



Christopher Columbus Kraft, Jr

NASA engineer and manager who was instrumental in establishing the agency's Mission Control operation. Following his graduation from Virginia Tech in 1944, Kraft was hired by the National Advisory Committee for Aeronautics (NACA), the predecessor organization to the National Aeronautics and Space Administration (NASA). He worked for over a decade in aeronautical research before being asked in 1958 to join the Space Task Group, a small team entrusted with the responsibility of putting America's first man in space. Assigned to the flight operations division, Kraft became NASA's first flight director. He was on duty during such historic missions as America's first human spaceflight, first human orbital flight, and first spacewalk.

At the beginning of the Apollo program, Kraft retired as a flight director to concentrate on management and mission planning. In 1972, he became director of the Manned Spacecraft Center (later Johnson Space Center), following in the footsteps of his mentor Robert R. Gilruth. He held the position until his 1982 retirement from NASA. During his retirement, Kraft has consulted for numerous companies including IBM and Rockwell International, and he published an autobiography entitled *Flight: My Life in Mission Control*.

More than any other person, Kraft was responsible for shaping the organization and culture of NASA's Mission Control. As his protégé Glynn Lunney commented, "the Control Center today ... is a reflection of Chris Kraft. "When Kraft received the National Space Trophy from the Rotary Club in 1999, the organization described him as "a driving force in the U.S. human space flight program from its beginnings to the Space Shuttle era, a man whose accomplishments have become legendary."

Born in Phoebus, Virginia, in 1924, Kraft was named after his father, Christopher Columbus Kraft, who was born in New York City in 1892 near the newly renamed Columbus Circle. Kraft's father had found his name an embarrassment, but passed it along to his son nonetheless. In later years, Kraft—as well as other commentators—

would consider it peculiarly appropriate. Kraft commented in his autobiography that, with the choice of his name, "some of my life's direction was settled from the start."

As a boy, Kraft played in an American Legion drum-and-bugle corps and became the state champion bugler. He was also a keen baseball player and continued to play baseball in college; one year he had a batting average of .340.

In 1942, Kraft began his studies at Virginia Tech and became a member of the Corps of Cadets. During his freshman year, he attempted to enlist in the military as a Navy cadet but was rejected because of a burned right hand that he had suffered at age three. Because of wartime demands, Virginia Tech was operating on a twelve-month schedule, and Kraft finished his degree in only two years. He graduated in December 1944 with a bachelor of science degree in aeronautical engineering.

NACA career

Wingtip vortices pictured in a later NASA study. On graduation, Kraft accepted a job with the Chance Vought aircraft company in Connecticut. He had also sent an application to the National Advisory Committee for Aeronautics (NACA), a government agency whose Langley Research Center was located in Hampton, Virginia; Kraft considered it to be too close to home, but applied as insurance. On arrival at Chance Vought he was told that he could not be inducted without his birth certificate, which he had not brought with him. Annoyed by the bureaucratic mindset of the company, he decided to accept the offer from NACA instead. In the 1940s, NACA was a research and development organization, devoted to cutting-edge aeronautical research. At the Langley Research Center, advanced wind tunnels were used to test new aircraft designs, and studies were taking place on new concepts such as the X-1 rocket plane. Kraft was assigned to the flight research division, where Gilruth was then head of research. His work with NACA included the development of an early example of gust alleviation system for an aircraft flying in turbulent air. This involved correcting for variations in the atmosphere by automatically deflecting the control surfaces. He also discovered that wingtip vortices, and not prop-wash, are responsible for most of the turbulence in the air that trails flying aircraft. This phenomenon was forgotten and later rediscovered independently.

While enjoying his work, Kraft found it increasingly stressful, especially since he did not consider himself to be a strong theoretician. In 1956, he was diagnosed with an ulcer and started to think about a change of career.

Flight operations in 1957, the Russian flight of Sputnik 1 prompted the United States to accelerate its fledgling space program. On July 29, 1958, President Dwight D.

Eisenhower signed the National Aeronautics and Space Act, which established NASA and subsumed NACA within this newly created organization. Langley Research Center became a part of NASA, as did Langley employees such as Kraft. Even before NASA began its official existence in October, Kraft was invited by Gilruth to become a part of a new group that was working on the problems of putting a man into orbit. Without much hesitation, he accepted the offer. When the Space Task Group was officially formed on November 5, Kraft became one of the original thirty-five engineers to be assigned to Project Mercury, America's man-in-space program.

