MAY/JUNE 2014 **VOLUME 9 NUMBER 3**

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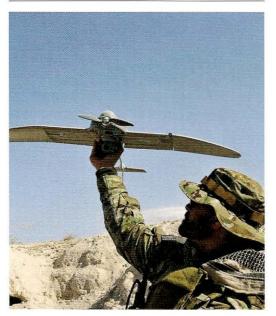
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COVER STORY



An Airborne **Experimental** Test Platform

From Theory to Flight: Part 2

Adhika Lie, Hamid Mokhtarzadeh, Paul Freeman, Jordan Larson, Trevor Lauh, Bin Hu, Brian Taylor, Demoz Gebre-Egziabher, Peter Seiler, Gary Balas

Small UAVs can be used as a cost-effective platform for avionics development and testing. In the last issue, a research team based at the University of Minnesota-Twin Cities described their lab operations and how they use small UAVs to make aircraft safer and more fuel efficient. In this second part, they describe UAV test platforms for developing, testing and certifying new avionics and GNC algorithms for safety-critical systems.

Cover photo courtesy of AeroVironment, Inc.

TECHNICAL ARTICLE

Location **Authentication**

Enabling New Smartphone Apps

Antonio Pujante Cuadrupani

With the integration of payment systems in the smartphones, location information could be used as a key authentication factor, relating user location with purchase events and helping to reduce fraud.

HUMAN ENGINEERING

Michel Monnerat

Out of Africa - GNSS

Peter Gutierrez



Straddling two continents, French-born Michel Monnerat grew up in Togo, loving math and science and playing soccer before sunrise. He grew up to become an expert in Galileo signal design and a top engineer for Thales Alenia Space.

COLUMNS

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DoD Condenses Acquisition Strategy to Speed M-Code Units

Dee Ann Divis

Discover Freedom & Flexibility



Five Centimeter Global, Real-Time Accuracy... without a base station



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Collective Detection of Multi-GNSS Signals — How Vector Acquisition Could Improve Sensitivity and Reliability

Paulo Esteves, Mohamed Sahmoudi, and Lionel Ries

Vector acquisition collects all of the signals in a particular place, sorts out the weak ones, and identifies the best ones for navigation and positioning. This discussion describes a new methodology and implementation algorithm that uses multiple GNSS signals more effectively in signal-challenged environments.

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Sponsored Feature - GNSS in Military Affairs, with Doug Taggart

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