive network of press relations.

Perhaps thinking of Shorty Powers’ strong and acerbic personality and his experience with “covert” military projects, and perhaps warning Glennan against possible future problems, Bonney said that “NASA could expect difficulties if its PIO functioned in ways materially different from this point of view.” NASA OPI’s general policy, said Bonney, had been to “do first, talk second” “with firmly stated guidance from the Administrator.” The press had, in the main, respected this guideline, due largely to the

²⁵ Walter Bonney, memo to T. Keith Glennan, 20 August 1959, Papers of Walter T. Bonney, RG 255.2.1, National Archives, College Park, Maryland.

fact that NASA habitually and promptly revealed facts about the “bad” as well as the “good.” However, 100% adherence to this policy had become somewhat problematic because the timing of future “space shots” became known; because of advance briefings given at the Atlantic Missile Range about scheduled shots; and because NASA had to give Congress “rather full public disclosure” of details about future activities. Adherence could also be problematic because the awarding of contracts was made public on a monthly basis, and because “the host of special concerns arising from Project Mercury all impinge, to a greater or lesser degree, upon the...policy.” Bonney’s statements regarding these problems reveal his personal need, as NASA’s first public relations head, for leadership from Glennan about how to handle the inevitable inconsistencies of the “do-first, talk second” policy. Yet Glennan understandably expected Bonney, as the head of Public Information, to solve such basic problems himself.

As a NACA veteran, Bonney seemed to fear that NASA public relations would sink into the obscure status held by NACA public relations for much of that agency’s history. To Glennan, Bonney emphasized the importance of Public Information, saying that “even if it were possible—it is not—it would be a grave error for us to seek, by conducting Project Mercury in total secrecy, to avoid the criticisms and ridicule which will result from our inevitable disappointments and failures.” Around the world, he said, NASA was fighting for the “minds of men.” Invoking the public relations narrative of American national identity, Bonney said that it was vital to hold to “our heritage and great tradition” to be open and honest about NASA activities.²⁶ It was not only the wonder of American space technology that would illustrate the glories of American

²⁶ Bonney, memo to Glennan, 20 August 1959.

democracy. In Bonney's view, the OPI's open information policy itself would help American democracy triumph in the Cold War.

In the words of Chris Clausen of JPL, whom Bonney quoted, reporting failures and mistakes would represent the basic differences between American society and Russian society. Clausen said, "it is the difference between rubber stamp elections and free elections; the difference between contempt for the right of people to know and the thoughtful regard we have for our citizenry." In short, said Clausen, it would be the "difference between a civilization that is sure and proud of its strength and a dictatorship whose insecurity must be protected by secrecy."²⁷ In a 1968 interview, Shorty Powers echoed this theme: "On the Air Force side, the [Man in Space] program was classified and secret...[I believed it was impossible for NASA] to conduct this kind of undertaking in secrecy. It was inconsistent with the American approach to the problem...and we thought we could not only do the job better than the Russians, but, [unlike them,] we could also do it under the full glare of public attention. I don't think [we] recognized that it would be perhaps the greatest adventure in the history of mankind."²⁸

Bonney's report to Glennan summarized how the OPI rigorously served Congress, the Administration, the Press, the "National Community," and the "International Community." For Congress, the Reports Section of OPI prepared three studies per year which detailed the agency's aeronautical and space activities. The

²⁷ Bonney, memo to Glennan, 20 August 1959.

²⁸ John "Shorty" Powers, interview by Robert Merrifield, 9 November 1968, Merrifield Interviews, Box 4, Center Series, Johnson Space Center History Collection, Alfred R. Neumann Archives, University of Houston-Clear Lake.

section also prepared many statements for presentation to Congress by NASA management, which could encompass “a wide variety of materials including non-technical descriptions of NASA programs, especially prepared motion pictures, and speeches.” For the Executive Branch, the OPI prepared a classified “Quarterly Report” of NASA activities. It also provided the President with “telephonic reports of the progress of NASA “shots” and other significant happenings, following procedures laid down by NASA management. The OPI would process White House correspondence on space matters and if necessary respond to requests for special NASA material.

According to Bonney, for the press, the OPI strived to function “as a precision-ground mirror, faithfully reflecting the activities of NASA.” The press used OPI products—such as releases and pictures—as it used products of wire services, “with one important difference...it rewrites the product of the OPI and in the doing, makes the product its own.” A large part of the OPI’s press effort was its “response to query” function. Indeed, “by providing prompt and accurate answers to questions, the OPI not only serves the press but it relieves the NASA technical staff of much of the time-consuming chore of dealing directly with reporters.”²⁹

Another of the OPI’s constituents, the “National Community” or general American public, busied the OPI with its hundreds of letters and telephone calls regarding NASA’s activities. The OPI was able to process most of these letters, again

²⁹ Bonney, memo to Glennan, 20 August 1959.

freeing NASA technical staff. The OPI had also prepared, and would continue to prepare, brochures and displays “for use throughout the country.”³⁰

The OPI viewed the international community as another of its most important constituents. At this initial stage, said Bonney, OPI involvement in NASA’s vision of international involvement would be “minimal,” and “future plans and programs respecting OPI activity in the international area will be structured so as to reflect NASA management wishes.” But to handle the widespread international interest in NASA, the OPI had developed a close liaison with the United States Information Agency (USIA), and a USIA specialist on technical and scientific information had been detailed, full-time, to NASA Headquarters OPI.³¹ The USIA would be involved in numerous international activities, including the distribution of pamphlets and the broadcasting of pro-NASA radio programs.³²

The Reports Division edited material from both internal and external sources into its reports. The OPI drew up a complex “clearance procedure” for the reports. Key headquarters personnel would carefully review reports, and especially the President’s Report to Congress on the space program, through several drafts for accuracy. This document also included procedures for reviewing “statements and speeches prepared [by the OPI] for top management,” and articles and “minor reports.” In the event that there

³⁰ Bonney, memo to Glennan, 20 August 1959.

³¹ Bonney, memo to Glennan, 20 August 1959.

³² T. Keith Glennan, letter to Dr. Allen V. Astin, 9 September 1958, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

was not time for these complex review procedures, the Deputy Director and Director of OPI would have to sign off on “a first and final draft.”³³

By the end of 1959, the Headquarters Public Information Office alone had twenty-eight employees, not counting secretarial staff. In 1959, NASA released 725 news releases and four booklets for a total of nearly 4,000 printed pages. Each “Information specialist” had particular “beats” with which to work, such as Project Mercury or one of several satellite programs.³⁴

Bonney worried, in another memo, about public dissatisfaction with NASA due to the fact that NASA had not, as of yet, “caught up” with or “gone ahead” of the Russians in space exploration. The United States had launched its first unmanned satellite, Explorer I, on January 31, 1958, prior to NASA’s creation. Yet the Russians had already “surpassed” the United States by putting the first living creature, the dog Laika, into space aboard Sputnik 2. In truth, the United States had yet to further extend its realm of space exploration as of early 1960. Congress had been pressuring NASA “for a sweeping reorganization of the U.S. space effort.” Wanting to assuage such dissatisfaction, Bonney called for intensified, more precise use of multiple communications techniques.³⁵

One thing Bonney did realize was that OPI needed to systematize its plans and practices. He said that up until now, “the operations of OPI—while always consonant with the commonsense guide-lines laid down by NASA management—too often have

³³ National Aeronautics and Space Administration, Office of Public Information, memo, “Reports Division—Clearance Procedure,” December 1959, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

³⁴ Office of Public Information, memo, December 1959.

³⁵ Office of Public Information, memo, December 1959.

been reactive to sudden “crisis situations.” Bonney said that the OPI should manage its job “to the end that its activities are conducted to assure attainment of goals that have been clearly defined.” The quantity of OPI work had doubled in the past six months, the workload on weekends had increased to “weekday” levels. “In addition, each week, there are up to 250 press-interviews and 125 calls for photographs.” There were 30 staff members at the Washington OPI, and this was insufficient. Bonney called for the authorization of five more professional positions and six clerical positions.³⁶

Glennan did not let Bonney “off the hook,” replying that he should answer many of these concerns himself. As 1960 dawned, Glennan requested a new, full analysis of the activities of the OPI. He asked Bonney to “take a hard look at what is now being done, to determine what changes should be made in the scope of the functions now being performed and the amount of effort to be exerted.” The lengthy reply written by Bonney redundantly explained in painstaking detail every function of the office. Bonney had articulated his information many times before, and one suspects, when reading these words, that Glennan had been hoping that Bonney had gotten a stronger analytical handle on the OPI function.

Glennan could not have been pleased when Bonney revealed that it took his office approximately eight hours to finish a single press release: “the time involved in obtaining the necessary facts and writing a release is minimal. Most of the time is spent on coordination and clearance.” In 1959, the OPI released a total of 729 stories. Most of the working day of the six press officers, as much as seventy-five percent, was devoted to responding to queries and arranging interviews. The same “average day” would include

³⁶ Office of Public Information, memo, December 1959.

visits from 45 news media to the press section for specific information, and “one or more of those 45 daily visitors is seeking material that requires an interview with someone on the technical side of the house. A press officer arranges the interview and is present. This practice “is not only necessary to protect the agency interest, but in addition, is useful in keeping OPI personnel knowledgeable about NASA activities.”

He added that it took 24 man hours to create an information plan for the launching of a single specific space payload. This did not include travel time and time for coordination “with military services and others involved.” But this amount of time was less than was required the previous year, because “the working relationships in this area with cooperating agencies have been greatly improved.” However, “in the case of such novel experiments as Project Echo and the animal and man-carrying Project Mercury shots, many times 24 man hours will be needed.”³⁷

Instead of pursuing his own analytical transformation of the OPI, Bonney wanted to push this not insubstantial duty onto NASA historian Eugene Emme. The “Historical Program” was part of the OPI, recently created, consisting of one professional (historian Eugene Emme) and one clerical vacancy. Bonney said of this program, “In addition to the establishment of a rational program of historical documentation...this section will be responsible for the important—and heretofore largely lacking—function within OPI of program analysis and planning” (emphasis mine). Bonney said, “although it is inevitable that OPI will continue to spend a very large part of its energies “putting out fires”—so long as the fires continue to flare up throughout the agency, seemingly from spontaneous

³⁷ Walter T. Bonney, memo to T. Keith Glennan, 16 January 1960.

combustion—it is to be hoped that by sensible planning for the future and realistic analysis of past and present OPI activities, there can be achieved a higher degree of performance.”³⁸

One result of an increased workload without sufficient planning was a heavy overtime load for OPI employees. This was a phenomenon Bonney had never faced before. Overtime, Bonney said, had averaged 350 hours per month during the last six months of 1959. Bonney explained that this effort “does not include overtime by either the Director or Deputy Director of OPI...[overtime was necessary] to provide information service about NASA space experiments that are launched at odd hours; to supply essential service on Saturdays, and...to catch up with work which otherwise would fall hopelessly behind.”

Bonney drew several conclusions from his compilation of information, none of which proactively addressed improvements of the OPI’s qualitative performance. Instead, Bonney again defended the office against potential criticism. For example, he said, “Analysis of the work presently performed by OPI discloses little if anything that is being done which would not have to be done by someone else (ie NASA management) within NASA if OPI were to eliminate the function.” Also, “Quite apart from any consideration of present OPI activities, any plans for the future must reflect the fact that in fiscal 1961, NASA will be 60% larger in personnel, and nearly 100% larger in dollar appropriations. NASA programs in the months ahead will also increase greatly in complexity—and in public interest.” Bonney also exclaimed, “At the risk of seeming to sound self-serving, the work of OPI to date—despite the creakings and groanings of the

³⁸ Bonney, memo, 16 January 1960, 7.

operation, and the occasional spectacular blunder—has succeeded to a gratifying degree in reflecting the positive character of NASA’s organization, programming, and accomplishment.” Bonney, basically overwhelmed, suggested no real changes for the office.

As the number of NASA field centers increased and development of NASA human space projects accelerated, the number of field officers, and public relations concerns at the field centers, mounted. Bonney, however, was not concerned with exerting control over this growth or planning for the organizational issues that arose with such changes. Interestingly, in his memos to Glennan, Bonney never mentioned any activities of his “field staff,” or public affairs personnel, at the field centers such as Langley or Dryden. At this time, they were clearly not a significant part of Bonney’s somewhat shortsighted public relations vision for NASA.³⁹

On the few occasions that Bonney did try to include the field public information officers in his vision, he had little to offer them in terms of leadership or sponsorship. In the last week of February 1960, the OPI (sometimes called the PIO, or Public Information Office) held a staff conference attended by major headquarters personnel and field information officers. Although its goal is not clearly stated in any supporting documentation, it appears that the conference’s purpose was to coordinate Headquarters and field center public relations philosophy and technique. Yet the group discussed few actual changes or specific techniques for coordination. Harry Hamilton, Chief of the Photo Division at Langley Research Center, described the conference as “a difficult

³⁹ Bonney, memo, 16 January 1960, 9-10.

program damn well executed.” He noted a sense of “friendliness and cooperation of NASA PIO personnel in seeking an understanding and solution to minor problems of communication that exist between their operation and that of the field stations” and said he felt “development of a feeling that each of us has a definite role in the drama of Space Flight regardless of position or geography.”⁴⁰

H. Lee Dickinson, the head of Public Information at Langley, had more specific comments to offer Joe Stein. He felt that the conference was “an excellent means for consolidating public relations activities and for increasing the effectiveness of the PIO staff in carrying out the public relations policies and programs of the NASA...a major factor in the success of the conference was the decision to conduct the sessions away from...distractions...in the Headquarters PIO office.” Dickinson said that the discussions by “top officials” of the “policies, programs, and problems of the various research, development, and administrative organizations within NASA” were particularly helpful. According to Dickinson, the thoroughness of these discussions and the straight-from-the-shoulder answers by NASA officials to searching questions posed by the PIO...provided convincing evidence that NASA’s top echelon is strongly aware of the need for continuing cooperation among all concerned in assuring the success of the NASA public information program.”⁴¹

Dickinson found it useful to hear the problems and solutions of other field stations. He noted that the conference seemed to be a step towards closing “the void” that

⁴⁰ National Aeronautics and Space Administration, Harry Hamilton, memo, 7 March 1960, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁴¹ Hamilton, memo, 7 March 1960.

so often resulted when the Headquarters OPI “disseminat[ed] information on policies, programs, and procedures...[and promoted] dependence upon printed communications.” Dickinson hoped that the Headquarters would continue to sponsor such conferences in the coming years.

Matthew H. Portz of NASA’s Western Operations Office agreed with the high points noted by other staff members. However, he suggested some practical improvements for future conferences: to schedule fewer presentations and permit each speaker more time for questions. Portz sensibly advised that the NASA Headquarters staff “not mix up the management and technical presentations with public information discussions. Perhaps it would be better to get the policy talks out of the way first, followed by a day or so devoted exclusively to discussions among the PIOs.” Portz noted that there was no stenotypist present to provide a transcript following the meeting and suggested that one be present for the next conference. These remarks indicate that the conference, although useful in some respects, was, on the whole, poorly planned.

Stan Miller, Records Disposition Analyst of the NASA Dryden Flight Research Center, was not reticent in giving strong and pointed ideas for improvement of the conference. He said, “it seemed to me that several of the field officers could have made more effective presentations by a careful and objective study of their topics...some restraint in the discussion of details would be desirable, not only because of time limitations but because many of these are of interest only to a small part of the group.”⁴²

⁴² National Aeronautics and Space Administration, Stan Miller, memo, 9 March 1960, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

Perhaps most tellingly, Miller noted that he would have liked to have heard more about analytical philosophies involved with such categories as “OPI policies,” “Media Relations,” and “Community Relations with regard to Objectives of the Regional PIO.” He said that an “evaluation-proposal” (or analytical) approach would have been a much more useful approach to take at the conference than the “general description only” approach that had been taken. Miller came away with a large supply of facts “and a very real appreciation of the job ahead” but that he failed to “uncover any dynamic conclusions generated by the Conference.” He hoped that the objective of future conferences would be to “produce decisions and conclusions which may serve as guides in our everyday work.”⁴³ Clearly, Miller did not believe that Bonney provided sufficient guidance and structure to the field Public Information Officers.

Historian Eugene Emme had already been identified by Bonney as the individual to provide analytical guidance to the PIO. On February 26, 1960, Emme wrote a memorandum for record entitled “N.A.S.A. Public Information Staff Conference Conclusions and Recommendations.” This memo would both advise Bonney on public information policy and document the event for the NASA archives.⁴⁴

Emme drew several critical conclusions from the conference. The first was that NASA was “a going institution” growing into maturity and “[could] not pass the buck...there is no one to pass it to.” By 1960, NASA had become the fifth largest agency in the entire federal government. Emme especially appreciated Administrator Glennan’s

⁴³ Miller, memo, 9 March 1960.

⁴⁴ National Aeronautics and Space Administration, Eugene Emme, Memorandum for Record, 26 February 1960, Public Affairs Office file, NASA History Office Historical Documents Collection, NASA Headquarters, Washington, D.C.

participation in the conference. Glennan, unlike Bonney, “clearly, and most effectively, defined our mission...some of us in Headquarters needed this inspiration...There is no substitute for getting the philosophy of NASA’s top leaders right from them. When you meet the coach you feel like you are really on the team. Emme concluded that NASA “is now a going organization after a period of rapid growth. [We] must condition [and systematize] all of OPI’s future problems and procedures across the board.”⁴⁵

NASA, Emme said, was now an “intimate and inescapable” part of the larger Federal government structure. He presciently pointed out that NASA did not stand alone but was inextricably connected to Congress, “John Q. Public,” and the national political scene. Emme intelligently explained that “because of the confusion of the American public and the foreign man on the street concerning military ‘missiles’ and the scientific space mission, NASA is inescapably a part of the assessments made of U.S. military posture...missiles and space are intermingled in the minds of the unenlightened both at home and abroad on the nature of space technology.” Therefore, he said, the success of Project Mercury, as well as NASA’s use of military personnel, would keep NASA involved in all of the relevant “public opinion debates” about space.⁴⁶

Emme understood the broad scope of general NASA activities as well as public information activities. NASA, Emme said, must deal with other governmental agencies, as well as civilian enterprises, “as a sovereign entity.” He believed that NASA was “forced” to be a part of intelligence activities, “especially in-so-far as science and technology is a part of the total competition with the Soviets.” Positive relationships with

⁴⁵ Emme, memo, 26 February 1960.

