



IEEE
AEROSPACE
and
ELECTRONIC

SYSTEMS MAGAZINE

April 2008
ISSN 0885-8985
Volume Twenty Three
Number Four

Editor-in-Chief – Evelyn H. Hirt
Associate Editor – Teresa Pace
Assistant Editor – Marina Ruggieri
Tutorials Editor – Lance M. Kaplan
Administrative Editor – David B. Dobson
Assistant Administrative Editor – A. Lim

Sector Editors

General & Comcl. Aviation – George Dean
Avionics –
Modeling & Simulation –
Position, Location & Navigation –
Radar Systems – Hugh Griffiths
Sensors & Instrumentation –
Space Systems –
Systems Engineering –
Book Reviewers –
News & Information – A. Lim

Contributing Editors

Awards – Erwin C. Gangl
Conferences – Barry C. Breen
Education – Steve E. Watkins
Ethics –
History – Henry Oman, Ron Schroer
Patents, Stds. & Reg. Issues –
Arnold M. Greenspan
Technical Panels – James R. Huddle

How to Reach Us

We welcome letters; we reserve the right to edit for space, style, and clarity. Include address and daytime phone number.
E-mail: Systems.AESS@ieee.org
Fax: 301/657-0209
Mail: IEEE A&E Systems Magazine,
4500 N. Park Avenue, Chevy Chase,
MD 20815-7239, USA

Address Changes & General Information

There is one method for updating your IEEE records: address, phone/fax numbers, e-mail address, etc.). Make on-line changes at:
<http://service@ieee.org/memberserv/cao/intro.htm>.
IEEE Website: www.ieee.org
AESS Website: <http://www.ieee-aess.org/>

Magazine Deadlines: Material (except articles) must be received by no later than 60 days prior to the month of the issue in which it is to appear.

Contributions within the scope of the Society are solicited. Use the web-based submission system at: <http://sysaes.msubmit.net>. Guidelines may be found on the banner at the top of the submission homepage under "Information to Author." We do not encourage special sections but will consider special series. Contact the Editor-in-Chief.

In This Issue – Technically 2

Articles

- ◆ **Disaster Monitoring and Mitigation using Aerospace Technologies and Integrated Telecommunication Networks** 3
P. Pace & G. Aloï
- ◆ **Prototype Personal Navigation System** 10
W. Soehren & W. Hawkinson
- ◆ **Micro Air Vehicle Navigation System** 19
B.B. Mohr & D.L. Fitzpatrick
- ◆ **Fiber Lasers: A Future Technology for Lasers in Space** 25
J.J. McMahon
- ◆ **ISE: Intelligent Synthesis Environment for Future Aerospace Systems** 31
A.K. Noor & S.L. Venneri

Publication Review

- ◆ **Radar: A Case History of an Invention** 45
J.J. McKinney

Column

- ◆ **Chapters: Where Are You? – E.H. Hirt** 46

News & Information

- Pace Named Associate Editor** 46
- Fourth Conference on Ultrawideband Ultrashort Impulse Signals.** 47
- Membership Application.** 48
- Conferences & Meetings Calendar** **Inside Back Cover**
- Distinguished Tutorials** **Back Cover**