

→ 3rd SPACE FOR HYDROLOGY WORKSHOP

Surface Water Storage and Runoff:
Modeling, In-Situ Data and Remote Sensing

15–17 September 2015 | ESA-ESRIN | Frascati (Rome), Italy

BACKGROUND



An improved description of the global water cycle, especially the poorly known continental domain, is of major importance for improved assessment and better management of water resources available for human consumption and other activities, as well as for climate prediction. Global monitoring of surface water requires products (i.e. lake and reservoir water levels and volumes, river levels and discharges, 3d floodplains water dynamic models) that may be derived from satellite datasets. Satellites now provide an essential component for the observation of the continental water from regional to global scales. Used in conjunction with in situ

observations and modeling, for measuring and eventually better management of water resources observations from a constellation of satellites will allow us to set up a surface water observing system, which will significantly improve our understanding of hydrological processes that affect large river basins in response to climate variability. To meet the science objectives, the next challenges are to significantly improve modelling and forecasting skills through assimilation of observations. Additionally, the new generation of instruments allows higher resolutions that will require new and improved processing algorithms and training a new generation of scientists.

OBJECTIVES

The main objectives of the workshop are to prepare for the exploitation of the next generation of altimeters, to bring together hydrologists, model developers, in-situ data analysts and space scientists in order to tackle the future challenges in the hydrology of surface water storage and runoff. Round table discussions are planned to address key questions such as:

- What are the key science questions ahead?
- What are the challenges and how to address them?
- What aspects of surface water observation and modelling are sufficiently mature for use in operational services? From research and development to operational use of remote sensing information in hydrological applications and water resources management... how do we go from here?
- How to strengthen the collaboration between the three communities: in-situ, modeling and space observation scientists?

The expected outcome of the workshop is to define an action plan for the future and converge on recommendations from the Scientific Community.

ORGANISATION

The workshop is organised around papers and posters selected by the Scientific Committee. Round table discussions with initial questions prepared by the Scientific Committee will be scheduled in the programme. The Workshop proceedings will be published by ESA in the SP series. Authors are required to submit a 4-6 page written summary of their contribution. Co-chairs will contribute to a "Summary and Recommendations" paper.

For further information please visit the workshop website at:

<http://hydrospace2015.org>