⁴⁶ Emme, memo, 26 February 1960.

the DoD and the military services were important to preserve because of “NASA’s dependence on support and [the] inherent technological interrelationships between missiles and space vehicles.” Emme noted NASA’s involvement with the State Department on “our many phases international program (i.e. support of Mercury and other tracking requirements on a global basis as well as purely diplomatic and prestigial aspects).”⁴⁷

Emme emphasized the importance of Mercury to the public image of the United States, both within and outside national borders. He said, “Our USIA speaker, a research analyst and one well informed, clearly indicated that actions speak louder than any mere words...Dr Glennan pointed out his view on handling Mercury information as perhaps suggesting greater security.” Shorty Powers, the “Astronaut PIO” who had his hands full with the practical concerns of everyday astronaut interaction with the public, had countered this statement by pointing out “the difficulty of controlling information when you have 1500 eager newsmen, some 2500 contractors on Mercury, and very curious Congressmen all wanting to know everything and inclined to maximize any publicity they can individually promote.” Here, Powers described the conflicting priorities inherent in coordinating field center practices with Headquarters public relations policies.

At this time, the OPI had no solid contingency plan for Mercury “slippage and disasters.” Certainly, NASA needed a “full spectrum” of contingency informational plans for Mercury, worked out in advance for “any possible event.” Emme asserted the need for improved communication within NASA OPI, which was a necessary “standard feature of present-day organizations.” On the positive side, “it [could not] be ignored that

⁴⁷ Emme, memo, 26 February 1960.

the personal contacts we have had here the past few days, particularly with Glennan, Dryden, Horner and the other administration people, have been invaluable in promoting effective communications.”⁴⁸

Emme’s critique of OPI intra-agency communications was certainly justified, as an unpleasant event in March 1960 illustrates. This event showed the difficulties Bonney faced in coordinating information between field centers and headquarters. On March 23, 1960, Bonney wrote to Joe Stein about communications problems between OPI-Washington D.C. and the NASA launch site at Cape Canaveral, Florida. There was a significant “space shot” on March 23: the launch of the Explorer S-46 satellite. Unfortunately, the launch failed. NASA coverage of the launch came to a standstill because phone connection was not made between the public information offices of the Cape and Washington at the appropriate time. In Bonney’s words, “one important consequence was that our Washington media customers were left at the post.” Glennan, who was being interviewed by journalists that day, did not get information about the shot on time. Bonney said, “all of this may add up to a trifle...if so, it is a tremendous trifle. Our dilemma was very real; we could not really give useful word [to Glennan] until too late to be helpful.”⁴⁹ Although Bonney knew there was a problem with connecting phone lines, he never managed to ascertain whether his field information staff or the technology itself was at fault.

⁴⁸ Emme, memo, 26 February 1960.

⁴⁹ National Aeronautics and Space Administration, Walter Bonney, memo, 23 March 1960, Public Affairs Office file, NASA History Office Historical Documents Collection, NASA Headquarters, Washington, D.C.

Also in 1960, NASA administrators decided to relocate the Space Task Group for Project Apollo development because of the vast resources needed to land men on the moon, such as an increased workforce, research and development facilities, and mission training facilities and equipment. The STG could not pursue an organizationally intricate program like Project Apollo while remaining administratively dependent on NASA Headquarters and the small Langley Research Center. The expansion of the STG would necessitate a stronger public relations program. The new Manned Spacecraft Center in Houston would direct human spacecraft development, testing, and mission operations.

The Army's Ballistic Missile Agency, under the direction of Wernher von Braun, officially became a NASA installation in spring 1960. Von Braun, who faced his own public relations difficulties in making his way as a former Nazi engineer creating the next generation of all-American space rockets, did not want a large ceremony covered by the national press corps. The public-relations savvy von Braun knew that this could compromise NASA's narrative of American technological indigeneity. Instead, he had Bonney tell Glennan, "Army would be most pleased if the DOD Huntsville transfer was accomplished with only low-key ceremonies. Von Braun wants only minimal, local press coverage."⁵⁰

Only weeks after the U-2 crisis of April 1960, the creation of a new NASA office on May 27 relieved the Office of Public Information of some of its burdens. Glennan, deciding that the OPI needed relief from some of its duties, appointed Shelby Thompson as NASA's first Director of the new Office of Technical Information and Educational

⁵⁰ National Aeronautics and Space Administration, Walter T. Bonney, memo to T.Keith Glennan, 17 June 1960, Public Affairs Office File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

Programs (OTIEP). Thompson came to NASA from the U.S. Atomic Energy Commission (AEC), where he had been Deputy Director of the Division of Information Services. The office would have responsibility for the acquisition and dissemination of technical information, such as scientific reports. Additionally, Thompson's office would conduct educational programs about NASA's work. The office would report to NASA's Associate Administrator.⁵¹

Like Shorty Powers, Shelby Thompson was part of the World War II and postwar government public relations "boom"⁵² and had a more sophisticated public relations career than Bonney. Thompson had been AEC's first Chief of Public Information Services. He had been appointed Deputy Director of AEC's division in charge of public and technical information programs in 1955. While head of public information there, he was in charge of the "first observation by U.S. newsmen and civil defense representatives of a nuclear fission bomb detonation in Nevada." Thompson had also been Executive Officer of the Bureau of Publications and Graphics, Office of War Information, and Special Assistant to the Executive Director of the U.S. Civil Service Commission between 1942 and 1944. He had held many other federal posts involving public information; his first post, in 1939, was as information specialist with the Department of Agriculture. Thompson, like Shorty Powers, had previous experience with the high-technology government public affairs endeavors of World War II and the Cold War. He

⁵¹ National Aeronautics and Space Administration, News Release 60-214, "Shelby Thompson Appointed Director," 27 May 1960, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁵² Scott Cutlip, *The Unseen Power: Public Relations, a History* (Hillsdale, New Jersey: Erlbaum Associates, 1994), 528.

was an appropriate choice for “public relations” in the new NASA era. NASA, as a “going agency” (to use Emme’s words) was now a significant part of the federal government system, and needed public information employees who understood the importance of dynamic public relations policy. Glennan transferred several Public Information programs to OTIEP, including “NASA historical exhibits, motion pictures, and reports.”⁵³

A major reason for creating a separate Office of Technical Information and Educational Programs was to better perform both immediate and longer term analytical public relations policies. As Glennan wrote, “during the initial period of the agency’s development, ‘spot news’ and other public reporting activities have been better handled than the painstaking, long-term compilation and dissemination of new knowledge to the scientific, educational, and other specialized publics at home and abroad.” With the decision to separate the technical information function, and with the new office reporting directly to the Associate Administrator, NASA leaders showed a prescient realization that the young OPI could not be all things to all people.⁵⁴

The OPI did retain some responsibility for audiovisual materials. Yet some of these responsibilities were contracted out to private companies, just as NASA contracted out the building of the Mercury spacecraft to McDonnell Aircraft Corporation. Indeed, even within the OPI, NASA tied itself closer to private industry to get its jobs done in a

⁵³ National Aeronautics and Space Administration, Announcement 162, “Reassignment of Certain Technical Information Functions in Headquarters,” Public Affairs Office File, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁵⁴ National Aeronautics and Space Administration, Agenda for Meeting of NASA Advisory Committee on Organization, 7 July 1960, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

timely manner. In turn, this led to further institutionalization of the narrative of corporate benevolence within NASA publicity: where corporations promoted NASA, they also promoted themselves, both explicitly and implicitly. To the OPI, the Convair Astronautics Division of the General Dynamics Corporation proposed that it be the company to shoot the “official” film of the first orbital Mercury flight. The film would focus primarily on the “history-making” flight, and hence the first astronaut, but would also allude to the thousands of engineers, managers and others, working for both NASA and contractor companies, who made the flight possible.⁵⁵ In a memo to Bonney dated October 20, 1960, Shorty Powers outlined the advantages of the Convair proposal: “the coverage and the finished film product can be acquired through our existing contractual relationship with the Air Force (BMD)—Convair” and “the proposal... includes the delivery of a finished film product—a capability to which we would not otherwise have access.” The proposal was enthusiastically approved by Robert Hemmig, Byron Morgan and Melvin Day of the OTIEP.⁵⁶ This agreement, beneficial to all involved, shows the advantages of close cooperation between OPI and OTIEP.

After Administrator Glennan encouraged Bonney to take a job outside NASA, Bonney left the agency on November 15, 1960. Glennan, who would leave NASA himself shortly after the inauguration of President John F. Kennedy in January 1961, wanted the transition within NASA to be a smooth one. He thought that a “fresh start” would be better for both the OPI and for the agency as a whole. Glennan appointed O.B.

⁵⁵ Convair Astronautics, Proposal for First Project Mercury Manned Orbital Flight Film, August 1960, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁵⁶ National Aeronautics and Space Administration, Robert Hemmig, memo, 26 October 1960, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

Lloyd as Director of OPI. Joe Stein of the OPI's News Division, who would continue to perform much of the office's most difficult work, was promoted to Deputy Director. Lloyd, who had worked for UPI from 1946 to 1959, stayed in the office only a few months and would soon join the staff of Vice-President Lyndon B. Johnson. NASA's next administrator, James E. Webb, would appoint a new public relations director. Stein wrote to Glennan, "[Bonney's departure] occurs at a time when the NASA likely will face a number of public relations problems. Most of these (though not all) stem from the presidential election and its impact on our agency."⁵⁷

Stein, influenced by Bonney's straightforward yet unanalytical view of public information, offered Glennan some of his views on NASA OPI. He asserted that the OPI should serve as the "watchdog of progress" for all parts of NASA and must serve as a "conscience" for the agency. Indeed, "the members of the OPI staff must scrutinize what the agency is doing and how it is doing it...their duty is thus to ferret out problems of public relations before they occur." Stein reaffirmed the necessity of maintaining the "Do first, talk second" policy: "there should be no policy of "publicity" or of catering to serve the press but to report constantly on NASA and its meaning first for the people of our country and secondly for a waiting world outside our borders."⁵⁸

The information program, Stein said, should "seek to explain science to everyone...there is a huge task...here...interpreting technical material is not the easiest kind of work...we are fortunate, at least, in having an avidly interested audience—'space'

⁵⁷ National Aeronautics and Space Administration, Joe Stein, memo, 14 October 1960, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁵⁸ Stein, memo, 14 October 1960, 2.

is the magical word of the day.” Also, he said, NASA should intensify its efforts to identify NASA’s name with “space.” Yet OPI staff should never try to “sell” NASA information or to play favorites “among editors, reporters, writers, broadcasters, or publications anywhere.” Strict controls should be kept on the release of information. Cooperation should be enforced between OPI and OTIEP, and OPI would improve the execution and organization of its audio-visual activities.⁵⁹

Then, on December 28, 1960, stories broke in newspapers around the country about a major change in NASA information policy. Glennan finally reversed the infamous rule of “do first, talk second.” NASA decided that it would “release full information, for publication, in advance on all future space shots.” Walter Bonney had suggested this change in policy several years before and had been ignored. Glennan said the new policy was meant to give the public more information, “and to stress the experimental nature of each new step [in space exploration].” Glennan said he acted on the advice of “journalist friends” when he decided to change the policy, although the record shows that journalist complaints, published on the editorial pages of newspapers, probably influenced his position. He said he had been “troubled for some time about the absence from many published news stories on our experimental launches of the fact that these truly were experiments, and as such carried a substantial inherent probability of failing...how to get this thought across to the public without appearing to excuse in advance a possible failure or partial failure has been a real problem.” He did not want the public to “view with undue concern and alarm what we regard as experimental procedures and results.” A year later, Washington Post editors commended the policy,

⁵⁹ Stein, memo, 14 October 1960, 3.

writing, “It is inevitable that the exploration of the remote regions of outer space will involve mishaps and disasters. The public mind must be prepared for this... candor is a compliment to maturity; secrecy would be insulting and futile.”⁶⁰

After O.B. Lloyd, Jr. replaced Bonney as Director of Public Affairs, a new memo went out in March 1961, written by Joe Stein, describing the new and improved structure of the Office of Public Information. In this memo, the OPI was described as a “service of the Administrator’s Staff” that was responsible for creating and implementing “public information and public relations programs of the NASA.” The OPI provided internal information for the agency staff, “and external public information through all channels of the news media; through direct dealings with the general public; through cooperative efforts with other Government agencies, and through both foreign news media and the USIA.”⁶¹ This was the first time the OPI had a truly formalized structure.

The OPI, the memo said, performed services that sometimes overlapped the functions of the Office of Technical Information and Educational Programs (OTIEP). OTIEP, however, was “an agency operational function” reporting to the Associate Administrator as opposed to a “service of the administrative staff,” like the OPI. Yet “the operations of the two Offices do not lend themselves to easy or clear separation because Technical Information and Education Programs inevitably bring about some impact on public information; similarly, Public Information programs are made up of many material

⁶⁰ Editorial Board, “Editorial,” *Washington Post*, 23 Jan 62, 3.

⁶¹ National Aeronautics and Space Administration, T. Keith Glennan, memo, March 1961, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

efforts in Technical Information.” The two offices would have to continue to keep each other informed about major activities.

This memo contained the first systematic organizational schematic of OPI, including both major elements of “Headquarters and Field.” The Headquarters staff advised and consulted with the Administrator and Senior Staff “in developing and carrying out policy; it supervises and monitors the total information programs on the Governmental, national, and international levels.” The field element was “concerned more closely with special projects of the information program and concentrates its efforts on the regional and local sale.” Nonetheless, “the Field OPI [was] under the general supervision of the Deputy Director of the Office of Public Information.”⁶² Such supervision would often prove very difficult to enforce as NASA activity increased, and field centers took on more responsibility for projects and larger shares of the NASA budget.

As of March 1961, the Headquarters OPI staff had twenty-two members, “14 professionals and 8 non-professionals.” OPI was represented, in the field, “by at least one qualified information specialist at each of the NASA Centers and Stations (except Wallops) and these are in frequent touch and contact with the Headquarters staff.” Although the Field Information Officers reported to local management administratively, for such matters as salary, they were technically “responsible to the Director, OPI for information programs, policies, and practices.”⁶³

⁶² Glennan, memo, March 1961.

⁶³ Glennan, memo, March 1961, 2.

The newly organized OPI used four divisions in carrying out its functions: these were News, Media Services, Audio-Visual and Administrative/Communications. While “covering” the agency, the news division kept informed of NASA activities, plans, programs, policies, and objectives in order to write or produce written information for release “through all media channels, and for originating and managing special events, news conferences, interviews, broadcasts, and telecasts.”⁶⁴

Activities were carefully planned for each branch. Media services, or “the News Desk,” distributed written and other material both externally and internally. It also handled special queries and other dealings with the general public; monitored current events, and conducted liaison with other government agencies. The Audio-visual department had responsibility for “all motion picture and still photography, slides, charts, models, props, art work, tapes and transcriptions of current interest for OPI programs.” The administrative and communications branch looked after matters such as budget, travel, procurement, logistics, personnel, and security, and, very importantly, “[managed] [OPI] communications.”

During Project Mercury, the Headquarters OPI staff constructed a Washington news pool, for which Paul Haney, who was named head of the News Division in 1960, later claimed to be responsible. Haney made the initial contact with newsmen to form pools and worked with the Navy to arrange for the relay of information from the crew splashdown sites back to the central press center. This also led to the establishment of a

⁶⁴ Glennan, memo, March 1961, 2.

press center at Cape Canaveral, and because of limited facilities, it restricted the number of newsmen that could attend a launch operation.⁶⁵

The month of April 1961 was a dramatic turning point in the John F. Kennedy presidency and in the U.S. space program. On April 12, the Soviets shot Yuri Gagarin into space, achieving yet another “first” for spaceflight. Gagarin not only flew in space, but achieved earth orbit. The Bay of Pigs debacle on April 17, in which a U.S.-trained force of Cuban exiles unsuccessfully attempted to invade southwest Cuba and overthrow Fidel Castro’s government, dealt a second blow to Kennedy’s public and political image, both nationally and internationally. Taken as a whole, the events of April 1961 would inspire Kennedy, after consulting with science advisors and NASA Administrator James Webb, to commit the United States to a moon landing. The program, announced in May 1961, would “put a man on the moon and return him safely to the earth,” and had to be successful by the end of the decade. This, surely, would be a leg of the space race the United States could win. It would also fit comfortably, both rhetorically and ideologically, into Kennedy’s “New Frontier” policies.⁶⁶

Almost simultaneously, public relations concerns emerged in the “hidden” space program. The Department of Defense began to grow anxious about information in industry contractor press releases pertaining to classified military space technology, and

⁶⁵ Paul Haney, interview by James Grimwood, 8 April 1968, Center Series, Manned Spacecraft Center Historical Documents, Alfred R. Neumann Archives, University of Houston-Clear Lake.

⁶⁶ Walter McDougall, ... *The Heavens and the Earth: a Political History of the Space Age* (New York: Basic Books, 1984), 201.

asked the House defense appropriations subcommittee for stronger control over every aspect of contractor budgets, including publicity budgets.⁶⁷

When Yuri Gagarin became the first human to fly into space in April 1961, the world yet again stood in awe of Soviet space achievement and believed the Soviets were significantly ahead in the “space race.”⁶⁸ Robert Gilruth and James Webb, who Kennedy had appointed NASA administrator in February 1961, were not entirely surprised at the news. Indeed, “NASA officials from Webb and Dryden down to Gilruth and Powers, at least six months earlier, had planned their comments for this occasion, just in case.”⁶⁹

When Shorty Powers, “Astronaut PIO,” was awakened at his home by a UPI phone call at 4 a.m. that day and asked to comment on the incident, he mumbled rudely to the reporter, “It’s three o’clock in the morning, you jerk; we’re all asleep down here,” and abruptly hung up. The reporter made no reference whatsoever to Powers in the UPI article.⁷⁰ NASA leaders were horrified to hear of the incident, but Powers refused to take any responsibility for it. In a telegram to OPI director O.B. Lloyd, he “specifically refused” to write a letter of apology to the United Press reporter. Indeed, it was his intention to “write a letter to the President of the United Press International advising him that I think his agency owes me and the American people an apology for irresponsible reporting. The director Space Task Group [i.e. Robert Gilruth] concurs in my position.”

