





Sharing Information for better
transboundary Cooperation in Integrated
water management

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Monitoring, assessment, data and knowledge sharing in transboundary basins

Contribution of the Working group on Spatial hydrology SWOT program

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In Session 9B2 – 20 March 2018



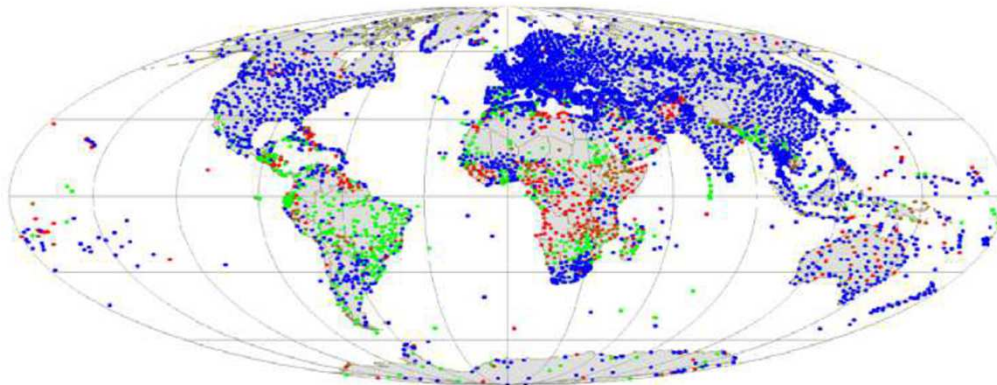
The knowledge challenge about the water cycle in the context of climate change

- Insufficient knowledge of the resource
- Capacity building needs
- Sustainable economic models (for data management)

Availability of SYNOP reports from RBSN stations

Monitoring period: 1 to 15 October 2011

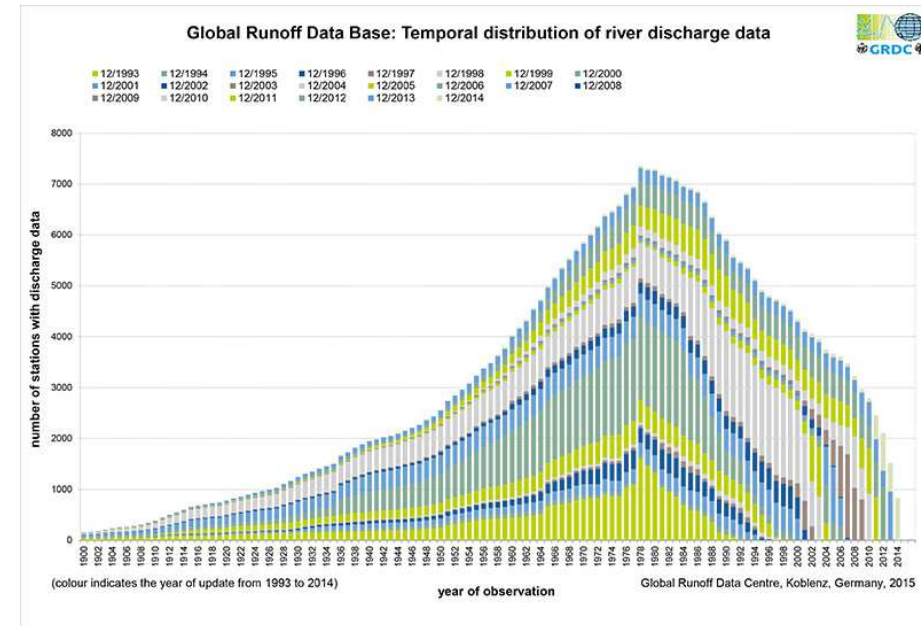
(the percentage of reports received is based on the main synoptic hours 0000,0600,1200 and 1800 UTC)



■ 90% to 100% (3229)
■ 45% to 90% (595)
■ 1% to 45% (237)
■ silent station (393)

The designations employed and the presentation of material in this chart do not imply the expression of any opinion whatsoever on the part of the Secretariat of the World Meteorological Organization concerning the legal status of any country.

