

# SWOT Science Team Meeting Bordeaux, 18-20 June 2019

Introduction  
Meeting Objectives  
Logistics

R. Morrow, L.-L. Fu, J.F. Crétaux, T. Pavelsky

# The SWOT mission: a wide swath altimeter for observing Surface Water and Ocean Topography

## Science main Goals

- study hydrological processes by determining the storage and discharge rate of water on land.
- study the oceanic mesoscale and submesoscale processes that determine the kinetic energy of ocean circulation and its transport of water properties.

## Synergetic science

Study the processes in estuaries, ice sheets, and cryosphere

Geodesy (mean sea/lakes surface)

Coastal oceanography

## Societal Benefits – Address two key issues facing a warming planet:

- the variability of fresh water resources.
- the capacity of ocean circulation in regulating the rate of warming.

## Technology Goals – Set the standard for future operational altimetry missions.

# Role of the Science Team in SWOT

Development of applications in oceanography & hydrology of the SWOT products

The ST is an actor which is fully linked to the project in preparation of the mission

Participate in the creation of a priori indispensable databases and corrections and to the algorithm definition

Participate in the Cal/Val activities of the mission

- The SWOT Science Team is an international team which is not limited to US, French, Canadian and UK members:
  - Projects must be submitted to the SWOT program managers through the NASA-ROSES and CNES-TOSCA calls
  - A new Science Team will be selected in 2019 for the following 4 years

# SWOT Science Team Meeting 2019

## Meeting Overview

- Update/discuss with the science team on recent progress from the Project in the instrument development and testing, on data products, and on hydrology, oceanography and coastal/estuarine themes
- Final meeting with this Science Team – start with a review of the past 3 years Science Team hydrology and oceanography achievements in the preparation for SWOT, and major work underway. Coastal review on Thursday
- **Monday Ocean Workshop** on CalVal and in-situ science campaigns
  - ⇒ in-situ planning is urgent since we are less than 3-years before the 2022 Fast Sampling Phase.
- **Monday Hydrology Workshop** on hydrology data products
  - ⇒ Discussion continues on this key point during the Science Team meeting
- **Algorithm Development** is well underway, subject matter experts are working on analysing some of the Product Descriptions and the ATBDs are in preparation – update will be given to the science team

# Main splinter discussions of the SWOT Science Team meeting 2019

## Hydrology

Splinters on state of the arts for

- Lake science
- Discharge algorithms
- HR data access
- assimilation in global hydrological models
- Hydrology cal/val

## Coastal and Estuarine science

Observations & simulations  
CalVal sites & experiments

## Oceanography

Splinters on state of the arts for :

- High-resolution ocean modelling
- Fine-scale observations
- Tides, internal tides & waves
- Measurement errors & corrections
- 2D/3D reconstruction of SSH & currents
- Techniques for separating dynamics and noise in SWOT ocean images

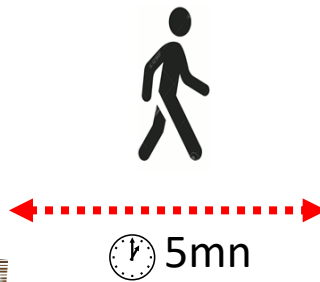
Bordeaux, June 17-20, 2019

# SWOT

Science Team Meeting  
& Calval Workshop



The HYDRO and OCEAN rooms are located in 2 different buildings  
Signs will show the way to go from one building to the other  
Check the program to see which room is assigned to your splinter session



Bordeaux, June 17-20, 2019

# SWOT

Science Team Meeting  
& Calval Workshop



## Coffee breaks and lunches

A welcome coffee will be available every morning from 8 am

Every day, coffee breaks and lunches will be served in the **Badiane Room** next to the Agora auditorium.

## Cocktail on Tuesday 18 June

A Cocktail will be served after the poster session in the **Badiane Room**  
From 6:30 to 7:30pm

Bordeaux, June 17-20, 2019

# SWOT

Science Team Meeting  
& Calval Workshop



## Poster session

The poster session will take place in the Cloister on Tuesday at 5:30pm





Bordeaux, June 17-20, 2019

# SWOT

Science Team Meeting  
& Calval Workshop



## Dinner on Wednesday 19 from 7:30pm

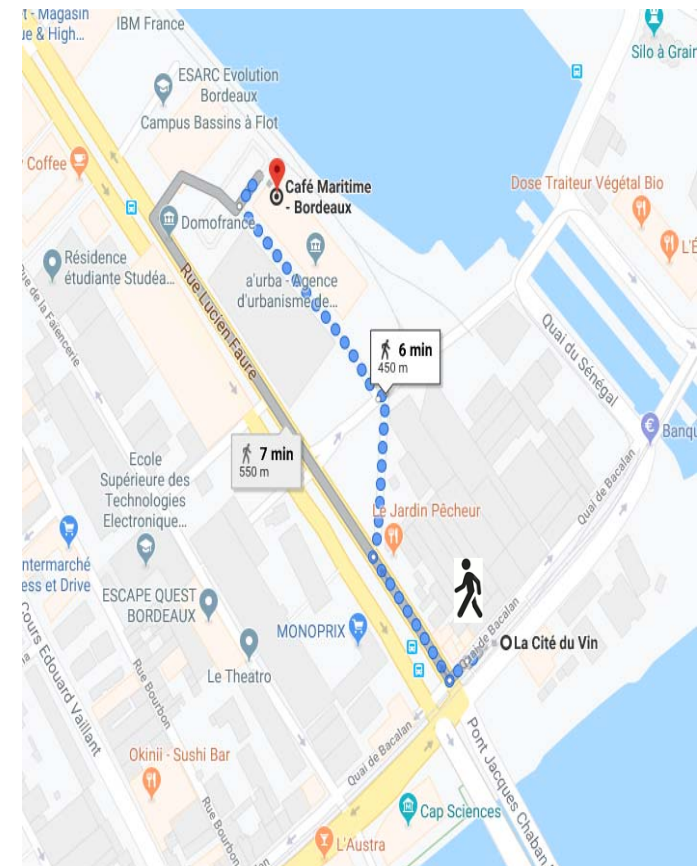
The dinner will take place at  
the **CAFÉ MARITIME**

1 Quai Armand Lalande  
33000 Bordeaux



Tram Stop:  
Cité du Vin (Line B)

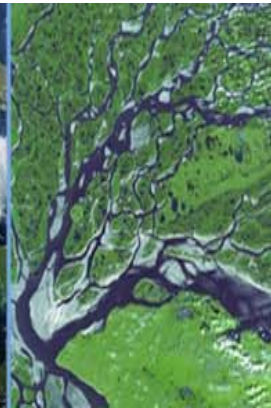
Please present your badge  
on arrival



Bordeaux, June 17-20, 2019

# SWOT

Science Team Meeting  
& Calval Workshop



## If you need information

**Opening hours of the Registration desk and Secretariat office:**

June 17, 2019 / 08:00am – 06:00pm

June 18 - 19, 2019 / 08:30am – 06:00pm

June 20, 2019 / 08:30am – 05:00pm

**Location:** Main entrance Domaine « Haut Carré » - **Mail:** [swot2019@inviteo.fr](mailto:swot2019@inviteo.fr)

**2 meeting rooms will be available. Please check availability at the registration desk**

**Eg SAWG meeting Tuesday 1-2 pm in room 106**

**Please always wear your badge.**

**This badge is for personal use only and is not transferable**

**Information and wifi details are on the back!**