





THE HISTORY OF SPACEFLIGHT  
QUARTERLY

# Contents

Volume 18 • Number 3 2011

3 Letter from the Editor

## Features

29 Organizing Space for the Warfighter

By Haithe Anderson and Rick W. Sturdevant

38 Oran Nicks and the Evolution of Space Research at Texas A&M

By Mitch Bauer

## Archives & Museums

45 Documenting the Cold War through Artifacts

A New Rationale for the National Air and Space Museum's Post-1945 Rocket and Missile Collection

By Thomas C. Lassman

## Oral History & Recollections

4 Thoughts on the *Apollo 1* Fire

By Rick Mulheirn

7 An Interview with Astronaut John E. Blaha

By Jennifer Ross-Nazzal and Rebecca Wright

26 Wernher von Braun: The Rocket Man  
*Weekly Notes*

By Ed Buckbee

## Book Reviews

53 *Falling to Earth: An Apollo 15  
Astronaut's Journey to the Moon*

Book by Al Worden and Francis French

Review by Col. Greg "Chappy" Chapman, USAF (ret)

## Book Reviews

54 *Realizing Tomorrow: The Path to Private Spaceflight*

Book by Chris Dubbs and Emeline Paat-Dahlstrom

Review by Scott Sacknoff

55 *Area 51: An Uncensored History of America's Top Secret Military Base*

Book by Annie Jacobsen

Review by Hunter Hollins

56 *UFO's: Generals, Pilots and Government Officials Go On the Record*

Book by Leslie Kean

Review by Roger D. Launius

57 *The Scientific Exploration of Mars*

Book by Frederic Taylor, Review by Roger D. Launius

59 *The Partnership: A NASA History of the Apollo-Soyuz Test Project*

Book by Edward Clinton Ezell, Linda Neumann Ezell

Review by Roger D. Launius

60 *Packing for Mars: The Curious Science of Life in the Void*

Book by Mary Roach, Review by Hunter Hollins

61 *Stiffed: The Betrayal of the American Man*

Book by Susan Faludi

Review by Roger D. Launius

62 *Dr. Space: The Life of Wernher von Braun*

Book by Bob Ward

Review by Monique Laney

64 *Selling Peace: Inside The Soviet Conspiracy that Transformed the U.S. Space Program*

Book by Jeff Manber

Review by Scott Sacknoff

# RECOLLECTIONS OF WERNHER VON BRAUN—THE ROCKET MAN

## The Weekly Notes

by Ed Buckbee

Historians have embraced few uncommonly gifted scientists—think in the caliber of Galileo and Thomas Edison—as well as few uncommonly gifted managers. So reasonably, historians have rarely welcomed an individual who is equally gifted in both disciplines. Wernher von Braun, considered by many to be one of the most successful and effective managers of a U.S. peacetime technology program, was certainly such an individual.

Von Braun was a man who committed heart and soul to living in a new frontier. His words, “Late to bed, early to rise, work like heck and advertise,” aptly described his approach to securing his dream. Von Braun, the rocket scientist and visionary of space flight, convinced presidents and congressmen to spend millions exploring space for peaceful purposes. Von Braun’s eloquence and resolve were renowned and unrelenting, even after landing men on the Moon.

During the height of the Saturn-Apollo program, von Braun implemented a particularly effective management tool: the *Weekly Notes*. The *Notes* were his direct channel with his laboratory directors and project managers. The subjects covered in the *Notes* can be categorized as programmatic, strategic, institutional, political or sometimes humorous.

Here is how it worked: each person would turn in a one-page report—they were restricted to one page—on Friday or early Monday. The report, not a bureaucratic form, was to document what occurred in that laboratory or project office during the prior week. Input was collected from each of the subordinate organizations. As the document was passed through Marshall Space Flight Center’s chain of command, additions or deletions were made based upon the importance of the

issue. Once received by von Braun, he read and made notations on each of the reports (in most cases within 24 hours) and returned them by courier to the directors and managers.

Von Braun’s notations would always include his initial, ‘B’, the date that he read the report, and a check mark at the end of each paragraph to indicate he had read every word. His notations were addressed to the sender—mostly abbreviated—within the paragraph of the subject being discussed. Von Braun corrected misspellings and any other information submitted incorrectly. His handwritten notes were clear, concise, and grammatically correct. Often, his notes were directed to someone else to take action or returned to the sender with specific instructions. The sender would respond with his personal notations and return the same report to von Braun.

