

THE SECRETS OF APOLLOS'S SUCCESSES

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Introduction

I would never have used the words “The Secrets” in the title of this presentation if others had not used them in referring to some research I conducted in NASA 52 years ago. Let’s slip back in time to 1967 when I was a mere 33 years old and conducting research on organizational communication at NASA’s Marshall Space Flight Center while the Research and Development of Saturn, the Moon Rocket was entering the final, crucial stages. I was appointed to the role of Summer Faculty Consultant in Communication to the Director of MSFC, the rocket genius Dr. Wernher von Braun. It was amazing because I was one of the first persons to receive a Ph.D. degree in this brand new field of Organizational Communication. I got the job because the Director of my doctoral dissertation, Dr. W. Charles Redding of Purdue University, was the founder of this academic field and recommended me for the job. I was told that I was the first “soft scientist” to be appointed as Summer Faculty Consultant.

Director von Braun asked me to do in-depth interviews with the top 50 managers in the two main divisions of the Center, Research and Development, R&DO, Industrial Operations, IO, and some staff offices. He wanted me to find out which of his communication practices, in his words, “worked well, and which ones did not.” My first question in each interview was “What communication practice works well?” Nearly everyone I interviewed immediately said: “The Monday Notes.” The name suggested a kind of simplicity, but after I understood all of the ramifications, I came to think of it as the most positively powerful communication practice I had learned about. That belief remains

Kennedy Space Center. He missed hearing from him, so he asked for a weekly note. Enjoying and learning from it, he decided to ask the top 24 managers in in R&DO and IO to send him a one-

Penetration, it must be emphasized, was based on the premise that the contractor had the burden of proof. They had to convince the MSFC engineers that it was going to work before they would buy it.

I waited for nearly a decade before I published my research findings and recommendations in two issues of an academic journal in my field: *Communication Monographs*. I also used my experiences within MSFC to develop a research program in Organizational Identification and Concertive Control (Tompkins, 2015). Friends and colleagues threw a party for me the night Neil Armstrong landed on the Moon. M

Operation Paperclip, Wiesman later told me that they were looking for someone specifically specializing in Organizational Communication. They recognized Professor W. Charles Redding of Purdue University as the world's top authority in this field. Redding was my academic adviser and dissertation director. He recommended me to Wiesman. The only words I heard about the Systems approach was in my research interviews, a controversy about whether or not NASA-MSFC needed more emphasis on Systems Engineering.

The title I chose was **Apollo, Challenger, Columbia: The Decline of the Space Program** My daughter Emily kept me supplied with documents, e.g., the Report of the Columbia Accident Investigation Board. I came to the same conclusion as in the **Challenger** accident: “Organizational Forgetting.” Forgetting the communication practices that made Apollo one of the great technological and organizational achievements in human history.

With that subtitle I thought you will never hear from NASA again. But again I was wrong. The book came out in 2005 and NASA asked me to make a presentation at two international conferences at the Ronald Reagan Center in Washington, D.C. In the first one I taught people von Braun’s practices. In the second one I got theoretical, arguing that many historians held that Euclid’s **Elements** was the foundation of mathematics. I took our copy off the shelf of the Great Books and found that there were no numbers, no equations.

Hmm, how can that be? I kept reading and found that Euclid studied either with Aristotle or a student of Aristotle’s. Aha, my own field of Communication had as its forerunner the field of

My thoughts then turned again to Stephen Johnson and his book *The Secret of Apollo*. He inadvertently set up his text so that at least one reader would believe that the Monday Notes developed by Dr. von Braun were the Secret of Apollo. He had hoped he could assume that Organizational Communication could be subsumed under Systems Management Theory. My final objective in this paper is to make a separation of Organizational Communication from Management Theories.

As a graduate student at Purdue

gave us his famous functions of the executive: “first, to provide the system of communication; second, to promote the securing of essential efforts; third, to formulate and define the organizational purpose” (Barnard, 1968, 217). I might express it differently: to provide the channels of communication that make up an organization chart and more channels as needed; second, to recruit people and motivate them to do the needed services; third, to express the purposes and goals of the organization.

Those functions are constitutive: They will need to be done no matter what management theory is adopted by those at the top. Note that this made it possible for Dr. von Braun to create new channels of communication—Monday Notes—in one of the most highly regulated and conservative organizations of our day: the Bureaucracy of the

read the earlier draft and began to wonder if the Monday Notes could have worked in the age of the ditto and mimeograph. He would point again to the brilliance of Wernher von Braun in seeing the application of the dry copy machine. I since saw a reference to the first Xerox dry copier in 1959, just eight years before I was doing research on an established communication practice. Enlightened and ethical managers are necessary to the creation and proper application of the most effective communication practices.

References

Barnard, C. *The Functions of the Executive* (Cambridge, Mass: The Harvard