⁶⁷“Washington Roundup: Information Blackout,” *Aviation Week* 30 (12 June 1961): 25.

⁶⁸ McDougall, ...*The Heavens and the Earth*, 246.

⁶⁹ Loyd Swenson, James Grimwood, and Charles Alexander, *This New Ocean: A History of Project Mercury* (Washington, D.C.: National Aeronautics and Space Administration, 1998), 332.

⁷⁰ United Press International, “187-Mile Height: Yuri Gagarin Makes the Flight in 5-Ton Vehicle,” *New York Times*, 12 April 1961, 1.

Powers said he could not prevent NASA from writing a letter of apology on his behalf, but declared that “if it is the intention of NASA to do so, I will interpret the letter to be a public announcement that my services are unsatisfactory...it would seem reasonable that if those services are no longer desired [by the NASA administrator]...the Air Force can direct me to Air Force duty again.”⁷¹ Later, NASA leaders found out that Powers had spoken angrily to several other reporters who had called him in the middle of the night, including Jay Barbree of NBC news.⁷²

Despite Powers’s temperamental attitude and the fury of many at NASA, he was not dismissed from the agency. This was, after all, the month before Alan Shepard’s landmark flight, the first flight of the program. NASA could not afford to lose their experienced “Astronaut OPI.” In defense of his sometimes controversial actions, Powers once said in an interview that no one ever explained to him how his “hands on” portion of the public information program should be developed; rather, “that was [his] job.”⁷³ As Julian Scheer once noted in an interview, Shorty Powers had developed and honed his techniques in an era during which several PAO directors had come and gone from NASA headquarters. Coordination of field and national policy could be a problem in such a situation.

Amidst the day-to-day drama of early human spaceflight, Historian and OPI staff member Eugene Emme understood its historical significance. Emme worked on the

⁷¹ National Aeronautics and Space Administration, Shorty Powers, telegram, 15 April 1961, John “Shorty” Powers biographical file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁷² Jay Barbree, *Live From Cape Canaveral: Covering the Space Race From Sputnik to Today* (Washington, D.C.: Smithsonian Books, 2007), 52.

⁷³ Shorty Powers, Interview by John Merrifield, June 1969, Center Series, Manned Spacecraft Center Historical Documents, Alfred R. Neumann Archives, University of Houston-Clear Lake.

inception of a true NASA historical program. In his view, “serious historical leakage” was occurring at most of the NASA centers, despite the presence of two professional historians at the Marshall Spaceflight Center (Huntsville). Emme believed that the nascent NASA History Program had not yet managed to rid itself of the “public information” aura. He said, “It is absurd that a billion dollar agency only has a single historian in Headquarters, for NASA requires a historical program. If NASA leaders just want a single historian, they should not confuse it with an historical program that can fully support management and internal information requirements.”⁷⁴ Although the history program would remain on the OPI’s “back burner” for several years, Emme ultimately would succeed in reaching some of his goals.

Public relations at Cape Canaveral during Mercury launches could be somewhat disorganized. The site was originally run by the Department of Defense to test missiles for military purposes. In 1959, Administrator Glennan had established a NASA office at the Cape to improve the agency’s communications with the Cape’s military commander, General Leighton Davis, and to provide general supervision for NASA launches. Kennedy’s announcement of the lunar program led to an expansion of the site onto nearby Merritt Island. Security officer Donald Blume largely controlled public and press access to the Mercury control center and also assisted the astronauts and their wives with local news interviews.⁷⁵ In 1962, Kurt Debus of von Braun’s Huntsville rocket team

⁷⁴ National Aeronautics and Space Administration, Eugene Emme, memo, 20 April 1961, Public Affairs Office file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁷⁵ Donald D. Blume, Interview by Robert Merrifield, 21 April 1967, Center Series, Manned Spacecraft Center Historical Documents, Alfred R. Neumann Archives, University of Houston-Clear Lake.

came to the Cape to lead a permanent NASA launch site, the Launch Operations Center. From this point on, the center did have a small, permanent public relations staff. The site was renamed the John F. Kennedy Space Center in 1963 after the president's assassination.⁷⁶

Astronaut Alan Shepard's long-awaited Mercury flight occurred on May 5, 1961, making him the first American to go into space. NASA did not reveal to anyone which of the Mercury "first team" astronauts would be the first into space until the morning of the flight. Shepard's ballistic flight, powered by a Redstone rocket, placed him into space for fifteen minutes; his mission was not designed to achieve orbit. The flight had a more immediate effect on the Space Task Group, Langley, and Cape Canaveral public information staff, who had to instantly process the flight's repercussions for the media, than it did on the Headquarters OPI.

Certainly, the Mercury era was the "golden age" of Shorty Powers' career. Throughout project Mercury, he tried to strictly control press access to the astronauts and to make himself part of each astronaut mission. Powers, who would soon be known to the nation and the world as "the Voice of the Astronauts," made the most indelible mark of any public information officer during the historic mission. During the flight, Powers sat in Mission Control and provided a running commentary to the press. Brian Duff, who served as head of the NASA Public Affairs Office in the late 1960s and then as head of Manned Spacecraft Center (Houston) Public Affairs in the 1970s, described Shorty Powers' distinctive role as Project Mercury commentator: "In the early days you thought

⁷⁶ Kenneth Lipartito and Orville Butler, *A History of the Kennedy Space Center* (Gainesville: University Press of Florida, 2000), 78.

you were hearing space, but you really were hearing Shorty [John] Powers telling you about space. Shorty Powers was, of course, the first voice of Mercury. Even with Shorty, there was a different style.” In Duff’s opinion, “There was clearly a PR [public relations] sense, in the NASA operation, that didn’t exist in other government R&D programs.”⁷⁷

Powers certainly had a way with words, and according to Duff, “invented...a phrase that those of us in the business used: ‘We have a calm, cool and collected astronaut.’ He didn’t have any more idea that it was a calm, cool and collected astronaut than some guy in the press box...about a quarterback on the field. It was totally subjective on Shorty’s part. But he thought his job was to inject color into the program. Later we got away from that sort of thing and tried very hard not to inject color but to let the voices speak for themselves.” During Shepard’s flight, Powers also said of Shepard’s experience, “Everything up there is A-O.K.,” creating one of the twentieth century’s most famous catchphrases. After the flight, he talked eagerly for hours with reporters about Alan Shepard and the Mercury program.⁷⁸

President Kennedy and politicians lauded Shepherd’s achievement. Reporters raved about Shepherd’s flight in newspapers, and commended NASA’s “open” information policy. Philip Dodd wrote that “secrecy [was] given no role in [the] U.S. Mercury shot.”⁷⁹ They praised Shepherd for insisting that the NASA “team” share credit

⁷⁷ National Air and Space Museum, Brian Duff, interview by John Bauer, 24 May 1989, <http://www.nasm.si.gov>.

⁷⁸ Duff, interview, 24 April 1989.

⁷⁹ Philip Dodd, “Secrecy Given No Role in U.S. Mercury Shot,” *Chicago Daily Tribune*, 29 April 1961, 5.

for the flight, and for acting as “something of a poet, something of a statesman, but most of all a Yank with good nerves, plenty of courage, and a distaste for big talk.”⁸⁰ For better or worse, Shepherd had Powers to engage in “big talk” for him.

Meanwhile, Virgil I. “Gus” Grissom prepared for MR-4, the flight of Liberty Bell 7. This flight was similar to Shepard’s mission and included a fifteen-minute ride up into space and back down again. Grissom’s spacecraft was equipped with a new explosive hatch that would theoretically accelerate the pilot’s egress. The hatch cover blew while Grissom and the Liberty Bell 7 awaited recovery teams on the Atlantic Ocean, almost causing Grissom’s death by drowning. Although Grissom survived, the spacecraft sank to the bottom of the ocean, along with expensive cameras, pictures and other records from the flight. Within NASA, some believed that Grissom had unwisely and accidentally pressed the release button. Although ultimately it was proven that the hatch had blown by itself, Grissom held some resentment towards NASA leaders’ and astronauts’ informal accusations that he was at fault. Publicly, NASA and most journalists treated the flight as a success and portrayed Grissom as another all-American hero.⁸¹

NASA had now accomplished two manned, sub-orbital missions, and the STG started work on orbital flights launched by the Atlas. Sending a man into orbit around the Earth demanded more of the astronaut and flight controllers and of the capsule itself,

⁸⁰ Edward Folliard, “250,000 Acclaim U.S. Astronaut; President, Congress Honor Him,” *Washington Post*, 9 May 1961, A1.

⁸¹ Philip Dodd, “How Space Capsule Sank!” *Chicago Daily Tribune*, 22 July 1961, 1; Marvin Miles, “Astronaut Forced to Swim as Capsule Sinks,” *Los Angeles Times*, 22 July 1961, 1; John Finney, “Unplanned Swim Leaves Grissom a Little Uneasy,” *New York Times*, 22 July 1961, 1.

which would need to perform certain critical maneuvers and sustain the astronaut for many hours rather than fifteen minutes. This meant further development flights involving “robot pilots” and a chimpanzee, Enos, which successfully overcame early issues with the new worldwide tracking system. Meanwhile, the success of the Soviet space program was underlined by the 17-orbit flight of Gherman Titov on August 6, 1961.

Near the end of January 1962, a ritual began at Cape Canaveral that would continue throughout the space program: the gathering of hundreds of members of the news media to cover a NASA launch. Glenn’s flight was ultimately delayed for two weeks due to a launcher problem and bad weather. Finally, on the morning of February 20, 1962, John Glenn was launched into the Florida skies and orbited the Earth three times in his Friendship 7 spacecraft. For NASA and the American people, this first orbital mission helped to prove the viability of space travel. Approximately 100 million Americans watched the networks’ television coverage.⁸²

The flight was successful, although an erroneous instrument indication warning alerted astronaut and crew that the spacecraft’s heat shield was no longer locked in the appropriate position. Glenn was advised not to jettison a retro-rocket package that had slowed the spacecraft for its return to Earth, because ground controllers believed the package’s straps would keep the heat shield in place during re-entry, if the signal was accurate. Luckily, the signal was not accurate and the capsule returned safely to Earth. Glenn, the most outwardly patriotic of the astronauts, returned to Earth and to a hero’s

⁸² Larry Wolters, “Critic Praises TV for a Superb Job: History Made as Public Watches,” *Chicago Daily Tribune*, 21 February 1962, 5.

welcome. His flight inspired President Kennedy to first refer to space as a “new ocean” which the United States must chart. More than any other flight of the Mercury Program, MA-6 was a public relations bonanza for NASA. News articles reporting on Glenn’s flight outnumbered those reporting on Grissom’s flight by a factor of three.⁸³ Shorty Powers remarked, “The public reaction to the Glenn flight was so tremendous and there was so much hero worship that developed out of it that I think it was a perfectly normal thing for some individual jealousies [among the astronauts] to develop.”⁸⁴

Although Donald K. “Deke” Slayton was scheduled to pilot the next three-orbit flight (MA-7), flight surgeons advised that he be removed from flight status due to a suspected heart condition. Air Force Pilot M. Scott Carpenter took his place. This was the first Mercury flight to concentrate substantially on experimentation and science, a situation which pleased Carpenter immensely. Carpenter focused on experiments including photography and studies of liquids in micro-gravity. He also took time to enjoy the view from orbit. Unfortunately, Carpenter’s scientific and imaginative zeal did not facilitate a perfectly executed flight, and Carpenter did not adhere to the flight plan. Shorty Powers called the Carpenter landing “the longest 26 minutes in my life.” Because of communication problems, for some minutes at the Mercury Control Center, Powers and some of the controllers were uncertain as to Carpenter’s safety and whereabouts. Powers “wouldn’t guess or speculate on what was happening or what was going to

⁸³ See, for example, “Glenn Goes!: Capsule Hits Orbit in 13 Minutes,” *Los Angeles Times*, 20 February 1962, 1; Philip Dodd, “How Glenn Did It!” *Chicago Daily*, 21 February 1962, 11; Robert Hartmann, “Glenn Points the Way for America,” *Los Angeles Times*, 21 February 1962, A4.

⁸⁴ Powers, interview by Merrifield, June 1969.

happen other than to project the flight plan...I was thumbing through my paperwork for my contingency plan to figure out how I would report a lost astronaut.”⁸⁵

When Carpenter fired the retro-rockets that would allow him to re-enter the Earth’s atmosphere, the attitude of his spacecraft was incorrect, and he landed over 200 miles off target. Despite the confusion, NASA never entirely lost track of his location, but it took several hours for support crew to reach him and for Carpenter to establish full radio contact. The flight, Aurora 7, landed on May 24, 1962. Despite the fact that Carpenter was relaxed, happy, and never in any danger during the flight or landing, his “off-target” splashdown displeased several practically-minded astronauts, engineers and managers at NASA, many of whom regarded Cooper’s performance as “below standard.” Carpenter never flew in space again. NASA leaders, whether directly or indirectly involved with public relations, must have been chagrined at the many detailed news articles reporting both the flight’s mistakes and the communications problems on the ground.⁸⁶

The next mission, MA-8, launched on October 3, 1962, would require six orbits. Therefore, much attention had to be paid to ensuring adequate supplies of electrical power and oxygen, and to removing carbon dioxide efficiently from the cabin. The flight of Sigma 7 by Walter “Wally” Schirra was largely uneventful. The astronaut conserved fuel supplies zealously and splashed down in the Pacific fewer than five miles from the

⁸⁵ Powers, interview by Merrifield, June 1969.

⁸⁶ “Carpenter’s 3-Orbit Journey is Marked by Mishaps,” *Wall Street Journal*, 25 May 1962, 2; “35 Fearful Minutes; Carpenter is Safe! Drama at Sea,” *Chicago Daily Tribune*, 25 May 1962, 1; Marvin Miles, “Spaceman’s Saga: Astronaut Saved From Atlantic,” *Los Angeles Times*, 25 May 1962, 1.

target. Most at NASA concurred with Schirra's declaration that he had completed a "textbook" flight.

It was some months before NASA would push the existing spacecraft to its limits in the 22-orbit flight piloted by Gordon "Gordo" Cooper, launched on May 15, 1963. The astronaut described the mission as one of "a flying camera," in which all he did was take "pictures, pictures, pictures!" Cooper performed some other experiments as well, surprising earth dwellers by commenting that from orbit, he could see individual houses if lighting and background conditions allowed. The 34-hour, 20-minute flight, during much of which Cooper slept during scheduled periods, only became stressful when an electrical failure forced Cooper to re-enter the atmosphere using manual control. He did this "perfectly," according to astronaut Gene Cernan, and splashed down in the Pacific just four miles ahead of the recovery ship. Cooper gave the first and only "scientific debriefing" following a Mercury mission. Approximately 4.5 million people witnessed his particular "ticker-tape" parade down New York City's Broadway. NASA leaders, along with the press, praised his flight enthusiastically.⁸⁷

Several of the astronauts, and particularly Alan Shepard, had hoped for one more long-duration mission for Project Mercury. NASA's plans and resources were already focused on Projects Gemini and Apollo, which were far surpassed Mercury in technical sophistication and therefore had much more potential to bring national prestige to the United States. National leaders, and NASA leaders, craved this prestige, especially as the Soviets continued to outstrip the U.S. in the "space race." As one historian states,

⁸⁷ Howard Simons, "Cooper: Champion Lensman in Space," *Los Angeles Times*, 17 May 1963, 2; Richard Witkin, "Cooper Maneuvers to a Bulls-Eye Landing," *New York Times*, 17 May 1963, 1.

“Soviet missions about the time of Gordon Cooper’s flight were achieving four times as many orbits with two craft (one with a woman aboard) in space at the same time.”⁸⁸

In the years from 1959 to 1963, NASA public relations completed much of its transformative “saltation.” It continued the meta-narrative and smaller narratives, applying them to the OPI itself and to vivid public characterizations of the astronauts and early space missions. Yet neither the extensive newspaper coverage of the Mercury flights, Shorty Powers’ colorful phrasing during missions, nor the new organizational structure of the OPI were the most dramatic public relations development of Project Mercury. A major avenue of “NASA publicity” that “used” the Mercury Seven to the hilt was *LIFE Magazine*. Alan Shepard, for instance appeared on the *LIFE* cover twice in May 1961. Both articles extolled him as an American hero, and his space capsule as a marvel of American technological progress. Although *LIFE* was not “officially” a part of the OPI, the *LIFE*/NASA partnership nonetheless showed how Cold-War era corporate journalism and the OPI intersected to create a powerful new mode of advertising and promotion for NASA.

⁸⁸ Arnold, *Man in Space*, 47.

CHAPTER SEVEN

THE *LIFE* MAGAZINE CONTRACT

Perhaps the most significant public relations endeavor of Project Mercury was produced by the *TIME-LIFE* corporation and not by the NASA Office of Public Information. Yet, unbeknownst to its audience, this highly visible, profitable and narrative-rich project was largely shaped and regulated by NASA administrative and public information offices, as well as by *TIME-LIFE*'s own commercial concerns. Beginning in January 1959, editors of *LIFE Magazine* began to “court” NASA and the astronauts with the objective of preparing general stories on Project Mercury. Thus began a fruitful relationship between *LIFE* and NASA that would last until the end of the next decade. Through the NASA public relations meta-narrative and smaller narratives, the *LIFE* stories solidified the astronauts, and space exploration, as symbols of American heroism and democracy that would prevail over Soviet Communism. The *LIFE*/NASA relationship gave rise to a particularly commercial version of NASA public relations. *LIFE* created a glamorous public image for NASA that could never have been developed in the agency's Office of Public Information, although the OPI certainly helped to shape its creation.

In the *LIFE*/NASA photo essays, an emphasis on the ‘human factors’ of spaceflight would far overshadow concrete discussions of Project Mercury's

technological development. The purpose of the *LIFE Magazine* stories was not to showcase particular engineering achievements but to sell NASA as the embodiment of purely American heroic ingenuity and technological triumph. By this time, NASA had realized that its image-making machinery was nearly as important as its spaceflight machinery. NASA public relations had become essential in its own right, not merely as a way of smoothing relations between NASA and other government branches or of fighting for agency survival but as a popular purveyor of Cold War-era American values to the nation and the world.