As a member of the Space Task Group, Kraft was assigned to the flight operations division, which made plans and arrangements for the operation of the Mercury spacecraft during flight and for the control and monitoring of missions from the ground. Kraft became the assistant to Chuck Mathews, the head of the division, and was given the responsibility of putting together a mission plan. Given Mathews' casual analysis of the problem, it sounded almost simple:

“ Chris, you come up with a basic mission plan. You know, the bottom-line stuff on how we fly a man from a launch pad into space and back again. It would be good if you kept him alive. ”

However, when Kraft began to plan NASA's flight operations, no human being had yet flown in space. In fact, the task before him was vast, requiring attention to flight plans, timelines, procedures, mission rules, spacecraft tracking, telemetry, ground support, communications networks and contingency management.

Mission Control as it was during Project Mercury. One of Kraft's most important contributions to manned spaceflight would be his origination of the concept of a Mission Control Center. Many of the engineers in Project Mercury had previously worked on the flight test of aircraft, where the role for ground support was minimal. However, Kraft soon realized that an astronaut could only do so much, particularly during the fast-moving launch phase; the Mercury spacecraft would require real time monitoring and support from specialist engineers.

“ I saw a team of highly skilled engineers, each one an expert on a different piece of the Mercury capsule. We'd have a flow of accurate telemetry data so the experts could monitor their systems, see and even predict problems, and pass along instructions to the astronaut. ”

These concepts shaped the Mercury Control Center, which was located at Cape Canaveral in Florida. Another important concept pioneered by Kraft was the idea of the flight director, the man who would coordinate the team of engineers and make real-

time decisions about the conduct of the mission. As Mathews later recalled, Kraft came to him one day saying, "There needs to be someone in charge of the flights while they're actually going on, and I want to be that person." In this informal way, the position of flight director was born.

A pivotal experience for Kraft was the flight of Mercury-Atlas 5, which sent a chimpanzee named Enos on the first American orbital spaceflight carrying a live passenger. Coverage of these early missions that carried non-human passengers could often be tongue-in-cheek; a Time Magazine article on the flight, for example, was titled "Meditative Chimponaut". Yet Kraft viewed them as important tests for the men and procedures of Mission Control, and as rehearsals for the manned missions that would follow. Originally, the flight of Mercury-Atlas 5 had been intended to last for three orbits. However, the failure of one of the hydrogen peroxide jets controlling the spacecraft's attitude forced Kraft to make the decision to bring the capsule back to Earth after only one orbit. After the flight, astronaut John Glenn stated that he believed a human passenger would have been able to bring the capsule under control without the need for an early re-entry, thus (in the words of Time Magazine) "affirming the superiority of astronauts over chimponauts." Yet for Kraft, the flight of Enos represented proof of the importance of real-time decision-making in Mission Control. It also gave him his first experience of the responsibility that he as flight director would have for the life of another, whether human or chimpanzee.

Mercury Kraft served as flight director during all six of the manned Mercury missions. Only during the final flight—Mercury-Atlas 9, which lasted for over a day—did he share responsibility with his deputy John Hodge.

Chris Kraft confers with Walt Williams and others during Mercury-Atlas 9. Mercury-Atlas 6, the flight of John Glenn, proved to be a testing experience both for Mission Control and for Kraft. One book on the history of the Apollo program calls it "the single event that decisively shaped Flight Operations." The mission, the first orbital flight by an American, unfolded normally until Glenn began his second orbit. At that point Kraft's systems controller, Don Arabian, reported that telemetry was showing a "Segment 51" indicator. This suggested that the capsule's landing bag, which was meant to deploy upon splashdown in order to provide a cushion, might have deployed early. Kraft believed that the Segment 51 indicator was due to faulty instrumentation rather than to an actual early deployment. However, if he was wrong, it would mean that the capsule's heat shield, which fitted on top of the landing bag, was now loose. A loose heat shield could cause the capsule to burn up during re-entry.

On consulting with his flight controllers, Kraft became convinced that the indication was false, and that no action was needed. However, his superiors, including Mercury capsule designer Max Faget, felt differently. They overruled Kraft, telling him to instruct Glenn to leave the capsule's retrorocket package on during re-entry. The reasoning was that the package, which was strapped over the heatshield, would hold the heatshield in place if it was loose. Kraft, however, felt that this was an unacceptable risk. "I was aghast," he remembered. "If any of three retrorockets had solid fuel remaining, an explosion could rip everything apart. "Yet he agreed to follow the plan advocated by Faget and by Walt Williams, his superior in the flight operations division. The retrorockets would be kept on.

