

Oberpfaffenhofen, Germany  
July 10-13, 2017



	Building: Room	<b>Programme on Monday – 10 July, 2017</b>
<b>08:30 – 10:00</b>	135	Registration desk open
<b>10:00 – 10:15</b>	135: 103-107	Conference opening ceremony
		<b>Plenary session 1A      Session Chair: Phil Brown</b>
<b>10:15 – 10:45</b>	135: 103-107	<b>Thorsten Fehr (ESA)</b> <i>„Enhanced airborne observations and science through collaboration: an overview of ESA and NASA joint airborne activities from 2010 to the present and future“</i>
<b>10:45 – 11:15</b>	135: 103-107	<b>Hal Maring (NASA)</b> <i>“NASA Earth Science Division Utilization of Airborne Platforms“</i>
<b>11:15 – 11:30</b>	135: 103-107	Albrecht von Bergen <i>“The role of in-situ infra-structure for satellite remote sensing from German National perspective“</i>
<b>11:30 – 12:00</b>	135	Coffee/ Tea Break
		<b>Plenary session 1B      Session Chair: Linnea Avallone</b>
<b>12:00 – 12:15</b>	135: 103-107	<b>Conference Welcome - Rolf Henke (DLR)</b>
<b>12:15 – 12:30</b>	135: 103-107	Mengistu Wolde <i>“An Airborne Demonstrator Campaign for WIVERN Satellite Concept“</i>
<b>12:30 – 13:00</b>	135: 103-107	<b>Steve Arnold (Leeds University)</b> <i>“Improving understanding of Arctic air pollution and its impacts through airborne observations“</i>
<b>13:00 – 13:30</b>	135: 103-107	<b>Ulrich Schumann (DLR)</b> <i>“Improving Static Pressure and Turbulence Measurements with Numerical Weather Prediction and Aircraft Dynamics Models“</i>
<b>13:30 – 14:30</b>	Casino	Lunch Break

## 2nd International Conference on Airborne Research for the Environment

	Building: Room	<b>Programme on Monday – 10 July, 2017</b>
		<b>Plenary session 1C      Session Chair: Jeff Stith</b>
<b>14:30 – 15:00</b>	135: 103-107	<b>Sebastian Schmidt (University of Colorado)</b> <i>"Understanding atmosphere / radiation / surface interactions in the Arctic – the role of past and future aircraft experiments"</i>
		<b>unclas/ polar</b>
<b>15:00 – 15:15</b>	135: 103-107	Joerg Schmidt <i>"The High Altitude and Long Range Research Aircraft (HALO): Completed and Planned Campaigns, Research Fields"</i>
<b>15:15 – 15:30</b>	135: 103-107	Andreas Herber <i>"Airborne campaigns with AWI aircraft POLAR 5 &amp; POLAR 6 during MPSAiC"</i>
<b>15:30 – 16:00</b>	135	Coffee Break
		<b>Plenary session 1D      Session Chair: Christiane Voigt</b>
<b>16:00 – 16:30</b>	135: 103-107	<b>Greg McFarquhar (University of Illinois)</b> <i>"Use of In-Situ Observations for Quantifying Ice Cloud Microphysical Properties and Processes, and their Uncertainties"</i>
<b>16:30 – 17:00</b>	135: 103-107	<b>Hans Schlager (DLR)</b> <i>"Ten years of high-accuracy airborne sulfur dioxide measurements in the UTLS: Measurement technique, results and outlook"</i>
		<b>clouds</b>
<b>17:00 – 17:15</b>	135: 103-107	Evelyn Jaekel <i>"Quantification of uncertainties on cloud radiative forcing caused by surface heterogeneity"</i>
<b>17:15 – 17:30</b>	135: 103-107	Jeff French <i>"Observations from the UWKA Research Aircraft to evaluate the impact of cloud seeding in wintertime orographic clouds"</i>
		<b>gas/ aerosol</b>
<b>17:30 – 17:45</b>	135: 103-107	Armin Wisthaler <i>"The state of the art in airborne organic trace gas detection by online chemical ionization mass spectrometry (CIMS)"</i>
<b>17:45 – 18:00</b>	135: 103-107	Bruce Anderson <i>"NASA Airborne Measurement of Aircraft Emissions and Contrails"</i>
<b>18:00</b>	End Day 1	
<b>18:15 – 18:45</b>	Tour	Galileo Control Center (GCC), Microwaves and Radar Institute (HR)

Invited speakers are printed in red.