NASA would now appear regularly not only in the aerospace trade press journals (such as *Aviation Week and Space Technology*), in newspapers, and in the occasional television news feature but in the large, full-color photo spreads of America's most popular weekly magazine, alongside Hollywood celebrities such as Grace Kelly and world leaders such as Charles de Gaulle. Howard McCurdy says, "Both NASA officials and the press contrived to present the seven astronauts, whose public images were as carefully controlled as those of movie idols or rock music stars, as embodiments of the leading virtues of American culture in the 1950s."¹

In order to understand why *LIFE* and NASA's Mercury 7 astronauts were such a good fit for one another, one should first examine the origins and history of *LIFE Magazine* itself. Conservative media mogul Henry Robinson Luce founded *LIFE Magazine*, as well as *Fortune* and *TIME* magazines. Luce "revolutionized modern

¹ Howard McCurdy, *Space and the American Imagination* (Washington, D.C.: Smithsonian Institution, 1997), 88.

journalism” and viewed his magazines as “vehicles for promoting patriotism in America.” Luce often blended fact with opinion in magazine stories and sometimes failed to distinguish between “news” and “editorials.” David Halberstam says, “Luce’s printed version of what he felt events should have been often obscured what they in fact had been.”²

Luce published an essay in the pages of *LIFE* called “The American Century” in 1941; this work proved to be highly influential. Here, Luce expressed his desire to make “a truly American nationalism” as natural to twentieth-century Americans as the airplane or the radio. Luce showed a fascination with American aviation as a “microcosm of good international relations” during the war years; Jenifer Van Vleck says, “The airplane was a fitting example of Luce’s conflation of internationalism and nationalism. Aviation unified the world, but also dramatically expanded U.S. military strength, economic affluence, and cultural influence.”³ *LIFE*’s fascination with the astronauts and the space program continued the narrative of “America-first” globalism.

Luce felt that journalists should deliberately assist the U.S. government in winning the Cold War. In fact, he did not believe the Cold War could be won at all without a “strongly pro-American journalist ethic.” Luce introduced *LIFE*, America’s first modern photojournalism magazine, on November 23, 1936. In the late 1950s, he declared that *LIFE* should “fulfill the need for a great magazine with a national purpose.”

² Quoted in Kauffman, *Selling Outer Space: Kennedy, Media, and Funding for Project Apollo, 1961-1963* (Tuscaloosa: University of Alabama Press, 1994), 65.

³ Jenifer L. Van Vleck, “The ‘Logic of the Air’: Aviation and the Globalism of the ‘American Century,’” *New Global Studies* 1, no. 1 (2007), <http://www.bepress.com/ngs/vol1/iss1/art2>.

These purposes would be to win the Cold War and to create a better America. *LIFE* was devoted to achieving these goals through an emphasis on the “human interest angle.” Stunning, large color photographs dominated the magazine and stories were often chosen for their potential visual impact. *LIFE* had a strong, positive, and long-term partnership with the U.S. government throughout the 1950s and 1960s. NASA astronauts’ personal stories seemed very well suited to “Luce’s *LIFE*.” *LIFE* executives believed that the astronaut stories would boost temporarily sagging sales. For NASA, *LIFE* was a “good deal” because it was the most popular weekly pictorial in the U.S., with approximately seven million copies sold each week in the years between 1959 and 1963. Indeed, from the start of negotiations, NASA viewed *LIFE* as an important vehicle for publicity.⁴

In early 1959, even before Bonney’s introduction of the Mercury astronauts, *LIFE* started planning its first introductory “man-in-space picture essay.” Science Editor Warren Young wrote to Tom Carmichael of *LIFE*’s Washington Bureau, “we must immediately script and shoot a potential lead of essay proportions...including major color pages.” The subject of the story would be “U.S. efforts and capability to put humans into orbit and beyond. This is clearly one of the most important news subjects since the Resurrection and will require some major chunks of your reporting time.” The story, of course, would concentrate on Project Mercury, America’s first “Man-in-Space” project, yet, Young wrote, “we also want in this first scene-setting picture report to go beyond Mercury into the most interesting of the endeavors aimed at space flight for humans.”⁵

⁴ Kauffman, *Selling Outer Space*, 65.

⁵ Warren R. Young, memo to Tom Carmichael, 28 January 1959, *LIFE* Magazine archives, *TIME-LIFE* Headquarters, New York City.

To achieve these ends, the *LIFE* bureaus would first have to find any available general research in order to begin writing the articles. They would then send photographers to NASA. Once NASA revealed their names, the Mercury astronauts (at this point it was believed they would be the “Mercury Twelve”) would be the essay’s primary subjects. Editors planned a group shot of the astronauts for the cover. For other photo spreads, it would be important to depict the astronauts in their characteristic environments, such as at their workplace or with their children. Young wished to show reference to the 110 current candidates; the key members of the astronaut selection committee (Administrator Glennan, Robert Gilruth, and Randy Lovelace “who not only runs the Lovelace bio-space clinic in Albuquerque but is chairman of the NASA selection committee for human factors”); and the machines involved in testing astronaut candidates, such as the Navy’s super-centrifuge in Johnsville, Pennsylvania. Young wanted to feature the Mercury capsule, the rockets that would be used, and the “primates” involved in the early Mercury tests.⁶

Although *LIFE* would be fairly brief in discussing the specifics of technologies, Young also wanted to feature “space capsules that are beyond the blueprint stage...dummy models at least.” He would do a brief survey of rocket engines, vehicles, fuel research, spacesuits, and American “spaceports.” He said, “Here...we’d like to go lightly, since a thorough survey of these subjects could get us away from the human factors in spaceflight.” The article would also briefly discuss the currently known

⁶ Young, memo, 28 January 1959.

components of space suits. Of course, the article would also have to address “motivation,” or “why Mr. Mercury will actually go.”⁷

The story, entitled “What It’s Like to Fly Into Space,” appeared in the April 13,, 1959 issue of *LIFE*. Although the article was a pared-down version of what *LIFE* editors had planned, it preserved their essential ideas. Featured on the cover and written by Ralph Morse and Science Editor Warren Young himself, the story discussed Young’s personal odyssey through the same tests that the Mercury astronauts had experienced. The tests, administered by “Air Force, Navy, and NASA doctors,” included parabola flights in a modified Corvair 13-B transport plane, which showed Young what weightlessness felt like; excursions on the Navy centrifuge trainer in Johnsville, Pennsylvania, during which Young experienced the 5-g force that astronauts would experience when returning to earth from space; and all kinds of tests which subjected Young to intense heat, cold, and other uncomfortable conditions which the astronauts had experienced. The article focused on the “human factors” of such training, i.e. the experiences of the astronaut candidates; this gave *LIFE*’s audience a chance to participate vicariously in the astronaut experience. Young described the experience of these tests as “exhilarating,” if somewhat uncomfortable, and heartily supported the military pedigree of the selected astronauts, portraying their spaceflight training experiences as a vital extension of their Cold War patriotic duty.⁸

On April 9, 1959, *LIFE Magazine* sent a letter to the astronauts making a preliminary offer with the objective of obtaining exclusive rights to astronaut “reports”

⁷ Young, memo, 28 January 1959, 6.

⁸ Warren Young, “What it’s Like to Fly into Space,” *LIFE Magazine*, 13 April 1959, 35.

on Project Mercury. *LIFE* wanted to specify an overall sum which they would pay to the group of seven astronauts for story rights “up to and including the first successful orbital flight.” The magazine planned to pay part of the total sum at once, part later on in the project, and the rest upon completion of the first successful orbital flight.⁹

LIFE said that the astronauts’ stories would have value beyond first magazine publication; they would become books and bring in more money. Sometimes *LIFE* contracted for magazine rights alone, “and sometimes (as with President Truman memoirs) we buy all rights in one package by paying a larger sum. One form or another of a package deal for all rights seems to make the most sense for both sides. For instance, we will provide skilled writers to help you with the magazine material and they can go on to complete the full scale book or books as well.”¹⁰ The letter, while assuring the astronauts that “we [i.e., *Time-Life*] don’t intend to let [the money factor] prevent us from reaching an agreement,” also pointed out that *LIFE* was a high-profile magazine that would handle the stories well and implied that such publicity would be greatly beneficial to the astronauts’ careers.¹¹

Eventually, the parties involved reached an understanding. Walter Bonney and the OPI, of course, had to construct a set of official “rules” about how *LIFE* and the other media would conduct themselves with regard to Mercury. Otherwise, the massive interest in the endeavor, and especially the astronauts, would dissolve into chaos. This

⁹ Young, “What it’s Like to Fly into Space,” 35.

¹⁰ *LIFE Magazine* staff, memo to astronauts, 9 April 1960, *LIFE Magazine* archives, *TIME-LIFE* Headquarters, New York City.

¹¹ *LIFE* staff, memo, 9 April 1960.

policy said, first of all, that all unclassified information reported by the Mercury astronauts in the course of their official duties would be made promptly available to the public by NASA. Secondly, public information media would be granted frequent accessibility to the Mercury astronauts for the purpose of learning about Mercury activities. The timing and conditions of interviews with the Mercury astronauts for this purpose would be “controlled by the NASA Director of Public Information (i.e. Walter Bonney), so as not to interfere with [the astronauts’] official duties.” The Mercury astronauts would be directed, during these interviews, to disclose all information acquired during their Mercury activities, “except any information classified to protect the national security.”¹²

Yet the Mercury Astronauts could NOT, without prior approval of the NASA Director of Public Information, appear on television or radio programs or in motion pictures. They could not publish or collaborate in the publication of writings of any kind. Astronauts could not receive compensation in any form for radio, television, or motion picture appearances, or for the publication of writings of any kind which involved reporting their performance of official Mercury duties, and they could not endorse commercial products. However, the Mercury astronauts were “free, singly and collectively, to make any agreement they see fit for the sale of their personal stories, including rights in literary work, motion pictures, radio and television productions,

¹² *LIFE* staff, memo, 9 April 1960.

provided such agreements to do not violate the foregoing restrictions.”¹³ The *LIFE* contract would certainly fit into these requirements.

Despite Bonney’s “official” stance of neutrality regarding the press, there is no question that *LIFE* received preferential treatment by OPI during this period. Bonney no longer held to his NACA standard of running the OPI as a neutral, “precision-ground mirror” of agency activities. He had assured Wilson that *LIFE* would have the fullest cooperation on the entire training phase of the program: “However, we must work within the framework of the program so we don’t disrupt it. This means that there may be lapses of several days between picture sessions.” Although cooperation was also being offered to “other legitimate media,” Bonney made it plain that “*LIFE* would work alone and unhampered by other press.” Wilson said, “Publicly, [Bonney] must appear impartial. Privately, he assures me that we will get just about everything we want.” Several weeks before, *LIFE* had sent Bonney a tentative script for an essay on the men and the hardware of Project Mercury. The first week of August, 1959 was the target date to begin the photo shoot. Wilson said, “Colonel Shorty Powers, Mercury Project Officer, who knows the specific program schedules (Walt doesn’t at all), is en route from the coast to Langley but I hope to reach him Friday and work out a specific starting date for shooting.” Wilson wrote, “There are no restrictions on the families. They are open to us at all times.”¹⁴

Bonney would allow *LIFE* free access to the astronauts until a week before the shoot. Then he would have to close them off completely except for the presence of a

¹³ Walter Bonney, memo to *LIFE Magazine* and NASA staff, 11 May 1959, *LIFE Magazine* archives, *TIME-LIFE* Headquarters, New York City.

¹⁴ Don Wilson, memo to Edward K. Thompson, 24 July 1959, *LIFE Magazine* archives, *TIME-LIFE* Headquarters, New York City.

single photographer. Once the shoot was completed, and the demands of the general press met, *LIFE* writers and photographers would again have continuing access to “the winning astronaut and his comrades.” The same procedure would apply to all succeeding “space shots” after the initial ballistic flight. Wilson concluded that *LIFE* would get excellent treatment from OPI because of the magazine’s reputation and popularity and because of “the deal” with the astronauts. He said, “Bonney...is going to give us everything we want up until a week before the shoot and, of course, right after the shoot. He favors us, not only because he likes us, but because we have laid down the money. I believe he feels it’s to NASA’s and his interest to have good preliminary coverage in *LIFE* as well as the definitive post-flight coverage.”¹⁵

In a subsequent memo to Ed Thompson, Jack Dowd discussed “the impact” on *LIFE* of Bonney’s official statement regarding his public information policy with respect to the astronauts. Bonney would grant all newspapers and magazines rights to the professional lives of the astronauts; Dowd wrote, “it is possible that *LOOK* or the *Saturday Evening Post* could cover as much of the professional phase of the astronauts as we can...what, in effect, we are buying, then, are the boudoir, breakfast nook and back porch of the astronauts...our exclusivity is entirely relegated to their personal lives.” Dowd and company re-drafted the agreement because it was decided that “in the face of this competition, [we] are paying too high a price...we had better particularize and clarify

¹⁵ Wilson, memo, 24 July 1959.

Bonney's operating procedures before we go ahead."¹⁶ Despite Dowd's doubts, this particular brand of exclusivity would certainly benefit *LIFE*.

TIME/LIFE representatives proposed an initial agreement to NASA and the astronauts. When NASA selected the astronaut for the initial ballistic flight or for an orbital flight, *TIME* would have all rights of every kind around the world "in and to the personal story or account of [his] flight." After "successful" completion of the flight, the astronaut would relate his experiences on the flight to a writer selected by *TIME/LIFE*. The astronaut would further cooperate with the editors for the "purpose of completing the manuscript by making [himself] available to them at reasonable times for consultation, checking facts, general editorial purposes, and for the taking of pictures of [him] for publication in connection with [the] story." Generally, the story would consist of biographical material on the astronaut, his previous flight experience, and "specifically, in detail, [his] training for space flight and...experiences in space flight." All manuscripts would be the sole property of *TIME/LIFE*, not of NASA or the individual astronaut.¹⁷

Just as NASA had exerted fairly strong control over *TIME/LIFE* in planning its access to the astronauts, *TIME/LIFE* would assert a large amount of control over the astronauts' stories so that they would "sell." *TIME/LIFE* would designate the astronaut as the author of any stories actually published and would also have the right to decide, "in such manner as *TIME* may deem appropriate," the writer to whom they would relate their

¹⁶ Wilson, memo, 24 July 1959.

¹⁷ *TIME-LIFE*, memo to astronauts, August 1959, *LIFE Magazine* archives, *TIME-LIFE* Headquarters, New York City.

experiences. Aside from “general necessary press interviews,” astronauts would not write or publish or allow others to write or publish the story of their personal experiences “in training for or in space flight” without the prior consent of *TIME/LIFE*. Also, *TIME/LIFE* could use the astronauts’ photograph and other biographical data in their promotion and advertising of the stories, or utilize the astronauts as advertisements for their products.

Much of the final agreement mirrors that of the initial draft drawn up by *TIME/LIFE*. However, there are some significant differences, showing the determination of both NASA and *TIME/LIFE* to cover all bases and to protect themselves. *TIME/LIFE* also shows a determination to protect all profits resulting from their “exclusive” relationship with the astronaut families. For one thing, the final draft explicitly states that “*TIME* will not publish any material which may be deemed restrictive or secret by the officials of the National Aeronautics and Space Administration or by the Defense Department.” Additionally, “Because of the widespread public interest in Project Mercury...it is recognized that the wives of the Astronauts may be approached to write articles for media other than those published by *TIME*...such offers may not be accepted nor such articles published without the prior written consent of *TIME*.”¹⁸

The agreement also stipulated the “official” financial arrangements of the relationship between the astronauts and *TIME/LIFE*. It was decided that *TIME* would pay to Mr. De Orsey “on account of the astronauts” up to five hundred thousand dollars under the following conditions: One hundred five thousand dollars upon the execution of the agreement; one hundred forty thousand dollars upon the successful completion of the

¹⁸ *TIME-LIFE*, contract, 8 May 1959.

first ballistic flight; one hundred seventy-five thousand dollars upon the successful completion of the first orbital flight; and eighty thousand dollars when NASA announced Project Mercury's completion.¹⁹

Leo De Orsey also negotiated an agreement regarding astronaut television and motion picture rights to stories produced by *LIFE*. Upon publication of the Astronauts' stories in book form by *TIME* or its authorized agents (which would occur with the publication of the book *We Seven* upon completion of Project Mercury), *TIME* would give De Orsey the copyright of this work for the purpose of selling television and motion picture rights. From this sale, De Orsey would pay *TIME* ten thousand dollars plus ten percent of the sale's net proceeds. Additionally, *TIME* would have the right to produce a fair amount of motion picture footage of the astronauts and their wives and families "for promotional purposes in connection with the publication of their stories by *TIME* with the approval of Mr. De Orsey."²⁰

The final draft of the agreement was signed on August 5, 1959, by Leo De Orsey on behalf of the astronauts and Robert Elson on behalf of *TIME/LIFE*.²¹ *LIFE* released the news that the Astronauts had signed the contract on August 18, 1959:

Life magazine today announced it had signed contracts with the seven prospective space men—or Astronauts—so that only Life will publish the official plus the personal, eyewitness accounts of their experiences in training and, eventually, of man's first trip into space...the contract came under an announced policy of the NASA concerning prompt release to the public of information about the Mercury program...Thompson said that

¹⁹ *TIME-LIFE*, contract, 8 May 1959.

²⁰ *TIME-LIFE*, contract, 8 May 1959.

²¹ *TIME-LIFE*, contract, 8 May 1959.

Life considers the contract to be one of the most important it has ever negotiated.²²

Thompson also called Project Mercury “one of the greatest news stories of all time.” He exclaimed that the contract made it possible to immediately begin the job of creating a ‘permanent, personal, running account of modern man’s most exciting adventure.’²³

The astronauts and their wives “premiered” in *LIFE Magazine* in September 1959. The narratives of American national identity and technological indigeneity are evident in the articles. Only a few months earlier, *LIFE* had featured a series of articles called “How the West was Won,”²⁴ about 19th century pioneer life, and also a two articles (including a cover article) on the space flights of the particularly “American” rhesus monkeys Able and Baker.²⁵ The grinning astronauts themselves appeared on the cover of the September 14th issue alongside colorful full-page advertisements for canned ham, VELVEETA, refrigerators, and scotch whiskey. They were ready to “undertake a grueling assignment that most men would find unthinkable.” John Glenn remarked that “space travel is at the frontier of my profession” and emphasized his adventurous streak, which had been evident in his scouting-oriented youth. Shepherd wanted to “serve the country” and saw the flight as potentially a “great personal challenge.” Carpenter noted “an element of risk.” Slayton said he was in for “one hell of a thrill” and “on the ground

²² *LIFE Magazine*, news release, “*LIFE* to Publish Astronauts’ Personal Stories,” 18 August 1959, *LIFE Magazine* archives, *TIME-LIFE* Headquarters, New York City.

