The Right Stuff Study Guide

The Right Stuff by Tom Wolfe

BOOKRAGS

Contents

Plot Summary

Test pilots may be the cockiest, most arrogant young men in the world. While at every stage of their training candidates quit, wash out or die, those who persist begin to recognize and live by an unspoken set of standards and assumptions summed up as having "the right stuff." Their wives are subject to the unwritten rules and standards, as well, and they comprehend the very good chance that their husbands may die. It is understood that part of military service involves early sacrifices for later rewards. For the pilots, the greatest reward is to be chosen to test planes at Muroc (later Edwards) Air Base. The planes that fly the fastest and highest are tested by the best pilots, and in the late forties and fifties, the best of the best is Chuck Yeager.

Despite rumors that it is impossible to fly faster than the speed of sound, Yeager breaks the sound barrier. In the post-war, Cold War paranoia, the Army orders that this achievement should be kept secret. The country's fear of the Russians is great and growing. Under the direction of their anonymous Chief Designer, the Russians have launched the first orbiting satellite and America lives in fear of what the Russians could drop on. Although the pilots at Edwards keep going higher and faster in ships they both pilot and land, President Eisenhower orders a hurry-up program to get a man into space. This is seen as an engineering problem. Any man shot into space will be a mere passenger: a test subject with no control of the capsule. Therefore, although the new program brings together the country's best test pilots, in asking for volunteers, the Army is not optimistic that type will find test pilots for this program. To their surprise, the overwhelming majority of the pilots see this as a call to hazardous duty, and many volunteer. Since they will not actually be flying the capsule, the remaining Edwards pilots ridicule them, calling them "Spam in a can."

The volunteers are whittled down to seven. On the day of their first press conference, although they have done nothing yet, they are treated as combat heroes. Most of the pilots, afraid of saying something which would damage their careers, are tightlipped, but the sole Marine, John Glenn, eloquently answers questions about God and family. He charms the press, who assume he speaks for all pilots, now called "astronauts." In reality, the astronauts are fiercely competitive and believe the first man up will be the one who goes down in history. When a peer vote sends Shepard first, Grissom and Glenn are forced to accept minor roles. Grissom gets the second flight, but he appears to panic after landing and loses his capsule. To everyone's amazement, it is Glenn's first American orbit of Earth that triggers the most intense public response, with cheering crowds and ticker-tape parades. Suddenly the astronauts are idolized, and are given gifts and goodies to sweeten their meager service salaries. The Edwards test pilots find it inexplicable, since they are flying nearly as high as the astronauts, nearly as fast, and landing their own crafts on dry land, but the general public does not seem to notice.

Gradually, the astronauts add features to the space capsule, which give them more control of the craft. When the automatic systems fail on his flight, Gordon Cooper, the final Mercury astronaut, is able to pilot his capsule back entirely under manual control. The army is hoping to establish a purely military space program, but the plane that is its

greatest hope proves hopeless at high altitudes and nearly kills Yeager in the process. The mood of the country has changed; the Russians are no longer seen as an immediate threat. The Gemini and Apollo programs continue, but astronauts are no longer seen as single combat warriors facing death for the United States and their status fades.

Chapter 1, "The Angels"

Chapter 1, "The Angels" Summary

Jane Conrad is a new bride quickly learning the unspoken codes of Navy test pilots. Her husband, Pete, and all his friends are pilots. Slowly, the men of Group 20 are being killed; or, as they refer to it, "auguring in," "crunching," or "buying it." The same is true at Pete's first posting in Florida, as well as at the Navy's new test-pilot school at Patuxent River, where he is positioned after receiving a promotion. Although the men are saddened by the deaths, oddly enough it does not seem to bother them that there are so many casualties. Each man believes that, because of his own superior skills it could not happen to him.

On the other hand, Jane is deeply concerned for her husband's safety as evidenced by her having bad dreams and hallucinating that an official visitor is coming to her door with news that her husband is dead. She is unable to discuss her fear with anyone, though, because part of the Navy's unwritten code forbids her to talk about her terror or suggest that mechanical failure could happen to any of the pilots. Years later, as she is besieged by the media to and asked to express fear for her astronaut husband's fate, Jane will think "Why ask now?"

Chapter 1, "The Angels" Analysis

By beginning with a woman's point of view, Wolfe signals that this is not going to be the usual reverent history of the early space program. Instead, he takes the unusual step of showing the dangers of a test pilot's life from the point of view of the wives. Although they are deeply involved, the wives enjoy none of the excitement and prestige that compensate their husbands for such dangerous jobs. Wolfe contrasts the ordinary pleasures of young newlyweds with the grim realities of fighter jocks, particularly the fighter jocks of Group 20, who keep attending funeral after funeral. By beginning with the point of view of the wives, Wolfe signals an unusual approach to the story of the Mercury astronauts. At the same time, including the memories of the wives allows both an inside and an outside view of the closed world of the test pilot.

Chapter 2, "The Right Stuff"

Chapter 2, "The Right Stuff" Summary

Wolfe compares the career of an ambitious young fighter pilot to a ziggurat, an ancient Babylonian pyramid with its steps and terraces, with the chosen few, "the very Brotherhood of the Right Stuff itself," at the top. Candidates begin to be "left behind" in military flight training from the start. Some are unable to cope with class work or with basic flight instruction. The real test for Navy pilots, though, is the aircraft carrier landing. An aircraft carrier deck is sixty feet above the water, has no rails, and pitches up or down five or ten feet with each wave, and is slick with hydraulic fluid and jet-fuel. Many pilots do well on their first landing, but once they have actually been on a carrier, some develop medical symptoms that disqualify them for flight. They are not sent home, however, but remain in class to train as flight controllers with those who have not "washed out."

Meanwhile, the successful candidates are figuring out that a certain amount of the right kind of rule breaking from the superior pilot. They indulge in mock dog fighting and risky stunts, both in the air and on land. "More fighter pilots died in automobiles than in airplanes"(p. 37). They become reluctant to declare an emergency while flying. Each man continues to believe he would have found a solution to the emergency that caused his friend's plane to crash. Most of all, they begin to master the code in which the pilots can discuss bravery, fear, death and danger without ever using those words. Instead, they pass information by stories and examples. Like every Navy pilot, Pete Conrad asserts that Pax River is the place to be. In his heart, though, he knows this is not true. The place to be is Edwards Air Force Base in the desert north of Los Angeles. It is the top place, and it holds the top pilot.

Chapter 2, "The Right Stuff" Analysis

Chapter Two consists mainly of descriptions of the usual Navy test pilot's progress, with no conversations, no drama or conflict and almost no specific people. Still, Wolfe manages to sustain interest through vivid details, which give the reader the sense of being admitted behind the scenes of a secret fraternity. There are no interpersonal conflicts to create tension, but there is some suspense as the reader follows the progress of the successful "fighter jock." While lesser mortals "wash out" and are assigned to appropriate work, the narration follows the successful pilot's trajectory, only to be told that the peak is not the end, that the best pilots are located elsewhere. This shifts the focus of the book to a new place and a new character in a chapter that will be the complete opposite of Chapter Two.

Chapter 3, "Yeager"

Chapter 3, "Yeager" Summary

Chuck Yeager is king of the test pilots. In the late 1940s and early 1950s he is so widely admired that other test pilots imitate his relaxed West Virginia drawl, military pilots imitate the test pilots and commercial pilots imitate the military pilots. Although not from a military background,, when he was 22, at the end of World War II, Yeager had thirteen and a half kills (five make you an ace). Even so, he is surprisingly young to be assigned to Muroc Field.

Muroc, later known as Edwards Air Force Base, is in the high desert north of Los Angeles. Its dry lakebeds make perfect landing strips with a wide margin of error. Hot by day and freezing by night, Muroc is primitive - and available to only the top test pilots. The one place for recreation is Pancho's Fly Inn, a dude ranch with a restaurant run by a woman pilot named Pancho Barnes. Here the young pilots are able to indulge in "those traditional essentials for the blissful hot young pilot: Flying & Drinking and Drinking & Driving" (p. 50).

At Muroc they are putting rockets on planes and are working on breaking the sound barrier, Mach 1. Opinion is divided on whether this is possible, since even at Mach .7 planes endure terrible buffeting. Some scientists believe a plane would disintegrate before it reached Mach 1 (p. 53). The prime pilot for the test, Slick Goodlin, is asking for a bonus of $150,000 for breaking the barrier so the Army replaces him with Yeager, who takes the job for his regular Army captain's pay, $283 a month or $3,396 a year. "Not being an engineer, Yeager didn't believe the 'barrier' existed," (p. 53), and on subsequent flights takes the X-1 to .85 Mach and .9 Mach. He does encounter many problems but becomes increasingly convinced the buffeting will become less, not greater, as he nears Mach 1.

Two nights before the scheduled test, Yeager and his beautiful wife, Glynnis, finish a night at Pancho's with a desert horserace. Yeager is thrown and secretly consults a town doctor who informs Yeager that he has broken two ribs. This will certainly cause him to be replaced if anyone finds out. The morning of the flight he realizes he will be unable to close the cockpit tight with his right hand. His flight engineer, Jack Ridley, cuts a length of broom handle and conceals it in the cockpit. With that extra bit of help Yeager is able to close the door and go supersonic.

Within two hours word comes down that Yeager's achievement is to be kept top secret. They do tell Pancho Barnes, who had promised a steak dinner to the first pilot to go supersonic and walk in to tell her about it, but otherwise Yeager remains silent. Then an English film, *Breaking the Sound Barrier*, creates the impression not only that the English did it first but also that they did it by throwing the plane into reverse at a crucial moment. To Yeager's amazement the impression grows that he was only the first

American to break the sound barrier and even the Secretary of the U.S. Air Force calls to ask if he did it by reversing the controls.

Yeager's reputation among pilots grows. He is given virtually every award and commendation possible and Edwards becomes a mecca for young test pilots. Then in 1957 the Russians launch Sputnik, the first orbiting satellite. No one at Edwards is impressed, since their manned rocket flights are on schedule, but the country and the politicians panic that the Russians are seizing "the high ground." The decision is made not to wait the three or four years to put a piloted X-15B or X-20 into orbit, but to use the quick and dirty approach of shooting up a capsule propelled by a rocket controlled from the ground. Many of the test pilots laugh at this "Spam in a can" approach where piloting skills play no part, and the commanding officer at Edwards passes the word for the Fighter Ops to avoid Project Mercury.

Chapter 3, "Yeager" Analysis

If Chapter Two is impersonal and descriptive, including much information but little storytelling, Chapter Three is its opposite. Yeager is portrayed as an appealing, intelligent - although not college educated - man of great natural gifts and even greater character. His accomplishments are set against the standards of Muroc/Edwards and then contrasted with his minimal popular recognition. The reader is thoroughly indoctrinated not only in the standards of the fighter pilot and his reluctant attitude toward the press, but in the sequence of accomplishments which break the sound barrier and make manned orbital flight a thing of the very near future. Having been educated to identify with the standards and goals of the Edwards test pilots, the reader has been set up to be as shocked as the pilots by the government's next move.

Chapter 4, "The Lab Rat"

Chapter 4, "The Lab Rat" Summary

Pete Conrad's Group 20, including Wally Schirra and Jim Lovell, have just finished their flight-test training. About half of them receive orders marked "top secret," ordering them to report to a certain room at the Pentagon dressed as civilians. When they arrive they realize it is a gathering of test pilots from all over the country. Two of the highest-ranking engineers in NASA speak to them about volunteering for the space program. Knowing that pilots don't want to be just "Spam in a can," the experts emphasize situations where an astronaut would have to pilot the craft manually. They also speak of the program's danger and assure the pilots that if a man does not volunteer it will not be entered on his record nor be held against him in any way.

