

## Author Index

- Adams V.**  
Prospero 16
- Ashworth S.**  
Opening the Final Frontier 57  
The Future of Space Flight:  
The Case for Growth 351
- Baker D.**  
A View from the Hill 10, 50, 90,  
129, 169  
Britain in Space 4, 44, 84, 124,  
164, 204, 244, 284,  
324, 364, 404, 444  
World News Analysis 6, 46, 86, 126,  
166, 206, 246, 286,  
326, 366, 406, 446  
In brief 9, 49, 89, 128, 168,  
208, 248, 328, 368,  
408, 448  
Apollo 17 20  
The Dawn of Planetary Science 30  
The Mighty Atlas - Part Nine:  
A Bigger Lift 136  
Mission to Mars 138  
Curiosity at Mars 140  
Inspiration Mars 176  
Apprentice turned Master - 1 185  
Apprentice turned Master - 2 231  
Switzerland leads Air-Lift Concept 190  
Marshall Adopts 3D Printing 191  
NASA to get Flat Budget - At Most 209  
Skylab - NASA's First Space Station 218  
Science Aboard Skylab 225  
A Second Skylab 227  
Conflict or Convergence 249  
Does the Emperor Really  
Have any Clothes? 329  
Opportunity Update 344  
Curiosity Roundup 346  
Noose Tightens on Orion 369  
Lori Garver to Leave NASA 369  
Meet the Team 390  
Smaller is Better 409  
Mission to a Dusty Moon 415  
The Ultimate Shuttle 422  
Peake Practice 449  
Mixed Messages from Curiosity 460  
Maven to Mars 464
- Beattie D.A.**  
Lunar Transit Phenomena 228
- Bridwell N.**  
The Myopia Problem 470
- Chudwin D.**  
Apollo 11: Eyewitness to History 26
- Corneille P.**  
Sampling the Moon 22  
Astrometry in Orbit: Gaia 66  
Is There an Earth-Analogue 98  
AMS-2: Rewriting Physics from  
the ISS 257  
Keeping Track Down Under  
Part One: Origins 258  
On the Trail of Earth's Twin 348
- Cutts S.**  
Mining the Asteroids 432
- Day D.**  
The Once and Future Moon 108  
Red Plant Rising 142  
Athena Rebirth? 180  
Burn like Thunder 338
- Hardy D.A.**  
Working with Sir Patrick  
Moore 1954-2012 102
- Hatton S.**  
A New Alliance - A New Start 381  
The 2013 IAC in Beijing 464
- Hendrickx B.**  
End of 40-Year Countdown 455
- Howes N.**  
The 'Comet of the Century' from  
Skylab 429
- Hughes C.**  
The Birth of European Comsats 424
- Irvine M.**  
An Ill wind for Enterprise 8  
Reflections on 'The Sky at Night' 215
- Kremer K.**  
Orion Advancing toward 2014 Liftoff 48
- Laird R.J.M.**  
Space generation Congress 33
- MacTaggart K.**  
Spacefest 2012 24
- Mulheirn R.**  
A Stylish Duke in Pontefract 25
- The Home of Atlantis 418
- Osborne R.**  
Paths to the Future 384
- Parker D.**  
UK Space Conference 2013 273
- Parkinson B.**  
A Prehistory of Outer Space 374
- Powell J.W.**  
Smaller is Better 17  
The Mighty Atlas - Part Ten:  
Variations on a Theme 186  
The Mighty Atlas - Part Eleven:  
A Very Special Day 264
- Richards G.**  
Satellite Digest 12, 52, 92, 130, 170,  
210, 250, 330, 370,  
410, 450
- Scott A.**  
The BIS at 80 372
- Spall N.**  
Flying the Lynx 64
- Spiteri G.**  
The International Space Station 14, 54,  
94, 132, 172, 211, 253,  
332, 392, 412, 452
- Starr C.**  
A Conversation with AI Worden  
Part 1: Aircraft and Space Vehicles 232  
A Conversation with AI Worden  
Part 2: Apollo 15 335
- Stevenson R.**  
The Virginia Air and Space Center 268
- van de Haar G.**  
New Life for Vintage Pads - 1 260
- van de Haar G. and van Beest R.**  
Dream Chaser 60
- Webber D.**  
Getting to the Edge 150
- Worstall T.**  
Asteroid Miners Hunt for Platinum 72

## Obituary

- D Brainerd Holmes 152
- Jesco von Puttkamer 153
- Reginald Turnhill 154
- Heinz Hilten 230
- Hans Fichtner 230
- Rudolf Schlidt 230
- Fred Clarke 276
- Malcom Scott Carpenter 472
- Milton Silveira 473
- John Billingham 473
- Mike Fargo 473