²³ *LIFE Magazine*, news release, “*LIFE* to Publish Astronauts’ Personal Stories,” 18 August 1959, *LIFE Magazine* archives, *TIME-LIFE* Headquarters, New York City.

²⁴ “How the West was Won,” *LIFE Magazine*, 11 May 1959, 50.

²⁵ Don Schanche, “Able and Baker, U.S. Heroes, Come Back from Space,” *LIFE Magazine*, 8 June 1959, 38; Don Schanche, “Able’s Dramatic Death and...New U.S. Advances in March for Space,” *LIFE Magazine*, 15 June 1959, 40.

floor of something great.”²⁶ The astronauts are portrayed as iconic, individualistic, patriotic frontiersmen.

The astronauts’ smiling and well-coiffed wives appeared on the cover of the subsequent issue of September 21st. Inside the magazine, as shown in large, full-color photographs, they posed with a full-scale, steel-model Mercury capsule, emphasizing, as their husbands had, themes of American ingenuity, independence and adventure. Annie Glenn noted that “religion plays an extremely important role in our lives” (was this the “winged gospel” taken to space?) and that “John has an ‘insatiable curiosity.’” Rene Carpenter noted that she and Scott were “open and honest” with one another. Louise Shepherd said, “It is not good to stand around and complicate things for [Al] when he has a job to do.” The astronaut wives discussed their pride in their husbands and their own role in the space program as supportive spouses, used to facing the “danger” of their husband’s dramatic piloting careers. They appear, perfectly dressed, and made-up, in placid domestic settings enjoying their children and husbands. In the September 21st issue, Louise Shepard appears in a photograph playing solitaire with her daughters. The caption says that she is “killing time” until her husband returns from a trip.²⁷

Historians and journalists have since learned that many of the astronauts’ marriages were far from perfect, and that their “fighter pilot” egos sometimes took precedent over their patriotism. Yet consistently, *LIFE*, employing NASA public relations narratives, portrayed the astronauts as wholesome, family-oriented nature-and

²⁶ The Astronauts, “The Astronauts,” *LIFE* Magazine, 14 September 1959, 26.

²⁷ The Astronauts’ Wives, “The Wives,” *LIFE* Magazine, 21 September 1959, 30.

frontier-loving, all-American males.²⁸ In private, many of the astronauts were a “hard-living, hard-drinking lot,”²⁹ but *LIFE* presented them as “the personification of the clean-cut, all-American boys whose mythical lives popularized family-oriented television programs during the 1950s and 1960s...brave, God-fearing, patriotic individuals with loving wives and children.” *LIFE* reporters witnessed occasional indiscretions, but these did not find their way into the mainstream press. According to Howard McCurdy, NASA and the astronauts themselves were the “main architects” of this image...and “how could anyone distrust a government agency [or a government as a whole] represented by such people?”³⁰ Dale Carter describes the *LIFE* stories as “the production, distribution, and consumption of [Kennedy’s] New Frontier pioneering spirits, the astronauts themselves...[who entered] the ‘star system.’”³¹

After these “opening” stories, a series of five stories about the astronauts’ work—with titles such as “The Astronauts and their Prodigious Chariot” (about the Mercury capsule) and “A Suit Tailor-Made for Space,” appeared during the next year. These articles emphasized the discomfort, difficulty, and complexity of the “impressive” and “formidable” technologies. In the Mercury capsule article, *LIFE* quoted Scott Carpenter as rather rashly saying, “[If it were up to me], I would compromise redundancy...to accomplish one of these space efforts first.” This was certainly a departure from the official NASA stance on spacecraft development, and likely caused some controversy

²⁸ The Astronauts, “The Astronauts,” *LIFE Magazine*, 14 September 1959, 20.

²⁹ McCurdy, *Space and the American Imagination*, 90.

³⁰ McCurdy, *Space and the American Imagination*, 90.

³¹ Carter, *The Final Frontier*, 152-168.

among engineers and other astronauts.³² In case anyone missed the pro-America, pro-NASA, and pro-technology subtext of these articles—some of which came right to the surface—the editors produced a series of editorials from 1959 onwards which argued for a prominent American role in the “space race” and predicted doom for the world if the United States “lost.”³³

LIFE worked hard to maintain and improve its good relations to the astronauts even after the initial articles appeared. Indeed, they had to preserve one of their most lucrative investments. In a memo to Bob Elson, John Dille discussed a possible *LIFE* “astronaut weekend” that would take place from November thirteenth through fifteenth. Its purpose was to acquaint the astronauts more fully with the *LIFE* crew and Simon and Schuster, who would soon purchase book rights for the articles. This discussion shows the tensions that resulted from the unique relationship between *TIME/LIFE* and NASA, and particularly the astronauts. *LIFE* wanted to “create the kind of atmosphere in which [the astronauts will] act and produce more like partners in a cooperative deal than like seven pieces of merchandise we have bought and are re-selling.” Dille continued, “They are all sensitive guys; and they are very concerned about their public image. We need to do a good deal of missionary work now to make sure they’ll feel like giving us their all in future installments.” However, John Dille worried that this wouldn’t be easy because “NASA would prefer that [*LIFE*] not get too cozy with [the astronauts]...every time

³² Don Schanche, “The Astronauts Get Their Prodigious Chariot,” *LIFE Magazine*, 14 December 1959, 47.

³³ See, for example, “The Solar System is our Parish,” *LIFE Magazine*, 24 March 1967, 6. *LIFE* was one of the only news publications not to publicly criticize NASA after the Apollo One fire.

we're seen in public with the Astronauts NASA gets self-conscious as hell and runs around trying to apologize for them...The poor guys are torn between two loyalties.”³⁴

Yet in order to get the astronauts “into their den,” *LIFE* would have to reassure NASA that it wasn't going to “use” them in any way. *LIFE* planned to introduce the astronauts to “foreign types,” or foreign media affiliates (friends) of *LIFE Magazine* that might have an interest in them and their stories. Dille said that these foreign friends would not be allowed to pressure the astronauts and would be largely dependent on the *LIFE* coverage “which they had [already] bought.” Otherwise, they could “line up behind the other [press] petitioners in Col. Powers' office at Langley.”³⁵ *LIFE* had to be cautious. The staff could not stretch its boundaries with the astronauts or it took the dangerous risk of “undoing” good relations with them and with NASA.³⁶

By mid-1960, the high-profile *LIFE* articles about the Mercury astronauts had captured the attention of millions, including cartoonists in major magazines who specialized in satire. These cartoonists implied that *LIFE* publicity for the Mercury program had become more important to NASA than the project's original goals. In the July 1960 issue of *Esquire*, a cartoon by C.D. Dahlin appeared that satirized the astronauts' *LIFE* contract. It showed an astronaut atop a “USAF manned rocket” talking to a photographer who had climbed up on the scaffolding with him. Meanwhile, Mission

³⁴ John Dille, memo to Bob Elson, 31 October 1959, *LIFE Magazine* archives, *TIME-LIFE* Headquarters, New York City.

³⁵ Dille, memo, 31 October 1959.

³⁶ Dille, memo, 31 October 1959.

Control observed the scene. A mission control leader said to his colleagues, “[The Astronaut] is getting his last-minute instructions from *LIFE*.”³⁷

Another *LIFE*/NASA-themed cartoon appeared in the *New Yorker*, on October 15, 1960. The cartoon shows a seminar meeting led by a NASA engineer who is using a pointer to indicate the pilot compartment on a Mercury capsule display. As shown in the cartoon’s caption, the man says, “This is where the lucky astronaut will sit—to the left of the meteorological equipment, to the right of the communications setup, and directly behind the photographer from ‘*LIFE*.’”³⁸

Other criticisms of the *LIFE*/NASA contract were more pointed. Some Americans viewed the contract as unethical, since the astronauts, who were federal employees of the government, benefitted financially from their duties. The initial contract received widespread press coverage. It did not receive much criticism, however, until its renewal in 1962. One of many *New York Times* editorials declared that the U.S. government should not allow the astronauts to reap “enormous private profits” from participating in “a great national effort.” The *Times* concluded that the government contract followed an “inappropriate” policy when it allowed “public domain” astronaut stories to provide profits from a “private payload.”³⁹

Understandably, the era’s two leading news magazines had contrasting views of the contract. *LIFE*’s sister publication, *TIME*, did not seriously criticize the contract. Yet

³⁷ Ed Dahlin, cartoon, “He’s getting his last-minute instructions from *LIFE*,” *Esquire*, July 1960, 60.

³⁸ Stevenson, Cartoon, “This is where the lucky astronaut will sit,” *New Yorker*, October 15, 1960, 25.

³⁹ “Ten Per Cent of the Moon, Too?” *New York Times*, 28 August 1963, 32; “Commercialism to the Moon,” *New York Times*, 20 February 1963, 10; “Commercialism to Outer Space,” *New York Times*, 1 June 1963, 20; “Let Us Explore the Stars,” *New York Times*, 19 September 1963, 26.

its competitor, *Newsweek* magazine, did. According to *Newsweek*, the contract was an “embarrassing financial arrangement” with contract negotiations “more appropriate to the film *Cleopatra*” than to a “serious scientific endeavor.”⁴⁰ *Newsweek* called the *LIFE* Mercury astronaut stories “a Barnumesque extravaganza” featuring “the cardboard characters of soap operas.”⁴¹

Despite its spectacular success with “up close and personal” photo stories involving the astronauts, *LIFE* was certainly not the only news outfit interested in obtaining such footage. United Press International (UPI) constructed photography and news pools with *LIFE*, mainly in order to obtain good pictures of the astronauts. *LIFE* had no exclusivity in regard to on-the-job photography, and as such found it beneficial to work with a news pool comprised of various news organizations. Not all operations could logistically be open to the entire press corps. These early negotiations between *LIFE*, UPI and NASA contributed to Bonney’s construction of the “press pool” system. AP, UPI, and *LIFE* would cover “whatever Astronaut activity [had] to be pooled on behalf of the daily press and magazines.” This agreement stayed in place throughout the early Mercury program,⁴² although the pool would expand to include representatives of many journalistic outfits over the years.

LIFE coverage of NASA continued throughout the Gemini and Apollo eras. But none of this coverage matched the drama or public appeal of the Mercury coverage.

⁴⁰ “Spaceman’s Ordeal,” *Newsweek*, 5 February 1962, 18; “The Long Wait,” *Newsweek*, 2 September 1963, 54; Kauffman, *Selling Outer Space*, 55.

⁴¹ “Project Mercury: Late, Late Show,” *Newsweek*, 12 February 1962, 55; Kauffman, *Selling Outer Space*, 55.

⁴² Frank Tremaine, memo to Ed Thompson, 16 September 1960, *LIFE Magazine* archives, *TIME-LIFE* Headquarters, New York City.

According to *LIFE* editors, spaceflight, although still exciting to the public, was not the utterly unknown novelty it had once been. Also, NASA's second and third classes of astronauts were large groups and increased the total number of astronauts to over forty, making it difficult to portray each as a personality. Gemini astronauts were busier than Mercury astronauts due to the complexity of their project, which was not easily captured on magazine pages. Also, NASA had initially wanted to sell Project Gemini story rights to Field Enterprises, but could never reach an entirely satisfactory agreement with them, although Field did obtain some rights to Project Gemini information release. By the time *LIFE* realized it had a fair level of exclusivity to Project Gemini, it was difficult for them to plan a strategy through which they could cover the program effectively.⁴³

It was during the earliest period of manned spaceflight, then, that the complexity of NASA endeavors, and the immense public interest in them, consumed the "old" OPI of Walter Bonney's creation, which had been based on NACA public relations policies. During the process of "saltation," NASA public relations had become a true concern to Administrator Glennan, and it would be even more important to James Webb, NASA's Kennedy-era administrator. Discouraged by Bonney's inability to adjust to NASA public information realities, Glennan took the prerogative of giving some OPI responsibilities to a new NASA office and of encouraging Bonney to find employment elsewhere, despite Bonney's help in the successful negotiation of the *LIFE* magazine contract. Certainly, the *LIFE*/NASA endeavor brought even more overwhelming attention to the agency through its Cold War synthesis of American technological idealism, corporate selling techniques, and tacit government sponsorship.

⁴³ Robert Toth, "Negotiators on Astronaut Stories Differ on Snag," *New York Times*, 11 July 1963, 11.

CHAPTER EIGHT

PROJECT GEMINI AND HOUSTON'S MANNED SPACECRAFT CENTER

The opening of NASA's Manned Spacecraft Center (MSC) in Houston presented new challenges to public relations as media focus shifted to NASA's early development of Projects Gemini and Apollo. The years 1962 and 1963 were critical for NASA and its public relations, largely due to the ending of Project Mercury and the beginning of Project Gemini. The high level of activity during Project Gemini meant that the attention of public relations workers, especially those at field centers, was more focused on running public relations operations and creating plans based on what "worked" than on creating overarching, narrative-framing policies. In keeping with the public relations "saltation," NASA changed the name of its "Office of Public Information" to "Public Affairs Office." At this point, NASA had plenty of support and did not need to use its public relations function as a way to grasp at resources. In any case, NASA public relations narratives had gained momentum and become entrenched in the agency's organizational culture, as well as in public culture. The narratives were often perpetuated by field information officers, journalists, and employees, without explicit prompting from NASA Headquarters.

President Kennedy himself was one of the greatest public relations boons that NASA would ever have. Not only had he initiated what would become greatest human spaceflight project in NASA history—Project Apollo—and acted instrumentally in inspiring Congress to fund NASA activities, but he regularly delivered eloquent speeches to promote these activities. These speeches have become some of the most acclaimed public addresses in history and certainly contained many of the same themes promoted by NASA public relations. James Webb, NASA’s Kennedy-era administrator, was a skilled politician and public relations man in his own right. Kennedy’s assassination in 1963, of course, dealt a blow to NASA, although Lyndon B. Johnson certainly made the completion of Kennedy’s lunar landing goal a priority.

From 1962 onwards, activity at Houston’s MSC—both general activity and public relations activity—accelerated more quickly than ever. The Gemini years would be marked by struggles between Headquarters and field public relations offices over who would control the release of NASA information. According to author Henry C. Dethloff, the MSC Public Affairs Office, and even other more technically-oriented offices, “strongly resisted...control of projects by headquarters” over the years.¹ Headquarters influence over MSC’s PAO ultimately increased as missions became more complex. Shorty Powers had run the day-to-day PAO activities at MSC effectively, but too independently, according to Julian Scheer, Webb’s Headquarters Public Affairs Officer.²

¹ Henry C. Dethloff, ...*Suddenly, Tomorrow Came: a History of Johnson Spacecraft Center* (Washington, D.C.: National Aeronautics and Space Administration, 1993), 104.

² Julian Scheer, Interview by Robert Merrifield, 1968, Center Series, Manned Spacecraft Center Historical Documents, Alfred R. Neumann Archives, University of Houston-Clear Lake.

NASA leaders had many reasons for choosing Houston as the site for the new center. Houston had the necessary geographical and industrial infrastructure for MSC and would facilitate reasonable operating costs. A Houston location also gave NASA additional “political clout” on Capitol Hill. Representative Albert Thomas of Houston was Chairman of the powerful House Subcommittee on Independent Offices Appropriations. He was a potentially important friend and supporter of human spaceflight and had encouraged NASA for several years to establish a research laboratory in his district. Vice-President and “Texan at heart” Lyndon B. Johnson chaired the national Space Council, and his support neutralized political agendas that would have encouraged the building of a space center in another area.³ Shorty Powers emphasized the importance of Albert Thomas and a Rice University/Humble Oil Company gift of 1600 acres in “tipping the scales” in favor of Houston.⁴ Encouraged by Powers, the Houston community welcomed plans for NASA’s new site, the location of which was not formally announced until the following year. By fiscal 1964, the MSC was allotted more than eighteen percent of the total \$3.7 billion NASA budget.⁵

Julian Scheer also identified 1963 as a critical year for NASA Public Relations. He did not believe the Headquarters PAO had shown sufficient leadership to the field centers before his arrival. In 1963 and 1964, Scheer planned and instigated the Public Affairs Activity Plan (PAAP), which involved Headquarters and field centers budgeting jointly and planning public affairs programs together. The planned programs would then

³ Dethloff, *Suddenly, Tomorrow Came*, 50-55.

⁴ Powers, Interview, 1969.

⁵ James Winchester, “Space Propels Soaring Houston,” *Christian Science Monitor*, 14 February 1963, 12.

be integrated into a manned flight public affairs program, and this would be incorporated into a total NASA public affairs plan.⁶

Project Gemini itself largely reflected a general desire on the part of NASA and the aerospace industry to keep Americans in space between the end of Mercury and the beginning of Apollo. The project emerged from two separate strands of NASA thinking. By the end of 1961, NASA had picked lunar orbit rendezvous (LOR) as the method of getting to the moon. With this technique, NASA would launch a crew/service module and a lunar module on a large and powerful rocket. The entire spacecraft would enter lunar orbit. Then, the lunar module, carrying two astronauts, would descend to the lunar surface. These two astronauts would land on and explore the surface while a third remained in lunar orbit. To return to earth, the astronauts on the lunar surface would ascend to lunar orbit, “rendezvous” and dock, or connect with, the crew and service module, and then return to Earth. This method would save weight and ultimately be safer and less expensive than the other proposed methods, earth orbit rendezvous (EOR) and direct ascent.

Lunar orbit rendezvous, of course, had to be rigorously practiced before its successful execution. The means for this practice emerged with a project that developed out of the Mercury Program. In February 1961, Bob Gilruth appointed Canadian engineer and chief of the STG engineering division, James Chamberlin, to study ways of improving Mercury for future manned missions. This series of studies was a joint NASA/McDonnell project. Chamberlin produced plans for a maneuverable “Mark

⁶ Julian Scheer, interview with Robert Merrifield, 20 July 1967, Center Series, Manned Spacecraft Center Historical Documents, Alfred R. Neumann Archives, University of Houston-Clear Lake.