That night Conrad, Wally Schirra, Jim Lovell and Alan Shepard get together. They do not discuss space travel or the rocket program. They discuss what volunteering is liable to do to a Navy career. Will it take them out of line for promotion or jump them to the front of the line? Project Mercury is a civilian program and its rockets have not even been developed. Yet the next morning, to the recruiters' amazement, fifty-six of the sixty-nine recruits volunteer. The recruiters do not know that this is partly because the terms of the mission suggested danger and "One of the maxims that was drilled into all career officers went: '*Never refuse a combat assignment*'" (pp. 85-86). Combining the possibility of being the first men in space and the fear of being "left behind," the outcome is inevitable.

To stir public support, the Eisenhower administration makes rocket tests public, but rocket after rocket is a failure. This does not disturb the pilots, since failure is normal in rocket testing. The Russians, though, rejoice and the American public begins to believe "our rockets always blow up." The pilot's wives, however, feel that no job could be more dangerous than being a test pilot and they support their husbands' choice wholeheartedly.

The volunteers are sent to the Lovelace Clinic in Albuquerque for a series of test. Pilots normally distrust doctors, but this increases a hundred times at Lovelace. The pilots are subjected to every sort of physical strain and are tested inside and out. Sadistic prostate exams are followed by repeated orders for enemas. After the humiliating experience of having to pass through two public hallways and an elevator wearing a hospital gown with a tube coming out of his bottom, Pete Conrad bursts into the presiding general's office, slaps his enema bag on the desk and declares he has given himself his last enema. The other pilots agree and are delighted but they let Pete make the waves. At Wright-Patterson Air Force Base the tests continue and Conrad is alternately cooperative and rebellious. He buys a notebook to take notes on a psychologist who is constantly taking note on him and, when asked to describe what he sees on a blank sheet of paper, stammers "But...it's upside down!" By contrast, Scott Carpenter delights in the tests, which reveal his superior skills and conditioning. He doubles the record for

the breath test and rises in the rankings. Even though he gave up being a test pilot in the interests of his family, he is chosen. So is Wally Schirra, and so is Alan Shepard. Pete Conrad is not. He comforts himself that Jim Lovell, the number one pilot from Group 20 at Pax River, was not chosen, either. He remains convinced that the astronaut candidates are merely glorified lab rats. Still, he is devastated - for the first time, he has been "left behind."

Chapter 4, "The Lab Rat" Analysis

While picking up the story of Pete Conrad, Chapter 4 advances the action by doing two things at the same time. It narrates the astronaut-candidate selection and testing process, primarily from the point of view of the candidates but with occasional glimpses into the concerns of the recruiters and the doctors and psychologists doing the testing. At the same time it introduces us to characters beyond the Pax River 20 group and makes them memorable for the ways they react to similar problems. At first the reader is led to identify with Conrad's fury at the way he is treated during testing. Discovering that Scott Carpenter regards this impersonal, humiliating treatment as a test in and of itself and is proud of his ability to endure it, though, forces the reader to reconsider.

By switching the focus from Conrad to Mr. Family Man Carpenter, the author is able to concentrate again on the military families and their attitudes toward the deprivations and the occasional benefits a military life. Wolfe shows the sacrifices and the "goodies," of which the Carpenter's monkeypod table is both the symbol and the prime example.

Chapter 5, "In Single Combat"

Chapter 5, "In Single Combat" Summary

The seven astronauts are introduced to the public at a press conference. Even before their names are mentioned, the excitement of the reporters and photographers is barely under control. The astronauts are described in terms of their "superb adaptability," not in terms of their skills and achievements as test pilots, but no one else seems to notice. In reality, several of the pilots feel that Gordon Cooper's lack of test experience and Scott Carpenter's lack of combat *and* jet experience reflect badly on the prestige of the rest of the group.

The press, however, is oblivious of such distinctions. The mere roll call of the astronauts' names triggers a standing ovation. The first questions, however, are not about the flights themselves or the skills of the astronauts but about their wives and children's reactions and about their religion affiliations. While some of the pilots are nonplussed - "What can you do, say that as a matter of fact you can get along just as well without any of them as long as they'll let you fly?" (p. 116) - John Glenn, the lone Marine pilot, answers both questions eloquently. "You could see these pilots struggling to put up enough chips to stay in the God & Family game with this pious Marine named Glenn" (p. 116). Finally, a reporter asks how many of the astronauts are confident that they will come back from outer space. Embarrassed, the astronauts raise their hands, maybe beginning to understand that the public is convinced they are liable to die, and worship them for being willing to confront the Russians. Glenn has both hands in the air. The press writes reports that combine the greatest achievements of each astronaut. This helps to blur over Cooper and Armstrong's relative lack of accomplishment and raises Glenn to even greater prominence.

The Air Force is now publicizing Chuck Yeager's accomplishments, but all the press wants to talk about is the astronauts. Yeager almost causes a scandal. When a reporter asks him if he regrets not being chosen to be an astronaut, Yeager replies no, it was a great honor to fly the X-1 and the X-1A, and besides, he's a pilot and the astronauts won't be doing any flying. To clarify, he points out to the shocked reporters that a monkey will make the first flight. Mercifully, none of the wire services pick up the story and scandal is averted. Yet Yeager's view is so clearly the sensible one from the point of view of the Edwards pilots that they continue to believe that it is only a matter of time before the public will agree that the astronauts are more test subjects than pilots.

Chapter 5, "In Single Combat" Analysis

"In Single Combat" manages three jobs at once. Wolfe introduces new characters such as Glenn and shows them both from the point of view of traditional fighter jocks and in the light of adoring press coverage. He also introduces the concept of the single combat warrior to explain why the public worships seven men who have done nothing more

than show up at a press conference. Finally, the chapter itself performs what it describes, the upstaging of the Edwards test pilots, particularly Yeager. Yeager has been the standard against which pilots have been measured. Now the press perceives the astronauts as superior to Yeager and the other Edwards pilots - even though they have done nothing so far. Yeager hardly appears in the chapter, a reflection of the national attention on the astronauts and their mission. Ironically, that mission is one the test pilots think they themselves are close to achieving, and achieving as active participants, not as "Spam in a can."

Chapter 6, "On the Balcony"

Chapter 6, "On the Balcony" Summary

Being an astronaut begins to look like a really good deal. It has both soul-satisfying work and short periods of public worship which feel like stepping out onto the Pope's balcony with the people cheering and waving. It is a little upsetting that there is no actual flying to do, but that is not a worry yet. John Glenn's behavior is becoming a problem, though. The other astronauts have figured out that their status permits them to ignore the doctors' suggestion that they exercise four hours a week. Glenn, however, does daily roadwork around the drive in front of his quarters. Granted, he is the oldest astronaut and needs to maintain and demonstrate his fitness. Sill, the fact that he is more religious than any of the others, is staying in Spartan bachelor quarters and drives "an ancient Peugeot, a real beat-up junker that was about four feet long and had perhaps forty horsepower, the sorriest-looking and most underpowered automobile still legally registered to any fighter pilot in America" (p. 133), does not mean he is not ambitious and competitive. He will do things for the right reason and if doing right makes him unpopular with the other astronauts, he can live with that.

All of the astronauts want the same thing: the first flight. It does not matter that the first flight will be sub-orbital. The astronauts, as pilots, are convinced that the first flight is the one that matters and that the astronaut who makes it will be the one who will go down in history. With fighter-jock egos, each is convinced he would be best and they have strong opinions about one another. Grissom and Slayton are contemptuous of their Air Force colleague Gordon "Gordo" Cooper. Gordo is confident to the point of cockiness, even though he has no combat experience and fairly ordinary test flying experiences. Cooper, in turn, resents that being an astronaut creates extra expenses for men still on service pay and causes them to lose flight pay as well. A man named Leo DeOrsey, though, has volunteered for the job of agent to the astronauts. He negotiated an exclusive deal with *Life* magazine, which not only will keep much of the press at a distance but will produce $24,000 a year for each astronaut. This is a lot of money to men whose service pay does not top $8,000 a year. The astronauts will approve the stories themselves, so nothing damaging - or interesting - will leak out.

With such goodies rolling in, even the terrors of public speaking are bearable. When Grissom, touring a rocket factory is asked to say a few words, he manages an ironic "Well...do good work." The workers not only cheer, they have the sentence made into a banner and hang it over the work floor. They take pride and feel personally responsible for keeping the astronauts safe.

Chapter 6, "On the Balcony" Analysis

All the astronauts are together for the first time in Chapter 6. They have similar backgrounds, but they come from different branches of the service and are intensely

competitive men. Their values are very different, too. While many of the pilots welcome time away from their families and have no religious convictions, Armstrong and Glenn are staunch family men and Glenn is a devoted churchman as well. They are all dedicated to the success of the Mercury program, but within the program they are in competition with one another. For the first time, Wolfe's larger picture of the test pilot's culture and of the tensions between the United States and the Soviet Union is not the main conflict sustaining reader interest. For the first time, too, a chapter has no mention of Yeager or the program at Edwards. For both the country and the book, the astronauts have become the primary focus.

Chapter 7, "The Cape"

Chapter 7, "The Cape" Summary

Cape Canaveral is not a glamorous Florida beach. It's Low Rent, where you go if you can't afford the glamorous beaches. The beach itself is packed so hard that kids drag race on it and "No See 'Um" bugs attack anything warm-blooded. The astronauts adore it. In the test pilot's mind, terrible living conditions are reserved for testing the hottest machinery and therefore for the top pilots. To them the Cape is reminiscent of the legends of Edwards in the early days. The military creates instant traditions, and immediately the tradition arises that the Cape is off-limits to wives. This makes sense, since the astronauts are working twelve-hour days and the surroundings are unappealing. It also means that astronauts who want to can avail themselves of the groupies who have begun to appear. The unofficial Military Wife's Compact has always granted a certain leeway to men away from home, and this tradition is in no danger of dying at Cocoa Beach.

While Glenn is in San Diego for a tour of the Corvair plant, he learns that an astronaut assigned a twin-bed room has told Scott Carpenter he'll be needing a double bed and has asked him to switch. Carpenter, amused, mentions it to Glenn. The next day Glenn calls a meeting and lectures the entire team. The playing around has gotten out of hand. It could put the entire program in jeopardy and he won't stand for it. Shepard, switching from Smilin' Al to The Icy Commander, informs Glenn he's way out of line. The men have volunteered for a job requiring long hours of training and what they do in their rare free time is, within the limits of good sense, their own business. Glenn doesn't budge an inch. Carpenter backs Glenn wholeheartedly; Grissom and Slayton do so reluctantly. Glenn knows he is making no friends but regards it as his duty, and standing up for what he feels is right has by now become part of his righteous stance. The others, while reluctantly agreeing, dislike being lectured. They also find Glenn and Carpenter's willingness to cooperate with doctors and even psychiatrists as suspect. Glenn's assumption of a leadership role, complete with the lecture, does not endear him to his colleagues.

Chapter 7, "The Cape" Analysis

A short chapter, "The Cape" serves primarily to set the scene for the Mercury test program. Much of the chapter is spent in describing the natural appearance of the Cape and its transformation by the arrival of the Mercury program into something resembling a boom town, with parties around the pools which accompany every motel and apartment complex up and down the Cape. The Cape's natural resemblance to the legends of the early days of Edwards allows Wolfe to remind us of the original hero-pilots, while his description of the available "goodies" sets up the main conflict in the chapter, Glenn's scolding of his colleagues and the division this intensifies within the team.

Chapter 8, "The Thrones"

Chapter 8, "The Thrones" Summary

The astronauts aren't the only members of the Mercury program with huge egos. The engineers designing the Mercury program have egos to match any fighter-jock and they regard the astronauts as test subjects. The invention of the high-speed electronic computer has made space flight possible, and the engineers regard the astronaut as a "redundant component," someone there to do jobs manually if the automatic system breaks down. Training should not be like flight training, where pilots are taught how to take certain actions. It should be a "de-conditioning," in which they will be go through simulations until the actual launch has no novelty. This is exactly the reason the NASA selection committee was afraid no test pilots would be interested. They had considered training twelve pilots in case half resigned when they realized how passive the job would be. Instead, the astronauts set about changing the experiment.

