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From: "Eric Davis" <tachyondavis@hotmail.com> [[Save Address](#)] [[Block Sender](#)]
To: gcameron@usa.com
Cc:
Subject: Re: Flickinger
Date: Fri, 19 Apr 2002 21:53:48 -0700

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Grant:

I haven't seen this page before. Thanks. However, the one I found that I was telling you about is at:
<http://users.bestweb.net/~kcoyne/respect.htm>

But another couple of interesting ones connecting Flickinger to Detlev Bronk and other Roswell era officials is at:
<http://www.hq.nasa.gov/office/pao/History/SP-4003/ch1-3.htm>
<http://lsda.jsc.nasa.gov/books/mercury/appA.htm>

Howz them apples?

I looked at Kit's e-mail again and realized that I had Flickinger's middle initial wrong. It is in fact "D" and not "P".

Eric

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>From: "Grant Cameron" <gcameron@usa.com>
>To: "Eric Davis" <tachyondavis@hotmail.com>
>Subject: Flickinger
>Date: Fri, 19 Apr 2002 15:52:48 -0500
>
> http://www.supervideo.com/sr71a.htm
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>
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>Sign-up for your own FREE Personalized E-mail at Mail.com
> http://www.mail.com/?sr=signup
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The Bioastronautics Mission Emerges

On August 2, 1958, meanwhile, Dr. Detlev Bronk, president of the National Academy of Sciences-National Research Council,¹¹ had formally announced the formation of a 16-man Space Science Board to survey in concert the scientific problems, opportunities, and implications of man's advance into space. This group, in actual being since June, was under the chairmanship of Dr. Lloyd V. Berkner.¹² Besides acting as the focal point for all Academy Research Council activities connected with space science research, the board would "coordinate its work with the appropriate civilian and Government agencies, particularly the National Aeronautics and Space Administration, the National Science Foundation, the Advanced Research Projects Agency, and with foreign groups active in this field."¹³ Thus, within the scientific community there already existed the organizational framework, both in the Federal Government and in civilian groups, through which basic space science research—as contrasted with applied research and technology—could be administered. This could provide the vehicle for coordination of contracts and resources with universities and with industry.

In the spring of 1958, prior to the establishment of NASA, the Department of Defense had already formally requested that the Academy-Research Council establish an Armed Forces-NRC Committee on Bioastronautics that would concern itself, as necessary, with any field of science in order to pursue its objectives. Pertinent aspects of astronautics, biology, chemistry, medicine, psychology, and related disciplines would be included. Examples of specific research problems were closed-system environments; stress; crew selection, motivation, surveillance, and control, including group dynamics; ground support facilities; weightlessness; metabolic requirements, including nutrition and water balance; cosmic and other forms of radiation; isolation and confinement; displays, controls, and communication; circulation; deceleration and vibration; escape and survival; orientation; and man-machine system problems.¹⁴

On September 22, 1958, a planning group headed by Brig. Gen. Don D. Flickinger* met to consider possible courses of action.¹⁵ The first meeting of the executive council was held in San Antonio, Tex., on November 10, 1958,¹⁶ with Dr. Melvin Calvin, University of California, serving as chairman.** This meeting was attended by Dr. Lovelace, Chairman of the new NASA Special Committee on Life Sciences, who noted that while the relationship of his Committee with other Government agencies was not yet clear, major functions were to be the formulation of policies and stimulation of all possible developments related to man's adaptation to space flight. He therefore welcomed liaison with the Armed Forces-NRC Committee.

Thus, by the fall of 1958 both the civilian and military scientific communities were geared to solution of the biomedical problems presented by the immediate objective of manned space flight. The interrelated efforts of the scientific community at the highest Government level in behalf of space exploration are indicated in chart 1. Through the next years, the biomedical problems of manned space flight were to be of continuing concern to the life-sciences community of the Nation.

* Other members of the group were Lt. Col. Robert Holmes, USA (MC); Capt. W. L. Jones (substituting for Capt. Charles F. Gell, USN (MC)); Dr. R. Keith Cannan, NAS - NRC; and the following members of the Academy - Research Council: Dr. Franklin L. Campbell, Division of Biology and Agriculture; Glen Finch, Division of Anthropology and Psychology; and Herbert N. Gardner, Division of Medical Sciences. (Memorandum for record dated Sept. 23, 1958, Subj.: Staff

Meeting re: Committee on Bioastronautics.