II,” a two-person spacecraft capable of long-duration flight, rendezvous, docking, and precision landing. By the end of 1961, much of the preliminary work for the Mark II was complete. Apollo or no Apollo, the Mark II was an important initiative in its own right, because the space community agreed that the future of space exploration depended on controlled flight in a spacecraft, rendezvous and docking, and long-duration missions. Yet pressure on NASA from Kennedy’s lunar initiative and the rapid completion of the Mark II plans converged, and the result was that the proposed spacecraft contributed significantly to the development of Project Apollo.

NASA managers reviewed Chamberlin’s proposals thoroughly before reaching agreement on a new project, which had the primary objective of developing rendezvous techniques, with the vital secondary objectives of long-duration flight, controlled land landing (this objective was later eliminated), and astronaut training. Project Gemini was announced in December 1961 in Houston by STG/MSC head Robert Gilruth.

Although the Gemini spacecraft superficially resembled the Mercury module and was also built by McDonnell, it was truly a new vehicle, with well-organized modular systems allowing for maximum crew control. Thrusters provided the means of maneuvering in orbit for rendezvous and docking. The spacecraft’s offset center of gravity would provide some aerodynamic lift, allowing for greater landing control. Each astronaut had a large hatch, which would provide the means for conducting extravehicular activity (EVA) and help astronauts with entry and egress.

The development of fuel cells for powering the spacecraft, and the creation of sophisticated thrusters for maneuvering the craft, provided the greatest obstacles to

engineers. NASA faced headaches in trying to make the Titan II rocket, which was being developed by the United States Air Force and produced by the Martin Company, fully operational for Project Gemini. NASA also had numerous difficulties in developing the Agena target vehicle, with which the Gemini spacecraft would rendezvous and dock. Gemini presaged Apollo in presenting NASA with major engineering and organizational problems; these problems contributed to the late start of Project Gemini, which had been planned for May 1963 but was postponed almost two years.

In August 1962, the Soviet Union launched two spacecraft into Earth orbit that came within a few miles of each other and almost performed a rendezvous, which would be one of the objectives of Project Gemini. The spacecraft were dubbed the “Heavenly Twins” by the Soviet news bureau, TASS. Media coverage of the achievement added fuel to public perceptions of the space race and seemed to make the Americans more determined than ever to keep Kennedy’s space exploration plan on track.

Gemini’s planned schedule of ten flights at two-month intervals demanded a much larger pool of astronauts. NASA introduced a new group of astronauts, dubbed the “New Nine” by *LIFE*, to the public in September 1962. The highly-educated group of test pilots in their early 30s included four from the Air Force (including Frank Borman of Apollo 8), three from the Navy (including Jim Lovell of Apollos 8 and 13), and three civilians (including Neil Armstrong of Apollo 11). NASA introduced a third group of fourteen astronauts just over a year later. This group included Buzz Aldrin and Michael Collins of Apollo 11, and Ken Mattingly and Fred Haise of Apollo 13.

An important publicity event for NASA in 1962 was President Kennedy's delivery of a certain speech at Rice University. The narrative of "America-first" globalism was dominant. Kennedy said that the United States must lead in the space race if space was to remain a "sea of peace" and not a "terrifying theater of war." The United States, he said, would not see space filled with weapons of mass destruction, but with instruments of "knowledge and understanding" that would benefit all of humanity.⁷ The speech gave renewed impetus to human spaceflight.

In September 1963, under orders from Administrator Webb, Paul Haney replaced Shorty Powers as Director of Public Affairs at MSC in Houston. Powers had spent much of his personal time in travel, leaving much administrative work to others; Paul Haney had his work cut out for him. When he arrived in Houston, Haney discovered a large and loose organization with little structure or administration. The organization had eight branches and "frequently the same responsibilities were exercised in more than one branch."⁸ For example, several branches could make news releases quite independently of the News Branch. Since Powers had been on the road so much, the "day to day responsibility of running the business had been largely catch as catch can." Haney noted the interest of Gilruth's Special Assistant Paul Purser in projects concerning public information. According to Haney, Powers' absence fostered Purser's interest in public information, because "someone" had to perform the day-to-day work of the PAO.⁹

⁷ Howard Simons, "Kennedy to Strive For Peace in Space," *The Washington Post*, 13 September 1962, A1.

⁸ Haney, interview, 8 April 1968.

⁹ Haney, interview, 8 April 1968.

As MSC Public Affairs Officer, Haney was responsible for the overall planning and direction of public affairs activities within the center. He advised the Director, and other managers, in all public affairs matters. Haney supervised the PAO's arrangement of press, radio and television coverage of center activities. The PAO documented manned spaceflight programs on still and motion picture film, handled educational contacts, wrote the official history of manned spaceflight programs, escorted more than 300,000 MSC visitors a year, and provided the "minute-by-minute" official public account of the progress of each manned space flight as it unfolded.¹⁰ According to Julian Scheer, "Paul Haney took the lead in creating a viable press operation [in Houston]."¹¹

Paul Haney recognized that many key center personnel were uncomfortable talking to reporters and began to encourage an "open-door" policy towards the public. He organized the first of many Open House weekends during the fall of 1963. Haney led a spectacular open house during the first weekend of June 1964, shortly after the move to the new MSC site. Approximately 80,000 people visited MSC over the weekend. A VIP group of 2000 was welcomed in a special Friday ceremony. As part of the VIP ceremony, PAO led one of the largest cocktail parties in Texas history, at an inn just next door to MSC. Haney remarked, "[I was] amazed at how smoothly that function was handled." Approximately 20 Chambers of Commerce organizations representing the

¹⁰ Paul P. Haney NASA Biographical Data Sheet, October 1967, Paul Haney Biographical File, Center Series, Manned Spacecraft Center Historical Documents, Alfred R. Neumann Archives, University of Houston-Clear Lake.

¹¹ Elvia Thompson, "Oral History Interview with Julian Scheer," 20 July 1967, NASA News and Information Homepage, Online.

entire Gulf Coast area paid for the event, since they knew the MSC opening would be to their economic advantage.¹²

In October 1963, Paul Haney established an official “News Bureau” within the MSC PAO, appointing Ben Gillespie as Chief of the Bureau. The Bureau consolidated the work of the older News Media Communications, Industrial Communications, and Internal Communications Branches. The Community Relations Branch was renamed the Educational Programs and Services Branch. The function of the Administration Branch was changed to a staff activity; Haney assigned its responsibilities to an Executive Assistant.

Haney also initiated a major reorganization in the MSC Public Affairs Office. He created a structure of full-time administration that he initially obtained from new employees John Peterson and Roy Alford. Haney had worked very closely with Peterson in Washington and knew his strengths in management. Roy Alford was a former assistant city manager, and had been a U.S. military governor of five Japanese states after World War II. Haney said, “This is the kind of administrative depth that I felt we needed and we were weakest in. We were fine in other areas and always have been.” Haney’s PAO would ultimately have five distinct branches.¹³

By early 1964, Haney recognized that many members of the general public wanted to share more concretely in American space triumphs and would want to visit MSC through at least the end of the decade. At this time, Houston was the sixth largest city in the United States. Not every MSC employee understood how broad the scope of

¹² Haney, interview, 8 April 1968.

¹³ Dethloff, *Suddenly, Tomorrow Came*, 78.

such public visits would be, “probably because they had not lived in or near big cities [before]...Hampton [Virginia] was a very small place.”¹⁴ Haney advocated the creation of a Protocol Office and a program to meet the needs of casual visitors. He convinced MSC Deputy Administrator Jim Elms that the visitor function belonged under the purview of Public Affairs; Elms subsequently persuaded Bob Gilruth to let the PAO “take the lead.”¹⁵ Haney requested that everyone at MSC Houston coordinate tour requirements through the Protocol Office. Such central coordination would ensure that visitors were guided only through areas properly equipped to accept tours. Haney believed that arrangements made through other channels might result in conditions unsafe for visitors, might create possible hazards to employees and contractors, and might compromise classified material.

The Protocol Office also coordinated all the necessary support activities of MSC for distinguished visitors, who ranged in stature from local businessmen to the President of the United States. Haney placed Francis Hickey in charge of the program. By 1968, MSC had received approximately 2 million visitors, and in the late 1960s, no other NASA center had even begun to approach MSC in visitor popularity; as Haney said, “None of them had a visitor program before we had ours and all of them have patterned theirs on ours, usually to a lesser degree and with less success.”¹⁶

In January 1964, as the Gemini program got underway, the Center PAO instituted a regular weekly press meeting, “which at that time wasn’t very well defined.” Haney

¹⁴ Haney, interview, 8 April 1968.

¹⁵ Haney, interview, 8 April 1968.

¹⁶ Haney, interview, 8 April 1968.

professed that MSC was not trying to publicize itself through big headlines, but was instead trying to keep people informed of MSC activities. The meeting included briefings on the Center's past and upcoming week's activities. The PAO would organize information for the briefings throughout the week, and review the information with Gilruth on the following Monday morning. At the first briefing, the main item of business was the introduction of George Low to the Houston press. Low would assume the office of Deputy Director of the Center later in the year. During 1964 and 1965, the MSC PAO witnessed a substantial buildup in the local press corps. Six national magazines created new bureaus in Houston, as did several major newspapers.¹⁷

According to Haney, the Headquarters PAO felt that they were being upstaged under this system, "or that somehow the whole world was getting the impression that we were the entire program, and the rest of NASA, because it didn't or couldn't attract as much press attention, was somehow being downgraded." Haney described a substantial amount of bitterness between the MSC and Headquarters public relations offices in the mid-1960s. According to Haney, MSC's Bob Gilruth completely stood behind Haney's policies. On the other hand, Julian Scheer disagreed, describing Haney as usually "out of sync" with his bosses in Houston.¹⁸

During Project Gemini, the MSC PAO and Center officials painstakingly considered the selection and placement of a news center from which the program would be run. After all, the Gemini missions would be significantly longer than the Mercury

¹⁷ Haney, interview, 8 April 1968.

¹⁸ Haney, interview, 8 April 1968; National Aeronautics and Space Administration, Oral History Interview with Julian Scheer, 1970, http://www.nasa.gov/newsinfo/scheer_oralhist.html

missions. With the 4, 8, and 14-day missions, the Public Affairs staff would have to work in shifts at the mission control console. Haney convinced lead flight director Chris Kraft that a change-of-shift press briefing was an appropriate PAO practice. The flight director for the shift would attend the briefing, and would bring along the controllers responsible for the shift's major activities. Sometimes, these sessions would be fast and easy, and other times, they would be "brutal, with reporters—more than a thousand [showed] up in Houston for Gemini IV [and Ed White's spacewalk]—pressing for intimate details of the astronauts' medical status, or finagling for a quote that would lead to a headline in tomorrow's paper."¹⁹ According to Haney, these "change of shift" briefings were the biggest information innovations of the Gemini era, and they pleased the press corps immensely because they provided so much information.²⁰

During most of the Gemini program, the MSC PAO rented a building across the street as a news center for the national press to gather. Haney did not appreciate this "expensive" arrangement, which he believed hurt the press's ability to report on the program, and would have much preferred to have the press onsite. He felt that center management had built a "wall" between the astronaut corps and the other elements of the center. Haney believed that "the press has a mandate that is much more solid and precedes any mandate the engineer might have. The Constitution doesn't say anything to guarantee freedom of engineering, but the First Amendment guarantees that the press will be free." Haney said he believed engineers prevented the press from having a place in

¹⁹ Haney interview, 8 April 1968.

²⁰ Haney, interview, 8 April 1968.

the Center. Then, in the spring of 1965, the news center was finally moved onsite and became a physical part of MSC.²¹

Geminis I and II, both launched in 1964, were unpiloted “proving” missions. The objective of the first piloted mission, Gemini III, was to evaluate the spacecraft, especially its system performance and maneuvering capabilities and the performance of the worldwide tracking network. NASA also wanted to test the viability of reentry and recovery procedures. Gus Grissom and John Young, the flight’s prime crew, spent hundreds of hours training for the mission. Beginning with Gemini III, MSC’s PAO became responsible for the transcription of mission commentary. Transcript typists would type mission commentary from tapes. Once complete, the PAO would have the transcripts mass-produced for the press. These transcriptions included the change-of-shift news conferences or briefings along with the commentary.

NASA launched Gemini III on March 23, 1965. For the first time in history, a crew altered its spacecraft’s orbital height and plane. The flight was generally remembered, however, for non-technical reasons. The first reason is that Gus Grissom, remembering the watery fate of his Mercury spacecraft, decided to name Gemini III “Molly Brown” after the “unsinkable” Titanic survivor and Broadway heroine. NASA management did not approve, although the press greatly enjoyed the joke. The name ultimately gained “quasi-official” status, but Grissom’s was the last spacecraft formally allowed a name until the Apollo command and lunar modules flew separately in space and needed separate designations in order to communicate with Mission Control and with each other.

²¹ Haney, interview, 8 April 1968.

Also, Wally Schirra, the mission's backup commander, smuggled a corned beef sandwich on board for Gus Grissom before takeoff. Tests of specially prepared space foods had been planned for the mission, and "regular" food was not safe to eat in zero-gravity. Although Deke Slayton, who was now head of the Astronaut Office, could not hide his amusement, angry NASA officials devised a new set of rules on flight-approved personal items.²²

Then, in the summer of 1965, the Headquarters PAO under Julian Scheer finally directed the MSC PAO to stop the Center briefings and to instead rely on a printed information handout that would be physically handed to a reporter with little discussion. According to Paul Haney, MSC leaders Bob Gilruth and George Low disagreed with this decision and tried to appeal it, but without success.²³

The next mission, crewed by "New Nine" astronauts Jim McDivitt and Ed White, would involve a much more complex set of engineering exercises. Gemini IV would be NASA's first long-duration mission, and astronauts would be observed for the effects of four days in zero gravity and their subsequent return to normal gravity. Ed White would conduct a brief EVA, a first for the United States, at the end of an umbilical tether. This cord would connect him safely to the spacecraft while providing him with oxygen and suit coolants during his "spacewalk." White would use an experimental "gas-gun" to control his movements. Over 1000 media representatives requested accreditation to cover the flight from MSC in Houston.

²² Jay Barbree, *Live From Cape Canaveral: Covering the Space Race from Sputnik to Today* (New York: Smithsonian Books, 2007), 50.

²³ Haney, interview, 8 April 1968.

Gemini IV launched on June 3, 1965, and splashed down on June 7, almost three months after Alexei Leonov completed the world's first spacewalk. There is no question that the success of the Soviet spacewalk made many Americans, whether or not they were members of the press, more eager to "beat the Russians." Journalists described Gemini IV as "thrilling," "daring" and "extraordinary," both before and after the mission. Ed White was a "pioneer" who faced "new and unknown menaces." Lyndon B. Johnson said, "it is possible that our efforts may be overshadowed by Soviet space shots. I urge, therefore, that we not be discouraged by publicized elements but rather be stimulated to even greater efforts."²⁴ Under NASA policy, NASA public affairs workers could not be directly quoted framing the space program in terms of "beating the Russians." They left that to higher-level NASA officials, who they of course advised, and to journalists.²⁵

During Gemini IV, White spent nearly twenty minutes on EVA. McDivitt beautifully filmed the spacewalk using a Hasselblad 70mm still camera. Although White called having to return to the spacecraft after his spacewalk "the saddest moment of [his] life," he was physically exhausted after the EVA, with a fogged helmet faceplate and sweat pouring into his eyes. NASA would have to make adjustments in technique and equipment for subsequent spacewalks, which would be much more complex. For this first, long-duration flight, NASA made its initial use of the new Mission Control Center in Houston. The switch from Kennedy Space Center to NASA Manned Spacecraft Center mission control centers changed Public Affairs practice. Mission commentators from Houston began speaking shortly after liftoff, "taking over" from KSC

²⁵ "Soviet Moon Race Called 'Deadly Fight,'" *Los Angeles Times*, 18 December 1962, A2.

launch commentators. Commentators had their own console in the Mission Operations Control Room (MOCR), where the flight controllers worked.

Three flight control teams worked in shifts around the clock. The mission plan called for McDivitt and White to “station-keep” with the expended second stage of their Titan rocket launcher. This would be an early test and practice of Gemini rendezvous techniques. Approaching rendezvous proved much more difficult than NASA had anticipated. Ground engineers realized that orbital rendezvous techniques would require much greater sophistication because of the specific movement problems associated with orbital mechanics.

Ed White’s spacewalk was the first major event that MSC Public Affairs approached under the new headquarters-decreed press briefing system. Before White’s spacewalk, only thirty people at MSC were aware that an EVA would even take place. Haney was specifically told by Center management that he was not to discuss the EVA with anyone on his staff or with anyone at the Headquarters PAO. As Haney said in 1968, “I think the MSC Public Affairs Office is still paying for the consequences of that decision. It was calculated to get us in trouble with our functional headquarters boss, and it did! That subsided somewhat, although we still have to go through a big coordination thing with Washington on everything we say.” Haney was not impressed with such procedure, believing it to be shortsighted, inflexible, and limited to particular circumstances. Haney pushed for television cameras aboard Gemini flights, to satisfy “John Q. Public, who does in fact pay the bills for all the fun and games that we play in space,” but managing engineers protested, calling the requests “frivolous” and arguing

that extraneous electronic equipment could be dangerous in the confines of the cabin. Although a few space missions had already had onboard cameras, NASA administrators did not solidify policy regarding onboard cameras until December 1968.²⁶

Charles “Pete” Conrad joined Mercury astronaut Gordon Cooper for Gemini V. Astronauts had agreed that a systematic exercise program would be required to maintain crew fitness during long missions; previous missions had caused loss of blood plasma and bone mass in crew members, a problem that would only worsen on longer missions. This problem was one of many investigated on the mission.

Gemini VI and VII were special cases. Gemini VI, crewed by Walter Schirra and Tom Stafford, would be the first Gemini rendezvous mission. Although scheduled to launch on October 25, 1965, the mission did not go forward until December. The Gemini VII mission, crewed by “New Nine” astronauts Frank Borman and James “Jim” Lovell, would serve as a rendezvous target for Gemini VI. The vehicles would not dock, but would perform the more complicated rendezvous procedure.