WMO Secretariat



(colour indicates the year of update from 1993 to 2014)

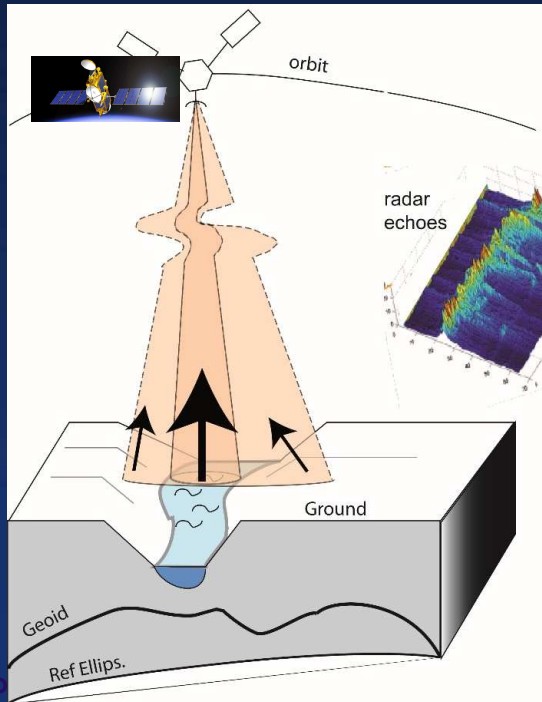
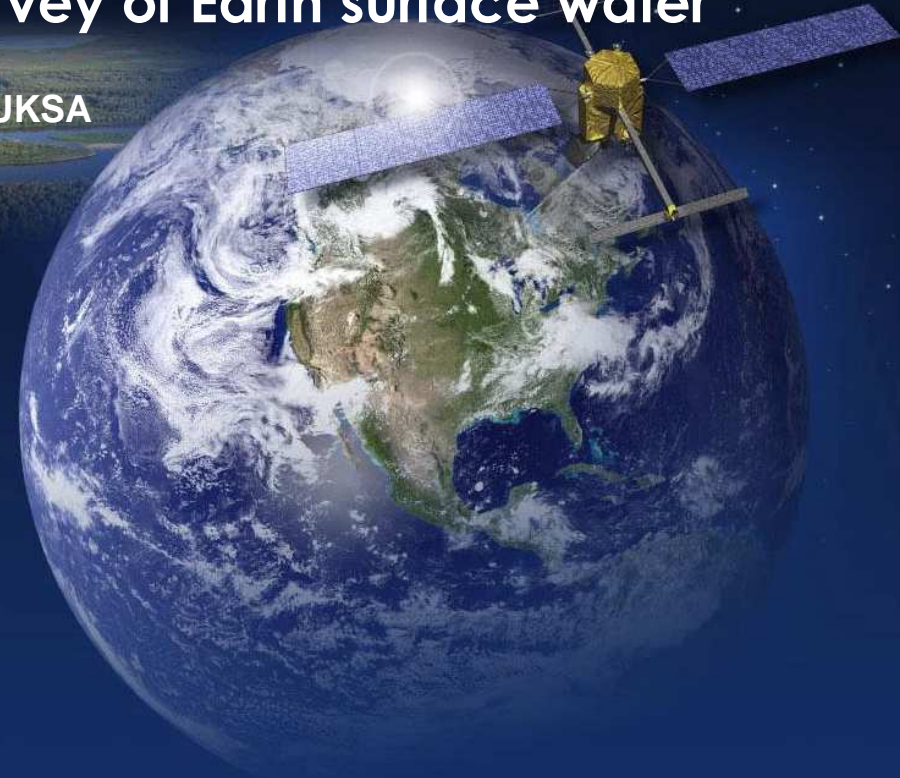
year of observation