## Subject Index

- A**
- Alpha Centauri 98
  - Alpha Magnetic Spectrometer 257
  - Anderson, Gerry 116
  - Apollo programme 20, 26, 152, 335, 429
  - Ariane 6 326
  - Asteroids 72, 206, 286, 406, 432
  - Astrium 287
  - Astronauts
  - Armstrong, Neil 26
  - Bean, Alan 24, 300
  - Carpenter, Scott 472
  - Cassidy, Chris 211, 253, 293, 332, 392, 412, 452
  - Cernan, Eugene 20, 22
  - Collins, Michael 22
  - Duke, Charles 24
  - Ford, Kevin 14, 54, 94, 132, 172, 211, 253, 293
  - Fullerton, Gordon 433
  - Gibson, Ed 429
  - Hadfield, Chris 94, 132, 172, 211, 253, 293
  - Hoshida, Akihiko 14, 54
  - Krikalev, Sergei 382
  - Malenchenko, Yuri 14, 54
  - Marshburn, Tom 94, 132, 172, 211, 253, 293
  - Misurkin, Alexander 211, 253, 293, 332, 392, 412, 452
  - Novitskiy, Oleg 14, 54, 94, 132, 172, 211, 253, 293
  - Nyberg, Karen 293, 332, 392, 412, 452
  - Parmitano, Luca 293, 332, 392, 412, 452
  - Peake, Timothy 155, 244, 273, 449
  - Romanenko, Roman 94, 132, 172, 211, 253, 293
  - Schmidt, Harrison 20, 22
  - Tarelkin, Evgeny 14, 54, 94, 132, 172, 211, 253, 293
  - Tereshkova, Valentina 374
  - Tito, Dennis 178
  - Vinogradov, Pavel 211, 253, 293, 332, 392, 412, 452
  - Williams, Sunita 14, 54
  - Worden, Al 232, 335
  - Yurchikhin, Fyodor 293, 332, 392, 412, 452
  - Astronomy missions 66, 284
  - Atlas ICBM 136, 186, 264
  - ATV 86
  - Australia 258, 296
- B**
- Bigelow Aerospace 90
  - BIS award 37, 355
  - BIS FITR 435
  - BIS history 36, 76, 77, 155, 274, 365, 372, 374, 390, 466, 474
  - BIS Project Icarus 384, 476
  - Bolden, Charles 88
  - Branson, Richard 57, 246
- C**
- Cape Canaveral 176, 260, 302, 308
  - CERN 257
  - Chertok, Boris 231
  - China
- D**
- IAC 464
  - Clarke, Arthur C 355
  - Clarke, Fred 276
  - Commercialization 46, 57, 90, 150, 176, 246
  - CSA - Canadian Space Agency 449
  - CubeSat 17, 385
  - Curiosity 4, 138, 344, 460
- D**
- Daedalus 84
  - DARPA 407
  - Diamandis, Peter 194
  - Deep Space Network 258, 296
  - Dordain, Jean-Jacques 166
  - Dragon 46, 58, 172, 176
  - Dream Chaser 60
- E**
- Earth Science 126
  - EPSC 405
  - ESA
  - astronaut training 244
  - ARTES 364
  - ATV 86
  - budget 44, 166
  - Exomars 166
  - GAIA 66
  - Galileo 6, 204
  - GOCE 445
  - Launch vehicles 326
  - Mars mission 44, 166
  - ESO 98, 348
  - Extra-solar planets 98, 348, 404
- F**
- French Guiana 326
- G**
- Garver, Lori 169, 369
- H**
- Hardy, David 102
  - Holmes, Brainerd 152
- I**
- IAC 464
  - IAF 381
  - Icarus 384, 476
  - iGeolise 6
  - Interstellar flight 84, 314, 384
  - ISS (International Space Station) 14, 54, 94, 132, 172, 211, 253, 293, 332, 392, 412, 452
- J**
- Japan
  - HTV 392, 412
  - JPL 344
- K**
- Kennedy Space Center 26, 366, 418
  - Kepler (Space Telescope) 348
  - Kourou 326, 424
  - Kuznetsov, Nikolai 455
- L**
- LADEE (Moon mission) 415
  - Launch pad 260, 308
  - Launch vehicle
  - Antares 247, 455
  - Athena 180
- Atlas** 136, 186, 260, 264
- Minotaur V** 413
- N1** 455
- Saturn V** 26, 338
- Titan** 302
- Vega** 33
- LISA Pathfinder** 284
- Lunar exploration** 22, 30, 108, 228
- Lunar Transient Phenomena** 228
- M**
- Mariner 30
  - Mars
  - exploration 50, 138, 142, 166, 344, 444, 460, 462
  - Golden Spike 46
  - Sample Return 142
  - Marshall Space Flight Center 191, 338
  - Mercury programme 186, 264
  - Micro-satellite 17, 96
  - Moon 415, 470
  - Moon rocks 22
  - Moore, Sir Patrick 71, 102, 113, 216
  - Murray, Bruce 433
  - Musk, Elon 46, 88
- N**
- NASA
  - Budget 10, 50, 90, 129, 169, 209, 249, 289
  - JWST 98
  - MAVEN 462
  - MSFC 191, 338
  - Mars Science Laboratory 4, 138, 344, 460
  - MAVEN 51
  - Orion (MPCV) 48, 206, 289
  - Space Launch System 298, 329, 338
  - NOAA 126
- O**
- Obama, Barack 50, 288
  - Orbital Sciences Corp 446
  - Orion (MPCV) 48, 206, 289, 369
  - OSIRIS-Rex 206
- P**
- Pioneer 10 469
  - Peenemunde 230
  - Polar Operational Environmental Satellites 126
  - Proba V 284
- R**
- Remote sensing 284
  - Roscosmos 166
  - Russia
  - Cosmonaut training 449
  - Designer Bureaus 455
- S**
- SABRE 324, 395
  - Satellite Digest 12, 52, 92, 130, 170, 210, 250, 290, 320, 370, 410, 450
  - Satellites 364, 424
  - Scott Alistair 36, 155, 372, 435
  - Skylab 218, 429
  - Skylon 164, 324, 395
  - Solar system 348
  - Space debris 124
  - Spacefest 24, 300