Since the issue is one of control, the astronauts first successfully change the term "capsule" to "spacecraft." They then work to have a cockpit window incorporated into the design - since the astronaut would have no control, the engineers had regarded a window as too risky and had provided only a periscope. Finally, the astronauts insist on a hatch they could open by themselves, instead of one that would require a crew to unbolt from the outside. Once all of these points are granted, the astronauts amaze the engineers by demanding manual control of the rocket, in the form of an override system. Each of these steps is designed to return the astronauts to the status of pilot and to silence the taunt "a monkey's going to make the first flight."

Actually, a monkey does, and his training has been just like the desensitization the astronauts have gone through except that the chimps are rewarded for right answers and punished for wrong ones by electric shocks in the soles of their feet. The best of them can operate their procedures trainers almost as fast as a man.

Meanwhile, at Edwards, a pilot named Joe Walker is the prime pilot for the X-15 project, one in which a manned ship with rockets nearly as powerful as a Redstone would achieve sub-orbital flight and achieve a piloted landing. The Mercury program is behind schedule and one televised rocket test after another blows up, or has to be blown up. The Soviets are succeeding in launching huge rockets and may be days away from launching a man into orbit. Advisors are suggesting to President Kennedy that we concentrate on our superior satellite program, scrap Mercury, and develop a careful long-range program with bigger rockets. The Edwards pilots, doing just that, are delighted and sure that public opinion will swing their way.

Chapter 8, "The Thrones" Analysis

In Chapter 8, Wolfe explores the similarities and conflicts between fighter-jock egos and engineer egos. He documents how the astronauts use their celebrity as leverage to change the engineer's designs in order to suit the pilots' needs for input and control. Wolfe links this desire for control to the test-pilot psychology, and then illustrates it further by an update on Joe Walker and his testing of the X-15 at Edwards. While the astronauts and their demands are changing the very nature of the Mercury program, eliminating as many experimental, non-flying experiments from the checklist as possible, Wolfe holds up two mirrors to their program: the chimp who can perform equally well in the capsule and the pilots who are personally controlling craft going nearly as fast and high as the capsule will.

Chapter 9, "The Vote"

Chapter 9, "The Vote" Summary

As the future of the Mercury program hangs in the balance, the astronauts put competition aside and work to get the program launched. Rank counts for nothing and a spirit of camaraderie takes over. Nevertheless, Glenn senses something odd when the astronauts are asked to take a peer vote on the question "If you can't make the first flight yourself, which man do you think should make it?." Sure enough, the day before Kennedy's inauguration, the astronauts are told that the first flight will be made by Alan Shepard with John Glenn and Gus Grissom as backup pilots. Glenn is stunned. He is convinced the brass, instead of assigning the flight on merit, have used the peer vote to avoid the agony of choosing a man to be put in this dangerous position. This means that that every move he made in order to be chosen on merit counted against him with his colleagues and lost him the flight. The first man up will live in history. He has been left behind.

In a test flight, the chimpanzee, named Ham for the benefit of the press, does spectacularly well, much better than he does at the subsequent press conference. The Edwards pilots are jubilant. The ape did perfectly; therefore, this is a job that a chimpanzee could do. Now the public will get it. Instead, to their amazement, the public reaction seems to be "My God, do you mean there are *men* brave enough to try what the ape has just gone through?" (p. 225).

The identity of the first man in space is to be a secret until the day of the launch, so Glenn finds himself in the ridiculous position of being treated as the frontrunner while knowing he's an also-ran. He is not alone in being disgruntled. Once the press is told, in alphabetical order, that Glenn, Grissom and Shepard will make the first flight, *Life* runs a cover with their picture and the headline THE FIRST THREE. The remaining astronauts now feel like The Other Four, as if they have, in some sense, washed out.

Still, in the final days, all the elements are coming together and a sense of mission takes over. Shepard alternates between Smilin' Al and The Icy Commander too fast to track, but when he's Smilin' Al he's particularly fond of comedian Bill Dana's "Jose Jimenez, the Cowardly Astronaut" routine and loves to have others feed him straight lines so he can deliver Jose's lines. When he switches without warning or transition to The Icy Commander, those who know he will be the first man up forgive him. Yet it is Glenn that most people believe is going and he has to endure more attention and admiration than either of the other two, pretending a modest pride, as if he were the chosen one. Then, twenty days before the mission, Russia's Integral Chief Designer strikes again. The Russians put a man, Yuri Gagarin, into not just sub-orbital flight, but orbit, and bring him down safely on land. The press notes that Glenn is particularly brave, a good sport about having been beaten at being the first man in space.

Chapter 9, "The Vote" Analysis

By beginning Chapter 9 with an unusually silent Glenn and *Life* reporter Loudon Wainwright listening to Kennedy's inauguration speech, Wolfe places the chapter in time, creates suspense and, as the reader learns the cause of Glenn's silence, establishes the chapter's theme of thwarted expectations. By focusing on Glenn and on how his upright behavior has for the first time worked against him, Wolfe throws the fighter-jock psychology into sharp relief - and into stark contrast with the bland image *Life* and the rest of the press is creating. The story of Ham's successful flight is skewed by the Edwards pilots into proof of the inferiority of the "Spam in a can" astronauts, then twisted back again by the intensified public admiration of men brave enough to do what that chimp did. Finally, Yuri Gagarin's flight deprives Shepard of his chance to be the first man in space and his thwarted ambitions are given an ironic twist when Glenn, the presumed candidate, gets further public admiration for being such a good sport.

Chapter 10, "Righteous Prayer"

Chapter 10, "Righteous Prayer" Summary

Shepard is inserted into his capsule before dawn, but an overheating inverter causes a four-hour delay of the launch. The nation is watching on television. In California, traffic police report thousands of drivers pulling off onto the shoulder of the road to wait out the countdown. The U.S. has recently botched an invasion of Cuba in what will come to be called The Bay of Pigs, and national faith in U.S. abilities is low. More rockets have been exploding or having to be aborted, and everyone is speculating on what must be going through Shepard's mind.

What is going through Shepard's mind is a growing need to pee. The training has worked well. Even though he knows this is the day of his flight, all the practice has succeeded in making this feel like another day at the office. New boots did cause him to slip in entering and now his cuff keeps catching on the parachute, and the rising sun glinting down the periscope has caused him to put a gray filter on it, but his real problem is his bladder. Like a true pilot he is less afraid of blowing up than of fouling up, but finally admits his need to the tower and is given permission. Since he is lying on his back, the urine flows downward, knocking out a few sensors but causing no serious harm.

Each engineer is now agonizing over whether to declare his area "go" and accept the responsibility if anything goes wrong. Listening in, Shepard realizes that the engineers have almost talked themselves into an adjustment that would set the launch back two days. He gets on the radio and in his Icy Commander voice says, "All right, I'm cooler than you are. Why don't you fix your little problem...and *light this candle*." It works. In minutes they launch. As his periscope retracts, Shepard remembers the grey filter, but in reaching to change it he almost trips the Abort handle. He decides to let it be.

At home, Louise Shepard has pulled her drapes. Her house is surrounded by mobs of reporters and cameramen desperate for a story. They are trying to interview the diaper deliveryman. While the press is hungry for a tear or a word of anguish, she can only think how much better this is than being a test pilot's wife. Besides, she doesn't have much time to agonize. The house is full of visiting relatives and friends. It is rather like being the widow at a wake, except that rather than being dead, her husband is merely in grave danger. Louise is so busy she almost misses the launch as she fixes coffee for the people in the living room.

In the capsule, Shepard is struck by how familiar things are. True, the actual launch doesn't throw you around the way the centrifuge did and it's quieter. The attempts to create a training that would remove all novelty from the flight have been successful. It feels completely familiar except that everything feels milder, easier than in the simulations. The gray filter makes water, land and clouds all look like gray goulash, but he makes a few comments on the beautiful view. Shepard has a long test list and

obediently tests the thrusters which give him pitch and yaw and tries to observe whether stars twinkle and whether there are bright color bands at the horizon, but the filter makes that impossible - and suddenly the g-forces are building up faster than predicted. Behind on his checklist, he forgets to turn off a manual control as he switches back to automatic while he can still lift his arms. His chute opens on schedule and the splashdown is no harder than landing on an aircraft carrier. He has made it, as long as he doesn't foul up getting out. He crawls out the neck of the capsule, is picked up by the helicopter and lands on the aircraft carrier *Lake Champlain*. The entire crew seems to be on deck, hundred of faces looking at him, glistening with admiration.

Chapter 10, "Righteous Prayer" Analysis

Chapter 10 is a fairly straightforward narration of Alan Shepard's flight, from pre-launch to splashdown, with one break to record what his wife was going through at the same time. In both cases, Chapter 10 contrasts the public expectation with reality. Louise's biggest problem is not fear for her husband but of the lunatic press tearing up her front yard and accosting her diaper service man, and the visiting family and friends requiring breakfast and coffee. Shepard is more concerned with not fouling up than with emotional reactions to the beauty and wonder of his situation; and, in any case it all looks like the training films - except that forgetting to retract the periscope is causing him to see everything in black and white. On the one hand Wolfe debunks the romantic notions of press and public about what Shepard is thinking and doing. On the other hand, by conveying the real concerns and difficulties Shepard faces, from the checklist to the constrictions of the capsule, Wolfe creates a sense of the true qualities in Shepard which make it possible for him to give America its first success in space.

Chapter 11, "The Unscrewable Pooch"

Chapter 11, "The Unscrewable Pooch" Summary

Shepard is treated like another Lindbergh. President Kennedy awards him the Distinguished Service Medal in a Rose Garden ceremony with the other astronauts looking on. Afterwards so many applauding people line the way that it takes the motorcade half an hour to reach the Capitol. New York hosts a ticker tape parade the next day and Al's hometown, Derry, New Hampshire, puts on another. President Kennedy, who had been skeptical, now orders work to begin to put a man on the moon by 1970, and Congress grants a virtually unlimited budget. In addition, Kennedy includes the astronauts in the social life of the White House and Jackie is gracious to the wives. For the astronauts, all these goodies are intensified by the contrast with the Cape's unchanged Edwards low-rent aura. They have now become symbols of Kennedy's New Frontier and will never be mere test subjects again.

Gus Grissom takes advantage of this in the plans for his flight. Shepard was subject to some implied criticism for leaving a manual control button on in the final moments of his flight as he hurried to make up for the time spent looking for stars and color bands. Since an astronaut can't be judged on how he flies, since he has no control, his mission's success is judged by how well he completes his checklist, and Gus is determined to keep his as short as possible, keeping out "experiments" and limiting the checklist to "operational" items, like the new hand-controller. A few nights before his flight, Grissom runs into Edwards pilot Joe Walker, who jokes that the astronauts had better be careful or the Edwards pilots will pass them on the way up - their rockets are nearly as big, and they both pilot and land their crafts. Amazingly, Grissom, instead of blowing up, chuckles and merely says, "Oh, I'll be looking over my shoulder the whole time, Joe, and if you come by, I swear I'll wave" (p. 279). The new order is clear - the astronauts are at the apex of the pyramid.

Grissom, like Shepard, has one cancelled flight, but takes off on July 21. Throughout the flight his pulse and respiration rates are higher than Shepard's, his pulse during weightlessness is consistently higher than Shepard's at lift-off. Still, individuals vary, and if everything had gone well it wouldn't have mattered. However, after splashdown Grissom thinks he hears a gurgling sound, as Shepard had. The recovery helicopter arrives two minutes later and the pilot and Grissom talk and agree that when the pilot has latched on, Grissom will blow the hatch. But as the helicopter approaches, the hatch goes flying off; Grissom scrambles out and, without looking up, starts swimming like mad. The capsule immediately begins shipping water, and is nearly submerged by the time the helicopter hooks it. The captain signals a second helicopter to pick up Grissom and tries to lift the capsule or drag it to the carrier, but full of water it weighs 5,000 pounds, a thousand over the helicopter's capacity, and they have to let it sink. Grissom is waving and appears to be signaling, "I'm okay" as the horse collar to lift him is lowered.

In reality, he's signaling, "I'm drowning." Not only has he forgotten to close a valve in his suit, so that instead of being buoyant it is filling with water, but he also had filled his leg pockets with souvenir rockets and two rolls of dimes. Waves keep breaking over his head and his mouth keeps filling with water. And he has lost the capsule.