Von Braun’s comments included more than corrections. He also provided encouragement and suggestions regarding progress in his rocket factory. Sometimes, he requested briefings in order to be better informed on subjects new to him. He constantly advised his people of changing strategies and politics of the day and encouraged them to go directly to a higher level of management to expedite problem solving. He kept abreast of new and innovative technologies in the fields of rocketry and space flight. Especially, he loved to examine new equipment and operate man-in-the-loop simulators. It was common knowledge that if someone were peddling a new space related prototype and it could be driven, flown, or floated, they could bring it to Marshall. If von Braun gave it a test run, there was likely a sale.

Von Braun understood and valued the talents and skills of his people and often gave the same problem to more than one to solve, thus establishing more than one solution. He sought

opinions and advice, always prefacing his requests with, “Please,” and offered apologies for being short, harsh, or too abrupt with a colleague. His ire could be raised when people failed to report a problem in a timely manner or offered sloppy workmanship or “goofs” as he might call them, but he took care not to “shoot the messenger.” He readily offered guidance to improve procedures and prevent a re-occurrence and was quick to congratulate those organizations and individuals who succeeded and surpassed milestone events. He never failed to write letters of condolences to families who lost loved ones.

He often asked to be kept informed, “because I’m greatly interested,” or “lay-on a one-hour briefing for me on that subject.” Or, he might use the expression “presto-prompto” regarding the urgency of a matter. “How can I help you with this problem?” was one of his favorites. He often offered to write letters to contractors who were falling behind schedule, reminding them they were on the “critical path” of the lunar landing program.

Some of the most interesting notes are between von Braun and Heinz H. Koelle, the head of future projects. During the early ’60s, Koelle and von Braun discussed exciting new programs like *Nova*, a space station, manned missions to Mars, and electric and nuclear powered rocket stages. These were real projects being studied by the von Braun team at the same time the Saturn family of space vehicles was being developed. One of von Braun’s challenges during the early ’60s was the transformation of the Marshall center from a rocket arsenal to a research, development, and industrial operations center. The von Braun team brought to the United States an in-house rocket design and fabrication capability that was accepted and expanded by the U.S. Army at Redstone Arsenal. Upon transfer of the team to NASA in 1960, von

Braun began an effort to change his one-stop rocket factory to a more diversified organization.

With the growing interest by U.S. industry in building space hardware for the lunar landing program, von Braun found it necessary to add an industry management team. He opened assembly and test facilities in Mississippi and Louisiana, and began awarding contracts across the nation to the big aircraft and missile corporations. This required a major change in the way many of his laboratories functioned. As can be seen in the *Weekly Notes*, it was painful for many of his people to relinquish to contractors the fabrication of rocket components previously done in-house. Further, it required the labs to have “penetration people,” Marshall engineers residing at the contractor plants, serving as the eyes and ears of Marshall. Von Braun was constantly reminding his lab directors to devote more time and effort to advancing the state of the art of rocket technology and developing new vehicles. Von Braun was successful in transforming his rocket factory into a premier space vehicle research and development organization with a strong industry management team.

Von Braun combined his natural communication skills with disciplined deadlines and regular follow-up to bring out the same skills in his Marshall team. The result was a very motivated, cohesive group and an impressive collection of *Weekly Notes*—about 10,000 pages—all read by von Braun!

I’ve no doubt that if von Braun were alive today, he would be tweeting, texting, emailing, and video-conferencing with his team and partners, all on a regular basis. A further thought, had he been with us over these last several years, perhaps those texts and emails would reveal that man had already established a Mars colony and journeyed even farther to advance the space frontier.

### Sample quotes from the *Weekly Notes*:

To Walter Haeussermann who has replied with a negative report: “I guess I haven’t had any notes from Astrionics for 3 or 4 weeks. Have you stopped working, has your placed burned down or is it that you simply have no problems?”

To Hans Maus, concerning doing work for NASA-Houston: “Do we get reimbursed for this work? Houston (NASA) never misses an opportunity to put their hand in our pocket. I think we should reciprocate.”

To his deputy, Harry Gorman, being informed that Marshall Space Flight Center may have a janitorial strike: “Get me a broom. I’ll sweep my own office.”

To Werner Kuers, requesting a briefing on the latest development in rocket fabrication: “Request a briefing on this subject by the most knowledgeable people we have. Please arrange.”

To Fred Cline regarding a report that an employee failed to recognize a corrosion material: “Who goofed? Please see to it that procedures are tightened. P.S. I’m not interested in name of culprit. I am interested in steps to prevent recurrence.”

To Jim Bramlet / Matt Urland when informed that Boeing had submitted a Saturn V booster change order for several million dollars: “What’s going on here? If Boeing keeps operating like this, we’ll be broke in no time!”

To Karl Heimberg when informed delivery of Moon rocket engines was delayed: “Just to remind you that you are on the Critical Path.”

### About the Author

Ed Buckbee is an author, lecturer, and director emeritus who has been associated with the U.S. space program for four decades. He continues to be a part of America’s space program as a advocate of human spaceflight.

