# HyMeX SOPs' Debriefing Workshop

15-17 April 2013, Toulouse, France

## Program – 8 April 2013

### Monday 15 April

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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| 9:00- 9:30 | Welcoming and opening address  
*P. Bougeault, Head of Research, Météo-France* |
| 9:30- 9:45 | Large scale atmospheric conditions from Sep. 2012 to March 2013 (SOP1 & SOP2)  
*C. Calas (ENM, Météo-France, Toulouse, France)* |
| 9:45-10:00 | Characteristics of heavy rainfall during late summer and autumn 2012 (SOP1)  
*O. Nuissier (CNRM-GAME, Météo-France & CNRS, Toulouse, France)* |
| 10:00-10:15 | Floods and soil water state during late summer and autumn 2012 (SOP1)  
*I. Braud (IRSTEA, Lyon, France)* |
| 10:15-10:30 | Characteristics of strong wind events and intense air-sea fluxes from Sep. 2012 to March 2013 (SOP1 & SOP2)  
*C. Lebeaupin-Brossier (CNRM-GAME, Météo-France & CNRS, Toulouse, France)* |
| 10:30-10:45 | Characteristics of the NW-Med Sea from Sep. 2012 to March 2013 (SOP1 & SOP2)  
*S. Somot (CNRM-GAME, Météo-France & CNRS, Toulouse, France)* |
| 10:45-11:15 | Break & Database rendez-vous |

### Overview of the field operations

*Chair: U. Corsmeier (KIT, Karlsruhe, Germany)*

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<th>Time</th>
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| 11:15-11:50 | SOP1  
*V. Ducrocq (CNRM-GAME, Météo-France & CNRS, Toulouse, France)* |
| 11:50-12:15 | SOP2  
*C. Estournel (LA, CNRS & UPS, Toulouse, France)* |

### Review of SOP observation datasets

*Chairs: R. Ferretti (CETEMPS, L'Aquila, Italy), D. Lambert (LA, CNRS & UPS, Toulouse, France)*

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<tr>
<th>Time</th>
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| 14:00-14:15 | Corsica supersites (Corte, San Giuliano, SOP1)  
*N. Kalthoff (KIT, Karlsruhe, Germany)* |
| 14:15-14:30 | Central Italy site (atmosphere, hydrology, SOP1)  
*R. Ferretti (CETEMPS, L'Aquila, Italy)* |
| 14:30-14:45 | Cévennes-Vivarais site (atmosphere, SOP1)  
*B. Boudevillain (LTHE, Grenoble, France)* |
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<tr>
<th>Time</th>
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<tr>
<td>14:45-15:00</td>
<td>Hydrological measurements in Cévennes-Vivarais (SOP1)</td>
<td>C. Bouvier (HSM, Montpellier, France)</td>
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<tr>
<td>15:00-15:15</td>
<td>Radiosoundings (SOP1 &amp; SOP2)</td>
<td>J. Campins (AEMET, Palma de Mallorca, Spain)</td>
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<td>15:15-15:30</td>
<td>Balloons (SOP1 &amp; SOP2)</td>
<td>A. Doerenbecher (CNRM-GAME, Météo-France &amp; CNRS, Toulouse, France)</td>
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<tr>
<td>15:30-15:45</td>
<td>Wind profilers (SOP1 &amp; SOP2)</td>
<td>F. Said (LA, CNRS &amp; UPS, Toulouse, France)</td>
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<tr>
<td>15:45-16:15</td>
<td>Break &amp; Database rendez-vous</td>
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<td>16:15-16:30</td>
<td>GPS and photometers (SOP1 &amp; SOP2)</td>
<td>O. Bock (LAREG, IGN, Paris, France)</td>
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<td>16:30-16:45</td>
<td>Ground radars (SOP1)</td>
<td>O. Bousquet (CNRM-GAME, Météo-France &amp; CNRS, Toulouse, France)</td>
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<tr>
<td>16:45-17:00</td>
<td>Lightning (SOP1)</td>
<td>E. Defer (LERMA, Observatoire de Paris, Paris, France)</td>
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<tr>
<td>17:00-17:15</td>
<td>Ground lidars (SOP1)</td>
<td>P. Di Girolamo (DIFA, Univ. of Basilicata, Potenza, Italy)</td>
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<tr>
<td>17:15-17:30</td>
<td>Airborne lidar (SAFIRE/ATR42 SOP1)</td>
<td>C. Flamant (LATMOS, IPSL, Paris, France)</td>
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<tr>
<td>17:30-17:45</td>
<td>Airborne RASTA radar (SAFIRE/F20 SOP1)</td>
<td>J. Delanoë (LATMOS, IPSL, Paris, France)</td>
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<tr>
<td>17:45-18:00</td>
<td>Airborne microphysics (SAFIRE/F20 SOP1)</td>
<td>A. Schwarzenboeck (LaMP, Clermont-Ferrand, France)</td>
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**Tuesday 16 April**