The primary goal of Gemini VII was to gain experience for a long-duration space mission of fourteen days (the length of time in space required for a lunar landing mission). This would be the last long-duration mission of the Gemini program. During such a mission, the mundane details of physical life took on an augmented importance. Stowage of equipment and physical refuse had to be planned for, as did issues of hygiene. NASA launched Gemini VII on December 4, 1965, and paid special attention to medical experiments. As the astronauts settled into a routine, “good humor and good spirits

²⁶ Haney, interview, 8 April 1968; Ivan D. Ertel, Roland W. Newkirk, and Courtney G. Brooks, *The Apollo Spacecraft: A Chronology, Vol. IV, January 21, 1966-July 13, 1974* (Washington, D.C.: National Aeronautics and Space Administration, 1978), 25.

prevailed” and the crew members adjusted the spacecraft’s orbit to await the visit of Gemini VI-A (as the Gemini VI mission was now called).

On December 15, Schirra and Stafford of Gemini VI-A achieved the world’s first space rendezvous with Gemini VII. Over the course of three spacecraft revolutions, the two spacecraft stayed side-by-side at distances ranging from one to 300 feet. Schirra and Stafford’s precise maneuvering, helped by their test pilot experience, led them to conclude that docking would present few problems. After 25 hours, Gemini VI-A headed home, splashing down in the western Atlantic only seven miles from the planned landing point and in full view of TV cameras. Borman and Lovell followed three days later, returning one week before Christmas. Lovell wryly observed that the Gemini spacecraft was tailor-made for a man without legs, because, if no EVA were being conducted, the legs served no useful purpose. Robert Gilruth, MSC director, called 1965 “a fabulous year for manned spaceflight.”²⁷

In 1966, Gilruth formally codified many of the Manned Spacecraft Center public relations policies already worked out in practice by Powers and Haney. Gilruth declared the Public Affairs Office responsible for planning, directing, organizing and coordinating all public affairs activities within MSC, while providing advice and assistance to the Director and MSC organizations in all public affairs matters. The PAO would prepare plans and programs and formulate policy for the distribution of public information “including general, technical, industrial and educational materials and services.” The PAO also evaluated and advised the director regarding the public impact of all MSC

²⁷ Arnold, H.J.P, *Man in Space: an Illustrated History of Spaceflight* (New York: Smithmark Publishers, 1993), 53.

programs. The MSC Public Affairs Officer would report directly to the Director of MSC. Interestingly, the Headquarters PAO is barely mentioned in this document. At this time, the structure of the MSC PAO consisted of the Public Affairs Officer and his deputy, with the Protocol Branch, the News Services Branch, the Educational Programs and Services Branch, and the Historical and Library Services Branch as elements.²⁸

The Gemini missions of 1966 would bring new challenges and dramas to NASA and its public relations. Neil Armstrong and David Scott crewed Gemini VIII, launched on March 16. The Gemini VIII spacecraft, ground crew, and astronauts pursued an Agena target vehicle that had finally reached a successful orbit. The astronauts achieved the world's first docking of two vehicles in space within seven hours after Gemini VIII's liftoff.

Within just a few minutes, the spacecraft began to roll. Without any indication of how the malfunction started, the crew separated from the Agena. The Gemini VIII's roll then sped up to one revolution per second, causing both Armstrong and Scott to become dizzy and unable to see clearly. They tried everything to correct the malfunction, and as a last resort disabled the thrusters of the Orbit Attitude and Maneuvering System (OAMS), and activated those of the re-entry control system. The spacecraft finally responded and the motion ceased. Armstrong and Scott splashed down in the western Pacific, within a secondary recovery area, fewer than 11 hours after launch. Later, tests showed that an electrical problem had caused a thruster to stick in the "open" position. Gemini VIII was out of mission control radio range; otherwise, telemetry would have

²⁸ Robert Gilruth, "Manned Spacecraft Center Management Instruction," 28 November 1966, Box GR 1020, Center Series, Manned Spacecraft Center Historical Documents, Alfred R. Neumann Archives, University of Houston-Clear Lake.

shown ground controllers where the malfunction was, and they could have advised the crew to take corrective action. Despite the problem, the docking had been flawless, and NASA boosted the Agena vehicle to a higher orbit for a later mission.

A tragedy and public relations issue for NASA preceded the next mission. Astronauts Elliot See and Charles Bassett, selected by NASA for Gemini IX, died when their T-38 jet aircraft crashed as they flew from Houston to the McDonnell plant in St. Louis. The Protocol Office of Houston's Manned Spacecraft Center served as NASA liaison for funeral arrangements, as it did for all astronaut deaths. The Protocol Office was a branch of MSC's Public Affairs Office. Astronauts Tom Stafford and Eugene "Gene" Cernan replaced See and Bassett. Gemini IX-A was launched on June 3 after a postponement. It rendezvoused and station-kept successfully, but could not dock due to a failed shroud on the target vehicle docking port.

EVA still had inherent difficulties that NASA needed to address. Cernan spent two hours outside the spacecraft. Although footbars, handbars, and other means of support had been added to the outside of the spacecraft, and Cernan planned to don the United States Air Force-developed Astronaut Maneuvering Unit (AMU), Cernan discovered that without the stabilizing force of gravity, Newton's laws resonated in uncomfortable ways. Every movement of Cernan's limbs triggered a reaction from his body, so of course he could not maintain a consistent body position. He suffered extreme discomfort with spacesuit stiffness and the "snaking" umbilical cord. Although Cernan thought donning the AMU would be easy enough, he knew that releasing himself from it would be far too complicated. Mission Control and Cernan decided to abandon the EVA

forty minutes early. The crew returned on June 6, impressed with the results of the advanced rendezvous maneuvers but discouraged by the EVA results.

Gemini X launched on July 18 with John Young as commander. Third-group astronaut Michael Collins joined him. Gemini docked flawlessly with the Agena target vehicle. After firing the Agena's main engine, the two astronauts ascended to a height of almost 469 miles (753 km), the highest altitude to which human beings had traveled. Then, while still docked to the Agena, Michael Collins performed a stand-up EVA, primarily for the purpose of taking astronomical photographs.

After 39 hours docked to their own Agena target vehicle, Young and Collins undocked and then maneuvered toward Gemini VIII's Agena, to which was attached a micrometeorite package that Collins would remove. After a successful rendezvous, Young station-kept while Collins opened the hatch in preparation for his EVA. While the mission further improved rendezvous and docking techniques, it illustrated the continuing difficulty of spacewalks.

Gemini XI involved the rendezvous of two spacecraft during their first orbit after launch. Things went so well that both the commander and pilot were able to practice docking and undocking. The crew and spacecraft accomplished rendezvous and docking using onboard computations without assistance from ground control. During one of his EVAs, astronaut Gordon would test tethered flight (with the Agena and Gemini connected by tether) for long-term, unattended station-keeping between two spacecraft. Handholds and better foot restraints were intended to improve this EVA, but

failed to help significantly. Gordon quickly became exhausted and the EVA lasted for only one-third of its scheduled duration.

Thankfully, Gordon recovered rapidly, and the crew fired the Agena's main engine, taking the astronauts to a new world-record height of over 850 miles. After two orbits, Gemini XI returned to normal orbit, and Gordon performed a stand-up EVA in the spacecraft's hatchway for photography experiments. The crew then experimented with tethered flight. Gemini XI was the first flight to use completely automatic re-entry procedures, much as the Apollo flights would. The crew landed less than three miles from its recovery ship.

Gemini XII would be the final mission of the program and therefore had to decisively solve the EVA problem, in order to prepare for Apollo and to fulfill the Gemini program's objectives. James Lovell and Buzz Aldrin launched on November 11, 1966 on the four-day mission. "Normal" rendezvous and docking and tethered flight activities took place, but all was subordinate to practicing EVA and demonstrating that man could work outside the spacecraft.

While Gemini IX-A had been outfitted with nine restraints to assist with body positioning, Gemini XII had 44. One of its most important features was a waist tether, which helped the pilot to use tools and retrieve packages or experiments without using one hand to hold onto the vehicle. Both spacecraft and target had handrails and handholds, and rings on which Aldrin could hook his waist tether. Also, "golden slippers" or overboot restraints were fixed to the adapter area at the rear of Gemini XII, which was where Aldrin would work.

Aldrin, departing from the typically brash “astronaut attitude” towards EVAs, performed his tasks slowly and deliberately, resting frequently. EVA problems seemed to disappear “magically,” and NASA described Aldrin’s performance as “flawless.” This success was made possible by careful planning, mechanical aids, and pre-mission training (especially in a new underwater zero-gravity simulator). Lovell and Aldrin each established new space records. Lovell, with two Gemini flights under his belt, had now spent the longest time in space (425 hours) of any human in history. Aldrin’s three EVAs totaled a record-breaking five-and-a-half hours.

Along with the Gemini projects’ major requirements, the missions’ crews conducted a total of 52 medical, scientific, technical, and military experiments. Sophisticated scientific photography associated with many of these experiments forms a major part of Gemini’s legacy. Despite its many difficulties, Gemini contributed much to Project Apollo. As managers, flight controllers and astronauts wrestled with complicated difficulties and emergencies, exploration of the space environment became “operational,” if not routine. Flights occurred with such frequency that only one-fifth the number of media representatives that had attended the first flight attended the last. Between March 1964 and November 1966, as the United States set one space record after another, no Soviet cosmonaut orbited the Earth.

An editorial in *Aviation Week and Space Technology*, the same publication that had so often featured the NACA during the “lean years,” commended NASA’s decision, at the beginning of Project Mercury, to pursue an “open information” policy. Now that the United States had “caught up” with the Soviets in space exploration, “the whole

world [could share] in U.S. space achievements.” According to the article, the U.S. “[has projected] a far better image of technical competence and scientific purpose than the USSR could under its combination of secrecy and selective propaganda.” An “international aura of leadership” now enveloped the United States. Since NASA had achieved all of this, it was a true “bargain” for American taxpayers.²⁹

According to historian Henry C. Dethloff, despite Haney’s astuteness in the creation of PAO policy, he seemed to be emulating Powers in his role as announcer. Haney ultimately became known as the “Voice of Gemini” and moved into a similar role for Apollo. This displeased NASA officials. In fact, by 1969, Julian Scheer had given Haney an ultimatum; he could remain as mission commentator or perform only his duty as MSC PAO. Haney chose to remain as mission commentator, and Scheer then changed his mind. Scheer asked Gilruth to transfer Haney to Washington, but instead, Haney resigned, and Brian Duff took his place.³⁰ Haney would return to NASA Headquarters in 1969, where he worked as Special Assistant to the Assistant Administrator for Public Affairs.³¹

Paul Haney built NASA’s Houston Public Affairs Office upon Shorty Powers’ somewhat uneasy foundation. Ultimately, however, he was too independent to “toe the Headquarters line.” Brian Duff would rarely had problems submitting to Scheer’s authority. By the end of Project Gemini, approximately eighty percent of NASA’s total

²⁹ Robert Holtz, “Editorial: Building the Technical Image,” *Aviation Week and Space Technology* 83, no. 9, (1965): 21.

³⁰ Dethloff, *Suddenly, Tomorrow Came*, 181.

³¹ Paul P. Haney, NASA Biographical Data Sheet, October 1967.

public relations activity took place from Houston.³² An event late in January 1967, however, would shake even Julian Scheer's strong confidence in his abilities as a NASA public relations leader.

³² Julian Scheer, interview with Robert Merrifield, 1967.

CHAPTER NINE

APOLLO ONE

The early weeks of a new year have never been kind to human spaceflight. The Space Shuttle Challenger exploded on January 26, 1986, when a seal in the Shuttle's right rocket booster failed, killing its seven crew members seventy-three seconds after launch. The Columbia disaster occurred on February 1, 2003 due to damage to the shuttle's thermal protection system from foam that had broken off the external fuel tank during launch. Cold weather often delays space launches. This tragic cycle began on Friday, January 27, 1967, when astronauts Gus Grissom, Ed White, and Roger Chaffee perished in a fire inside their Apollo command module during a routine ground test while training for the first flight of Project Apollo. The Apollo One fire was a dramatic turning point in NASA's history, revealing flaws in agency processes. The tragedy underlined the organizational magnitude of NASA's latest undertaking. The agency needed time and practice to adjust to the bureaucratic and technical challenges of its new project.

In a sense, NASA public relations narratives may have worked too well among NASA employees, contractors, members of the press, and the general public. Many have argued that NASA "bought into" an image of itself as an invincible agency that could do no wrong and had to meet every deadline in order to triumph in the "space race." This

self-image was variously described as the “NASA myth of invincibility” or the “NASA success syndrome.” The Apollo One fire corrected this attitude, re-focusing NASA on the necessity of relentlessly deliberate, careful planning in such a grand technological feat as reaching the moon. Although a few journalists had been consistently critical of NASA, such as William Hines of the *Washington Evening Star*, most had praised the agency. In the wake of Apollo One, many people blamed the press for acting as NASA “cheerleaders” rather than serving as a force to hold the agency accountable.¹

In any case, the Apollo One fire challenged the assumptions of the NASA Public Affairs Office and the public itself. For the first time, the PAO had to manage a vast number of reporters who wished to rigorously question NASA about its mistakes. They looked at NASA with an extremely critical eye. The OPI, even under Julian Scheer, had difficulties handling this shift. However, the repercussions for NASA would have been worse if Scheer had not handled the preceding few years with organizational panache and showed strong leadership from NASA Headquarters. Apollo One marked both the beginning and the end of an era for NASA public relations. With the fire, NASA and its PAO entered adulthood, withstanding the experience of a first major disaster. Yet the fire also ended NASA’s “heroic” innocence, particularly in the arena of public image.

The major structure and components of the Project Apollo missions had been finalized by 1962. There were three major elements to Project Apollo hardware. The first was a very powerful launch vehicle, the three-stage Saturn V. The second element, the Command and Service Module or CSM, was actually comprised of two separate

¹Neil Kunhart to Jaye Sheridan, Office Memorandum, , 10 January 1968, *LIFE Magazine* Archives, *TIME/LIFE* Corporation, New York City.

units: a command module within which three astronauts would travel to the moon and then return to Earth, and a service module which would supply and help steer the spacecraft. The command module had a blunt body and an ablative heat shield, which would allow it to achieve controlled reentry into the Earth's atmosphere and to land at sea by parachute. The service module, which would be attached to the command module for all but the final portion of the journey, had a propulsion engine for altering trajectory, attitude-control thrusters, fuel cells for generating electrical power, and tanks of fuel including hydrogen and oxygen. Water for the crew would be produced as a by-product of combining hydrogen and oxygen in the fuel cells.

The third component was the two-part lunar module, the vehicle that would take two astronauts to the moon's surface and then return them to the command module, which would remain in lunar orbit. The lunar missions, of course, would utilize the lunar orbit rendezvous (LOR) technique, or mission mode, which necessitated breaking down the mission into several discrete stages, each of which would have to be tested in ground simulation and in space.

Developing these major components, and testing them as a system and as subsystems with the Saturn V rocket, comprised most of NASA's technical activity during the early-to-mid 1960s. As with the Mercury and Gemini programs, this technology was built under contract to NASA by aerospace companies. NASA created the specifications, but contractors built the technology itself. These contractors worked closely with NASA management teams. North American Aviation built the CSM in conjunction with the Manned Spacecraft Center. Grumman built the lunar module in

conjunction with MSC. North American and Rocketdyne build the various stages of the Saturn V, which was managed overall by Wernher von Braun's team at Huntsville's Marshall Spaceflight Center.

Perhaps NASA's overconfidence and relentless "can-do" attitude had indeed set them up for a fall. NASA and North American planned two versions of the command module, the Block I and the Block II. The Block I had no equipment for joint flight with the lunar module. The Block II would have the necessary docking equipment for a complete lunar flight. After months of design, production of Block I modules began in September 1964. NASA scheduled the first crewed launch for February 21, 1967. On January 27, the Apollo One crew—Mercury astronaut Virgil I "Gus" Grissom, "New Nine" astronaut Ed White, and third-group astronaut Roger Chaffee—sat in the command module on top of a launch stack at the Kennedy Space Center, conducting a test that would ensure that the combined launcher/spacecraft could operate independently of an outside power source. The crew members were fully suited and sealed in the Command Module as they would have been for an actual launch. Due to numerous delays, it was early evening before the actual tests began. Suddenly the ground crew heard a shout from inside the module over a radio circuit: "There is a fire in here." Then large flames flashed within and outside the spacecraft. Engineers could not remove the hatches until almost six minutes after the first shout. When they were found, the crew members were dead from asphyxiation due to inhalation of toxic gases.

In truth, for a variety of reasons, journalists did not instantly obtain full information about the accident. Many therefore accused NASA of a "cover-up" or

“information blackout.” The Houston Chronicle wrote, “NASA has employed its economic club—the threat of contract cancellation—to thwart the release of any information about the Apollo program by private contractors....NASA’s current ‘no comment’ makes a mockery of the United States policy of conducting its space program in full view of the world...where the weakness or fault was...can only be determined after careful investigation.”² This editorial was characteristic of dozens that were released in the days and weeks following the tragedy.³

In the hours after the accident, there was some confusion in information release between NASA Headquarters and Kennedy Space Center PAOs, despite the fact that the PAO worked through the night after the fire and established sites at KSC from which the press could work.⁴ In the days after the accident, news releases from the Kennedy Space Center PAO, led by Jack King, came fast and furiously, detailing the specifics of the disaster, plans for disassembly of the spacecraft and removal of the crew, details of burial ceremonies for the crew, and plans for NASA’s own internal investigation.⁵ King had apparently been quite emotionally shaken by the fire, and some believed this may have compromised the quality of his work. Overall, “official” statements were not

² Editorial, “Space Program Goes Underground,” *Houston Chronicle*, 3 February 1967, 10.

³ Editorial, “Now America Wants to Know,” *The Orlando Star*, 2 February 1967, p.2; Editorial, “Other Spacecraft Fires—So Now They Tell Us,” *The New Haven Register*, 2 February 1967, 7; Editorial, “Extreme Secrecy on Apollo Fire,” *The Times-Picayune*, 3 February 1967, 2.