As soon as he pulled into the helicopter the crew sees that he is in a bad way, gasping and struggling to put on a life preserver. He regains his composure as they reach the carrier but is still shaking and repeats, "I didn't do anything. The damned thing just blew" (p. 286). Through debriefings, inquiries and engineering tests he sticks to his story. No one believes him, since these explosive hatches have been used on jet fighters since the 1950s. The Edwards pilots are laughing. They know a failure when they see it but do admire his sticking to his story like any fighter jock who's just lost a plane. Nevertheless, the test pilots feel it's obvious that Grissom has blown it and wait for the uproar. To their amazement, sympathy is with "little Gus," his mission spoiled by a mechanical malfunction and his public status is untarnished. Nevertheless, Gus gets no parades, not even in his hometown, and his medal is delivered in a quick ceremony at the Cape. His wife Betty is quietly furious. Like all the wives she has given up and endured much but as a military wife can expect certain compensations. Instead, the Grissom's are being passed over: "Now...they truly *owed* her" (p. 296).

Chapter 11, "The Unscrewable Pooch" Analysis

Chapter 11, besides reporting the events of the second Mercury flight, also looks in the twin mirrors of public reaction and, in the form of the Edwards test pilots, peer appraisal. Increasingly, these resemble funhouse mirrors, with the public idolizing the astronauts and the Edwards pilots belittling them.

Wolfe continues to contrast image and reality in Chapter 11. The astronauts and the Edwards pilots are almost equally amazed by the popular response to what Wolfe refers to Shepard's "mortar shell" flight. Kennedy, faced with plummeting prestige, seizes on the space program from political rather than scientific motives. Grissom, publicly an innocent victim of mechanical failure, is treated with polite skepticism (and few rewards) within the program and outright derision at Edwards while his wife seethes at the disparity between what she has been led to expect and what she is actually receiving.

Chapter 12, "The Tears"

Chapter 12, "The Tears" Summary

Just as the space program appears secure, The Chief Designer strikes again. The Russians put a man into orbit for a full day, passing three times over the U.S., and landing him back on Russian soil. Suddenly everyone is concerned about "the space gap." The American program is speeded up and Glenn is assigned to ride an Atlas rocket into orbit. At Edwards, Bob White takes the X-15 nearly as high as Grissom or Shepard, using rockets nearly as big flying nearly as fast, is weightless nearly as long and all of this in a manned, piloted flight - and the press cares nothing at all. A second chimp, named Enos for the benefit of the press, makes two orbits and is safely retrieved. NASA announces that John Glenn will be the pilot for the first manned orbital flight, with Scott Carpenter as backup.

Glenn regards Shepard as the winner of the first-flight competition, so neither he nor Annie are prepared for the excitement that builds up over his flight. Reporters swarm his hometown, even jamming into church to try to get a shot of Glenn. His flight is delayed for over a month by bad weather, and while he can concentrate on his training, Annie is exposed to the full brunt of the press attention. This is terrifying for her, not because she is shy but because she has a terrible stammer. The day of John's flight he is in the capsule for five hours before they scrub the mission because of weather. In the dressing room, a NASA delegation asks him to call his wife to pressure her to "cooperate." Baffled, Glenn does and finds that Vice-President Lyndon Johnson wants to make a televised sympathy call on Annie. He also wants Loudon Wainwright, the *Life* reporter, to leave because his presence will antagonize the press reporters not allowed in. Wainwright even offers to leave. But Annie, terrified of public humiliation and furious, orders Wainwright to stay. Johnson is also becoming angry, parked around the block in a limo, and his staff pressures NASA, who in turn asks John to pressure Annie. John calls and tells Annie that if she doesn't want Johnson or the TV networks in their house, he backs her one hundred percent and that settles it. Johnson's furious. NASA schedules the flight for the middle of February and President Kennedy has Glenn to the White House.

On February 20, Glenn gets his flight: a full three orbits. As he passes over Australia he can see that the entire city of Perth has left their lights on for him. He also spots swarms of tiny bright lights, around his capsule, which he compares to fireflies. He's fascinated by trying to figure out what they are but is unable to interest anyone in ground control. Gradually Glenn becomes aware that ground control has some concern they are not revealing to him, something about his landing bag. He is furious that information is being withheld from the pilot, and when he is told to leave his retropackage on during re-entry, he even asks a direct question but is not answered. Slowly he understands that his heat shield might be loose, which means he could burn up on re-entry. Mercifully, the ground has misinterpreted data and, although he is insulted, Glenn splashes down perfectly.

No one is prepared for the country's reaction. Sailors on the ship that retrieves Glenn paint white lines around his footprints when he walks from the capsule. The President himself flies down to the Cape to welcome Glenn back. Suddenly the status has shifted. It becomes apparent that Shepard didn't make the first flight; he made the first sub-orbital flight. When Glenn wipes a tear on reuniting with his family, someone takes the handkerchief for the Smithsonian. "From that moment on, Al and Gus were also-rans, minor leaguers" (p. 344). Not only are there parades, but Glenn also addresses a joint session of Congress. Glenn makes sure that all the astronauts are included in the New York ticker-tape parade at which even tough New York cops are seen crying. The Broadway show they want to see holds the curtain and ticket-holders give up their seats for them. Finally, President Kennedy brings the astronauts to the White House for a personal visit and introduces his father, who has had a stroke. One side of the old man's face is impassive, but with the other he weeps.

Chapter 12, "The Tears" Analysis

Perhaps because he has arrived at the high point of his story and is about to describe the eruption of the totally unexpected, Wolfe keeps to a fairly straightforward style in Chapter 12. He first presents a brief summary of the national situation, a description of the chimpanzee Enos's flight and the national impatience for a manned orbital flight, the comic relief of Lyndon Johnson's confrontation with Annie Glenn, and then he deals with the core of the matter, Glenn's three orbits and the national reaction. Wolfe remains analytical when discussing Shepard and Glenn's changes of status, but allows himself every stylistic extravagance, from italics to exclamation points, in conveying the national enthusiasm, culminating in the ticker tape parade in New York.

Chapter 13, "The Operational Stuff"

Chapter 13, "The Operational Stuff" Summary

The push for a moon landing will require bigger headquarters, so NASA moves most of its operation to Huston and on July 4, 1962, the astronauts arrive. What had been billed as a little motorcade followed by a cocktail party acquires the qualities of a hallucination. Thousands of silent people line the sidewalks, four deep. For an hour the astronauts and their families smile and wave to the silent throngs. Then their cars return to the Houston Coliseum, which is full of noise, people and entire cows being barbequed indoors. After speeches and barbeque, the aged Sally Rand appears on stage to do her fan dance.

But the goodies do continue to pour in. An offer to give all of the astronauts houses causes such a scandal that their *Life* deal is nearly cancelled as well, but John Glen discusses it with President Kennedy on his yacht and the matter is resolved. Many of the astronauts, including Scott and Renee Carpenter, have built houses in the same neighborhood and try to be good sports about the tour busses that begin to stop at their houses. Despite their prosperity, though, Renee Carpenter is beginning to sense that something is wrong. Scott flew on May 24 in place of Deke Slayton, who had been pulled from the flight because of a slight irregularity in his heart. The astronauts have Deke given a special role in the program, "Coordinator of Astronaut Activities," and he continues to fight to be reinstated; but meanwhile, Carpenter takes his flight. Shirra, a man with much more flight test experience, had been Slayton's official backup, but the powers that be feel that because Carpenter logged so much flight training as Glenn's backup he's a better choice than Shirra.

Carpenter himself isn't terribly happy about being put in at the last minute, since this flight will be quite different from Glenn's, but he is actually interested in the checklist of experiments and enjoys his flight. His pulse rate, all the way through, is even lower than Glenn's. "He talked more, ate more, drank more water and did more with his capsule than any of them ever had" (p. 368), and he has a grand time testing the new control system to maneuver the capsule. On his second orbit he's warned to conserve fuel for re-entry and is aware of the need, but discovers that bumping the hull produces Glenn's "fireflies" and uses a certain amount of fuel to check this out. As he prepares for re-entry he forgets for ten minutes to turn off the manual system, which means fuel is being used at double the usual rate. His angle is off by nine degrees and he is late in hitting the switch. As radio blackout begins, the concern grows that he is either going to burn up or bounce off the atmosphere into perpetual orbit. As the silence continues, the farsighted begin to fear this will set the program back a year.

Renee Carpenter has given the press the slip. She has rented a house in Cocoa Beach, and, knowing the press watching the causeways will be expecting a car with four children, has slipped past them by having the kids lie on the floor of the car. Enraged, the networks hire helicopters and scour the beaches for groups of four children. Renee,

of course, sends them to the beach in groups of two. She, the children, and the *Life* writer and photographer watch Walter Cronkite cover the flight, and as the silence after re-entry continues, Cronkite tears up and says, with a catch in his throat, "I'm afraid ... we may have... *lost an astronaut*....." The children are quiet, but Renee has the test pilot's wife's attitude that unless they've actually found him dead, he's probably all right.

She's right. Scott overshot by about 250 miles, and is bobbing about in a life raft when a reconnaissance plane finds him forty minutes later. He's pleased and excited and wants to stay up late into the night talking about his grand adventure. He's proud of the job he did and feels he's expanded the astronaut's job to astronaut as scientist. Back at the Cape, Chris Kraft is swearing Carpenter will never fly for him again. He's convinced that by ignoring instructions to conserve fuel Carpenter almost produced a disaster and has cast doubt on the ability of the Mercury system to match the Russian's seventeen orbits. Soon the various objections to Carpenter and his way of running his mission have turned into a tacit agreement that he'd panicked. Ignoring his low heartbeat and respiration, his detractors point out his failure to turn off the manual control and agree that you can hear panic in his voice just before blackout on the tapes, although in reality he sounds much as Glenn did and much calmer than Grissom. Carpenter's flight and character are quietly denigrated and science experiments can now be omitted. The new holy word is "operational." If it doesn't have to do with flying, it has no priority.

The people who worship "operational" get extra ammunition when Russia launches two capsules in two days and has them orbit in tandem within three miles of one another. Now progress in flight is everything and science can wait. Schirra is training and Carpenter hears that meetings were held without notifying him, the previous astronaut. He concludes that they may be overreacting to his overshooting the target. It never crosses his mind that he's being accused of panicking. Schirra's flight goes like clockwork. The flight director comes on to say, "I think we are proving our point, old buddy" (p. 385), and an engineer named Gene Kranz comes on to say, "Now *that's* what I call an engineering flight." Carpenter begins to catch the implied criticism of his flight. At the end of four orbits Schirra still has 78 percent of his fuel left and lands just four and a half miles from the carrier. The word "textbook" is applied to his flight. He is taken to the White House to receive the Distinguished Service Medal, but the ceremony is rather perfunctory. He later learns that the President had just been told there are Russian missals on Cuban soil.

Chapter 13, "The Operational Stuff" Analysis

After the festivities of the final pages of Chapter 12 and the hallucinatory quality of the welcome to Huston that opens Chapter 13, the rest of Chapter 13 has a "back to business" air to it. The prosperity and stability of the Carpenter's new house and neighborhood is contrasted to the excitement of Scott's flight and then to his unstated fall from favor in the program. Wolfe switches point of view so gracefully that the reader first is as shocked as Carpenter to find that his flight is held in low regard, and then can't help but admire Schirra's "textbook" flight, despite knowing that Schirra helped write the "textbook."

Chapter 14, "The Club"

Chapter 14, "The Club" Summary

The call has gone out for a second round of astronauts, and this time Pete Conrad has played it straight and both he and Jim Lovell, finalists the first time, have been chosen. Although he has just requalified for night carrier duty, landing jets in darkness on a heaving aircraft carrier, Conrad jumps at the chance to reapply. In just three years being an astronaut has gone from a risky career-sidetrack to the top of the career pyramid, so high that the righteous brothers of Edwards Air Force base are invisible. Nevertheless, the new astronauts, the Other Nine, are cocky about their qualifications. Many have accomplishments the Original Seven never touched. Yet the Other Nine find themselves in the position of rookies, beneath and often in service to the Original Seven. John Glenn has been told to make Project Apollo, the moon program his "area of specialization" and, as part of his training, Conrad accompanies him in his travels. In practice, this means he's reduced to carrying Glenn's suitcase through airports, since so many people want autographs and handshakes that it's the only way to keep moving.

