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the International Academy of Astronautics**

Turin, Italy, 1997

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Chapter 13

Mitchell R. Sharpe, Jr. Aerospace Historian*

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Educational Background

Mitchell Raymond Sharpe, Jr. was born in Knoxville, Tennessee, on December 22, 1924. He graduated from Sidney Lanier High School in Montgomery, Alabama in 1942, and went to study English at the Alabama Polytechnic Institute (now Auburn University).

Later, in 1942, he was drafted and went into the U.S. Army infantry. At that time he was underweight, prematurely bald, and already wearing glasses. Private Sharpe was one of few men who nearly made it through World War II without a single promotion. An organizational change made his promotion to private first class mandatory three years after his draft. When he was discharged from the U.S. Army he had served in combat in France, Belgium, and Germany. Shortly after participating in the Battle of the Bulge he decided against an Army career and went back to Auburn to resume his studies in 1946.

In 1949 he graduated with a B.S. in English (Auburn did not give a B.A. in English at that time). During his last quarter as a senior, Mitch—as he was called by all his friends and coworkers—was a most promising newspaperman of Auburn's *Plainsman* until the special April Fool edition rolled off the presses. Mitch's newspaper career ended abruptly. His editor, Jack Simms, was

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also replaced after working on perhaps the most widely circulated *Plainsman* ever printed at Auburn.

In 1950 Sharpe was called back to active Army duty. His acquired college degree now made him officer material. He was assigned to Fort Rucker, Alabama, as public information officer. He had barely settled into his chair when the new commanding general, a native of New York, bounced into the little South Alabama town. Close on his heels was a newspaperman down for an interview. "I knew, he was baiting the general," Mitch later recalled in an interview with the *Marshall Star* (the newspaper of the George C. Marshall Space Flight Center). The newspaperman had done his homework alright. He asked the general, who had worked on the Manhattan Project, "What does the atom bomb look like?" The next question concerned an influential but shady New York politician and..." did he really help the general to get his start? The general became inflamed at Mitch while the general's aide nervously gestured to Mitch to take the news paperman out on a tour of the facility.

"I got back to my office just in time to answer the phone—it was the adjutant telling me about my new assignment," Mitch said. He had been PIO for only two weeks. He was now given command of an artillery unit. He went to Korea in 1951 and returned a year later.

He went back to Auburn where he taught English and received a Master's degree in 1954. He did post-graduate work at Emory University in Atlanta on a scholarship and worked on a Ph.D. Later on he taught English at the University of Alabama Center in Huntsville. In 1952 he married Virginia Ruth Lowry of Greensboro, Alabama, and had two daughters, Rebecca and Rachel, and a son, David. And as Mitch liked to say "They are all pretty Sharpe."

After his discharge from the U.S. Army he continued to serve in the Army Reserve and retired from that service in 1984 as a colonel.

The Years at the U.S. Army's Redstone Arsenal

In 1955 a former classmate from Auburn, Ralph E. Jennings, convinced him to join the U.S. Army Rocket and Guided Missile Agency (ARGMA) under Wernher von Braun. He became employed as a technical writer in the Field Service Division. As such, he was involved in, and became familiar with, major components and associated ground support equipment of weapon systems under development by the Army rocket team.

One of his first assignments was to tell the soldiers how to screw fuses into nuclear warheads. Most of that kind of work was secret at the time and has not been publicized. Sharpe wrote technical development facility manuals for the Honest John, Little John, Nike-Hercules, Nike-Ajax, and Lacrosse. He described how to put them together, to check them out, to clean them, to maintain them, how to crate them for shipment, and how to use them in the field.

Sharpe started public writing in 1957, when he became contributing editor of the newly founded *Space Journal*, an astronautics magazine for the general public. The journal was conceived to bolster and support the Rocket City Astronomical Association in Huntsville, a non-profit organization of missile scientists, engineers, and technicians who were interested in amateur astronomy. Wernher von Braun headed the Board of Consultants. Since the journal was started just at the time when the Russians launched their Sputnik satellite, it immediately took off in popularity. The original issues sold out immediately. Since then, Sharpe has written a number of books in his spare time, especially after his transfer to NASA.

He stayed for 5 years with the U.S. Army as a civilian. Initially he was an employee of the Army Rocket and Guided Missile Agency (ARGMA) and later, under General John Bruce Medaris a member of the Army Ballistic Missile Agency (ABMA).

