HAPS4ESA 2019 Draft Programme

Status: 20 December 2018, Version 1.2

Day 1: Tuesday, 12 February 2019 (09:30-18:00)

9:30 -	9:40	Welcome	Pierluigi Silvestrin	ESA
9:40 -	9:50	Aim of the HAPS4ESA Workshop	Malcolm Davidson	ESA
9:50 -	10:00	Logistics	Thorsten Fehr	ESA
10:00 -	10:20	Keynote	Peter Breger	EC
		Platforms and Supporting Technologies, Chair: TBC		
10:20 -	10:40	Airbus Zephyr – Long Duration Stratospheric Flight Shows Potential for HAPS Services	Roger Tidswell	Airbus Defence and Space
10:40 -	11:00	Stratobus for permanent missions	Michel Masselin	Thales Alenia Space
11:00 -	11:30	Coffee		
11:30 -	11:50	ELEVATE: A Balloon-Based Platform for Hardware Testing in the Stratosphere	Izan Peris Marti	Zero 2 Infinity
11:50 -	12:10	The "Ascender 28" Prototype HAP: Development status and future plans	Thomas Olson	Avealto, Ltd.
12:10 -	12:30	CNES stratospheric balloons activities, possible synergies with HAPS ?	Vincent Dubourg	CNES
12:30 -	12:50	Sprint-and-drift manoeuvre for stratospheric airships	Jesús Gonzalo	University of León
12:50 -	13:50	Lunch		
13:50 -	14:10	Project Loon	Robert Eagles	Loon
14:10 -	14:30	High aims, high hurdles – the challenges of persistent stratospheric flight	Paul Brooks	Prismatic
14:30 -	14:50	Project AlphaLink - Component Flyer as the Next Generation of High-Altitude Platforms	Alexander Köthe	AlphaLink (@Technische Universität Berlin)
14:50 -	15:10	New principles of aircraft control of non-standard aerodynamic scheme with flexible wing as exemplified by HAPS (High Altitude Pseudo Satellite) ApusDuo .	Taisia Vasiukovich	Uavos Inc.
15:10 -	15:40	Coffee		
15:40 -	16:00	Applications and Holistic Evaluation of High Altitude Platforms (HAP)	Holger Schumann	German Aerospace Center (DLR)
16:00 -	16:20	Comparison of Heavier than Air HAPS to Lighter than Air HAPS	Simon Ashby	Elson Space Engineering
16:20 -	16:40	Discussion: Platforms and Supporting Technologies		
16:40 -	18:00	Poster pitches / poster session		
18:00 -	19:30	Ice Breaker		

Day 2: Wednesday, 13 February 2019 (09:00-18:00)

		Regulations, Chair: TBC		
9:00 -	9:20	Industry Based Cooperative Separation for Upper Airspace	Robert Eagles/Nancy Graham	Loon/Graham Aerospace International
9:20 -	9:40	Application of Specific Operations Risk Assessment (SORA) to HAPS operations under the new Unmanned Aircraft European Regulation	Antidio Viguria	Advanced Center for Aerospace Technologies
9:40 -	10:00	Where does Space end?	Frank Fuchs	Frank Fuchs Consulting
10:00 -	10:20	Operation and Operation Approval of High Altitude Platforms (HAP)	Florian Nikodem	German Aerospace Center (DLR) - Insitut Für Flugsystemtechnik
10:20 -	10:40	Discussion: Regulations		
10:40 -	11:10	Coffee		
		Ground Segment and Stratoports / Navigation Activities, Chair: TBC		
11:10 -	11:30	HAPS in Canarias: GEO-Innovation Program 2030 - A Regional Governmental Initiative	Manuel Miranda Medina	Regional Government of the Canary Islands
11:30 -	11:50	ATLAS as a Stratoport: Lessons Learnt and Future Requirements for HAPS Operations	Joaquín Rodriguez Grau	ATLAS Center
11:50 -	12:10	Iberian Space Port	Simon Ashby	Elson Space Engineering
12:10 -	12:30	Esrange Space Center - A Demonstration Site for HAPS and Similar Activities	Mattias Abrahamsson	Swedish Space Corporation
12:30 -	13:30	Lunch		
13:30 -	13:50	A call for interoperable programming of HAPS and satellite observations	Daniel Novak	Airbus
13:50 -	14:10	Adaptation of Satellite Control Centre for HAPS	Miguel Angel Molina Cobos	GMV
14:10 -	14:30	HAPS as an augmentation solution for GNSS: potential use cases analysis.	Olivier Desenfans	M3 Systems Belgium
14:30 -	14:50	HAPS to Augment Terrestrial Based Alternative Positioning Navigation and Timing for Aviation	Boubeker Belabbas	German Aerospace Center (DLR)
14:50 -	15:10	Discussion: Ground Segment and Stratoports / Navigation Activities		
15:10 -	15:40	Coffee		
		Earth Observation Activities, Chair: TBC		
15:40 -	16:00	Exploring the potential of High Altitude Pseudo-Satellites to improve the CAP monitoring strategies	Judit Anda Ugarte	Regional Government of Andalusia
16:00 -	16:20	HAPS-based Security Services for Persistent EO Monitoring	Sergio Albani	European Union Satellite Centre
16:20 -	16:40	High Altitude Pseudo-Satellites for water management and safety in the Netherlands	Liduin Bos-Burgering	Deltares
16:40 -	17:00	HAPS for maritime surveillance and how they can complement existing surveillance means	Olaf Trieschmann	European Maritime Safety Agency (EMSA)
17:00 -	18:00	Plenary		

