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Nota di contenuto	Real-time tactical space asset retasking -- Exploring our Solar System with cubesats and nanosats -- Asteroid Mining : A European Venture -- The SHIPinSPACE Spaceplane -- Optimal (not opportunity) orbits for rideshare payloads -- Responsive Test Technology for Chinese New Generation Launch Vehicle -- Implementing Ionic thrusters on Cube satellites to increase their life-time and improve their performance -- Introducing Second IAA Space Management Study -- Aerospace systems of new generation -- Resource Prospector : A Cost Effective Lunar Resource Pathfinder -- A New Era in Space Flight : The COTS Model of Commercial Partnerships at NASA The Prospect for Orbital Airliners -- Gateway Earth - Low Cost Access to Interplanetary Space -- AubieSat High Datarate in a 3U Cubesat -- Apollo artefacts -- Innovative Small Launcher -- The Design of a Ground Control Segment for a Cubesat Development Programme -- Secure communications in outer space -- The FUNcube STEM outreach missions -- Regulation ofcommercial space tourism: Beyond the international space law --

New Trends in the design, integration and test of small sized satellites -- Innovation and Growth Strategy (IGS) Priority Market : low Cost Access to Space -- HeL1o : The first cubesat to L1? -- Cost Effective Total Ionizing Dose Tests of Solid State Power Amplifiers -- Small Satellite Observation Satellite Development Programs of Vietnam until 2020 -- Novel semiconductor devices for low weight, high density and increased reliability -- Twinkle : A British Space Mission to explore faraway worlds -- Feasibility study of LTA launch system for micro and smaller -- Electromagnetic Launch to Space -- Dynamically Supported Launc Infrastructure -- IODISPLay: Capturing European needs and capabilities for in-orbit demonstration of space technologies -- Enabling Solutions for Small Satellite Space Access -- NEW SUPERLIGHT CLASS LAUNCH VEHICLES FROM YUZHNOYE -- How much is the moon worth? An analysis of ownership -- The Open Source Movement Reaches CubeSat Missions -- Development of low cost propulsion systems for launch and inspace applications -- The Google Lunar XPRIZE - Past, Present and Future -- Implementing solid rocket thrusters on cube satellites to increase their lifetime and to push them to a decay orbit to avoid being contaminated as space debris -- Using a recovery system of parachutes and gliders to recover the first stage of a launch vehicle for reusability purposes -- Mathematical Modelling and Simulation of a Solid Rocket Booster -- Fostering technology innovation in space through national activities: The swiss example Economic and fast FPGA configuration development of a payload module computer -- Bartolomeo - An innovation platform for end-to-end payload hosting services Venusun floating station for Venus -- An analytical, low-cost deployment strategy for satellite constellations -- Intelligent Satellite Swarm for EO data distribution -- A nanosatellite carrier concept to enable affordable innovative deep space missions -- 3d printed satellites; a manufacturing revolution -- Development of a low cost IVA pressure suit for commercial space flight applications -- SEAHAWK: A nanosatellite mission for sustained ocean observation -- Space Settlement for Ganymede -- Dispatch me to my orbit… -- Space settlement for Europa -- Considerations for low-cost small satellite launchers -- Crowdlift - Harnessing the power of the many -- Global Launcher Market Survey - Where are we and where are we going? -- The worlds first commercial SAR and optical 16-satellite constellation -- Legal aspects in performing space debris remediation : due diligence and fault considerations -- Multi-criteria optimization of multi-satellite observation and communication constellations target functioning efficiency on the basic of operative planning -- Small satellite launch vehicle from a balloon platform -- Taking artists suborbital -- Lunar Mission One - One Year On -- The Position of Space Science in Africa and Other Developing Countries -- A new generation of Low cost, Small Launch Vehicles designed to serve the Rapidly Growing Small Satellite Market -- High Altitude Weather Balloons for Low Cost Space Testing -- New Space, Old Players.

Sommario/riassunto

Reinventing Space is the largest global conference and exhibition for one of the space industry’s fastest growing sectors. Over its 82-year history, the British Interplanetary Society has acted as a forum for new and innovative ideas and developments in astronautics, low-cost access and utilization of space. These conference proceedings reflect the work done at the 13th Reinventing Space Conference, the second biggest space event in the UK during 2015. The global economic climate is creating demand to reduce expenditure, leading to new challenges and opportunities in the world’s space industry. The need to create more responsive systems and launchers that are capable of delivering to space quickly, cheaply and reliably has never been more vital. This

collection from RIspace brings together industry, agency, government, financiers, academia and end users. It focuses on the commercialization of space and addresses a range of topics including low-cost launchopportunities, the rebirth of constellations, beyond LEO activities and novel technologies. These papers encourage and promote forward-thinking ideas and concepts for the future exploration and utilization of space. The proceedings address: • New ways of doing business in space – how do we make money on affordable and responsive space missions? • Tactical space systems – how do we best serve the needs of defense missions; civilian missions; the needs of emergency responders? • Interplanetary missions – can we use new technology to explore the Solar System at dramatically lower cost? • What are the methods, processes, and technologies that we can use to make major reductions in the cost of space missions? • New application areas for low-cost space systems – which ones can take advantage of newer, much lower-cost systems? • How do we educate and motivate the coming generation, without whom there won’t be a space industry?