Transfer of the Rocket Team to NASA / MSFC

In October 1957 the Russians had launched the world's first satellite, Sputnik 1, and shortly thereafter Sputnik 2 with the dog Laika on board. After misfired Vanguard launches, the U.S. Army was permitted to launch the Jupiter-C rocket—really a modified Redstone ballistic missile—with the successful Explorer I Satellite on top of the uppermost solid propellant fourth stage.

At that time President Eisenhower decided to establish a non-military organization, the National Aeronautics and Space Administration (or NASA) to launch peaceful missions into outer space. He also decided that the Wernher von Braun rocket team and JPL, the Army's Jet Propulsion Laboratory in Pasadena, California, should become elements of the new agency. President Eisenhower visited with General George C. Marshall's widow in Huntsville to dedicate the new NASA facility and to name it the George C. Marshall Space Flight Center (MSFC). The Center was to become the propulsion and rocket booster development facility of the new agency.

On July 1, 1960, Sharpe transferred with several thousand other Army employees to the new organization. His work continued pretty much in the same line he had previously pursued for the Army. He worked in the Scientific & Technical Information Branch of the Management Services Office. In addition to reviewing an average of three technical papers a day, he also worked with Preston Farish in the Manned Flight Awareness Program, which was established to assure man-rated performance of the Redstone booster vehicles for the two suborbital flights of Alan Shepard and Gus Grissom. His work now involved the design, manufacture, and operation of the Saturn launch vehicles. He was also responsible for documenting the development history of the Saturn series of launch vehicles, including the Skylab Project and the Lunar Rover.

His involvement in the “Manned Flight Awareness Program” allowed him to gather invaluable materials which permitted him to publish in 1969 *Living in Space - the Astronaut and his Environment*, and *Yuri Gagarin—First Man in Space*.

Practical benefits from space research and exploration were detailed in *Dividends from Space*, which he co-authored with Frederick I. Ordway, III, and Carsbie C. Adams. Wernher von Braun and Fred Singer furnished the introduction. The book deals with “spin-offs” from the space program in communications, medicine, transportation, weather forecasting, agriculture, and many other fields.

Sharpe was also the featured author in the *Britannica Yearbook of Science and the Future*. His article on “Colonizing the Moon” even furnished the cover in that issue. He reported annual space probe launches to the planets regularly in the Yearbook and authored the annual article “Astronautics” in the companion volume *Britannica Book of the Year*. He also wrote articles on space exploration and biographies of prominent space personalities for *Compton's Encyclopedia*, and *The Encyclopedia of World Biography*.

In 1971, he and Frank H. Winter of the National Air & Space Museum were invited by the Academy of Sciences of the USSR to present papers at the 13th International Congress for the History of Science held in Moscow in August 1971. Sharpe's paper was entitled “Rocketry in the Americas Prior to World War I.” For this paper he was subsequently awarded the “Robert H. Goddard Essay Prize” from the National Space Club as the best article on the history of rocketry and astronautics. The award and \$500 were presented by Wernher von Braun at the annual Space Club Meeting in Washington, D.C.

In June of 1974, he was honored by the Director of the Russian Tsiolkovsky Museum, A. Skripkin, by the award of the Golden Tsiolkovsky Medal and Certificate. The actual award was presented to him by the then-director of the Alabama Space and Rocket Center, Edward O. Buckbee, who had received the award from Russia for presentation to Mitchell Sharpe.

On December 31, 1974, Sharpe retired from NASA. This coincided with the publication of another book on Russian space technology. He published at that time “It is I, Sea Gull.” It is the story of Valentina Tereshkova, Russia's first woman cosmonaut and the first woman ever to venture into space. The book provides a history of the development of Russian space sciences and an account of Valentina's life from her childhood in World War II through her marriage to a fellow cosmonaut, Andrian Nikolayev.

Retirement Years and Work at the U.S. Space & Rocket Center

After his retirement from NASA's Marshall Space Flight Center, Sharpe was a consultant to several private companies, to the University of Alabama in

Huntsville (UAH), and to the Alabama Space and Rocket Center (now the U.S. Space and Rocket Center), which he had helped to establish while still a NASA employee. Since he firmly believed in collecting and preserving history, he was finally made the official Historian of the Center. As such, he assisted greatly in the establishment of the “Wernher von Braun Library” in the Space and Rocket Center. He also encouraged all the members of the Wernher von Braun Rocket Team to deposit their papers, documents, and memoirs in the Space Center library. With his worldwide connections he found out about valuable artifacts and assisted the Space Center management in obtaining them.