NASA is a civilian agency, and the lack of official ranks can cause confusion. It is clear, though, that the Original Seven far outrank the Other Nine, and some of the Original wives feel they the new wives fail to treat them with the deference that is traditional for the wives of superior officers. Even within the Original Seven there are heights above heights. Glenn appears to outrank anyone in the country except perhaps the president, a truth that rankles his colleagues, especially Shepard, whose first-flight status appears diminished to mere prelude-to-first-orbit. Glenn also effectively outranks the head of NASA, since when Glenn declares he will make no more trips at the behest of congressmen, he is able to make it stick, orders or not. The person least bothered by questions of rank and status may be Gordon Cooper, the man scheduled to make the final Mercury flight. So what if he's last? It's not a contest - that was just something the press dreamed up. He'd fought as hard as Slayton himself for more pilot control, but you take what you've got and enjoy the ride.

On the morning of Cooper's flight there is, as usual, a long delay. The doctors looking at their instruments at first can't believe what they're seeing. With 200,000 pounds of liquid oxygen under him, while America wonders what goes through a man's mind at such a moment, Cooper is taking a nap. His wife Trudy enjoys no such luxury. She is surrounded by the other wives, preparing for her own ordeal, The Wife's Press Conference, at which she will be asked such questions as "What is in your heart right now?" and "Did you feel you were with him while he was in orbit?" Gordo's flight is to last thirty-four hours, so she will endure the longest press siege of any wife, and her greatest problems will only be beginning at the moment her husband is declared safely back.

Meanwhile, Gordo is having a fine time. Since it is such a long flight, the Life Sciences people have succeeded in getting some experiments back on the checklist. Gordo naps

on cue and provides urine samples on demand. Even when the syringe for collecting the samples leaks and blobs of urine float around the capsule, Gordo just herds the blobs into one big blob and goes on with his assignments. Problems start on his nineteenth orbit. The electrical system is shorting out, and one by one the automatic systems necessary for re-entry fail, until even the oxygen balance is off and carbon dioxide begins to build up. Gordo's only reaction is "Well...things are beginning to stack up a little" (p. 408). He knows everyone below is concerned, but Gordo is in his element, having to keep the capsule at the right angle manually and fire the retro-rockets at just the right moment - in short, to actually pilot the craft. In the end, he splashes down even closer to the carrier *Kersage* than Shirra did on his automated "textbook" flight.

Cooper is accorded a hero's welcome second only to Glenn's with parade after parade, including a ticker-tape parade in New York, and an address to a joint session of Congress. The lesson appears to be that "a 'textbook flight' like Schirra's was all well and good, but there was nothing like a hair-raiser to capture the imagination and stir the gourds" (p. 409).

Chapter 14, "The Club" Analysis

The story of the final Mercury flight is interwoven with the arrival of the next group of astronauts. Since Chapter One concentrated on Pete Conrad and his flight training, having him return in Chapter Fourteen is a useful benchmark for checking how much the space program has grown in size, credibility, and prestige. The arrival of the new astronauts means the arrival of their wives, too, and Chapter 14 takes the opportunity to examine how longstanding military attitudes transfer to this civilian setting. With the reader brought up to date on the status of the wives, Wolfe is able to follow with an update on what is now expected of the wife of the orbiting astronaut and to contrast Trudy Cooper's ordeal with her husband's successful mission and triumphant piloting of his short-circuited craft. The national reaction to Cooper's flight compared to Schirra's is reminiscent of the contrast between Glenn's and Shepard/Grissom's, contrasting the rational, engineering standards of official NASA goals with the more emotional connection the public feels with courageous behavior in the face of danger. The chapter ends in a cloud of confetti and ticker tape and the sentence "The role of single-combat warrior seemed more glorious than ever" (p. 409), however stark the contrast, leads logically to the subject of the final chapter.

Chapter 15, "The High Desert"

Chapter 15, "The High Desert" Summary

Yeager, thirty-nine, has returned to Edwards Air Force base. He is now commandant of the new Aerospace Research Pilot School, part of the Air Force's plan to dominate the astronaut selection process and set up a separate and purely military space program. Yeager is not much changed, but these days Edwards is air conditioned and heavily populated, and Yeager's students, hankering after "the goodies," aspire to be astronauts. This means that they need to be good, but not necessarily brilliant, pilots, since a combination of flight skills and engineering seems the safest route. Yeager can outdo most of them in both flying and caution, as illustrated when the computer-like Neil Armstrong, insisting that the data indicates a good landing surface, mires their plane in mud against Yeager's warnings. "Well, Neil, in a few hours it'll be dark, and the temperature's going down to zero, and we're two guys standing out here in the mud wearing windbreakers. Got any good ideas?" (p. 417), Yeager asks. Armstrong has no reply, and the story becomes Edwards legend. Some of the young pilots think it wouldn't be too bad to fly at Edwards - if you couldn't be an astronaut.

Now Yeager is doing test runs with the NF-104, essentially the F-104, a high-speed interceptor, with a rocket engine mounted over its tailpipe as a sort of super-afterburner. This has the potential to reach 120,000 feet or so in a tremendous arc, affording up to ten minutes of weightlessness. The problem is that the F-104 has never been thoroughly wrung out and is "unforgiving" when used as anything other than a high-speed interceptor. Still, it goes like a bat and Yeager loves it. As commandant of ARPS he seizes the chance to test the NF-104. Officially he's testing it for use in the school, but there's also an excellent chance that whoever pushes it to maximum performance will set a world record for altitude. He's taken it up for three checkout flights, edging toward 100,000 feet, where the weak molecular structure of the atmosphere makes performance unpredictable. Today he's taking it up for the final preliminary flights. The morning flight went exactly according to plan, despite the ship's dislike of extreme angles. It's a perfect afternoon for the final test. Tomorrow he'll go for the record.

Everything works: he's at one hundred thousand feet. He's weightless, coming over the top of the arc, everything silent, the ship's nose pitched up. As he comes over the top of the arc he pushes the control to bring the nose down. Nothing. At this morning's 104, 000 feet the air was thick enough to exert aerodynamic pressure. At 108,000 it isn't. The ship snaps into a flat spin, like a pinwheel. All control depends on the engine working to power the stabilizers and restarting the engine depends on the nose being down. He's falling 150 feet per second, 9,000 feet a minute. The speed brakes, a parachute rig to slow the ship after a high-speed landing, are his last shot. He pops it, the nose points down. Saved. Now all he has to do is jettison the chute and start the engine - and when he does, the nose points back up. He's falling like a pipe and is down to 12,000 feet. He hasn't bailed out since he was shot down over Germany, but he hunches into a ball and pulls the cinch ring. The force is like a concussion, and then with a bang the seat

separates from the parachute rig. Propelled up at 90 mph from a plane falling at about 100 mph, he and the seat are nearly weightless and hang for a moment. The remains of the rocket propellant, a red lava, dribble from the seat's socket, and as they both start to fall, the seat drifts into his parachute lines. As the lava eats through the lines the chute catches and slows Yeager, but the seat continues to fall, crashing into his visor and smashing through both layers. Blood's pouring into his left eye and there's smoke in the helmet as first the seal's rubber melts and then the oxygen ignites. "Everything that can burn is on fire. Everything else is melting" (p. 429). Although his glove ignites, Yeager manages to cram his hand through the opening and wrench the visor off. The air carries it away and he can breathe again and see out of his right eye. He lands with a wallop, hardly able to use his left hand, his face and finger in agony, but he removes and rolls up the parachute according to the manual. A passing teenager who saw his descent runs over, stops and stares at Yeager. Yeager borrows a knife, and while the kid throws up, cuts off his melted glove, taking a fair amount of cooked finger with it. When the rescue helicopter arrives a few minutes later he's standing like an illustration from the manual, chute rolled, helmet under arm.

It turns out that the blood flowing over Yeager's eye was baked to a crust and shielded the eye. Yeager has second and third degree burns but heals without disfigurement and even regains use of his left index finger. On the other hand, as he was taxiing down the runway, Robert McNamara, Secretary of Defense, was announcing the cancellation of the X-20 program. There will be no American military space voyagers. Yeager will fly more than a hundred bomber missions in Southeast Asia, but he never again will try to set a record over the high desert.

Chapter 15, "The High Desert" Analysis

The Right Stuff began by focusing on young pilots, following them through training until the very best arrived at the peak of the career ziggurat, Muroc (later Edwards Air Force Base.) As the book progresses, though, the men who elect to remain flying at Edwards recede further and further into the background. Now, in the final chapter, Wolfe and history bring together the best pilot, the fastest plane and the plan to build an entirely military space program. Besides uniting all the early themes of danger, skill and the right stuff, the testing of the NF-104 give Wolfe one more chance to show off his prose as he attempts to duplicate Yeager's sensations as calamities multiply. The result, besides gripping the reader, is to give a practical demonstration in real time of exactly those qualities which we have been told all along Yeager epitomizes: skill, courage, and discipline. A few outside characters are brought in when everything is safely over, but their purpose is merely to provide reaction shots, allowing the reader to gauge the seriousness of the situation and the extent of Yeager's stoicism.

Epilogue

Epilogue Summary

Things are changing. Despite Shepard's campaign for a three-orbit mission, the Mercury program is declared complete. NASA is worried enough about keeping Congressional funding for the Gemini and Apollo lunar landing programs without prolonging Mercury. It is hard to remember the Russian panic that drove the Mercury program. The twin orbits of *Vostok 5* and *Vostok 6* stirs no fear and Soviet foreign minister Andrei Gromyko proposes a ban on nuclear weapons in space. There is a hotline between the White House and the Kremlin, and the Cold War is plainly over. At the awards banquet of the Society of Experimental Test Pilots, the Original Seven are given the Iven C. Kincheloe award for outstanding professional performance in the conduct of flight test. It goes almost unnoticed in the press, but to the astronauts themselves this award means that they are finally being given the one thing they had lacked, the respect of their peers. Even as they gain this, however, they begin to lose something else. President Johnson is even more in favor of the space program than Kennedy was, and Congress does hand over a blank check for the missions to the moon, but popular sentiment is shifting. With the Cold War over, the astronauts' role as single combat warriors begins to evaporate. They remain respected, but their halos begin to dim.

Epilogue Analysis

Wolfe gives the last big chapter to Yeager, but having chronicled the rise of the astronauts, he does take a few paragraphs to consider the decline of their glory. To illustrate the tradition of the Single Combat Warrior, Wolfe used the Biblical example of David and Goliath, so it is appropriate that he begins and ends the epilogue with the phrase "The Lord giveth, and the Lord taketh away" (pp. 434 and 436). He records changes in programs, in individual status (Slayton's retirement from the Air Force one year short of his pension), and in politics. But the big change, the reason for these final pages, is to point out how the change in foreign policy changed the role of the astronauts in the national imagination from that of protectors, single combat warriors willing to do battle on our behalf, to mere brave men whose names begin to blur and fade.

Characters

Chuck Yeager

The man who broke the sound barrier and the pilot Wolfe presents as the living embodiment of "the right stuff." He is unflappable and calm in any emergency. Test pilots copy even his West Virginia speech, commercial pilots copy test pilots and eventually he influences even pilots who have never met him.