Oberpfaffenhofen, Germany  
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	Building: Room	<b>Programme on Tuesday – 11 July, 2017</b>
<b>09:00 – 10:00</b>	135	Registration desk open
		<b>Plenary session 2A      Session Chair: IIs Reusen</b>
<b>10:00 – 10:30</b>	135: 103-107	<b>Jose Dematte</b> <i>"From Ground to Space Platforms with Multi to Hyperspectral Soil Sensing sensors and its Important relationship with Spectral Libraries"</i>
<b>10:30 – 11:00</b>	135: 103-107	<b>Claudia Giardino</b> <i>"Airborne imaging spectrometry of inland and coastal waters; from techniques to applications"</i>
<b>11:00 – 11:15</b>	135: 103-107	Yunusali Pulpadan <i>"Bathymetric Mapping in Lake and Coastal regions using Sentinel 2 images"</i>
<b>11:15 – 11:30</b>	135: 103-107	Sumaira Zafar <i>"Above-ground biomass estimation of mangrove forest using WORLDVIEW-II data"</i>
<b>11:30 – 12:00</b>	135	Coffee/ Tea Break
		<b>Plenary session 2B      Session Chair: Andrew Skidmore</b>
<b>12:00 – 12:30</b>	135: 103-107	<b>Nicholas Coops</b> <i>"Use of Airborne Technologies to Increase our Understanding of Vegetation Structure and Function"</i>
<b>12:30 – 13:00</b>	135: 103-107	<b>Ruben Van De Kerchove (Vito)</b> <i>"Airborne imaging spectroscopy for mapping and impact assesment of invasive species"</i>
<b>13:00 – 13:30</b>	135: 103-107	<b>Zbynek Malenowsky</b> <i>"Upscaling in air- and space-borne imaging spectroscopy of vegetation using radiative transfer modelling"</i>
<b>13:30 – 14:30</b>	Casino	Lunch Break

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	Building: Room	Programme on Tuesday – 11 July, 2017		
		<b>Session 2C1 clouds/ dynamics</b> <b>Session Chair: Manfred Wendisch/ Greg McFarquhar</b>		<b>Session 2C2 soils/ minerals</b> <b>Session Chair: Eyal Ben-Dor</b>
<b>14:30 – 14:45</b>	135: 103-107	Jeffrey Stith <i>"Small ice and cloud droplets: What holography can tell us about clouds and precipitation in future airborne science campaigns"</i>	124: 211-212	<b>Sabine Chabrillat</b> <i>"Digital soil mapping from hyperspectral imagery: Potential and challenges"</i>
<b>14:45 – 15:00</b>	135: 103-107	Christiane Voigt <i>"Ice clouds in the Arctic-Recent observations of Arctic stratospheric ice clouds and plans for a cirrus mission in high latitudes with HALO"</i>	124: 211-212	<b>Eyal Ben-Dor</b> <i>"Spectral Imaging of Soils: past present and future"</i>
<b>15:00 – 15:15</b>	135: 103-107	Holger Voemel <i>"Targeted observations using the NCAR Dropsonde"</i>	124: 211-212	<b>Martin Chamberland</b> <i>"Data acquisition and processing to produce mineral maps using airborne TIR-HSI"</i>
<b>15:15 – 15:30</b>	135: 103-107	Larry Oolman <i>"Exploring the Marine Boundary Layer with the Wyoming Multi function Airborne Raman Lidar (MARLi)"</i>	124: 211-212	<b>Thomas Schmid</b> <i>"Soil erosion and land degradation mapping with hyperspectral data"</i>
<b>15:30 – 16:00</b>	135	Coffee/ Tea Break	124	Coffee/ Tea Break
<b>16:00 – 17:00</b>	135	<b>Poster Session</b>		
<b>17:00</b>	End Day 2			
<b>17:15 – 17:45</b>	Tour	Galileo Control Center (GCC), Microwaves and Radar Institute (HR), German Space Operations Center (GSOC)		