Glenn landed safely, but an inspection of his capsule revealed that one of the landing bag switches had been faulty. Kraft was right; the heat shield had not been loose after all. The lessons that he drew from this experience were clear.

" My flight controllers and I were a lot closer to the systems and to events than anyone in top management. From now on, I swore, they'd play hell before they overruled any decision I made."

His assistant on the mission, Gene Kranz, considered Glenn's flight "the turning point ... in Kraft's evolution as a flight director."

Before the flight of Mercury-Atlas 7, Kraft had objected to the choice of Scott Carpenter as the astronaut for the mission, telling Walt Williams that Carpenter's lack of engineering skills might put the mission or his own life in danger. The mission suffered from problems including an unusually high rate of fuel usage, a malfunctioning horizon indicator, a delayed retrofire for re-entry, and a splashdown that was 250 nautical miles (460 km) downrange from the target area. Throughout the mission, Kraft found himself frustrated by the vagueness of Carpenter's communications with Mission Control, and what he perceived as Carpenter's inattention to his duties. "Part of the problem," he recalled, "was that Carpenter either didn't understand or was ignoring my instructions."

While some of these problems were due to mechanical failures, and responsibility for some of the others is still being debated, Kraft did not hesitate to assign blame to Carpenter, and continued to speak out about the mission for decades afterwards. His autobiography, written in 2001, reopened the issue; the chapter that dealt with the flight of Mercury-Atlas 7 was titled "The Man Malfunctioned." In a letter to the New York Times, Carpenter called the book "vindictive and skewed," and offered a different assessment of the reasons for Kraft's frustration: "in space things happen so fast that only the pilot knows what to do, and even ground control can't help. Maybe that's why he is still fuming after all these years."

At the end of the Mercury program, Kraft was invited to attend a ceremony in the White House Rose Garden, where he received the NASA Outstanding Leadership Medal. It was awarded by President John F. Kennedy and NASA Administrator James Webb. "None of us have many days in our lives like that one," Kraft remembered.

During the Gemini program, Kraft's role changed again. He was now the head of mission operations, in charge of a team of flight directors, although still also serving as a flight director himself. Due to the greater length of Gemini missions, Mission Control was now manned on a three-shift basis. "Clearly, with flight control facing a learning curve," space historian David Harland has said, "these arrangements were an experiment in their own right." Yet Kraft proved to be remarkably successful at passing on responsibility to his fellow flight directors—arguably too successful, as Gene Kranz found during his first shift handover on Gemini 4. As Kranz recalled, "He just said, 'You're in charge,' and walked out."

During Gemini 5, Kraft (seated at center of console) confers with flight controllers and astronauts. Malfunctioning fuel cells nearly forced the early end of the mission. The Gemini program represented a string of firsts for NASA—the first flight with two astronauts, the first rendezvous in space, the first spacewalk—and Kraft was on duty during many of these historic events. America's first spacewalk happened during the Gemini 4 mission; Kraft, at his console, found that he had to force himself to concentrate on his work, distracted by Ed White's "mesmerizing" descriptions of the Earth below. He could easily understand the euphoria that White felt at the spectacle. Yet when White delayed his return to the capsule, Kraft broke protocol and addressed him directly on the air-to-ground loop:

“ The Flight Director says "Get back in!"”

After Gemini 7, Kraft stepped back from his work at Mission Control, allowing other flight directors to take charge of the remaining missions so that he could devote more time to planning for the Apollo program. He served on two review boards at North American Aviation, the contractor responsible for the Apollo capsule. Yet Kraft still felt pangs at not being at the center of the action, particularly after the emergency re-entry of Gemini 8. Both astronauts and mission controllers had made the right decisions, but, as Kraft confessed to Robert Gilruth, he found himself wishing that he had been the one on the spot.

Apollo 1 fire With the beginning of the Apollo program, Kraft expected to return to his role in Mission Control. He would have been lead flight director on the first manned Apollo mission (later known as Apollo 1), which was scheduled to launch in early 1967. However, on January 27, 1967, the three crew members were killed in a fire during a

countdown test on the pad. At the time of the fire, Kraft was in Mission Control, but under the circumstances there was little he could do. He was asked by Betty Grissom, the widow of astronaut Gus Grissom, to be one of the pallbearers at Grissom's funeral at Arlington National Cemetery.