Yeager flew in World War II and Korea and is the best of the Edwards test pilots. Although the common wisdom is that the buffeting a plane undergoes as it approaches the speed of sound will cause it to break apart, Yeager believes the buffeting will decrease and that going faster than Mach 1 is possible. He is correct and becomes the first man to break the sound barrier, a fact the Army classifies as top secret. By the time the information is declassified and the Army tries to excite public opinion, the moment has passed. Since Yeager never went to college, in rising through the ranks he is not eligible to be an astronaut, but since his passion is flying, it is possible he would not have been interested anyway. He continues to test planes and to train pilots and is in a position to be the pilot to achieve manned, piloted space flight in the experimental NF-104. Instead, the plane proves fatally flawed, nearly kills Yeager, and finishes any hope of a purely military space program. Wolfe narrates this final section almost second-by-second from Yeager's point of view, allowing the reader to follow and to admire Yeager's reactions and choices while acting as a tutorial in the concept of The Right Stuff.

John Glenn

As the only Marine among the astronauts, Glenn is also the oldest. He is a family man with Eagle Scout values, but he is also fiercely ambitious and determined to earn the honor of the first space flight. At the introductory press conference he is able to, with sincerity and eloquence, field questions about emotions and families, all subjects that make his colleagues uncomfortable. This makes him the best-known astronaut and creates the illusion that all the astronauts share similar values. His conspicuous roadwork, lack of interest in drink and fast cars, and above all what he sees as his "leadership" in scolding the other astronauts for their dealings with groupies make him unpopular. When the first flight is determined not on merit but by a peer vote, the other astronauts choose Alan Shepard.

Glenn feels betrayed and tries to go over the heads of his superiors to have the decision reconsidered, but is defeated. He does his duty in training as Shepard's backup, even putting an amusing note in the capsule before launch, but feels he has been "left behind." So Glenn is as amazed as anyone else when his orbital flight is the one to whip the country into a frenzy of enthusiasm even greater than that of Shepard's. His ticker tape parade surpasses Shepard's - though he is careful to include all the astronauts in it - and he addresses a joint session of Congress. President Kennedy invites him on

private boating outings. He becomes powerful enough to tell Jim Webb, head of NASA, that he will do no more traveling to boost some congressman's popularity, and to make it stick. There is a suspicion that he plans to run for the Presidency, and he does run for the Senate.

Gus Grissom

Gus Grissom is the second astronaut to go into space. "Gruff Gus" is a short, dark little man not comfortable with talking. Like all the astronauts, he is an excellent pilot, and on the ground is much more willing than Glenn to participate in "a little Drinking & Driving & the rest of the real pilot's life" (p. 164). Grissom, although he is married and has sons, is not much of a family man. When his wife was in the hospital for several weeks, he managed to visit her exactly once and even then did not last the entire hour before leaving in response to a call from the Cape.

Grissom makes the second flight, and although the flight itself is a success, while waiting for rescue his hatch door blows, the capsule sinks and is lost and Grissom himself nearly drowns. Although he asserts that the hatch blew by itself and the public perception is that brave "little Gus" came through a sticky situation, the conviction grows within NASA that Grissom blew it. Instead of Shepard's ticker tape parade and private lunch with the Kennedys, the Grissoms are given a ten-minute ceremony on the tarmac at the Cape. Betty Edwards is furious. She feels she has upheld her part of any service-wife's bargain and that "they had welshed on the compact. Now...they *truly owed her*" (p. 296).

Alan Shepard

Alan Shepard is the first American sent into space. Wolfe describes Shepard as something of a split personality: "Smilin' Al," fond of practical jokes and "gotcha!" situations, and "The Icy Commander," a sharp-edged military man. The switches between the two personalities can be rapid and disconcerting. Shepard wants to be not merely respected, but liked, and is happiest reproducing the comedian Jim Dana's "Jose Jimenez the cowardly astronaut" routines. As the pre-flight pressure mounts, however, he can switch from genial banter to sharp scolding without warning. This has its uses, though. When the flight crew, reluctant to take responsibility for clearing a launch which may prove fatal, seem on the brink of postponing the flight, Shepard is able to switch on his "Icy Commander" voice and growl, "All right, I'm cooler than you are. Why don't you fix your little problem...and light this candle" (p. 251). The flight is saved, is successful and Shepard is regarded as a national hero. He is stunned when Glenn's flight gives Glenn greater status and he agitates to be given his own orbital flight before the Mercury program ends.

Deke Slayton

Deke Slayton is disqualified from space flight for a slight heart murmur. Thanks to the efforts of Alan Shepard, he is made "Coordinator of Astronaut Activities," and, in the undefined hierarchy of NASA, builds himself a position of power. All the while, though, he is working toward the day they will let him fly, even giving up his Navy pension one year short of retirement because the Navy plans to ground him and as a civilian he will be able to maintain his flying proficiency.

Gordon Cooper

Gordon Cooper was the youngest astronaut, and also the astronaut for the last Mercury flight. Cooper has never flown in combat but seems cheerfully unaware that this makes him inferior in the view of the other astronauts. His marriage is in trouble but he and his wife reconcile to provide the proper astronaut image. During his mission the automatic systems fail, one after another, and he has to position the capsule for reentry and land it entirely with the manual controls. He pilots it even closer to the rescue carrier than Schirra's textbook flight did, and confirms the true "pilot" status of the astronauts.

Wally Schirra

"Outgoing to the point of hearty" (p. 16), Schirra is a Navy test pilot who loves practical jokes and terrible puns. In the wake of Scott Carpenter's flight, Schirra sets out to prove that a mission unencumbered with "non-operational" duties such as science experiments can successfully complete a larger number of orbits with fuel to spare and land accurately. His success paves the way for Cooper's flight but he is slightly miffed to find that technical competency does not create the level of popularity that Cooper's nail-biting success does.

Scott Carpenter

Scott Carpenter is remarkable among test pilots for having voluntarily switched from testing planes to flying patrol planes out of concern for his wife and children: "He had stepped down off the great ziggurat pyramid here at the first major plateau" (p. 103). Carpenter is one of the few astronauts with no combat experience and few jet hours. Carpenter plays guitar and is liable to spend time looking at the stars with his telescope and wondering about his place in the universe. Although he and Glenn are allies, the other astronauts regard him as a bit of a flake. Unlike most astronauts, he rejoices in the science experiments scheduled for his flight and, although he lands far off target, is convinced he has had a remarkably successful flight. He is unaware that NASA feels he ignored fuel warnings and procedural suggestions from ground control, jeopardizing the entire program. He is quietly excluded from future decision-making and Schirra's flight is seen as a rebuke, a purely "operational" flight without bells and whistles, competently executed.

Annie Glenn

Annie Glenn is John Glenn's wife. At this point in her life, Annie has a terrible stammer. She has learned to cope with it and under some circumstances does not stammer at all, but the prospect of conducting a press conference after Glenn's flight terrifies her. Glenn, ordered by NASA to get her to agree to be televised with Vice President Johnson, instead backs her completely, and Jim Webb begins to understand that he serves the astronauts, not the other way around.

James Webb

James Webb is the Administrator of NASA for most of the Mercury program. A former oil company executive active in politics and well liked by the heads of corporations, Webb finds himself a civilian in charge of a civilian program employing military men. NASA has no formal ranks, and Webb is shocked to discover that, although he is their boss, in terms of power the astronauts, particularly Glenn, outrank him. When Glenn refuses to force his wife to receive Vice President Johnson, Webb's threat to put another astronaut on Glenn's scheduled flight meets with a united group of astronauts refusing. Later, when Glenn refuses to make any more junkets to please Congressmen, Webb discovers he has no power to order him. He continues to head NASA but resents his lack of control of the astronauts.

Betty Grissom

Betty Grissom is Gus's wife. Betty is aware of the limitations and advantages of being a service wife, that unwritten bargain in which she makes certain sacrifices, and eventually she reaps certain rewards. She wonders if she has held Gus back in his career by not being comfortable with small talk at official gatherings. Gus is rarely home and she is aware that his behavior away from home may not be what she would like, but views it as part of the deal. Therefore when Gus's flight receives much less acclaim than Shepard's, she is furious, feeling that the bargain is not being honored.

Pete Conrad

Pete Conrad was the Navy test pilot rejected for first round of astronauts, and then was chosen in the second. Wolfe chooses to begin *The Right Stuff* with Conrad, following his training and the grim series of accidents his Group Twenty suffers. Conrad volunteers for the first round of astronaut testing and reacts to what he perceives as its injustices and follies with clowning and fury, as illustrated when he slams an enema bag onto the commanding officer's desk. He is stunned when he is not selected, and goes through the second round of selections in a straightforward manner. He is selected, but has to adjust to being regarded merely as one of The Next Nine and to taking a role subservient to The Original Seven.

Pancho Barnes

Runs Pancho's Fly Inn just outside Muroc Field (later Edwards Air Base). As an ex-barnstorming pilot, Pancho can shock even test pilots with her rough language. When Yeager breaks the sound barrier and is forbidden to publicize it, Pancho is the one person the pilots tell, since she had long promised "a free steak dinner to any pilot who could fly supersonic and walk in here to tell about it" (p. 60).

The Chief Designer/Integral

This anonymous head engineer of the Russian manned flight program always seems to launch a triumph just ahead of the Americans.

Objects/Places

Muroc/Edwards Air Force Base

Muroc Field, (later renamed Edwards Air Force Base) is located 150 miles north of Los Angeles in the high desert. It is a desolate area full of dry lakebeds, sagebrush and Joshua trees. The temperature reaches 110 degrees regularly and drops to freezing at night. But the lakebeds form perfect natural runways and are so large that there is plenty margin for error. Only the top test pilots are assigned to Edwards, and its inhabitants take a certain pride in its lack of creature comforts.

Cape Canaveral

Home of the Mercury launch site, No See' Um bugs, hardpack sand and groupies in bikinis, the Cape is off limits to wives and heaven for astronauts, since it combines the Edwards-like glories of privation and hard work with an abundance of goodies.

Glamorous Glynnis

Chuck Yeager's planes always carry this name. Glynnis is his beautiful young wife.

The Monkeypod Table

Actually belonging to Renee Carpenter, who saved $95 dollars by sanding and oiling the exotic wood herself, the monkeypod table is symbolic of all the small and sometimes grotesque compensations the military life provides for all of its sacrifices and deprivations.

The Goodies

This is Wolfe's term for the rewards of seniority in the military life. The goodies can range from improved housing and the respect of junior officers and their wives, to the groupies who appear at Pancho Barnes's establishment and at the Cape. For the astronauts, the goodies come to include the income from the exclusive *Life* contract, wonderful cars practically free and favorable mortgage terms.

The Pope's Balcony

Another Wolfe term, the Pope's balcony describes the intense public adulation, similar to what the Pope receives when he steps onto his balcony over St. Peter's square. It describes the level of admiration a test pilot's ego feels is appropriate, as well as the

public reaction the astronauts inspire. It is most enjoyable when alternated with long stretches of isolated and vigorous flight training.

The Genteel Beast/The Victorian Gent

Wolfe's term for the creature created by all the media together - reporters, photographers, camera crews, even editorial writers - and their amazingly uniform attitude toward the astronauts. Their ravenous need for information, combined with their determination to see the astronauts in the most wholesome, reverent light possible, results in such comic displays as mobbing Louise Shepard's diaper deliveryman for an interview.

"In the late 1950's (as in the late 1970's) the animal seemed determined that in matters of national importance the *proper emotion,* the *seemly sentiment,* the *fitting moral tone* should be established and should prevail; and all information that muddied the tone and weakened the feeling should simply be thrown down the memory hole....the public, the populace, the citizenry, must be provided with *the correct feelings!* One might regard this animal as the consummate hypocritical Victorian gent" (pp. 121-122).

Grissom's Capsule

The symbol and proof of Grissom's failure is his capsule. Its hatch blows before the rescue helicopter can hook on, and although Grissom escapes, the capsule fills with water and sinks. This represents the loss of valuable data and is a blot on Grissom's record. He maintains it "just blew," but engineers are unable to do anything to cause the hatch to "just blow" and Grissom's own behavior on rescue causes everyone to doubt his story.

Glenn's Peugeot

Glenn's car is described as "an ancient Peugeot, a real beat-up junker that was about four feet long and had perhaps forty horsepower, the sorriest-looking and most underpowered automobile still legally registered to any fighter pilot in America"(p. 133). Glenn's car is symbolic of the difference between him and the other astronauts, a difference Shepard emphasizes when he rags Glenn about needing to get a decent car to take out for a run. "You couldn't help but get the feeling that the piece of equipment Al was really saying Glenn should loosen up and turn on the juice with was not an automobile" (p. 177).

