

SpaceOps 2013 Workshop

June 11-13, 2013

Co-hosts:

Johns Hopkins University/Applied
Physics Laboratory and Goddard Space
Flight Center

2013 Workshop Agenda

Time	Topic	DAY 1 - June 11, 2013 Operations Implications with Optical Communications	Presenter
7:45-8:15		Registration, Light Breakfast	
8:15-08:30	Welcome - Dr. John Sommerer - APL Space Department Head		
8:30-8:45	Welcome - Ms. Mary Ann Esfandiari - GSFC Associate Director of Flight Projects		
Session Chairs: Rolf Kozlowski (DLR); Gian-Paolo Calzolari (ESA); David Israel (NASA-GSFC)			
8:45-9:30	1	Results of the Interagency Operations Advisory Group (IOAG) Optical Link Study Group (OLSG), ESA's way forward.	Klaus-Juergen Schulz (ESA ESOC) & Zoran Sodnik (ESA ESTEC)
9:30-10:15	2	Challenges in using optical links for LEO satellites and trade-offs to be made	JM Soula (CNES)
10:15-10:30		Break	
10:30-11:15	3	A study on influence of optical links to existing space communication architectures	Shinichi Inagawa (JAXA)
11:15-12:00	4	Notional ConOps for Interplanetary Optical Communications	H. Hemmati (NASA JPL)
12:00-1:00		Lunch	
1:00-1:45	5	Application of an Optical Data Link onboard DLR's BIROS satellite	Christian Fuchs (DLR)
1:45-2:30	6	Operation of TerraSAR LCT and Implications for Future Projects	Sven Kuhlmann (DLR)
2:30-2:45		Break	
2:45-3:30	7	Optical communication as a driver for a data-centric ground network service	Petrus Hyvönen (SSC)
3:30-4:15	8	A study for application of DTN under intermittently disrupted environment	Kiyohisa Suzuki (JAXA)
4:15-4:30		Break	
4:30-5:15	9	Strategies for Optimization of Deep Space Links: Selected Examples for Managing Propagation Path Loss	Nelli Mosavi (JHU/APL)
05:15-05:30		Theme Summary	Session Chairs

2013 Workshop Agenda

Time	Topic	DAY 2 - June 12, 2013 Countering Security Threats to Space Flight & Ground Systems	Presenter
7:45-8:30		Sign-in, breakfast, etc.	
Session Chairs: Pierre Lods (CNES); Shinichi Nakamura (JAXA); Steve Parr, William Van Besien (JHU/APL)			
8:30-9:15	1	Comprehensive approach to countering security threats	Mike Pajevski (NASA/JPL)
9:15-10:00	2	Securing ground systems : a demonstrator of generic ground security infrastructure	Martin Goetzmann (VEGA)
10:00-10:15		Break	
10:15-11:00	3	Securing Access to Metop	Sean Burns (EUMETSAT)
11:00-11:45	4	The security policy at DLR/GSOC based on the ISO 27000	Martin Pilgrim (DLR/GSOC)
11:45-12:45		Lunch	
12:45-1:30	5	Information and Communications Security – A core issue in modern spacecraft operations ; ESA Information Security Management System (ISMS)	Marko Butkovic (ESA/ESOC)
1:30-2:15	6	The last line of defence – Secure Software Engineering for Space Data Systems	Daniel Fischer (ESA/ESOC)
2:15-3:00	7	Securing the Space Link – a Crucial Component of Space Mission Security Architecture	Ignacio Aguilar (ESA/ESTEC)
3:00-3:15		Break	
3:15-4:00	8	Security primitives for packetized data links utilizing the CCSDS Delay-Tolerant Networking Bundle protocol	Ed Birrane - JHU/APL
4:00-4:45	9	Space Situational Awareness - When is an Anomaly an Attack ?	Dave LaVallee (JHU/APL)
4:45-5:30	10	Space Cyber Security Framework – Developing common metrics ?	Steve Parr (JHU/APL)
5:30-5:45		Theme Summary	Session Chairs
06:15		No-Host Dinner: Copelands	

2013 Workshop Agenda

Time	Topic	DAY 3 - June 13, 2013 Human Space Exploration Strategies	Presenter
8:00-8:30		Sign-in, breakfast, etc.	
Session Chairs: Zeina Mounzer (VEGA); Duane Bindschadler (NASA-JPL); Mark Lupisella (NASA-GSFC)			
8:30-9:15	1	The Global Exploration Roadmap	Nantel Suzuki (NASA HQ)
9:15-10:00	2	Data Standardization Needs and CCSDS Overview	Mike Kearney (NASA MSFC)
10:00-10:15		Break	
10:15-11:00	3	Communication Issues for International Human Exploration	Jim Schier (NASA HQ)
11:00-11:45	4	Characterizing the RF Environment	Norman Adams (JHU/APL)
11:45-12:45		Lunch	
12:45-1:30	5	Telerobotics for Human Exploration	Terry Fong (NASA ARC)
1:30-2:30	6	Panel Discussion: Operational "Control and Monitoring" Challenges in Managing Distributed Human Mission Assets	Ron Leung (NASA GSFC); Duane Bindschadler (NASA-JPL); Kim Nergaard (ESA); David Israel
2:30-2:45		Break	
2:45-3:30	7	Human Exploration: Operations, Training and Operations Engineering Aspects	Andreas Schoen (ESA-ESTEC) & Kim Nergaard (ESA-ESOC)
3:30-4:15	8	Analog Field Activities	Ilenya Salvoni (ALTEC)
4:15-4:30		Break	
04:30-04:45		Theme Summary	Session Chairs
04:45-05:30		Closing	

2013 Workshop

- SpaceOps Workshop Working Group
 - Chair: Joseph Statman (NASA-JPL)
- SpaceOps 2013 Workshop Organizing Committee:
 - John Hudiburg (GSFC)
 - Alice Bowman (JHU/APL)
- SpaceOps 2015 Workshop will be hosted by Telespazio
 - Organizing Committee: Zeina Mounzer
 - Location: Fucino, Italy
- SpaceOps 2014 Conference hosted by NASA-JPL
 - Location: Pasadena, CA
 - Dates: May 5-9, 2014