OCTOBER 1994

Suicide by aircraft (USCG Headquarters, Washington, DC): "Intentional aircraft crashes are a dramatic cause of death… Mortality data from aircraft crashes determined as being due to suicide were obtained from National Center for Health Statistics (NCHS) and National Transportation Safety Board (NTSB) data sources. The NCHS reported that, between 1979 and 1989, ten persons committed suicide by aircraft crashes. Twenty aircraft crash fatalities were also reported during this period in which the intent of death could not be determined as either suicide, homicide, or accidental. White middle-aged males accounted for the majority of deaths. The NTSB reported, for the years 1979-89, that nine fatal aircraft accidents were suicide. All fatalities were male pilots operating small fixed wing aircraft."[5]

Personality and astronaut effectiveness (The John D. and Catherine T. MacArthur Foundation and Rush University, Chicago, IL; University of Texas at Austin, Austin, TX): "[E]ffectiveness and personality data were collected from 65 NASA astronauts… Five personality subscales were related to effectiveness in one form or another. They were: high Negative Expressivity and Negative Communion (subordinate and gullible), low Impatience and Irritability, low Openness (to new ideas and experiences), low Negative Instrumentality (egotism) and high Agreeableness. Examining the graphs of these relationships indicated that they were not linear. This examination indicated that high levels on these undesirable personality characteristics (e.g., Impatience/Irritability) were distributed across all levels of effectiveness, low levels of the undesirable personality characteristics were found only among the most effective astronauts."[3]

OCTOBER 1969

Don't lose your head (Directorate of Aerospace Safety, Norton AFB, CA): "During the five-year period 1963 through 1967, there were 838 ejections from USAF aircraft. In these, 122 individuals lost their helmets and 4 experienced helmet failure. It was found through analyzing the data that a three-fold increase in head injuries occurred with helmet loss. Helmet loss occurs most frequently during ejection and free-fall phases. The most frequently reported direction of helmet loss was from the back to the front of the head. It was concluded from the study that some method of positive posterior fixation of the helmet to the aircrew member is necessary."[1]

Leisure in space (Waterloo University, Ontario, Canada): "Leisure activities pursued during long range space missions should not be considered by planners as merely a way of filling in time. Current astronaut selection procedure tends to favor those who in leisure time in spacecraft will spontaneously pursue mission-oriented activities, making the most of whatever facilities are available. With provision of an appropriate climate and opportunity, encouragement can be given to furtherance of the creative use of leisure for self-development of the persons involved. Provision should be made for both active recreation, as in hobbies, communal games, and even music making, and for passive enjoyment as in listening to recorded music and radio, watching television and movies, and reading. Provision for exercise programs is also required."[2]

OCTOBER 1944

Aircrew survival kit (Materiel Command, Army Air Forces, Wright Field, OH): "AAF Materiel Command Hq. here is procuring over 190,000 emergency life vests. In this 10-pound piece of wearing apparel lies the answer to a lot of the combat pilot's problems–especially if he flies or fights over Arctic wastes, deserts, jungles and other uninhabited places.

"AAF pilots have been carrying emergency kits of one type or another for some time, but none of them have proved satisfactory from all angles. 'Too big'"… 'too bulky'… 'too heavy'… 'inadequate equipment'… 'can't get in and out of the plane fast enough'… 'cramps me in the cockpit'… were some of the complaints registered…

"Materiel Command experts tackled the problem of giving pilots exactly what they wanted in the way of an emergency kit. They set out to develop a light, compact, efficient kit which would provide an airman with all the essentials necessary for survival under emergency conditions.

"To insure themselves that the kit would contain such essentials the emergency rescue branch of the personal equipment laboratory 'borrowed' Mr. G. E. Petersen from the American Museum of Natural History in New York. An explorer of wide experience, Mr. Petersen was particularly valuable in the light of his knowledge of the South Pacific Islands…"

"The kit contains an unbelievable amount of equipment to aid the stranded pilot to obtain food and to signal rescue parties. It also provides rations sufficient for three weeks. Fish lines, knives, a pistol, sun goggles, mosquito netting, cooking equipment, fire-starting kit, first-aid materials and medicines, leather and woolen gloves, a manual on desert, Arctic and ocean survival, all go into this bundle worn under the parachute. One of the most unique devices is putting bird shot into .45 pistol cartridges instead of lead bullets. This enables the stranded pilot to shoot fowl and other game."[4] [*Editor's note:* Unbeknownst to the audience, "Buffalo Bill" Cody used shot in his revolver charges at the turn off the century to facilitate shooting holes through silver dollars from a galloping horse; this fact thanks to the editor's grandfather's clandestine investigation as a teenager.]

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