** Other members were Dr. Howard J. Curtis, Brookhaven National Laboratory; Dr. Paul M. Fitts, University of Michigan; General Flickinger; Dr. John D. French, University of California Medical Center; Captain Gell; Dr. James D. Hardy, U.S. Naval Air Development Center; Colonel Holmes; and Dr. Otto H. Schmidt, University of Minnesota, who was subsequently to become chairman. (See app. A.)

11. The National Academy of Sciences, a nonprofit organization, was established under a congressional charter signed by President Lincoln in 1863. In 1916, at the request of President Wilson, the Academy organized the National Research Council "to enable scientists generally to associate their efforts with those . . . of the Academy in service to the Nation, to society, and in science at home and abroad." Dr. Bronk was also a member of the President's Scientific Advisory Committee.

12. Press release, Aug. 3, 1955, from the National Academy of Sciences National Research Council; Emme, op. cit., p. 99.

13. Academy-Research Council press release, cited above. The National Science Foundation, it should be noted, had as early as 1954 been assigned "major responsibility on pure scientific research" by Executive Order 10521, "Administration of Scientific Research of Federal Agencies," Mar. 14, 1954.

14. Minutes, Armed Forces-NRC Committee on Bioastronautics, Nov. 10, 1958, and Appendix A, "Tentative Outline of Rules," Sept. 22, 1958.

15. Ibid.

16. Minutes of First Meeting, Executive Council, Armed Forces-NRC Committee on Bioastronautics, Nov. 10, 1955. The Bioastronautics Committee was dissolved on Mar. 3, 1961. (See Memo for Members of the Executive Council and Panel Chairmen of the Armed Forces-NRC Committee on Bioastronautics from Sam F. Seeley, M.D., Exec. Secretary.) The historical record of the contributions of this group remains to be written.



The *Ejection* Site

Remembering the Pioneers

This century has seen advancements in engineering that exceed the achievements of the past several centuries. Driving these advances have been extraordinary men who labored beyond the cutting edge, desperately trying to gain ground before it could catch up to them. Starting with the Wright Brothers, who had studied the greatest scientific minds before them and decided that they had to extend the science of aeronautics beyond where it had gone before, and continuing as far into the future as they could manage.

In Aviation and Aerospace there have been hundreds of men and women who have advanced the state of the art, and made flying safer for both pilots and their passengers. Some have made small advances that made uncomfortable things more palatable, others have brought about changes that have saved many lives. One of these men was Brigadier General **Donald D. Flickinger**, Ret. He was a Stanford trained doctor who while with the Army Air Corp during World War II would parajump to the site of air crashes in the area of the Burma-China Hump to tend the injured and help them to safety.

Later on in his career he assisted in the development of high altitude bailout aeromedical research. He was instrumental in developing ejection equipment that included oxygen bottles to prevent crewmen from blacking out in the thin upper atmosphere, a situation that would often prove fatal. A later development to his credit was in the barometric release mechanisms for parachutes that would ensure the chute did not deploy until it had reached a safe altitude.

Dr. Flickinger did research that led to the infamous Lovelace Clinic where the Mercury Astronauts went through the rigorous and incomprehensible (to us today) testing depicted in Tom Wolfe's "The Right Stuff". During the Mercury program Dr. Flickinger was the Assistant for Bioastronautics, ARDC Andrews Air Force Base. His expertise was developed over a long career and he retired in 1961. It is a solemn task to write this as it is both a tribute, and an obituary. Dr. Flickinger passed away on Feb. 23, 1997.

This tribute is also to all the other people who have been involved in the progression of Aeronautics over this century. All of them deserve our respect, from the designers and inventors who put ink to paper to 'Rosie the Riveter' and all the other laborers who assembled the myriad air and space craft, to the maintenance personnel who repair and pamper the systems to the men and women who strap the conglomeration of parts on and soar into the sky.

"Now, as the age of space exploration dawns, we see the need for the same state of progression of aerospace medicine, space biomedicine, or whatever this new area might be called. It needs to have its share of support, for the military or civilian or any other type of organizational structure; I am talking about the future of our country. The time has come when we must all realize, those of us who have been in aviation medicine and those who are now joining its ranks, that we have a tremendous job ahead of us. Let's all join hands, exhibit good old American courage, and get on with the job."

Dr. Donald D. Flickinger

Project Mercury: Biomedical Aspects

Psychophysiological Aspects of Space Flight, 1961

Others who have passed on recently include **Gino P. Santi**, who at the Wright Air Development Center (WADC), ran the early USAF ejection seat testing programs.

