

## DEPARTMENTS

### EDITOR'S NOTEBOOK

Keeping audience analytics in perspective

### LETTERS TO THE EDITOR

No fault found; Tom Swift

### INTERNATIONAL BEAT

Copters for commuters; the growth of Aussie aerospace

### IN BRIEF

Crowdfunding; dust-busting tech; aerospace hacking; bouncing 'bots

### ENGINEERING NOTEBOOK

Distorting airflows on purpose

### CONVERSATION

Telescope maker

### OUT OF THE PAST

### CAREER OPPORTUNITIES

## FEATURES

### REIMAGINING SATELLITE CONSTRUCTION

Satellite manufacturers are beginning to equip spacecraft with metal parts made on 3-D printers. Someday, those manufactured parts might be assembled into spacecraft by robots operating in clean rooms.

by *Debra Werner*

### RUSSIA SHOOTS FOR THE MOON

Roscosmos, the Russian space agency, has developed a program that sets the stage for building a permanent base on the moon.

by *Anatoly Zak*

### ANALYSIS: THE MANNED-UNMANNED DEBATE

Planning a future mix of manned and unmanned combat aircraft poses the daunting task of comparing the cost effectiveness of competing airframes.

by *Robert Haffa and Anand Datla*

### BEYOND THE RD-180

The Air Force is funding research into domestic alternatives to the Russian-made RD-180 rocket engine, which has been a mechanically reliable but politically volatile workhorse for U.S. government satellite launches.

by *Marc Selinger*

### GETTING CREATIVE ABOUT AIRLINER TRACKING

Malaysia Airlines flight 370 disappeared a year ago, and aviation authorities say the coming months could be a turning point in the effort to get some kind of airliner tracking system in place quickly, while longer-term technical questions are sorted.

by *Debra Werner*

## BULLETIN

AIAA Meeting Schedule

AIAA News

AIAA Courses and Training

## ON THE COVER

Laser metal deposition, a 3-D printing process, is used to produce aerospace components. Credit: TWI Ltd.

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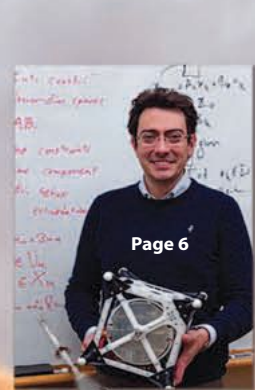
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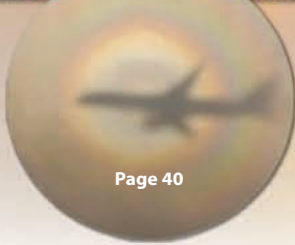
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