

# REPORT OF ASAPE General Assembly 2019

October 1<sup>st</sup> 2019, from 08:30 to 12:30 CET

Sorrento (Italy), Ka and Broadband Communication Conference  
&  
ESA WEBEX Teleconference

## *List of participants*

ESA:	A. Martellucci	(AM)
	Juan Rivera Castro	(JRC)
	Marco Lanucara	(ML)
POLIMI (Italy):	C. Riva (WebEx)	(CR)
	L. Luini (WebEx)	(LL)
	E. Matriccioni	(EM)
JR (Austria):	F. Cuervo	(FC)
	M. Schmidt	(MS)
BME:	L. Csurgai Horvath (WebEx)	(LCH)
	J. Bito (WebEx)	(JB)
TU Graz (Austria):	F. Teschl (WebEx)	(FT)
IAP (Czech Republic):	O. Fiser	(OF)
	Karel Pitas	(KP)
FFI (Norway):	M. Rytir	(MR)
UCL (Belgium):	L. Quibus (WebEx)	(LQ)
	Mojtaba Razavian	(MV)
CNES (France):	X. Boulanger (WebEx)	(XB)
UPM (Spain):	J. M. Riera (WebEx)	(JMR)
RAL/STFC (UK):	S. Ventouras (WebEx)	(SV)
NASA (USA):	James Nessel	(JN)
AFRL (USA):	G. Brost	(GB)
UBIMET(Austria):	C. Neudhart (WebEx)	(CN)
	M. Blaschek (WebEx)	(MB)
VERTEX (GE)	TBD	(TBD)
Uni Stuttgart	Laura Manoliu	(LM)
CTTC	Joan Bas	(JBa)
EUMETSAT	TBD	(TBD)

## **Documents will be available on ESA TEC Alfresco Sharefolder**

Project Name: *ASAPE Group of the AlphaSat Aldo Paraboni propagation Experimenters*

Please contact: Antonio Martellucci to request access to the sharefolder area

# Agenda ASAPE General Assembly 2019

## Draft Agenda

### 1) Opening of the meeting

- Welcome
- Introduction of new participants
- Approval of the agenda
- Approval of minutes of last meeting (2nd IM 2019 Telco)

### 2) Report on the ASAPE Campaign

Status of the experiment at the end of the sixth year of campaign and extension of the experiment

### 3) Presentations of ASAPE Experimenters

- Results of 9 years Ka-band / 3 years Q-band propagation measurements in Toulouse (L. Castanet)  
From the discussion
- CubeSat Propagation Campaign at Q- and W-band (F. Cuervo)
- Transmission error analysis for DVB-S2 over Q/V band Channel (M. Schmidt)

Coffee Break

### 4) ASAPE WGs: Scientific contributions, discussion and planning

- WG5 (Data Calibration without Radiometers)
- WG6 (Submission of Experimental Tables to SG3)
- WG3 (Scintillation Analysis)
- WG2 (Data processing)
- WG1: Data Format
- WG7 (Planning for a Test-Bed of a European Network of Terminals)
- WG8 (Synergies with other Experiments and other National/International, Projects Ka Band Experiments, LEO/MEO)

### 5) Planning of ASAPE activities

- Reorganisation of ASAPE WG Reorganisation of ASAPE WG
- Planning for ASAPE activities in 2020 and 2021
- Open discussion

### 6) GA Conclusions and AoB

# Minutes of the meeting

Meeting starts at 08.30 CET

## 1) Opening of the meeting

- Welcome  
AM opens the meeting
- Introduction of new participants  
AM introduces new participants
- Approval of the agenda  
Agenda is approved
- Approval of minutes of last meeting (2nd IM 2019 Telco)  
Minutes are reviewed and approved

## 2) Report on the ASAPE Campaign

Status of the experiment at the end of the sixth year of campaign

See slides from AM

(file : [01\\_ASAPE Report\\_AMartellucci\\_GA2019.pdf](#))

## 3) Presentations of ASAPE Experimenters

- Results of 9 years Ka-band / 3 years Q-band propagation measurements in Toulouse (L. Castanet)  
See slides from LC  
(file: [02\\_Results-Toulouse-Experiment\\_LCastanet\\_GA 2019.pdf](#))
- CubeSat Propagation Campaign at Q- and W-band (F. Cuervo)  
See slides from FC  
(file: [03\\_CubeSat-Campaign\\_FCuervo\\_GA2019.pdf](#))
- The Q/V Band Ground station in Graz / Austria (M. Schmidt)  
See slides from MS  
(file: [04\\_GrazGroundStation\\_MSchmidt\\_GA2019.pdf](#))