Global Runoff Data Centre, Koblenz, Germany, 2015

SWOT Mission : Surface Water and Ocean Topography

The first global survey of Earth surface water

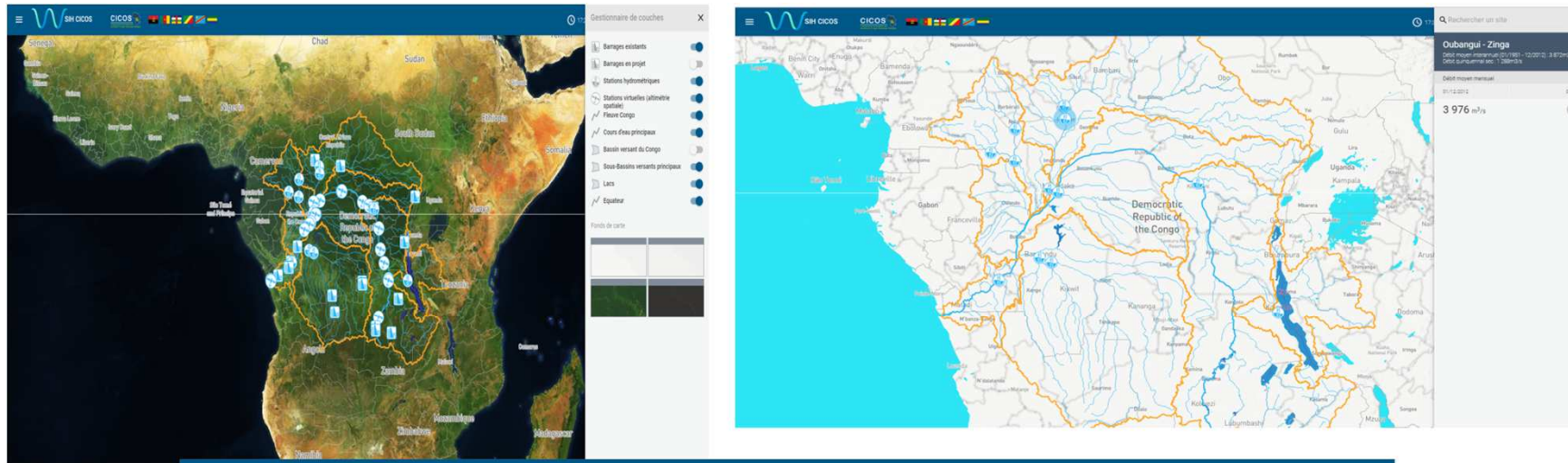
- Cooperation NASA, CNES, CSA and UKSA
- Launch in April 2021
- Radar altimetry
- Rivers >100m: accuracy ~10cm
- Lakes >250m²: accuracy few cm



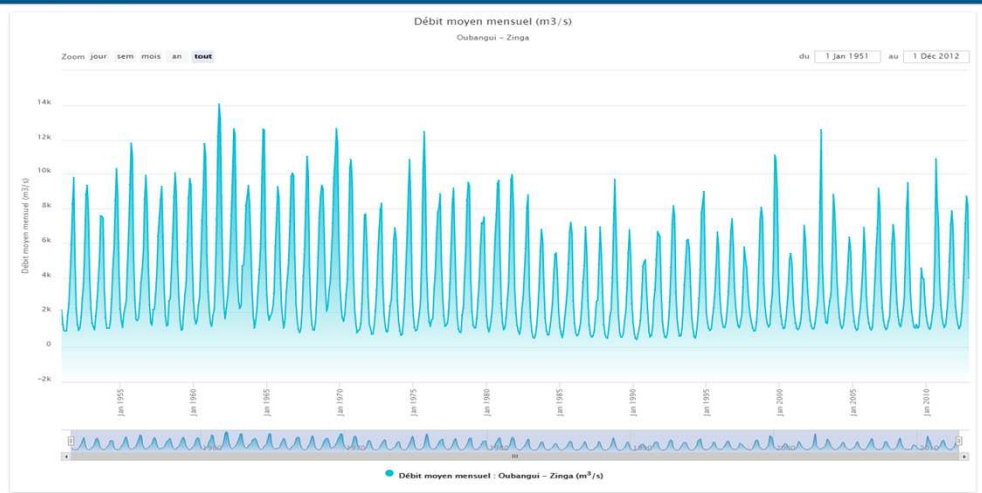
- 21 day repeat cycle
- Free access to all data