⁴National Aeronautics and Space Administration, Letter, Julian Scheer to John Steele, 2 February 1967, Apollo One file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁵ See, for example, National Aeronautics and Space Administration, Kennedy Space Center, AS 204, Releases #17-30, 27-31 January 1967, Apollo One file, National Archives, College Park, Maryland.

coordinated, especially if they originated from different NASA or contractor locales, and some of them had inconsistencies with one another.

Scheer explained that, although they had strictly followed their internal PAO contingency plan, NASA could not release full information immediately because one of the astronauts' wives could not be found for an hour after the accident and because NASA had to keep reporters from besieging the three astronaut wives.⁶ Also, a tape made of astronaut communications by the KSC PAO was not replayed until hours after the tragedy. In fact, the KSC PAO did not inform Scheer or Webb about the tape's existence until after the first NASA statement to the press had been made. It was impossible for NASA leaders to immediately ascertain every detail about the fire, and some of these leaders were in shock. Therefore, the public had the impression that NASA was trying to "cover up" something. Julian Scheer wrote that when all the facts of the case were finally constructed, the press seemed uninterested in reiterating NASA's position on information release. According to Scheer, this later led to "belligerence" toward NASA on the part of Congress during the Apollo One hearings.⁷

NASA launched their full-scale investigation only four days after the disaster, which in two months produced a document of over three thousand pages. In its condemnation of general carelessness, the document was exhaustive, "but there was much more emphasis on an overwhelming failure to realize the dangers from an

⁶ Eugene Emme, memo, "Notes on Seminar Discourse of Mr. Julian Scheer," 26 July 1967, Public Affairs file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

⁷ Emme, memo, 26 July 1967.

accumulation of developments which had made a tragedy almost inevitable.”⁸ Frayed wiring was the immediate cause of the fire, but the fire was particularly deadly because of the use of pure oxygen under high pressure, the presence of combustible material throughout the spacecraft, and the lack of decent provisions for rapid crew escape.⁹

Controversy also surrounded the release of the “Phillips Report,” a NASA management review of North American’s performance compiled in 1965 and 1966. The Phillips report contained some indictments of North American’s performance, citing particular instances of negligence and carelessness. Not every NASA leader was aware of the classified report’s existence, and the Congress had to request a copy of this report from NASA during its hearings. Some members of Congress and the public believed that the report should have been open to the public all along, and criticized James Webb for not releasing the information.¹⁰ The debate over the release of the Phillips Report opened up larger questions about NASA information policy. NASA asserted that it had never intentionally hid information from the public. The NASA administration reminded its critics that it had long ago reversed the “do first, talk second” policy, but that the new policy had come into effect at a time when NASA activity was increasing very quickly, and that the press and public did not understand the scope of this activity and so did not automatically increase their information requests.

Responding to this criticism, the NASA PAO decided to work on an information release plan with the press, so that it would have a more substantial base level of

⁸ Arnold, H.J.P, *Man in Space: an Illustrated History of Spaceflight* (New York: Smithmark Publishers, 1993), 80.

⁹ Andrew Chaikin, *A Man on the Moon* (New York: Penguin Books, 1994) 22.

¹⁰ Editorial, “Reticent NASA,” *The New York Times*, 19 April 1967, 2.

information to publish“[without waiting] for requests.” The PAO would also review their press briefing system and the release of public informational films. In forming the new information plan, they would consult with the press to ascertain the presence of interest in such information, but would not impinge on the “necessarily confidential” relationships between NASA and its contractors.¹¹

In reaction to the fire, NASA considered over 1700 changes in the spacecraft and implemented 1400 of them. One of the most important of these changes was the use of 40 percent oxygen and 60 percent nitrogen for the spacecraft atmosphere on the ground. Once aloft in the vacuum of space, astronauts would gradually change the cabin atmosphere to 100 percent oxygen. Many NASA astronauts and engineers came to believe that the Apollo One fire may have actually saved lives because of all the improvements that went into the new spacecraft, not to mention the improvements in Apollo management and the strengthening of the NASA-contractor relationship. An editorial in *The Washington Post* wisely stated, “the risks of the space program... cannot be eliminated altogether without abandoning it. NASA has been engaged in a great venture that is inherently associated with great hazard to life...there will not be much bold venturing in a society that visits a sanguinary fury upon those unfortunate enough to preside over calamity.”¹²

Following the Apollo One fire, Julian Scheer remarked that the astronauts’ dissatisfaction with the Public Affairs Office disappeared in the second half of the 1960s.

¹¹ Memo, James Webb to Julian Scheer, 18 May 1967, Apollo One file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

¹² Editorial, “Risk-Taking,” 19 April 1967, *The Washington Post*, 2.

Scheer said, “as the number increased and as NASA itself evolved into an organization, these people [the astronauts] became more a part of the organization and there was more continuity in the [public relations] people that they dealt with, this kind of [negative] attitude broke down.”¹³ However, Apollo astronauts have given the impression that Public Affairs remained a dissatisfying part of their NASA experience well beyond that date. In 1970, Apollo 11 Lunar Module Pilot Buzz Aldrin remarked that “there [was] an unfortunate division of responsibility between the PAO activities and the crews. A certain amount of it is handled by our office here, a certain amount handled by Washington, and of course some of it filters through PAO here. To say the least, it is decentralized.”¹⁴ Aldrin noted that although Public Affairs functions skyrocketed after the Apollo 11 flight and were controlled “a good bit more out of headquarters than here,” he noted among the Apollo 11 crew members “a problem of unfamiliarity with Public Affairs activities and people.”¹⁵ Conflict arose within and outside NASA despite Scheers’ 1963 and post-1963 attempts at rationalization, which strengthened, but did not totalize, centralized control, as the fallout from the Apollo One fire proves.

Paul Haney thought that the overall NASA Public Affairs operation largely succeeded in its mission during the aftermath of the Apollo One tragedy, despite the fact that the NASA Headquarters Public Affairs Officer did not approve of the news conferences held by the MSC PAO.¹⁶ But Haney did not appreciate some of Bob

¹³ Scheer, Interview by Merrifield, 1970, online.

¹⁴ Buzz Aldrin, interview by Robert Merrifield, 1970, 3.

¹⁵ Aldrin, interview by Merrifield, 1970, 3.

¹⁶ Haney interview, 8 April 1968.

Gilruth's attitudes toward publicity in the wake of the fire. According to Haney, Gilruth on several occasions said to him, "we've got to do something to make people stop thinking about this fire." Haney did not find this attitude constructive and, taking a stance that contrasted with Scheer's, disapproved of the restrictions NASA placed on information during this period.¹⁷

In his 1968 interview, Haney discussed the emergence of a more systematic post-Apollo One policy regarding information interests. Two weeks after the fire, Haney drafted a new policy declaring that an installation's "senior information officer" should contact the head of the installation and the head of NASA PAO to make sure leadership was aware of any major accident. If the accident involved the loss of life of a prominent individual such as an astronaut the senior information officer would release a general statement, or "alert," but without identifying the individuals killed until next-of-kin had been notified. Within an hour or two, a statement would be released with specific identification of the dead and as much detail "as is obvious and relates to the accident" but without unnecessary speculation.¹⁸

Shortly after the fire, in February 1967, the MSC PAO assumed responsibility for compiling the Center's weekly activity report for NASA headquarters. The activity reports discussed cooperative efforts and joint meetings between NASA and other organizations; significant internal MSC meetings and briefings, and progress on construction and dedication of facilities. The reports also covered new appointments of

¹⁷ Haney, interview, 8 April 1968.

¹⁸ Haney, interview, 8 April 1968.

NASA officials to various committees or delegations; visits to the center by members of Congress, and any significant international activities.¹⁹ Haney also established the Educational Programs and Services Branch of the center's Public Affairs Office under Eugene Horton. The initiative brought together legislators, teachers, students, and the general public at the center for a sense of public participation in the space adventures of NASA.²⁰ By March 1968, the organizational structure of the PAO had changed. Reporting to the PAO were the Mission Plans and Operations Branch, the History Branch, the Protocol Branch, the Public Information Office, the Educational Programs Branch, and the Audiovisual Branch.

Despite his complaints, Julian Scheer credited the Houston center for creating very strong public affairs programs, including exhibits, astronaut public speaking engagements, public programs, and public tours of space equipment and paraphernalia. After the Apollo One fire, Scheer said, "we at NASA Headquarters serve in the strictest sense of the word, as functional supervisors, and appreciate and are pleased with the fact that our primary resources are in the Manned Spacecraft Center." MSC's relative proficiency in public relations, Scheer believed, resulted in large part because of the affiliation of the astronauts with MSC, the presence of mission control and other reasons that caused the identification of the center as the "essence of NASA" in the media and

¹⁹ Paul P. Haney, "MSC Announcement: Scheduling of Tours," 4 September 1964, Center Series, History Collection, Scientific and Technical Information Center, NASA Lyndon B. Johnson Space Center, Houston, TX.

²⁰ Dethloff, ...*Suddenly, Tomorrow Came*, 134.

public mind. Kennedy Space Center, from which the missions launched, achieved a slightly similar identification but to a lesser extent.²¹

NASA's Public Affairs Office emerged from Apollo One with scars, but healthy. The launch of Apollo 7, the first manned test of the command module in earth orbit, went relatively smoothly. The PAO had a structure of organization integrating Headquarters and field center offices, and Julian Scheer had a much clearer understanding of the kinds of personalities he could rely on in the field to run things smoothly. However, the field centers would continue to strengthen their separate identities during the future evolution of the human space program, which meant that the relationships between Headquarters and field public affairs offices would continue to complicate NASA public relations through the Apollo 11 lunar landing and beyond.

²¹ Dethloff, ...*Suddenly, Tomorrow Came*, 133.

CONCLUSION

The actors of this story each had very different fates after leaving NASA. Although Walter Bonney's career was hurt by the 1960 U-2 crisis, he nonetheless made important contributions to NASA Public Affairs programs. During the 1960s, as he worked for the Aerospace Corporation, Bonney was able to return to his great love, aerospace history. In 1962, Bonney published *The Heritage of Kitty Hawk*, a popular, colorfully illustrated account of pre-World War I aviation. Bonney also contributed substantial criticism to NASA historical studies sent to him by Eugene Emme. In 1965, Bonney contributed critical remarks to Swenson and Alexander, authors of NASA's history of Project Mercury, through Emme. Emme wrote to Swenson and Alexander, lauding Bonney's expertise:

The significance of each comment is buttressed by several things: 1) Walt was in a position to know about all of NACA and NASA business across the board; 2) He is historically-minded on this subject, for he's been out of it for five years 3) He is a foremost contributor and student to aerospace literature of pertinence...Bonney has...as much perspective on this history as anyone, both as to content and to its probable impact upon the informed reader.¹

Bonney retired from the Aerospace Corporation in May 1971 and turned wholeheartedly to his writing career. Then, in 1970, Bonney sent Emme remarks on draft chapters of a

¹ National Aeronautics and Space Administration, Eugene Emme, memo, 3 December 1965, Walter Bonney biographical file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

Manned Spacecraft Center (now Johnson Space Center) history by Robert Merrifield.

Despite his untimely and uncomfortable exit from NASA, Bonney generously shared his vast personal knowledge of the space program with others over the years. He often expressed a wish that credit be given to the many people, and not only to a few select leaders, who made the Mercury, Apollo, and Gemini plans possible.¹

Walter Bonney died on May 10, 1975, after suffering a severe heart attack. At the time, he was preparing a 43-year history of the NACA under contract to the NASA History Office. Friends and acquaintances of Bonney deeply felt the loss. Shortly after Bonney's death, John P. Donnelly, NASA's Assistant Administrator for Public Affairs, wrote to Mrs. Bonney: "It was with a sense of personal loss that I learned of Walt's heart attack...although we didn't get a chance to know each other well on a personal basis, I had heard so much about him that I always felt we were old friends. It was such a feeling he made real on the occasions we did meet."²

NASA Historian Eugene Emme wrote Bonney's official NASA obituary. Although Bonney never received any awards from NASA, he received many others, including the Aviation Space Writers Public Relations Trophy in 1957 and the Air Force Association Service Medal, also in 1957. Emme gave a summary of Bonney's career,

¹ National Aeronautics and Space Administration, Walter Bonney, letter, 27 April 1970, Walter Bonney biographical file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

² National Aeronautics and Space Administration, John P. Donnelly, letter, 12 May 1975, Walter Bonney biographical file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

lauding him for grace under pressure while working with a “modest staff” and for “meet[ing] the full thrust of the enormous pressure of the news media during the hectic early years of the ‘space race.’” Bonney was survived by his wife, Dorothy, and one daughter, Jean Luise. In 1975, Bonney’s wife turned his files over to the NASA History Office.³

Shorty Powers’s career trajectory was somewhat different. Although Powers served as “Astronaut PIO” for the entire Mercury Program, Administrator Webb encouraged his retirement from NASA because of the controversy surrounding his growing public status as “the eighth astronaut.” Powers had continually ignored guidance from Headquarters regarding his work, and enjoyed putting himself into the spotlight with the astronauts. He did not act as a “behind the scenes” facilitator for astronaut public appearances, as Headquarters had encouraged him to. Also, the astronauts themselves complained of Powers’s rather heavy-handed approach towards astronaut publicity. Powers, it seems, would go to unusually great lengths to “sell” the astronauts, most of whom preferred to focus on performing their jobs as pilots and engineers. The arrival of Julian Scheer to the position of Head of Public Affairs in late 1963 marked a new era of more centralized control over agency-wide publicity; in this era, insubordinate PIOs were not be tolerated for long. Powers left NASA and died of complications resulting from alcoholism in 1983. Julian Scheer remained the head of NASA Public Affairs until his retirement in 1970, and then became a private consultant working in Washington, D.C. and Virginia. He contributed many columns to area newspapers on the topic of space exploration and died in 1990.

³ National Aeronautics and Space Administration, Eugene Emme, obituary of Walter Bonney, 11 May 1975, Walter Bonney biographical file, NASA Historical Documents Collection, NASA Headquarters, Washington, D.C.

A study of NACA and NASA public relations operations shows that the rhetoric employed by such public information officers and agency leaders as John Victory, Walter Bonney, Hugh Dryden and T. Keith Glennan, among others, transformed air and space “news” into Cold War government propaganda which emphasized the superiority of democracy and capitalism over communism. These public relations practitioners, often guided by the ideas of higher-level government leaders, made air and space technology itself into a powerful symbol of the American political and economic system. They did so using narratives, such as the NACA/NASA public relations meta-narrative and the smaller narratives of “America-first” globalism, American national identity, and American technological indigeneity; these ideas first took shape earlier in American history. This rhetoric became strikingly visual and almost blatantly commercial in *LIFE Magazine*’s publicity of Project Mercury. Despite the end of the Cold War and the rise of new global power systems, these portrayals of NASA have become important parts of the American cultural fabric. They continue to shape the way we think about space exploration and space technology into the 21st century.

Yet this view of Cold War-era NACA and NASA public relations also provides a window into how the U.S. government and the “military-industrial complex” as a whole grew and changed from World War II to the early 1960s. NACA-era public relations morphed from an information-presenting service into a tool helping the agency to fight for survival as it was dwarfed by the huge postwar aviation industry and government technology infrastructure. Walter Bonney, formerly a pre-war aviation industry publicist, helped the NACA to adjust to the priorities of industry and military as a “team player.”

After Sputniks 1 and 2, as NASA began to rise to the highest level of the “military-industrial complex,” NASA leaders realized that Bonney’s modest approach help not allow the agency to create the public image or the level of protection that it would need to grow, prosper, and achieve Kennedy’s, or even Eisenhower’s, goals for space exploration. NASA leaders plucked their new generation of publicists from the ranks of large World War II and postwar-era technology-oriented government agencies and from the world of corporate journalism. This new breed of publicists advertised NASA, to the public, Congress, and international community, like large corporate public relations leaders had advertised industrially-produced products during the twentieth century. Advertising aside, they needed to produce information about the agency on a huge scale to satisfy the demands of a press and public enthralled by the “Space Age.” Perhaps further studies will reveal how NASA’s “information” and “advertising” overlapped in the Apollo era. Yet one can see that by the end of the “saltation” of the early 1960s, NASA public information leaders had to consolidate public relations activities into an almost corporate bureaucratic structure in order for NASA public relations to “work.” And, due to NASA’s relations with corporate America, the NASA OPI had to speak in a language that industry would understand. For these reasons, one can view NASA public relations as helping to advertise industrial-capitalist America using the very tools invented by industrial corporations’ public relations offices.

On the whole, early NASA Public Affairs practices achieved most of their ends. One measure of their success is the great extent to which they popularized the notion of a manned spaceflight program as opposed to robotic space exploration or a central focus on the development of astronomy. From 1958 until the present, the national and

international image of NASA has largely been one of manned, or human, spaceflight. Even today, the majority of NASA's budget is allotted for human spaceflight. Because information provided by NASA Public Affairs links the agency, the public, and the press, one can certainly deduce that the Public Affairs Office played an important role in the perpetuation of human spaceflight's popularity.

Certainly, the early NASA Public Affairs (or Public Information) Office succeeded in spreading its message about the manned spaceflight program. Newspaper and magazine articles on NASA-related topics (particularly Project Mercury) increased at least a thousandfold in the year following Walter Bonney's public introduction of the Mercury 7 astronauts. The fact that NASA became such a popular topic for the media can be explained, to some extent, by effectiveness of the Public Information Office's techniques for promoting manned spaceflight. The dramatic public information "saltation," occurring early in NASA's history, largely set the course for the agency's future public affairs ethos.

After NASA's Apollo glory days, however, the public relations paradigm of Cold War competition was not as effective. Perhaps it never effectively shifted. Once the United States landed men on the moon, what rationale could public relations offer for continued human spaceflight? With the advent of the Space Shuttle and various space station projects, NASA public relations workers tried to emphasize such factors as science, spin-offs, and making spaceflight "routine." All too often, however, such attempts have been ineffective in gaining increased support for space exploration. The NASA Public Affairs Office, like other NASA programs, has fallen victim to dramatically slashed budgets. The "best and the brightest" journalists and military "pr

men” may have come to publicize NASA during Projects Gemini and Apollo, but in more recent times, NASA public relations workers have had to endure smaller salaries and less interesting workdays in an aging government bureaucracy. Perhaps NASA Public Affairs does not draw the talent it once did. In any case, early NASA Public Affairs did not provide a sufficient legacy for the changing political economy of the Space Age, particularly after the end of the Cold War.

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