Public profile

Kraft as he appeared on the cover of Time Magazine in 1965. During the sixties, Kraft was a household name in America. He appeared on the cover of the August 27, 1965 issue of Time Magazine, in which he was profiled as the "Conductor in a Command Post". In his interview with Time, Kraft compared himself with namesake Christopher Columbus, displaying what the magazine described as "an almost angry pride" in his work. "We know a lot more about what we have to do than he did," Kraft said. "And we know where we're going." The article described Kraft's role in the Gemini 5 mission, and drew on Kraft's frequent comparisons of his position as flight director with that of an orchestra conductor.

"The conductor can't play all the instruments--he may not even be able to play any one of them. But he knows when the first violin should be playing, and he knows when the trumpets should be loud or soft, and when the drummer should be drumming. He mixes all this up and out comes music. That's what we do here."

Kraft had originally been surprised at Time Magazine's decision to put him on the cover, telling the NASA public affairs officer that "they've got the wrong guy. It should be Bob Gilruth ... not me." However, he eventually came to terms with the idea, and the portrait that was painted for the cover became one of his prized possessions.

Relations with astronaut corps After John Glenn's flight, Kraft had vowed that he would no longer allow his decisions as flight director to be overruled by anyone outside Mission Control. The mission rules, whose drafting had been overseen by Kraft, stated that "the flight director may, after analysis of the flight, choose to take any necessary action required for the successful completion of the mission." For Kraft, the power that the flight director held over every aspect of the mission extended to his control over the actions of the astronauts. In his 1965 interview with Time Magazine, he stated that

"the guy on the ground ultimately controls the mission. There's no question about that in my mind or in the astronauts' minds. They are going to do what he says."

Occasionally, Kraft intervened in order to ensure that his conception of the flight director's authority was maintained. By the time that the Apollo 7 mission flew, he had been promoted to head of the flight operations division; thus, it was Glynn Lunney who served as lead flight director and had to deal directly with behavior by the crew that

Kraft considered "insubordinate". As Kraft commented in his memoirs, "it was like having a ringside seat at the Wally Schirra Bitch Circus." Mission commander Wally Schirra, annoyed by last-minute changes in the crew's schedule and suffering from a bad cold, repeatedly refused to accept orders from the ground. Although Schirra's actions were successful in the short term, Kraft decreed in consultation with astronaut chief Deke Slayton that none of the Apollo 7 crew would fly again.

Kraft had made a similar pronouncement before, in the case of astronaut Scott Carpenter. After Carpenter's troubled Mercury mission, Kraft wrote, "I swore an oath that Scott Carpenter would never again fly in space." The result: "He didn't."

Manager and mentor Apollo mission planning After the Apollo 1 fire in 1967, Kraft had reluctantly concluded that his responsibilities as a manager would keep him from serving as a flight director on the next manned mission, Apollo 7, and on missions thereafter. Henceforth his involvement in the Apollo program would be at a higher level.

As the director of Flight Operations, Kraft was closely involved in planning the broad outlines of the program. He was one of the first NASA managers to become involved in the decision to send Apollo 8 on a circumlunar flight. Due to problems with lunar module development in 1968, NASA faced the possibility of a full Apollo test mission being delayed until 1969. As a substitute, George Low, the manager of the Apollo Spacecraft Program Office, came up with the idea of assigning a new mission profile to Apollo 8, one that could be flown without the lunar module. The idea was discussed in early August at a meeting between Low, Kraft, Gilruth and Deke Slayton:

"The four of us ... had become an unofficial committee that got together often in Bob's office to discuss problems, plans and off-the-wall ideas. Not much happened in Gemini or Apollo that didn't either originate with us or with our input."

Low's plan was to fly the mission in December, which left little time for the flight operations division to train and prepare. After agreeing that the mission was possible in principle, Kraft went to his mission planners and flight directors in order to determine whether they and their teams could be ready within the tight schedule that was projected. "My head was abuzz with the things we'd have to do," remembered Kraft. "But it was one hell of a challenge."

On August 9, Gilruth, Low, Kraft and Slayton flew to Marshall Space Flight Center in Huntsville, Alabama, where they briefed NASA managers including Wernher von Braun and Rocco Petrone on the planned mission. On August 14, they, along with the Huntsville group, traveled to NASA Headquarters in Washington D.C. to brief Deputy

Administrator Thomas O. Paine. In turn, Paine recommended the mission to Administrator James Webb, who gave Kraft and his colleagues the authority to begin preparations for the mission.