## 4) ASAPE WGs: Scientific contributions, discussion and planning

WG5 (Data Calibration without Radiometers): Summary of the activity by Lorenzo Luini. Still waiting for the decision on submitted paper on calibration without using radiometer. We are trying to setup the vertical profile (and GPS) calibration in Milano since the radiometer in Milano is no more available for calibration since June 2019 (used for W band research activity).

WG6 (Submission of Experimental Tables to SG3): Summary on ITU-R activities and SG3 database by Antonio Martellucci

See slides from AM

(file: [05\\_WG6\\_DataSubmITU-R-SG3\\_AMrtellucci\\_GA2019.pdf](#))

WG3 (Scintillation Analysis): summary of the activity by Martin Rytir

See slides and conclusions from MR

(file: [06\\_WG3\\_Scintillation\\_MRytir\\_GA2019.pdf](#))

WG2 (Data processing): Summary of the activity by Antonio Martellucci

WG1 (Data format): Summary of the activity by Antonio Martellucci

WG7 (Planning for a Test-Bed of a European Network of Terminals): Summary of the activity by Spiros Ventouras. Two years of data in the frame of ASALASCA with high availability.

WG8 (Synergies with other Experiments and other National/International, Projects Ka Band Experiments, LEO/MEO):

Summary about MEO and W band radiometer experiments by Lorenzo Luini.

Presentation by Martin Rytir about Artic campaign with HEO satellites.

See slides from MR

(file: [07\\_WG8\\_HEOArticCampaign\\_MRytir\\_GA2019.pdf](#))

Summary of the propagation campaign at Ka band in French Guiana by ONERA/CNES.

See slides from LC

(file: [08\\_WG8\\_FrenchGuianaCampaign\\_LCastanet\\_GA2019.pdf](#))

Summary of campaigns currently running by Laurent Castanet

See slides from LC

(file: [09\\_WG8\\_CurrentCampaigns\\_LCastanet\\_GA2019.pdf](#))

## 5) Planning of ASAPE activities

Next IM January/February 2020 (possibly a second IM on July)

## 6) GA Conclusions and AoB

Ondrej Fiser resumes the activity of Alphasat Aldo Paraboni propagation experiment in Prague.

### List of Open actions at the end of the meeting

- AI-GA04\_03: MR/DV/CR Map adoption of scintillation data processing methods within ASAPE
- AI-GA04\_05: LL/JMR To define test set-up and data sources for GNSS data calibration.
- AI-GA04\_06: AM/CR To submit to SG3 input document on data calibration procedures.
- AI-GA04\_07: AM/DV To map use of SW procedures in ASAPE group.
- AI-GA04\_09: AM/CR To provide guidelines for converting time series of attenuation into binary signals and the definition for the calculation of  $\chi$ .
- AI-IM1-18\_01: AM/CR to update the TN on the anomaly including observations since 11/17
- AI-IM1-18\_02: AM/CR to prepare input document on ASAPE for next 3M meeting
- AI-GA05-01: AM to organise a teleconference on demonstration of processing tools
- AI-GA05-02: AM/SV to specify format for L3 data

### List of Documents (available on ESA Alfresco Sharefolder)

- 1) 01\_ASAPE Report\_AMartellucci\_GA2019.pdf
- 2) 02\_Results-Toulouse-Experiment\_LCastanet\_GA 2019.pdf
- 3) 03\_CubeSat-Campaign\_FCuervo\_GA2019.pdf
- 4) 04\_GrazGroundStation\_MSchmidt\_GA2019.pdf
- 5) 05\_WG6\_DataSubmitU-R-SG3\_AMrtellucci\_GA2019.pdf
- 6) 06\_WG3\_Scintillation\_MRytir\_GA2019.pdf
- 7) 07\_WG8\_HEOArticCampaign\_MRytir\_GA2019.pdf
- 8) 08\_WG8\_FrenchGuianaCampaign\_LCastanet\_GA2019.pdf
- 9) 09\_WG8\_CurrentCampaigns\_LCastanet\_GA2019.pdf