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		<b>Programme on Wednesday – 12 July, 2017</b>		
		Building: Room		
<b>09:00 – 10:00</b>		135	Registration desk open	
			<b>Session 3A1</b> Airborne campaign organisation and operation <b>Session Chair:</b>	<b>Session 3A2</b>  <b>Session Chair: Bruce Doddridge/ other</b>
<b>10:00 – 10:15</b>	135: 103-107	Aircraft Fleet Overview – DLR	124: 211-212	Silke Groß <i>"Combined airborne and A-Train measurements in preparation for future EarthCARE mission"</i>
<b>10:15 – 10:30</b>			124: 211-212	Jorgen Jensen <i>"The airborne 1-D and 3-D Laser Air Motion System (LAMS): Uses for state parameter, wind measurements, and future possibilities"</i>
<b>10:30 – 10:45</b>	135: 103-107	Aircraft Fleet Overview - FAAM	124: 211-212	Wolfgang Junkerman <i>"What can we learn from airborne measurements of ultrafine particles?"</i>
<b>10:45 – 11:00</b>			124: 211-212	Chandrashekhar Deshpande <i>"Airborne measurements over Bay of Bengal revealing new particle formation process"</i>
<b>11:00 – 11:15</b>	135: 103-107	Aircraft Fleet Overview – US (joint NASA/NCAR)	124: 211-212	Florian Ewald <i>"Using Coordinated Aircraft to Study a Synergistic Retrieval of Ice Cloud Properties at Different Wavelengths"</i>
<b>11:15 – 11:30</b>			124: 211-212	Alexandra Tsekeri <i>"EUFAR campaigns in the ACTRIS framework"</i>
<b>11:30 – 12:00</b>	135	Coffee/ Tea Break	124	Coffee/ Tea Break

## 2nd International Conference on Airborne Research for the Environment

	Building: Room	<b>Programme on Wednesday – 12 July, 2017</b>	
		<b>Session 3B1</b> Airborne campaign organisation and operations <b>Session Chair:</b>	<b>Session 3B2</b> Instruments/ Data <b>Session Chair:</b>
<b>12:00 – 12:30</b>	135: 103-107	10 Years of Science Support with the Gulfstream GV, HIAPER: A Retrospective (L. Avallone/ NSF)	124: 211-212 <b>Vanda Grubisic</b> <i>"New Airborne Instrumentation within the Context of the US-European Collaboration on Airborne Science"</i>
<b>12:30 – 12:45</b>	135: 103-107	Global challenges of dropsonde operations (P. Romashkin/ NCAR)	124: 211-212 Samuel Haimov <i>"A Novel Airborne Ka-band Precipitation Radar: enhancing the remote sensing capability of UWKA Research Aircraft"</i>
<b>12:45 – 13:00</b>			124: 211-212 Frank Flocke <i>"Testing a new reactive gas inlet system for the NSF/ NCAR GV large wing pod"</i>
<b>13:00 – 13:15</b>	135: 103-107	NSF Antarctic Operations & Phoenix (virtual) (Gary James/ NSF)	124: 211-212 Andrew Pazmany <i>"Airborne Dual-Polarized Microwave Radiometers for Vegetation and Soil Moisture Research"</i>
<b>13:15 – 13:30</b>			124: 211-212 Kate Szpek <i>"Extinction, Scattering and Absorption of Light for Airborne Aerosol Research, an introduction to the ESCALABAR instrument"</i>
<b>13:30 – 14:30</b>	Casino	Lunch Break	
<b>14:30 – 17:00</b>	Airport apron	<b>Aircraft Exhibition</b>	
<b>17:00</b>	End Day 3		
<b>17:00</b>	Bus transfer to location of conference dinner (starts at "Bus" inside DLR)		
<b>18:00 – 22:00</b>	Restaurant SeePost am Ammersee	Conference Dinner	
<b>22:00</b>	Bus transport back		