In planning for Apollo 8, one of the responsibilities Kraft faced was ensuring that a fleet would be waiting to recover the crew when they splashed down at the end of the mission. This proved an unusual challenge, because much of the Pacific fleet of the US Navy would be on leave over the Christmas and New Year's Eve period. Kraft had to personally meet with Admiral John McCain in order to persuade him to make the requisite resources available to NASA.

Apollo missions

Chris Kraft and Robert R. Gilruth pictured in Mission Control. On Christmas Eve, 1968, Apollo 8 went into orbit around the moon. Only ten years earlier, Kraft had joined Gilruth's newly founded Space Task Group. Now, the two men sat together in Mission Control, reflecting on how far they had come. Around them, the room was filled with cheers, but Kraft and Gilruth celebrated more quietly.

“ It was glorious pandemonium, and through the mist in my own eyes, I saw Bob Gilruth wiping at his and hoping that no one saw him crying. I put my hand on his arm and squeezed. [...] He lifted my hand from his arm and shook it strongly. There were no words from either of us. The lumps in our throats held them back.”

Kraft again found himself a spectator during the landing of Apollo 11, which he viewed from Mission Control, sitting with Gilruth and George Low. He played a more active role in events during the unfolding of the Apollo 13 crisis. Called into Mission Control by Gene Kranz almost immediately after the accident, Kraft chaired the meeting of senior managers which decided the mode that Apollo 13 would use to return to Earth.

Mentor Many Apollo engineers, later to become top managers themselves, considered Kraft to have been one of the best managers in the program. He personally hand-picked and trained an entire generation of NASA flight directors, including John Hodge, Glynn Lunney and Gene Kranz, the last of whom referred to Kraft simply as "The Teacher." In the words of the space historians Murray and Cox, Kraft "set the tone for one of the most striking features of Flight Operations, unquestioning trust—not of superiors by subordinates, but the other way around."

Kraft with his new flight directors before the Gemini 4 mission. (Clockwise from lower right: Kraft, Gene Kranz, Glynn Lunney and John Hodge.)The principles that Kraft had inculcated continued to have an impact at Johnson Space Center long after he retired. As Glynn Lunney reflected in 1998:

“ He .. instilled a sense of what was right, what was wrong, what you had to do, how good you had to be, and those standards that he kind of inbred into everybody, by his own example, and by what he did with us, continue today. The Control Center today ... is a reflection of Chris Kraft. ”

Kraft could, however, be a tough taskmaster, making it clear that there was no place in the flight operations division for those who failed to live up to his exacting standards. "To err is human," went one of his favorite sayings, "but to do so more than once is contrary to Flight Operations Directorate policy. "Subordinates who seriously displeased Kraft could find themselves deprived of the opportunity to make it up to him. Kraft possessed the power to end careers at Johnson Space Center; as mission controller Sy Liebergot recalled, "if he was behind you, you had as much leverage as you needed; if he was against you, you were dead meat."

Center director

Kraft shows President Ronald Reagan around Mission Control during the STS-2 mission in 1981. In 1969, Kraft was named deputy director of the Manned Spacecraft Center (MSC). On January 14, 1972, he became the director of MSC, replacing Gilruth, for whom Kraft had worked since his arrival at Langley in 1945. Space commentator Anthony Young has described Kraft as a "superb successor" to Gilruth, second only to him in the history of center directors.

Kraft was eligible to retire in the early 1980s, but he chose not to take the option. He remained as center director in the status of a "reemployed annuitant," receiving his government pension but still employed by NASA. In 1981 he had been involved in a conflict with the NASA Administrator and other top officials over the conduct of the STS-2 mission, and over issues relating to NASA organization and management. This contributed to making his position at NASA more tenuous.

In April 1982, Kraft made what newspaper reports called a "surprise announcement" that he intended to step down as center director at the end of the year. He denied that his resignation had anything to do with the threatened possibility of Johnson Space Center losing its leading role in space shuttle operations or in the development of NASA's Space Station Freedom.

After his retirement, Kraft served as a consultant for companies including Rockwell International and IBM, and as director-at-large of the Houston Chamber of Commerce.