**Review of SOP observation datasets (Cont.)**

*Chair: A. Wieser (KIT, Karlsruhe, Germany)*

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<tr>
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<tr>
<td>9:00-9:15</td>
<td>Aerosols (airborne and ground, SOP1)</td>
<td>E. Freney (LaMP, Clermont-Ferrand, France)</td>
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<tr>
<td>9:15-9:30</td>
<td>KIT/DO128 measurements (SOP1)</td>
<td>U. Corsmeier (KIT, Karlsruhe, Germany)</td>
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<tr>
<td>9:30-9:45</td>
<td>SAFIRE/ATR42 air-sea turbulent fluxes (SOP1 &amp; SOP2)</td>
<td>P. Durand (LA, CNRS &amp; UPS, Toulouse, France)</td>
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<tr>
<td>9:45-10:00</td>
<td>Argo floats (SOP1 &amp; SOP2)</td>
<td>S. Belamari (CNRM-GAME, Météo-France &amp; CNRS, Toulouse, France)</td>
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<tr>
<td>10:00-10:15</td>
<td>Gliders (SOP1 &amp; SOP2)</td>
<td>P. Testor (LOCEAN, IPSL, Toulouse, France)</td>
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<tr>
<td>10:15-10:30</td>
<td>Air-sea flux measurements (SOP1 &amp; SOP2)</td>
<td>R. Cambra (LATMOS, IPSL, Paris, France)</td>
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<tr>
<td>10:30-11:00</td>
<td>Break &amp; Database rendez-vous</td>
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**IOP overview with some highlights – SOP1**  
*Chair: K. Horvath (Meteorological and Hydrological Service, Zagreb, Croatia)*

- 14:00-14:15 Heavy precipitation and flash-flood events in Spain  
  *A. Jansa (AEMET, Palma de Mallorca, Spain)*

- 14:15-14:30 Heavy precipitation and flash-flood events in France  
  *E. Richard (LA, CNRS & UPS, Toulouse, France)*

- 14:30-14:45 Heavy precipitation and flash-flood events in Italy  
  *S. Davolio (CNR-ISAC, Bologna, Italy)*

**IOP overview with some highlights – SOP2**  
*Chair: I. Taupier-Letage (Mediterranean Institute of Oceanography, La Seyne-sur-Mer, France)*

- 14:45-15:00 Dense water formation, ocean convection  
  *H. Giordani (CNRM-GAME, Météo-France & CNRS, Toulouse, France)*

- 15:00-15:15 Strong winds and sea state  
  *G. Canut (CNRM-GAME, Météo-France & CNRS, Toulouse, France)*

**Working sessions**

- 15:15-15:30 Introduction to working sessions

- 15:30-16:00 Break & Database rendez-vous

- 16:00-18:00 Working sessions 1

  **WS1a Studies of IOPs – precipitation events**  
  *Chairs: S. Davolio (CNR-ISAC), A. Jansa (AEMET), E. Richard (LA)*

  **WS1b Synergistic use of SOP observations and models for describing at best dense water formation**  
  *Chairs: J. Chiggiato (CNR-ISMAR), C. Estournel (LA), S. Somot (CNRS-GAME)*