Glenn's "Fireflies"

Glen sights repeatedly this cloud of luminescent sparks. He is unable to interest ground control in them because, unknown to him, they are increasingly afraid his heat shield is loose. Scott Carpenter sees them as well, and his attempts to jar them loose from the

hull is one reason he uses up fuel after having been warned to conserve it. The "fireflies" exemplify the interest in larger questions of space travel which Glenn and Carpenter share and which their colleagues regarded as suspect at worst, "non-operational" at best.

The NF-104

The plane in which Yeager hopes to set a world record for altitude, and on which the Army has set its hopes of an independent manned space program. Originally a high-speed interceptor, the NF-104 is unreliable at lower speeds, but Yeager loves it. Its lack of aerodynamic qualities above 104,000 feet nearly kills Yeager.

Social Sensitivity

In all his works, Wolfe shows Ashow the events chronicled were presented to and perceived by the American public. Chuck Yeager, the undisputed hero of the book, was relegated to obscurity when tight security was clamped on his breaking the sound barrier. The Mercury 7 astronauts, on the other hand, were made available to the media as stellar examples of "single combat warriors" who could win the Cold War. Presented to the media and, therefore, the American public like debutantes at a society ball, they were celebrated and feted before actually going into space. Ironically, after Wolfe's book and the film based upon it, Yeager himself became a celebrity.

Rediscovered nearly three decades after his most impressive accomplishments, Yeager wrote a best-selling autobiography, starred in a number of television commercials, and has a perennially best-selling series of flightsimulation computer games based on his experiences and expertise.

Wolfe shows that media coverage or the lack of it shaped public opinion.

One of the clearest examples concerns Yeager's invitation to the American premiere of a British film Breaking the Sound Barrier. Made more than five years after Yeager had been the first to fly at Mach 1, the film depicts Geoffrey de Havilland exceeding the speed of sound "by reversing the controls at the critical moment during a power dive."

Surprised as Yeager was by this fiction, he is stunned when the Secretary of the Air Force asks him if that is what he did to break the sound barrier.

Techniques

A four-part article on the U.S. astronauts first appeared in Rolling Stone in 1973, six years before the publication of The Right Stuff as a separate volume.

Although the work is largely factual and based on seven years of meticulous research and interviews, Wolfe takes many of the liberties accorded novelists: He changes the names of four figures; he often describes a character's state of mind and thoughts; he records long stretches of dialogue as direct quotation.

Often identified as a writer of "New Journalism," Wolfe relies upon exhaustive research and interviews to recreate events. He is part social historian, part novelist, and part wide-eyed spectator.

The Right Stuff reports momentous events through a very human perspective — often that of the wife of a test pilot or astronaut.

As elsewhere, Wolfe is a great phrasemaker. Like the phrase "the Me Decade," "the right stuff" has entered common parlance. The book is filled with similar epithets and catch phrases: "Flying & Drinking and Drinking & Driving"; "Booming and zooming"; "stretching the envelope."

In The New Journalism, Wolfe himself describes four techniques that distinguish his work from traditional "beige" journalism: First, "scene-by-scene construction . . . resorting as little as possible to sheer historical narrative"; second, the frequent use of realistic dialogue, usually taken from taped interviews and detailed notes; third, the author's presentation of himself in the third-person and the use of shifting perspectives that easily flow from omniscience to stream-of-consciousness to third-person narration; finally, and most importantly, the symbolic use of realistic detail drawn from precise and immediate observation.

Themes

Themes

The Right Stuff deals with the American astronauts and test pilots who, from the late 1940s to the mid 1960s, conquered the sound barrier and space.

The book's attention is divided between the test pilots like Chuck Yeager, who repeatedly set new air speed and altitude records flying experimental aircraft, and the Mercury 7 astronauts who went into space first in suborbital and later orbital missions.

Throughout the work, Wolfe places these events in a well-defined social and political context. The drama of the Cold War, from the late 1940s through the Cuban missile crisis and the Vietnam War, is a clearly drawn back ground. But the focus always falls upon individuals for whom the race against the Russians is a matter of life and death, pride or humiliation, "the right stuff" or failure.

The Right Stuff

Of all the terms Wolfe coined to convey the experiences and codes of test pilots, "the right stuff" is the one that has most completely entered the language. In the world of the test pilot, a combination of skill, superstition, macho arrogance and reserve creates codes that are never put into words but are the standard by which men are judged. Of all the pilots, Chuck Yeager most embodies the combination of courage, skill and nonchalance which combine to form the indefinable "right stuff," and Wolfe devotes much of the book to scenes of Yeager in action, giving the reader a chance to understand it by example.

Wolfe begins by introducing the reader to a group of test pilots in training; men whose skill and arrogance are their primary qualities. As each man survives the latest round of training and is promoted, his self-confidence inflates further and his determination to continue to rise becomes stronger. Wolfe makes it clear that these enormous egos are necessary in a profession where proficiency is everything. Self-doubt could too easily become panic, and panic kills. Nevertheless, he contrasts the test pilot's sense of invulnerability, first by showing the typical wife's reaction ('Well, my God! The *machine* broke! What makes *any* of you think you would have come out of it any better?') (p. 13), and then by using the example of Yeager as he breaks the sound barrier and later nearly crashes the NF-1-4.

While the test pilots and astronauts are aware both of Yeager and of the qualities he embodies, Wolfe maintains that the public, unaware even of the concept of "the right stuff," responds to it nevertheless: "Oh, it was a primitive and profound thing! Only pilots truly had it, but the entire world responded, and no one knew its name!" (p. 350).

But even as the astronauts are at the peak of their fame, Wolfe ends the book with an entire chapter devoted to Yeager. Instead of isolated anecdotes told by others about his behavior under stress, the reader sees the entire catastrophe, step by step, from Yeager's point of view, his reasoning and physical sensations included. After hundreds of pages of examples and analysis of the Right Stuff, in the final pages Wolfe allows the reader see what it feels like from inside, to put it on like a glove.

Competition

Although teamwork plays a part in the space program, competition plays a much bigger role. World War II has left the West and Russia competing for territory, and the Cold War is intensifying that competition to a point just short of nuclear war. When Russia orbits first a satellite, then a dog, then actual men, America begins to panic. When it becomes apparent that the U.S. is not going to catch up with the Russian orbital program, President Kennedy makes a competitive leap and declares that the U.S. will put a man on the moon in the next decade. And when John Glenn successfully completes his flight, Congress is willing to write a blank check to guarantee a U.S. victory in this competition. Wolfe uses the example of the ancient single combat warrior to illustrate the role the astronauts are filling

But the competition is not only external. The astronauts themselves are all test pilots, working in an intensely competitive field where pilots compete against each other and against the outside of "the envelope," the plane's technical limitations, as well. At each step up the career ladder the pilot advances past those who quit, washed out or died, and Wolfe depicts the desire not to be left behind as at least as intense as the desire to reach the top of the career ziggurat. There can be exuberance in this competition, though, as young pilots and instructors attempt to "wax one another's tails." Since this competitive urge is tied, in Wolfe's mind, to the enormous fighter-jock ego, which comes from confidence and skill, the competition between the pilots seems more of an extreme form of showing off than of any calculated plan to advance a career.

The candidates for astronaut, in turn, are recruited from every branch of the armed services, branches with a long tradition of mutual competition. The Navy pilots and the Army pilots have known one another for years (significantly, John Glenn is the lone Marine pilot). Finally, the astronauts, though a functional team, are intensely competitive with one another, particularly before the first flight. Each believes that the first American in space will be remembered by history, leaving the others mere "also-rans." Glenn, especially, is deeply disappointed not to be chosen. So when the public acclaim for Glenn's flight is greater than that for Shepard's, even retroactive competition becomes possible.

Image

The success of the manned space program depended on funding from Congress, which in turn depended to a great extent on popular support. From the first press conference,

thanks in part to John Glenn's statements and manner, the astronauts were perceived as patriotic, wholesome family men courageously taking on a dangerous job on the behalf of the United States. Much of the interest of *The Right Stuff* comes from Wolfe's ability to penetrate this bland image and to portray the astronauts' range of personalities and motives.

Although the astronauts do not deliberately set out to create a squeaky-clean image, they quickly recognize that the success of the program depends on their ability to preserve it. Gordon Cooper and his wife are separated, but she returns to help present an image of brave husbands and supportive wives. Deke Slayton's wife, Marge, has been divorced, but that is not mentioned. When Glenn reprimands the philandering astronauts, only a few completely disagree with him. The rest, even those who dislike him, concede that he has a point.

The image the press wants to create differs from reality in small matters and in large. The *Life* cover photo of the wives has been airbrushed past recognition, but it is no less realistic than the assumption that space flight terrifies the wives of men who have been test pilots for years. Yet the wives, too, cooperate; attempting in their individual post-flight press conferences to express the emotions the press finds appropriate. In private, they perform wicked parodies of these question and answer sessions. In public, however, they are even more conscientious than their husbands to not disturb the image the press has created for them.

Style

Point of View

Wolfe takes the idea of the omniscient narrator to new levels in *The Right Stuff.* Not only does he drop in and out of the heads of various characters, letting the reader know what they are thinking, he is vivid and emphatic enough to persuade the reader that he is conveying Jane Conrad of John Glenn's actual feelings at that moment. In a novel this might produce a sense of intimacy or allow the reader to know more than the characters do. In a work of nonfiction like *The Right Stuff* it also creates an aura of authority around the author by implying inside knowledge, the impression of long interviews with all of the major characters, the suggestion that the information he has assembled here has become more than the sum of its parts.

Primarily, though, Wolfe employs this shifting point of view to intensify the reader's understanding of character. Having seen something of Betty Grissom's life from her point of view, experiencing her expectations and then experiencing the shabby, cursory medal ceremony that is all that her husband will receive, the reader experiences her shock and betrayal. Using this tool for different purposes, Wolfe finally writes most of a chapter from the point of view of Chuck Yeager as he is in the middle of a a deadly crisis, which allows the reader to experience "the right stuff" from the inside instead of merely admiring it from afar.

Setting

Certainly the most vividly depicted setting is the desert location of Muroc Field, later renamed Edwards Air Force Base. One hundred and fifty miles north of Los Angeles in the high desert, Edwards consists of long stretches of usually dry lakebeds, perfect natural landing fields with a wide margin for error. The landscape is bleak; just sagebrush and Joshua trees "that looked like a cross between cactus and Japanese bonsai" (p. 48), and the summer temperature can go from 110 degrees at noon to freezing at night. The only recreational facility near Muroc is Pancho Barnes's Fly Inn, a rundown dude ranch with an airstrip, corral, swimming pool, guesthouse and bar/restaurant. Pancho's is where the test pilots congregate after work to drink and brag.

But Wolfe makes it clear that Muroc/Edwards is typical of the kind of landscape suitable for testing dangerous planes, and that, since only elite flyers are permitted into these terrible landscapes and "low rent" accommodations, they acquire an irresistible glamour. Therefore, when NASA chooses Cape Canaveral, a low-rent stretch of beach and tacky motels, for astronaut training, the Spartan terrain is exactly what the pilots need to confirm that they have reached the top of the career ziggurat.

Wolfe does provide one vivid passage describing the arrival of the astronauts' families in Houston, a parade from air conditioning to silent, baking parade route back to air conditioned, barbeque-scented stadium noise. Still, the descriptions of suburban homes and even the space capsules themselves are pale next to the stark glories of Muroc and the Cape.

Language and Meaning

Rather than narrating the story of the early space program in a calm, objective style, Wolfe makes the method of telling as flashy and daring as any of the test pilots he describes. Serious writers limit their use of exclamation points and a reporter might go his entire career without using one. Tom Wolfe uses three on the first page of *The Right Stuff*. His sentences may be short and punchy or they may range over pages, with commas, dashes, italics, asides, parentheses, exclamation marks *in* parentheses and italics with exclamation points in parentheses.