The Center Director at that time, Edward O. Buckbee, related this story:

One of the most memorable events was when he sent me a “Sharp Note” (that’s what we called them because most notes from Mitch had barbs and were sharp) which said: “Buck—if you get off your throne and come out of that ivory tower you sit in, I’ve found something that will interest you. Signed, Mitch” I guess I didn’t get out of the tower soon enough because Mitch also had contacted Scott Osborne who came to know Mitch well, because Scott was responsible for displays and exhibits. Scott said “You won’t believe what this guy Mitch Sharpe has come up with.” I said to Scott “Oh, yes, I would!”

To make a long story short, Mitch had found out about Monkeynaut Baker and the Navy’s plans to retire her. Mitch, Scott, and I schemed together on how to get her before the Washington Zoo and others. Mitch drafted a letter to the Navy for von Braun’s signature that was a true work of art. It was so good that the Navy decided Baker should spend her remaining years at the Space Rocket Center in Huntsville.

Ed Buckbee added a footnote to his story:

After Monkeynaut Baker outlived everyone’s projections, Mitch, in a humorous manner, said he believed I was substituting monkeys and the present monkey celebrating its tenth birthday was actually Baker Number 3. Of course, Mitch called his friend at the Huntsville Times to spread the rumor and I (Buckbee) spent the better part of the day defending myself before the Huntsville press corps.

Years of Travel and Further Research

Besides his previously mentioned trip to Russia Mitch travelled extensively throughout the world during his retirement years. He attended most annual meetings of the International Academy of Astronautics History Committee and presented papers, oftentimes with co-authors, on a variety of important development phases of the space program.

Both authors of this paper attended with him the 41st IAF Congress in the East German city of Dresden, and the 44th IAF Congress in Graz, Austria. Af-

ter that Austrian Congress he visited with a small group of attendees at the Hermann Oberth Museum in Feucht, Germany. Afterwards, the group went to the Mittelwerk in the German Harz Mountain where towards the end of the War the mass production of the V-2 and of many other weapons systems took place in an underground facility. Also a slate factory in Lehesten was visited, since it had been used for rocket engine acceptance testing during World War II.

A contact person, a certain Manfred Mühlhaus, had done excellent footwork and pointed out many of the still existing buildings where fabrication, design, and engineering work was being done just before war's end. He also knew the buildings where the key scientists had lived and oftentimes worked at that time. He had also made arrangements to visit the actual production facility in the Mittelwerk underground plant. Unfortunately, only the portion for V-1 production was accessible, while the part that was used for the V-2 assembly was not accessible for a number of reasons.

Unfulfilled Plans Sharpe Harbored for the Future

At the time of the Mittelwerk visit Mitch decided to study and to write about the last days of warfare in Germany and the activities in Central Germany regarding the V-2 production in that underground facility. Manfred Mühlhaus, who lived in that area and was also interested in the documentation of the events that took place at that time, was ready to assist and to establish contact with persons who lived at the end of the war in the Nordhausen area and are ready and willing to talk about their experiences. It was particularly planned to research the Russian involvement which ended up in the transfer of hundreds of V-2 specialists to Russia to assist in the starting phases of the Russian space program. Unfortunately, Manfred Mühlhaus died in 1996 and due to his death the work on such a paper was delayed and will most likely now be terminated for good!

Conclusion

Mitch Sharpe was a highly gifted technical writer and author. He was the most widely acclaimed space historian in the country. Even the experts at the Air and Space Museum at the Smithsonian Institution often consulted him as a "reference library." He was an expert on Robert Goddard, Konstantin Tsiolkovsky, Hermann Oberth, Wernher von Braun, and the entire early history of rocketry. He was a "walking encyclopedia" of space flight, particularly the manned space flight portion of it. He remembered most missions, the astronauts involved, special events that happened during their flight or special equipment be-

ing used. He was an ardent photographer and documented in detail all his travels and explorations.