*Workshop dinner “Au Gascon”*
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| 8:30-10:30    | Working Session 2                            | **WS2a** Cross-validation studies and synergistic use of SOP1 observations and models in order to provide the best description of the microphysics in precipitating systems  
*Chairs: J. Delanoë (LATMOS), Y. Dufournet (TU Delft), A. Schwarzenboeck (LaMP)*  
**WS2b** Atmospheric data assimilation: reanalyses, impact studies (incl. DTS EUCOS), new observation type assimilation  
*Chairs: R. Ferretti (CETEMPS), N. Fournié (CNRM-GAME), V. Homar (UIB)*  
**WS2c** Studies of IOPs - Ocean mesoscale processes  
*Chairs: P. Garreau (IFREMER), H. Giordani (CNRM-GAME), P. Testor (LOCEAN)* |
| 10:30-10:45   | Break & Database rendez-vous                  |                                                                        |
| 10:45-12:45   | Working sessions 3                           | **WS3a** Air-sea fluxes and marine and ocean boundary coupled processes  
*Chairs: M.N. Bouin (CNRM-CMM), P. Durand (LA), C. Lebeaupin-Brossier (CNRM-GAME)*  
**WS3b** Cross-validation studies and synergistic use of SOP observations and models in order to provide the best description of the water vapour flows  
*Chairs: P. Di Girolamo (DIFA), C. Flamant (LATMOS), N. Kalthoff (KIT)*  
**WS3c** Flash-floods incl. process studies, field operations and forecasting  
*Chairs: I. Braud (IRSTEA), G. Delrieu (LTHE), B. Vincendon (CNRM-GAME)* |
| 12:45-14:00   | Lunch                                        |                                                                        |
| 14:00-16:00   | Outcomes of the working sessions, publications, general discussion and conclusion |                                                                        |
Additional information about the sessions

Guidelines for oral presentations

Speakers are invited to prepare a presentation well fitted with the time they are devoted. The duration given to oral presentations in the program includes 3 min. for questions and discussion, e.g. a 15 min. talk should include 12 min. actual presentation + 3 min. discussion. Taking into account the large number of presentations on Monday and Tuesday, chair persons will be asked to open and close the sessions on time.

Presentations shall be uploaded during the breaks or at least 10 min. before the session starts.

Presentations reviewing the SOP observation datasets should inform on the status of the instruments during the SOP(s), the parameters measured, the quality of the observations and recommendations about their use, the datasets already available on the HyMeX database and the future datasets to be produced and archived on the HyMeX database with associated deadlines.

Database Rendez-vous

Rendez-vous between data providers and the HyMeX database managers, Jean-Luc Boichard (OMP/SEDOO, Toulouse, France) and Karim Ramage (IPSL/ESPRI, Palaiseau, France), will take place during the breaks. Data providers are kindly asked to register at the desk at the beginning of the workshop in order to schedule the rendez-vous.

Working sessions

The aim of the working sessions is to foster collaborative work on:

- instrument analysis methodologies, cross-validation studies, data assimilation
- multi-scale, multi-compartment modelling using SOP1 and SOP2 data
- studies of IOPs.

There will be two or three 2-hour round tables in parallel. Participants will be asked at the beginning of the workshop to register for the sessions they plan to attend:

**Tuesday 16 April, 16:00-18:00**

WS1a Studies of SOP1 IOPs – precipitation events  
*or*  
WS1b Synergistic use of SOP observations and models for describing at best dense water formation

**Wednesday 17 April, 8:30-10:30**

WS2a Cross-validation studies and synergistic use of SOP1 observations and models in order to provide the best description of the microphysics in precipitating systems  
*or*  
WS2b Atmospheric data assimilation: reanalyses, impact studies (incl. DTS EUCOS), new observation type assimilation  
*or*  
WS2c Studies of SOP2 IOPs - Ocean mesoscale processes

**Wednesday 17 April, 10:45-12:45**

WS3a Air-sea fluxes and marine and ocean boundary coupled processes  
*or*  
WS3b Cross-validation studies and synergistic use of SOP observations and models in order to provide the best description of the water vapour flows  
*or*  
WS3c – Flash-floods incl. process studies, field operations and forecasting