## VOL. 99, NO. 2, AUGUST 2010

# HDALTH PHYSICS 

## THE RADIATION SAFETY JOURNAL



## The Official Journal of <br> the Health Physics Society



Radiation Doses and Cancer Risks in the Marshall Islands from U.S. Nuclear Weapons Tests

# HEALTH PHYSICS <br> The Radiation Safety Journal 

## CONTENTS

## PAPERS

Radiation Doses and Cancer Risks in the Marshall Islands Associated with Exposure to Radioactive Fallout from Bikini and Enewetak Nuclear Weapons Tests: Summary Steven L. Simon, André Bouville, Charles E. Land, and Harold L. Beck
Fallout Deposition in the Marshall Islands from Bikini and Enewetak Nuclear Weapons Tests
Harold L. Beck, André Bouville, Brian E. Moroz, and Steven L. Simon

Doses from External Irradiation to Marshall Islanders from Bikini and Enewetak Nuclear Weapons Tests
André Bouville, Harold L. Beck, and Steven L. Simon
Acute and Chronic Intakes of Fallout Radionuclides by Marshallese from Nuclear Weapons Testing at Bikini and Enewetak and Related Internal Radiation Doses
Steven L. Simon, André Bouville, Dunstana Melo, Harold L. Beck, and Robert M. Weinstock

Projected Lifetime Cancer Risks from Exposure to Regional Radioactive Fallout in the Marshall Islands Charles E. Land, André Bouville, Iulian Apostoaei, and Steven L. Simon
Dedication: Payne S. Harris (1922-2010)
Steven L. Simon
Urinary Excretion of Radionuclides from Marshallese Exposed to Fallout from the 1954 Bravo Nuclear Test Payne S. Harris, Steven L. Simon, and Shawki A. Ibrahim
Alimentary Tract Absorption ( $f_{1}$ Values) for Radionuclides in Local and Regional Fallout from Nuclear Tests Shawki A. Ibrahim, Steven L Simon, André Bouville, Dunstana Melo, and Harold L. Beck
Predictions of Dispersion and Deposition of Fallout from Nuclear Testing Using the NOAA-HYSPLIT Meteorological Model
Brian E. Moroz, Harold L. Beck, André Bouville, and Steven L. Simon

## OTHER CONTENT

News and Notices 270
Health Physics Society Prospectus 280
Health Physics Society Affiliate Members 281
Author Guidelines Appears in the January and July Issues Advertisers Guide Appears at the back of this issue
Advertisers Index Appears at the back of this issue
Up and Coming
Appears at the back of this issue

On the cover: Map of the Republic of the Marshall Islands showing relative locations of all atolls. See page 106 (Fig. 1) for the names of each atoll and additional information.

[^0]
[^0]:    Health Physics (ISSN 0017-9078), a peer reviewed journal, is a publication of the Health Physics Society and is published monthly by Lippincott Williams \& Wilkins, 16522 Hunters Green Parkway, Hagerstown, MD 21740-2116. Business offices are located at Two Commerce Square, 2001 Market St., Philadelphia, PA 19103, Periodical postage paid at Hagerstown, MD, and at additional mailing offices. Copyright © 2010 by the Health Physics Society. Annual subscription rates: United States - $\$ 552.00$ Individual, $\$ 1,992.00$ Institution. Rest of World - $\$ 613.00$ Individual, $\$ 2,110.00$ Institution. Single copy rate $\$ 176.00$. Subscriptions outside the United States must be prepaid. Subscriptions outside North America must add $\$ 25.00$ for airfreight delivery. GST tax of $7 \%$ will be added to the subscription price of all orders shipped to Canada. (Lippincott Williams \& Wilkins' GST Identification \#895524239. Publications Mail Agreement \#40052291). Prices subject to change without notice. Subscriptions will begin with currently available issue unless otherwise requested. Copies will be replaced without charge if the publisher receives a request within 90 days of the mailing date. Individual subscription rates include print and access to the online version. Institutional rates are for print only; online subscriptions are available via Ovid. Please contact the Ovid Regional Sales Office near you for more information on institutional online access. Visit www.lww.com/resources/librarians/ for contact information, POSTMASTER: Address for nonmember subscription information, orders, or change of address: 16522 Hunters Green Parkway, Hagerstown, MD 21740-2116; phone 1-800-638-3030 or 1-301-223-2300; fax 1-301-223-2400. In Japan, contact LWW Igaku-Shoin Ltd., 3-23-14 Hongo, Bunkyo-ku, Tokyo 113-0033; phone 81-3-5689-5400; fax 81-3-5689-5402. In Bangladesh, India, Nepal, Sri Lanka, and Pakistan, contact Globe Publications Pvt. Ltd. B-13 $3^{\text {nd }}$ Floor, A Block, Shopping Complex, Naraina Vihar, Ring Road, New Delhi, 110028 ; India phone 91-11-579-3211; fax 91-11-579-8876. Indexed in Current Contents (Life Sciences, Science Citation Index, SciSearch Database, ISI/BioMed, Research Alert), BIOSIS, Index Medicus, MEDLINE, Excerpta Medica, Chem. Abstr., WRC Info., Environ. Per. Bibl., Cancer Journals and Serials, Applied Health Phys. Abstr., Aqualine Abstr., Current Awareness in Biological Sciences, Energy Res. Abstr., Congress. Info. Serv. Index, ASSIA, Cambridge Scientific Service, PASCAL-CNRS Database, NISC's Fish and Fisheries Worldwide, and Energy Database.