In 1994, Kraft was appointed chairman of the space shuttle management independent review team, a panel made up of leading aerospace experts, whose remit was to investigate ways in which NASA could make its space shuttle program more cost

effective. The panel's report, known as the Kraft report, was published in February 1995. It recommended that NASA's space shuttle operations should be outsourced to a single private contractor, and that "NASA should consider ... progression towards the privatization of the space shuttle. "It also criticized the effect of safety changes made by NASA after the Challenger accident, saying that they had "created a safety environment that is duplicative and expensive. "Fundamental to the report was the idea that the shuttle had become "a mature and reliable system ... about as safe as today's technology will provide."

The report was controversial even at the time of its publication. John Pike, space policy director for the Federation of American Scientists, commented that "the Kraft report is a recipe for disaster. They are basically saying dismantle the safety and quality assurance mechanisms set in place after the Challenger accident. "NASA's Aerospace Safety Advisory Panel also took issue with the report, saying in May 1995 that "the assumption that the Space Shuttle systems are now 'mature' smacks of a complacency which may lead to serious mishaps." Nonetheless, NASA accepted the recommendations of the report, and in November 1995, responsibility for shuttle operations was turned over to the United Space Alliance.

Nine years later, the Kraft report was again criticized, this time by the Columbia Accident Investigation Board (CAIB) as part of its consideration of the organizational and cultural causes of the Columbia accident. "The report," it said, "characterized the Space Shuttle program in a way that the Board judges to be at odds with the realities of the Shuttle Program. "According to the CAIB, the Kraft report had contributed to the undesirable safety culture within NASA, allowing NASA to view the shuttle as an operational—rather than experimental—vehicle, and distracting attention from continuing engineering anomalies.

In 2001, Kraft published his autobiography, *Flight: My Life in Mission Control*. It dealt with his life up until the end of the Apollo program, only briefly mentioning his time as center director in the epilogue.

The book was generally well-reviewed. In a *New York Times* review, space writer Henry S.F. Cooper, Jr. called it a "highly readable memoir," while the *Kirkus Review* summed it up as a "[s]nappy, highly detailed account of ... 20th century America's most dramatic technological achievement. "Reviewers almost unanimously commented on the outspokenness of Kraft's storytelling, and his readiness to personally criticize those with whom he had disagreed. Cooper noted that Kraft "pull[s] no punches about some of [his colleagues'] shortcomings, "and *Kliatt* magazine said that he "isn't afraid to name names."

Since 1950, Kraft has been married to Betty Anne Kraft, formerly Turnbull, who he met in high school. They have two children, Gordon and Kristi-Anne. In his autobiography, Kraft recognizes the sacrifices that his family made as a result of his work for NASA, saying that "I was ... more of a remote authority figure to Gordon and Kristi-Anne than a typical American father."

Kraft is an Episcopalian, serving as a lay reader at his local church. During the sixties, the Kraft family was deeply involved in church activities: Betty Anne taught Sunday school and served on the altar guild; Gordon was an Acolyte; and Kristi-Anne sang in the choir. In addition to his duties as a lay reader, Kraft spent some time teaching a class in adult Bible study. As he recounts, however:

"...I lacked the fundamentalist verve and drove people away when I tried too hard to relate the early church to more modern interpretations. It was hard not to be modern when I spent my working days sending men into space."

Kraft has been an avid golfer ever since he was introduced to the game in the 1940s by his friend and NASA colleague Sig Sjoberg. He cited the good golfing as a reason for staying in Houston after his retirement.

Awards and honors

Time capsule placed in Kraft's honor at Air Power Park in Hampton, Virginia

Kraft speaks at a ceremony for the renaming of the Mission Control Center in his honor, April 14, 2011. Kraft has received numerous awards and honors for his work. These include the NASA Outstanding Leadership Medal, four NASA Distinguished Service Medals and the Goddard Memorial Trophy, awarded by the National Space Club in 1979. In 1999, Kraft received the National Space Trophy from the Rotary National Award for Space Achievement Foundation, which described him as "a driving force in the U.S. human space flight program from its beginnings to the Space Shuttle era, a man whose accomplishments have become legendary."

In 2006, NASA gave Kraft the Ambassador of Exploration Award, which carried with it a sample of lunar material brought back by Apollo 11. Kraft in turn presented the award to his alma mater, Virginia Tech, for display in its College of Engineering.

In 2011, the Johnson Space Center renamed its Mission Control Center the Christopher C. Kraft Jr. Mission Control Center in his honor.

Kraft Elementary School, located in Hampton, Virginia near Kraft's hometown, was named for him.