The contributions to aerospace history made by Mitchell Sharpe demonstrate once again what students of human knowledge have often pointed out. It frequently occurs that those who make great contributions to a field come to that field of study from the outside. Mitch Sharpe was trained in English literature and became interested in space history as his own experience allowed him to live through some of the most formative years of the space program. Mitch took a wonderful writing ability and combined it with a wealth of personal experience to leave us a legacy of information about the early days of space which will be of great value to future historians.

Mitch Sharpe passed away quietly in his sleep on Monday, January 6, 1997, in Huntsville, Alabama following the failure of his liver.



Mitchell R. Sharpe (1924-1997), noted aerospace historian and coworker with Wernher von Braun, shown holding an autographed picture of von Braun. Photo courtesy: Becky Sharpe (Smithsonian Photo No. 97-16051).

Post-Scriptum

According to his wishes, Mitch Sharpe was cremated and his remains were buried in the Arlington Cemetery near Washington, D.C. There was no church-oriented funeral, but a memorial service was held at the U.S. Space & Rocket Center in the Space Station Demonstration area. The service had to be postponed because of an unusual accumulation of snow and iced-over roads that made travel impossible; a condition very unusual for Huntsville. Many of Mitch's friends ventured the thought that Mitch might have orchestrated this situation from above as a special remembrance.

After a week's postponement his daughter Rebecca as the "Master of Ceremonies" at the actual memorial described the plans for the service, the sequence of events and the fact that some food and wine would be served after the "official" part of the service. After Rebecca had started the formal part by making those announcements and reading a prepared memorial to her Dad, friends, family and former co-workers came to the podium to share their own remembrances of Mitchell R. Sharpe, Jr.

At the end of the "official" part of the service the rather large crowd moved into the main hall of the museum at the tune of "Danny Boy" (Mitch's favorite music piece). There the activities memorialized Mitch with a toast written by Mitch himself and read by his daughter Becky. It said in part: "Well, he is brilliant, intellectual, handsome as hell, and an all around damned good fellow!" Mitch's primary books, many articles, etc, were on display, including his Army uniform showing the rank of colonel.

The memorial demonstrated again what kind of personality Mitch was, his strengths and his shortcomings, and the overall most-interesting personality that contributed in a major way to the documentation of the U.S.'s entry into the Space Age. Only few writers have been a part of this history, and Mitch had the unique opportunity to grow up in the midst of the exciting era of the United States manned space flight. He rubbed shoulders with Wernher von Braun and the "Rocket Team," the "Oldtimers" (as they refer to themselves) from Peene-münde and Fort Bliss, Texas while we were going to the moon. This was certainly a very special time, and Mitch had the talent to put it in words that can be studied and read for generations to come.

The entire memorial service was video-taped on American VHS-format. A copy of this tape can be obtained at cost of reproduction, shipping, and handling by ordering it from Mitchell Sharpe's daughter:

Rebecca S. Burroughs,
126 Wedgewood Terrace Road,
Madison, AL - 35757 - USA.

List of Books by Mitchell R. Sharpe, Jr.

Basic Astronautics, an Introduction to Space Science, Engineering, and Medicine (with F. I. Ordway & J. P. Gardner), Englewood Cliffs, NJ: Prentice Hall, 1962.

Applied Astronautics, an Introduction to Space Flight (with F. I. Ordway, J. P. Gardner & R. C. Wakeford), Englewood Cliffs, NJ: Prentice Hall, 1963.

Living in Space, the Astronaut and His Environment, London: Aldus Books, New York: Doubleday, 1969.

Yuri Gagarin, First Man in Space, Huntsville, AL: Strode Publishing Company, 1969.

Satellites and Probes, the Development of Unmanned Space Flight, London: Aldus Books, New York: Doubleday, 1970.

Dividends from Space (with C. C. Adams & F. I. Ordway), New York: Thomas Y. Crowell, 1975.

"It is I, Seagull", Valentina Tereshkova, First Woman in Space New York: Thomas Y. Crowell, 1975.

Skylab, Classroom in Space, NASA SP-401, Ed. Lee B. Summerlin, Washington: National Aeronautics & Space Administration, 1977.

The Rocket Team (with F. I. Ordway), New York: Thomas Y. Crowell, 1979 - Heinemann, 1979 - MIT-Press, 1982 - Aircraft Design, Inc 1991.

NOTE: All above books have been translated in many foreign languages and are available as such.