A journalism-business management major at West Virginia University, Morgantown, West Virginia, he was commissioned as a regular Army officer in 1958 and served at the U. S. Army Missile Command, Redstone Arsenal, Alabama and U.S. Special Forces, Ft. Bragg, North Carolina. In 1961, he transferred to the newly formed NASA-Marshall Space Flight Center and began working in the early days of the Apollo-Saturn manned lunar landing program. He served as an information specialist in the public affairs office during the Mercury, Gemini, and Apollo programs. He wrote and produced a TV series titled, “Today in Space.” In conjunction with the National Air and Space Museum, he started the first artifacts program at the Marshall center. The last position he held at the center was coordinator of the space museum project responsible for collecting hardware to be displayed at the new museum and directing the design.

In 1968, Buckbee was selected by Wernher von Braun to develop, assemble, and manage the space museum later to become the U.S. Space and Rocket Center. Buckbee collected and assembled the first complete Saturn V rocket ever to be on public exhibit. He became the von Braun family’s representative and curator in the establishment of the Wernher von Braun memorabilia, supervising the transfer and set-up of the collection, and serving as its curator until retiring in 1994.

Buckbee, with von Braun, conceived the U.S. Space Camp and Aviation Challenge, programs designed to motivate young people to pursue studies in math and science. Over 500,000 students and teachers from seventy countries have attended educational programs that Buckbee established and managed.

Working with the Mercury Seven astronauts and their families, Buckbee conceived and developed the first exhibit with personal artifacts, telling the story of America’s original astronauts at the U. S. Astronaut Hall of Fame and Space Camp near NASA’s Kennedy Space Center,

4. Key Personnel Losses: Mr. John Winch, Chief of our Applied Guidance & Flight Mechanics Branch, has resigned effective the end of March. He accepted a position with T. R. W. (Houston), performing the same function for T. R. W. (MSC) as he performed here. His stated reason for leaving is "no future at MSFC." His Branch is responsible for Guidance work, Mission planning and Flight Mechanics for mainstream Apollo and AAP. His talents will be very difficult to replace. Another extremely valuable key employee in our Unsteady Aerodynamics Branch, has indicated he will most likely leave MSFC to accept a teaching job; he has made extensive contributions in the difficult field of unsteady aerodynamics on IB and V. He is a PhD, GS-13, without hope of getting a promotion under present personnel policy. He will make more money teaching than in his present position.

*E.P. After our discussion today (Mr. Dahm's presentation) I'd like to have another private talk with you on this personnel morale problem. Please arrange thru Bonnie. (I'm going on a trip, so our talk should be after 3-27) B*

VISIT OF INTERIM COMMUNICATIONS SATELLITE COMMITTEE

A group of fifteen international members of the Interim Communications Satellite Committee, accompanied by Mr. Richard Colino, Director of International Arrangements for the Communications Satellite Corporation, were given a briefing and tour of the Michoud Assembly Facility on Friday September 23, 1966. ✓ *Good. Sold 'em a Sat. V? B*

S-IC-4 - very little testing accomplished during the week with "change outs" in progress and scheduled to continue thru September 29. Two deep scratches were found in the lower bulkhead of the fuel tank. They are approximately one half inch apart, and it appears as though a tool had been dropped in the tank. Further investigation is in progress and an engineering evaluation is forthcoming.

W.K.  
 No, I'm not. A lifetime in rocketry has convinced me that welding is one of the most critical aspects of our whole job!!  
 B

George C.  
 Let's find out why the man who dropped it did not report it! If people start hiding goofs like this, we'll find ourselves in endless trouble! B

Loe-James  
 So we still discover surprises during static testing of SIB stages!!!  
 B

A meeting has been set for November 15 between Maintenance, (janitorial contractor) and the steel workers union. This meeting discuss wage demands by the union. There is a possibility of a strike in the future. Mr. Styles is keeping abreast of the situation. nothing we can do as far as we know. ✓

→ Get me a broom! I'll sweep my own office.  
 B

Florida. Buckbee was permitted access to each of the Mercury astronaut families' collection of memorabilia to select appropriate items for public exhibit. He collaborated with his long-time friend, the late Wally Schirra, on a book titled, *The REAL Space Cowboys*, a tribute to the Mercury astronauts.

A former president of the NASA-MSFC Alumni Association, Buckbee is the recipient of several national awards including the NASA Distinguished Public Service Medal, Department of Army Distinguished Civilian Service Award, Yuri Gagarin Cosmonaut Medal, National Space Club Media Award, and Jimmy Doolittle Award. In 2007, he was named along with Wernher von Braun to the Space Camp's Hall of Fame.