Day 3: Thursday, 14 February 2019 (09:00-17:00)

		Earth Observation Activities (continued), Chair: TBC		
9:00 -	9:20	New ESA's study for the analysis of the added value of the use of HAPS for air quality and GHG applications	Amaya Atencia Yépez	GMV
9:20 -	9:40	Air quality monitoring based on hyperspectral imaging from high altitude aircraft	Frederik Tack	Royal Belgian Institute For Space Aeronomy
9:40 -	10:00	Atmospheric emission monitoring using a High Altitude Pseudo-Satellite	Barend Ording	Airbus Defence And Space
10:00 -	10:20	An Observing System Simulator for Atmospheric Trace Gas Remote Sensing over Cities	Gerrit Kuhlmann	EMPA
10:20 -	10:50	Coffee		
10:50 -	11:10	A Study on payload requirement for new EO missions performed by a Hybrid HAPS in Persistence & Proximity	Cesario Vincenzo Angelino	C.I.R.A.
11:10 -	11:30	Hyperspectral imager for HAPS, a follow-on of the 2017 presentation	Mathieu Maisonneuve	ABB
11:30 -	11:50	Hyperspectral for HAPS	Marco Esposito	Cosine Measurement Systems
11:50 -	12:10	High Altitude Pseudo Satellites in Support of ESA Earth Observation Missions	Jean-François Vinuesa	Airbus Defence and Space
12:10 -	12:30	Investigation for HAPS business model and future development	Crepin Jean-philippe	Sonaca
12:30 -	12:50	Discussion: Earth Observation Activities		
12:50 -	13:50	Lunch		
		Telecommunication Technologies and Applications, Chair: TBC		
13:50 -	14:10	HAPS services and applications for a Satellite operator	Antonio Abad	Hispasat
14:10 -	14:30	AIRBUS High Altitude AirNode Demo in Canada, mid-August 2018	Jean Philippe Scherer	Airbus
14:30 -	14:50	HAPS and satellite integration in 4G / 5G cellular networks	Didier Verhulst	Cell & Sat
14:50 -	15:10	Hybrid Adaptive Network: concept and application	Gontran Reboud	Viasat
15:10 -	15:40	Coffee		
15:40 -	16:00	Optical High Speed Communication for HAPS	Dirk Giggenbach	German Aerospace Center (DLR)
16:00 -	16:20	Optical Communications for Airborne Users - ScyLight Framework and EDRS Services	Harald Hauschildt	ESA
16:20 -	16:40	Making use of SmallSat downlink technology to enable efficient payload data downlink solutions for EO HAPS	Daniel Sander	German Aerospace Center (DLR)
16:40 -	17:00	Discussion: Telecommunication Technologies and Applications		
17:00 -	17:10	Wrap-up		