

FEBRUARY 1995

Eject! Where'd my glasses go? (Naval Medical Center, San Diego, CA; Naval Aerospace Medical Institute, Pensacola, FL): "Many pilots wear required corrective lenses during flight operations, and many wear tinted lenses... There were 48 ejections occurring between 1977 and 1990 that involved corrective or tinted lens use... Although 37 of 46 lost all lenses, each instance of retention occurred with visor down, oxygen mask on, helmet properly secured, and at lower ejection speeds. Related injuries were minor and occurred in only 20%. The utility and need for enforcement of standard operating procedures (i.e., mask on, helmet secured, and visor down) was clearly demonstrated. Only 19 of 46 clearly met all 3 criteria. Contact lens users were too few to allow meaningful conclusions."²

FEBRUARY 1970

Jet lag quantified (Aerospace Medical Institute, DFVLR, Bad Codesberg, Germany): "After rapid transportation from Europe to the U. S. and back with a sojourn of 17 days (time shift: 8 h), the duration of resynchronization was about 5 days on average for both directions with a rate of phase adjustment of approximately 1.5 (1-2) h/day... A performance decrement seen for the 24-hours total average, in comparison to the preflight control, was significant only after the eastward (-8.5%) but not after the westward (-3.3%) flight."¹

Aircraft design...learning from submarines? (6571st Aeromedical Research Laboratory, Holloman AFB, NM): "Time of useful consciousness (TUC) and total rescue time (TRT) after decompression [is a concern]... In order to achieve on-board rescue of decompressed crewmembers compartmentalization combined with adequate air lock design is suggested [Fig. 1]... The same principle can be applied to decompression events of High Altitude/Multi Mach Transport Aircraft."⁴

FEBRUARY 1945

Physical qualifications of the future private pilot (Chief, Aviation Medical Division, Civil Aeronautics Administration): "The private flyer will be the most important individual in postwar aviation..."

"We who practice aviation medicine are no less interested in the development of private flying than are those of other groups... We naturally would be expected to concern ourselves primarily with the physical standards and the attendant examination requirements..."

"The physical standards in force today were adopted in June, 1942. At that time, we accomplished a great simplification. In all, seventeen requirements as to application procedure, time periods for the examination, and type certificate were replaced by the one annual physical examination and one medical certificate... It remains to be demonstrated whether changes in public sentiment, or improvement in the design of aircraft since then, would dictate the lowering of physical standards..."

"It is the contention of some that the private flyer has a right to fly unmolested; of others, that he has the right to kill himself if he wishes to do so - that he would be the only one to suffer. Many will agree with this contention if they can be assured that he would crash only in the open spaces; and some raise the question as to whether he has the legal right to kill himself on someone else's property. It is the contention of some that we must expect a sacrifice of lives and property as the price of aviation advancement; others contend just as strongly that accidents do not have

**DECOMPRESSION RESCUE CONCEPTS
IN AN ORBITAL TWIN VEHICLE
CROSS SECTION OF ORBITAL TWIN VEHICLE**

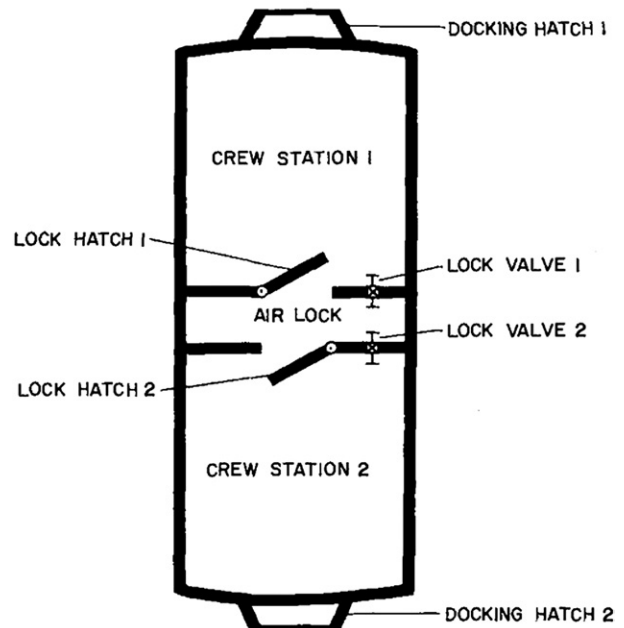


Fig. 1. The application of the compartmentalization/airlock concept to an orbital twin station.

to happen. It is the opinion of many that the private flier should not be inconvenienced by an elaborate physical examination, by the necessity of reporting for examination annually, nor by traveling any considerable distance to obtain an examination by a designated Civil Aeronautics Administration Medical Examiner...

"The Administrator's staff has given much thought and effort to the implementation of a medical service to the civil airman that would accomplish these ends. The decentralization of many functions of the Medical Division to regions is well underway. Regional Medical Offices have been proposed and we hope will be a reality before the next meeting of this Society."³

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This column is prepared each month by Walter Dalitsch III, M.D., M.P.H. Most of the articles mentioned here were printed over the years in the official journal of the Aerospace Medical Association. These and other articles are available for download from Mira LibrarySmart via <https://submissions.mirasmar.com/asmaarchive/Login.aspx>.

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