SpaceShipTwo	57, 150, 246	<b>U</b>	Virgin Galactic	57, 246
Space Shuttle		United Kingdom	Virginia Air & Space Center	268
Atlantis	418	Human Spaceflight	von Braun, Wernher	153, 230, 374
Enterprise	8	Space development	von Puttkamer, Jesco	153, 185, 230, 231
Museum display	418	Space education		
Space telescopes	66, 98	Space industry		
SpaceX	14, 46, 88, 172, 176, 468	UKSA		
SSTL	404	UKSEDS		
Swiss Space Systems	190	SUERC		
		UnitedStates		
<b>T</b>		Air Force		
Taikonaut	313	Air Force Spaceplane (X-37B)		
Tracking station	258, 296, 424	<b>V</b>	<b>W</b>	
Turnill, Reginald	154	Vandenberg	Wimmer, Per	435
			WISE (Space Telescope)	286, 406
			<b>X</b>	
			XCOR Aerospace	57, 64

Subject Index kindly supplied by Phillip Corneille.

## Book & DVD Reviews

<p><b>Andrews J.T. <i>et al.</i></b> Into the Cosmos: Space Exploration and Soviet Culture 74</p> <p><b>Ashford D.</b> Space Exploration: All that Matters 434</p> <p><b>Baker D.</b> International Space Station 1998-2011 192</p> <p><b>Couper H. <i>et al.</i></b> The Story of Astronomy: How the Universe Revealed its Secrets 35</p> <p><b>Dubbs C <i>et al.</i></b> Realizing Tomorrow: The Path to Private Spaceflight 434</p> <p><b>Foster A.E.</b> Integrating Women into the Astronaut Corps: Politics and Logistics at NASA, 1972-2004 471</p>	<p><b>Fredriksen J.C.</b> Men into Space 352</p> <p><b>Gooden B.</b> SpaceSuit: A History through Fact and Fiction 114</p> <p><b>Kespert D. <i>et al.</i></b> Space Academy 352</p> <p><b>Manoranjan Rao P.V. <i>et al.</i></b> A Brief History of Rocketry in ISRO 192</p> <p><b>Maurer E. <i>et al.</i></b> Soviet Space Culture: Cosmic Enthusiasm in Socialist Societies 114</p> <p><b>North G.</b> Observing the Solar System: The Modern Astronomer's Guide 34</p> <p><b>Riley C.</b> Lunar Rover 1971-1972:</p>	<p>Apollo 15-17; LRV1-3 &amp; 1G Trainer) 192</p> <p><b>Siddiqi A.A.</b> The Red Rockets' Glare: Spaceflight and the Russian Imagination, 1857-1957 74</p> <p>A4/V2 Rocket DVD-R 75</p> <p>Lichtmond 2: Universe of Light 34</p> <p>Mach 2: D-558 and X-2 114</p> <p>Operation Backfire: The V-2 Rocket 75</p> <p>The Universe Collection 34</p> <p>V-2 Rocket: White Sands/Post-War 75</p>
--	--	---