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	Building: Room	<b>Programme on Thursday– 13 July, 2017</b>				
<b>09:00 – 10:00</b>	135	Registration desk open				
		<b>Session 4A1</b> Airborne campaign organisation and operation  <b>Session Chair:</b>		<b>Session 4A2</b> Instruments/ Data  <b>Session Chair: Clara Lee</b>		<b>Session 4A3</b> Platforms  <b>Session Chair:</b>
<b>10:00 – 10:30</b>	120: 003	NPW Follow-up Discussions (Facilitator: C. Wolff/NCAR)	135: 103-107	Gao Chen "Airborne Data Management for NASA: Challenges and User-driven Strategies"	124: 211-212	Matt Fladeland "An overview of new technologies driving innovation in the Airborne Science community"
<b>10:30 – 10:45</b>			135: 103-107	Graeme Nott "Towards a community-driven upgrade to PMS canister connectors"	124: 211-212	Steffen Schäufele "Airborne Research with the Zeppelin NT Airship"
<b>10:45 – 11:00</b>			135: 103-107	Reno Choi "A Compact Tropospheric Observation Instrument for High Altitude Pseudo-Satellite"	124: 211-212	Jan Hanuš "Flying Laboratory of Imaging Spectroscopy at CzechGlobe"
<b>11:00 – 11:15</b>			135: 103-107	James Moore "The next Generation of Airborne Polarimetric Doppler Weather Radar; NCAR/ EOL Airborne Phased Array Radar (APAR) Development"	124: 211-212	Victor Petrov "Aircraft-laboratory Yak-42D <<Roshydromet>> for environment research and weather modification"
<b>11:15 – 11:30</b>			135: 103-107	Jörg Brauchle "MACS-Modular Airborne Camera System customized to specific carriers, environments and scientific challenges"	124: 211-212	Thomas Rausch "Aspects on the development of future scenarios for airborne research platforms"
<b>11:30 – 12:00</b>	120	Coffee/ Tea Break	135	Coffee/ Tea Break	124	Coffee/ Tea Break

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Building: Room						
		<b>Session 4B1</b> Airborne campaign organisation and operations <b>Session Chair:</b>		<b>Session 4B2</b> Instruments/ Data <b>Session Chair:</b>	<b>Session 4B3</b> Platforms <b>Session Chair: Andreas Minikin/ other</b>	
<b>12:00 – 12:15</b>	120: 003	Diplomatic and Operational Challenges (FAAM, DLR, NASA)	135: 103-107	<b>Greg Stossmeister</b> <i>"The NCAR/ EOL Field Catalog: A tool for flight planning, real-time decision-making and post mission review"</i>	124: 211-212	William Oxford <i>"Bio-Systems: Airborne Hyperspectral Remote Sensing Capability"</i>
<b>12:15 – 12:30</b>					124: 211-212	Konrad Bärffuss <i>"Challenges of meteorological research with manned and unmanned airborne systems"</i>
<b>12:30 – 12:45</b>					124: 211-212	Yannick Boucher <i>"TERRISCOPE: A new platform for research in optical remote sensing from manned airplanes and UAVs"</i>
<b>12:45 – 13:00</b>					124: 211-212	David Plummer <i>"Observational capabilities of the University of Wyoming King Air research aircraft facility"</i>
<b>13:00 – 13:15</b>	120: 003	International Science and Diplomacy (Hal Maring/ NASA)	135: 103-107	Terry Hock <i>"Overview of the NCAR AVAPS* Dropsonde Systems New Capabilities"</i>	124: 211-212	Grant Petty <i>"A low-cost, flexible platform for airborne environmental measurements"</i>
<b>13:15 – 13:30</b>				135: 103-107	Bruno Neininger <i>"An airborne wind LIDAR for METAIR-DIMO"</i>	124: 211-212
<b>13:30 – 14:30</b>	Casino	Lunch Break				
<b>14:30 – 15:30</b>	135: 103-107	<b>Plenary Session 4C</b>				
<b>15:30 – 16:00</b>	135	Coffee Break				
<b>16:00 – 16:30</b>	135	Conference closing session				
<b>16:30</b>	End Day 4					

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