CICOS Congo

Hydrological information system combining space and in-situ data (under development)



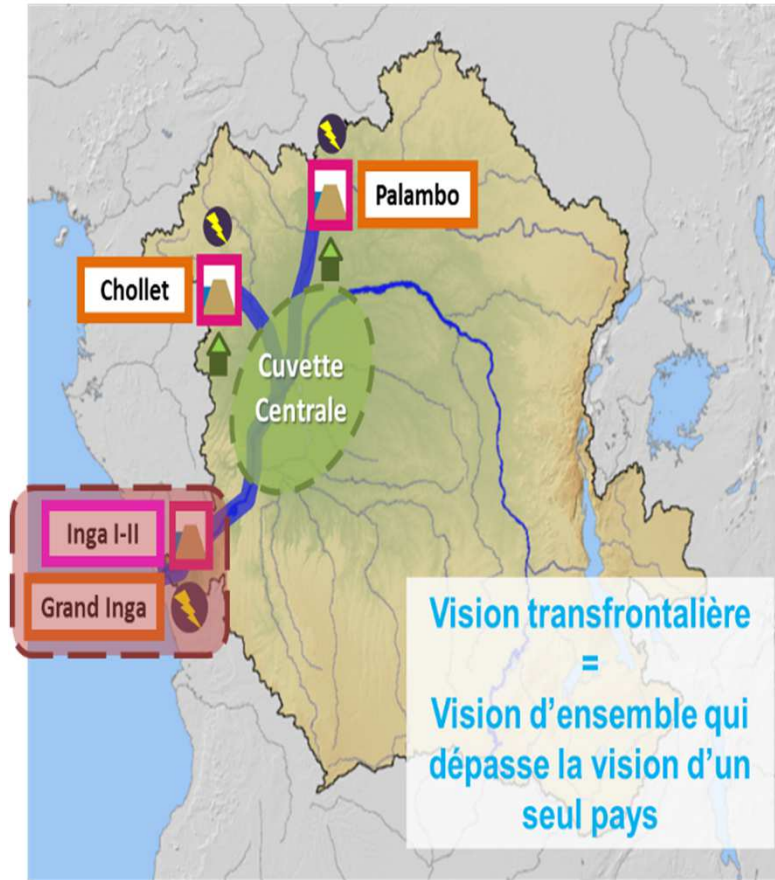
Oubangui - Zinga



Date	Valeur
01/12/2012 00:00	3 976 m³/s
01/11/2012 00:00	8 189 m³/s
01/10/2012 00:00	8 720 m³/s
01/09/2012 00:00	7 142 m³/s
01/08/2012 00:00	4 778 m³/s
01/07/2012 00:00	2 970 m³/s
01/06/2012 00:00	1 913 m³/s
01/05/2012 00:00	1 243 m³/s
01/04/2012 00:00	1 077 m³/s
01/03/2012 00:00	1 284 m³/s
01/02/2012 00:00	1 697 m³/s
01/01/2012 00:00	2 380 m³/s
01/12/2011 00:00	3 646 m³/s
01/11/2011 00:00	6 809 m³/s
01/10/2011 00:00	7 874 m³/s
01/09/2011 00:00	7 058 m³/s
01/08/2011 00:00	4 918 m³/s

CICOS Congo Allocation model, a tool for decision makers A tool for developing mid-term and long-term visions

- **Assessment of impacts (positive and negative) of simulated scenarios of basin development**
- **Test new configurations of projects in hydrological conditions already known or potentially impacted by climate change**





8th
World Water
Forum

Brasilia-Brazil
2018

Sharing Water

Organization



MINISTRY OF THE
ENVIRONMENT



Support