Certain phrases recur throughout the book. In the same way that a chorus recurs in a song, the repetition of phrases like "it can blow at any seam" or "left behind" or "our rockets always blow up!" remind the reader of what has gone before while taking on new overtones from the fresh context.

In addition, Wolfe creates a group of images, which serve as shorthand for abstract concepts. For example, when he first uses such terms as The Victorian Gent, The Single Combat Warrior, The Pope's Balcony, The Goodies and especially The Right Stuff, Wolfe is careful to illustrate the concept with a range of examples. After that, however, he is able to pull up the phrase in a new setting and expect the reader to realize how it applies, why The Victorian Gent doesn't know what tone to use to describe Deke Slayton's being scrubbed from his flight or why being perceived as Single Combat Warriors propels the astronauts past the Edwards test pilots to the top of The Ziggurat and why the fading of a Russian threat quietly diminishes that status.

Structure

Although its structure is roughly chronological, *The Right Stuff* avoids a forced march through each flight, one after another: Shepard's chapter, Grissom's, Glenn's. Instead, it varies the pace and maintains the reader's interest by juggling narratives, including the stories of the astronaut's wives and of the test pilots at Edwards, as well as NASA officials, the President and the public. Each flight does have its own chapter, but no chapter concentrates only on that flight.

One of the remarkable things about *The Right Stuff* is that although it is non-fiction, it is constructed like a novel. A history of the space program might organize separate chapters for each flight and perhaps one for the wives and two for the Edwards pilots. *The Right Stuff*, on the other hand, braids each story line through the others, bringing characters into the spotlight or moving them to the background as the plot demands. Wolfe is able, therefore, to begin with the wives of the young test pilots for the objective

insider's point of view, switch to the test pilots in training, moving up as others wash out, and change the setting to Muroc/Edwards as the best pilots arrive there, introducing the reader to Yeager. From there the structure splits, following the astronauts but never losing sight of the Edwards pilots, so that ending the book not with Cooper's final Mercury flight but with Yeager's near-fatal test of the NF-104 is both logical and fitting.

Quotes

"Every wife wanted to cry out 'Well, my God! The *machine* broke! What makes *any* of you think you would have come out of it any better?' Yet intuitively Jane and the rest of them knew it wasn't right even to suggest that. Pete never indicated for a moment that he thought any such thing could possibly happen to him. It seemed not only wrong but dangerous to challenge a young pilot's confidence by posing the question. And that, too, was part of the unofficial protocol for the Officer's Wife." Chap. 1, p. 13

"Sometimes, when the young wife of a fighter pilot would have a little reunion with the girls she went to school with, an odd fact would dawn on her; *they* had not been going to funerals." Chap. 2, p. 22

"As to what this ineffable quality was... well, it obviously involved bravery. But it was not bravery in the simple sense of being willing to risk your life. The idea seemed to be that any fool could do that, if that was all that was required, just as any fool could throw away his life in the process. No, the idea here (in the all-enclosing fraternity) seemed to be that a man should have the ability to go up in a hurtling piece of machinery and put his hide on the line and then have the moxie, the reflexes, the experience, the coolness, to pull it back in the last yawning moment - and then go up again *the next day*, and the next day and every next day, even if the series should prove infinite - and, ultimately, in its best expression, do so in a cause that means something to thousands, to a people, a nation, to humanity, to God. Nor was there a *test* to show whether or not a pilot had this righteous quality. There was, instead, a seemingly infinite series of tests. A career in flying was like climbing one of those ancient Babylonian pyramids made up of a dizzy progression of steps and ledges, a ziggurat, a pyramid extraordinarily high and steep; and the idea was to prove at every foot of the way up that pyramid that you were one of the elected and anointed ones who had *the right stuff* and could move higher and higher and even - ultimately, God willing, one day - that you might be able to join that special few at the very top, that elite who had the capacity to bring tears to men's eyes, the very Brotherhood of the Right Stuff itself." Chap. 2, p. 24

"Many young candidates looked like terrific aviators up to that very point - and it was not until they were actually standing on the carrier deck that they first began to wonder if they had the proper stuff, after all. In the training film the flight deck was a grand piece of gray geometry, perilous, to be sure, but an amazing abstract shape as one looks down upon it on the screen. And yet once the newcomer's two feet were on it...*Geometry* - my God, man, this is a ...skillet! It *heaved*, it moved up and down underneath his feet, it pitched up, it pitched down, it rolled to port (*this great beast rolled*!) and it rolled to starboard, as the ship moved into the wind and, therefore, into the waves, and the wind kept sweeping across, sixty feet up in the air out in the open sea, and there were no railings whatsoever. This was a *skillet*! - a frying pan! - a short-order grill! - not gray but black, smeared with skid marks from one end to the other and glistening with pools of hydraulic fluid and the occasional jet-fuel slick, all of it still hot, sticky, greasy, runny, virulent from God Knows what traumas - still ablaze! - consumed in detonations, explosions, flames, combustion, roars, shrieks, whines, blasts, horrible

shudders, fracturing impacts, as little men in screaming red and yellow and purple and green shirts with black Mickey Mouse helmets over their ears skittered about on the surface as if for their very lives (you've said it now!) hooking fighter planes onto the catapult shuttles so that they can explode their afterburners and be slung off the deck in a red-mad fury with a *kaboom*! that pounds through the entire deck - a procedure that seems absolutely controlled, orderly, sublime, however, compared to what is known in the engineering stoicism of the military as 'recovery and arrest.'" Chap. 2, pp. 26-27

"the real problem was that reporters violated the invisible walls of the fraternity. They blurted out questions and spoke boorish words about...all the unspoken things! - about fear and bravery (they would say the words!) and how you *felt* at such-and-such a moment! It was obscene!" Chap. 3, p. 62

"The public, according to the Gallup poll, was not all that alarmed. But McCormack, like a great many powerful people, genuinely believed in the notion of 'controlling the high ground.' He was genuinely convinced that the soviets would send up space platforms from which they could drop nuclear bombs at will, like rocks from a highway overpass." Chap. 3, p. 72

"Even so, why was the press aroused to create *instant* heroes out of these seven men? This was a question that not James Reston or the pilots themselves or anyone at NASA could have answered at the time, because the very language of the proposition had long since been abandoned and forgotten. The forgotten term, left behind in the superstitious past, was *single combat.*" Chap. 5, p. 122

"It was John Glenn who had set the moral tone of the Astronaut at the first press conference. The others had diplomatically kept their mouths shut ever since. From the Luces and Restons on down, the Press, that ever-seemly Victorian Gent, saw the astronauts as seven slices of the same pie, and it was mom's pie, John Glenn's mom's pie, from the sturdy villages of the American heartland. The Gent thought he was looking at seven John Glenns" Chap. 6, p. 142

"Even if he had been ordered at that point to broadcast to the American people a detailed description of precisely what it felt like to be the first American riding a rocket into space, and even if he had had the leisure to do it, [Shepard] could not possibly have expressed what he was feeling. For he was introducing the era of pre-created experience. His launching was an utterly novel event in American history, and yet he could feel none of its novelty." Chap. 10, p. 256

"Patriotism! Oh, yes! Here you saw it in a million-footed form, before your very eyes! Most of the seven had been around the Kennedys at one time or another, with Jack or with Bobby, and knew the way a crowd reacted to them - but it was something different from this. Around the Kennedys you saw a fan's hysteria, involving a lot of shrieking and clutching, with people reaching out to grab souvenirs and swooning and squealing, as if the Kennedys were movie stars who happened to be in power. But what the multitudes showed John Glenn and the rest of them on that day was something else. They

anointed them with the primordial tears that the right stuff commanded." Chap. 12, p. 348

"Somehow, extraordinary as it was, it was...right! The way it should be! The unutterable aura of the right stuff had been brought onto the terrain *where things were happening*! Perhaps that was what New York existed for, to celebrate those who *had it*, whatever it was, and there was nothing like the right stuff, for all responded to it, and all wanted to be near it and to feel the sizzle and to blink in the light. Oh, it was a primitive and profound thing! Only pilots truly had it, but the entire world responded, and no one knew its name!" Chap. 12, p. 350

"A few minutes later the rescue helicopter arrived. The medics found Yeager standing out in the mesquite, and some kid who had been passing by. Yeager was standing erect with his parachute rolled up and his helmet in the crook of his arm, right out of the manual, and staring at them quite levelly out of what was left of his face, as if they had had an appointment and he was on time." Chap. 15, p. 431

"The seven men had finally closed the circle and brought together the scattered glories of their celebrity. They had fought for a true pilot's role in Project Mercury, they had won it, step by step, and Cooper's flight, on top of the others, had shown they could handle it in the classic way, out on the edge. Now they had the one thing that had been denied them for years while the rest of the nation worshipped them so unquestioningly: acceptance by their peers, the true brethren, as *test pilots* of the space age, deserving occupants of the top of the pyramid of the right stuff." Chap. 15, p. 435

"What *was* that feeling? Why it was the gentle slither of the mantle of soldierly glory sliding off one's shoulders! - and the cooling effect of oceans of tears drying up! The single-combat warriors' war had been removed. They would continue to be honored, and men would continue to be awed by their courage; but the day when an astronaut could parade up Broadway while traffic policemen wept in the intersections was no more. Never again would an astronaut be perceived as a protector of the people, risking his life to do battle in the heavens." Epilogue, p. 436

Adaptations

The Right Stuff was released as a motion picture in 1983 starring Sam Shepard as Chuck Yeager, Ed Harris as John Glenn, and Scott Glenn as Alan Shepard, and directed by Philip Kaufmann.

The film did only moderately well at the box office, but won four Academy Awards: Best Original Score, Best Editing, Best Sound, and Best Sound Effects Editing.

Topics for Discussion

Wolfe gives a sympathetic but not sentimental portrait of the astronauts' wives. What differences were there between being a pilot's wife and an astronaut's wife? What does telling their side contribute to the story?

Which character did you most admire? Which did you most dislike? Why?

Describe the attitude of an Edwards test pilot toward the Mercury project. Explain his reasoning.

Who is The Victorian Gent and how did his attitude affect the astronauts and the Mercury project?

Wolfe uses terms no pilot would have used to describe feelings no pilot would talk about. Discuss the meaning of the ziggurat, the Pope's balcony, the single combat warrior, the goodies and the right stuff.

Wolfe gets inside the heads of many of his characters, appearing to tell the reader exactly what John Glenn or Jane Conrad were thinking at a particular moment. He does not, however, do this for every character. Whose thoughts are not narrated? How does this affect your attitude toward them?

The astronauts and the engineers often disagreed. What changes to the spacecraft did the astronauts succeed in making? What objections did the engineers have? How did these disagreements affect Gordon Cooper's flight?

Literary Precedents

Wolfe's originality in both style and subject is probably his most acclaimed feature. His subjects are American cultural phenomena — ranging from relatively isolated ones like Ken Kesey's Merry Pranksters or the world of customized cars to ones that become national obsessions like the Space Race.

Wolfe invariably places these phenomena in a cultural context. His characters' language, clothing, homes, vocations, and avocations become emblematic of their social standing, political convictions, and moral values.

In The New Journalism, Wolfe offers a cogent account of the development of his style. He argues that by the midtwentieth century novelists had all but abandoned realism, which Wolfe sees as the most enduring and effective method for dealing with experience.

Wolfe also provides a list of "Not Half-Bad Candidates" of literary precedents for the New Journalism. They include Boswell's diaries, Dickens's Sketches by Boz (1836), Henry Mayhew's London Labour and the London Poor (1861-1862), Twain's Innocents Abroad (1869), Chekhov's Sakhalin Island, (1893), Stephen Crane's vignettes of the New York Bowery, John Reed's Ten Days that Shook the World (1919), Orwell's Down and Out in London and Paris (1933), and several works since the 1930s.

Among contemporary authors, the strongest comparisons are with nonfiction novelists such as Truman Capote, Gay Talese, and Norman Mailer and new journalists like Joan Didion, Hunter S. Thompson, and Terry Southern.

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