

Please send suggested books for review as well as reviews of books, articles of aeromedical interest, films, websites, etc. to Geff McCarthy, M.D., geffandjulie@comcast.net

Reviews

In this column we will review books, articles of aeromedical interest from other sources, films, websites, and other alternate sources of aerospace medicine and human performance knowledge. This month we offer current research as compiled by NASA and selected by Dr. Watson, a pertinent review from a generalist medical publication from Dr. Rayman, and, first, a convenience sampling of some sources of interest to AsMA members from Dr. McCarthy.

Now that we are formally engaged in Human Performance—our new title!—members and readers may wish to gain further understanding of the basics of Human Factors from this prolific author: <http://airlinesafety.wordpress.com/2014/04/21/the-role-of-cognitive-bias-in-aircraft-accidents/>, a basic lesson in faulty information processing that may lead to adverse outcomes. <http://airlinesafety.wordpress.com/2013/05/03/slow-onset-hypoxia-an-insidious-killer/>: while hypoxia will be routine to most AsMA members, the emphasis on insidious onset is worthy of consideration. Similarly, this link, <http://ergonomi.co.uk/>, leads to basic, quickly readable expositions of basic concepts in ergonomics and occupational medicine.

<http://ntrs.nasa.gov/search.jsp>: This link brings you to a search page. Merely typing “aerospace medicine” returns 12,048 technical reports, papers, and reviews—current and historic. Particularly valuable for the researcher is the “current bibliography” from years past that includes otherwise obscure references from the former Soviet Union. Here is such a reference from the Soviet era: <http://link.springer.com/article/10.1134/S0362119710070017#page-1>. Clicking this link brings one to an account of the life and work of Oleg Gazenko, one of the leading lights of Soviet aerospace research, published in *Human Physiology* in 2010.

Lucas RA, Epstein Y, Kjellstron T. Excessive occupational heat exposure: a significant ergonomic challenge and health risk for current and future workers. *Extrem Physiol Med.* 2014; 3:14; <http://www.extremephysiolmed.com/content/pdf/2046-7648-3-14.pdf>. A very useful review of heat stress and its consequences.

Dempsey JA. Career perspective: Jerome A. Dempsey. *Extrem Physiol Med.* 2014; doi:10.1186/2046-7648-3-13; [accessed 2014 Nov 14] Available from: <http://www.extremephysiolmed.com/content/3/1/13>. This reviewer stands

in awe of the scientists profiled herein. This profile is most worthy of readers’ attention, and includes concepts of pulmonary function control that live in the heart of aerospace medicine. Highly recommended.

Miller R. *The Art of Space*. Minneapolis (MN): Zenith Press, Quarto Publishing Group; 2014; \$35 US; ISBN: 9780760346563 <http://www.qbookshop.com/products/214437/9780760346563/The-Art-of-Space.html>.



Readers with an interest in the cosmos might consider this non-technical offering.

Reviewed by
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Thankfully NASA has resurrected their SPACELINE current awareness citation service.* The most recent 12 biweekly updates cited 364 new articles, 12 of which were from this journal. Of the remaining 352 there were 114 articles reporting research sponsored by NASA and 238 other articles—a diverse, stimulating, and challenging collection of work. AMHP space allows summaries of just a few of the most pertinent:

Impact of breathing 100% oxygen on radiation-induced cognitive impairment (*Radiat Res.* 2014 Oct. 22). Rat research directed toward investigating the potential for 100% oxygen use during space EVA to potentiate the deleterious effects of radiation exposure. The work showed that the oxygen-breathing rats performed better than the air-breathing counterparts, and concluded that the data suggests “that astronauts are not at greater risk of developing cognitive impairment when exposed to space radiation while breathing 100% O₂ during an EVA.”

* The NASA SPACELINE citation update service is available to members of the Aerospace Medical Association. Subscribers to this service receive a biweekly email listing NASA-supported and other publications and, usually, related URL links (e.g., PUBMED). If you wish to subscribe to this service please contact the SPACELINE editor, Robyn Ertwine, at rertwine@nasaprs.com.

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