

The 5th workshop on waves and wave-coupled processes

10–12 April | #5thWSwaves

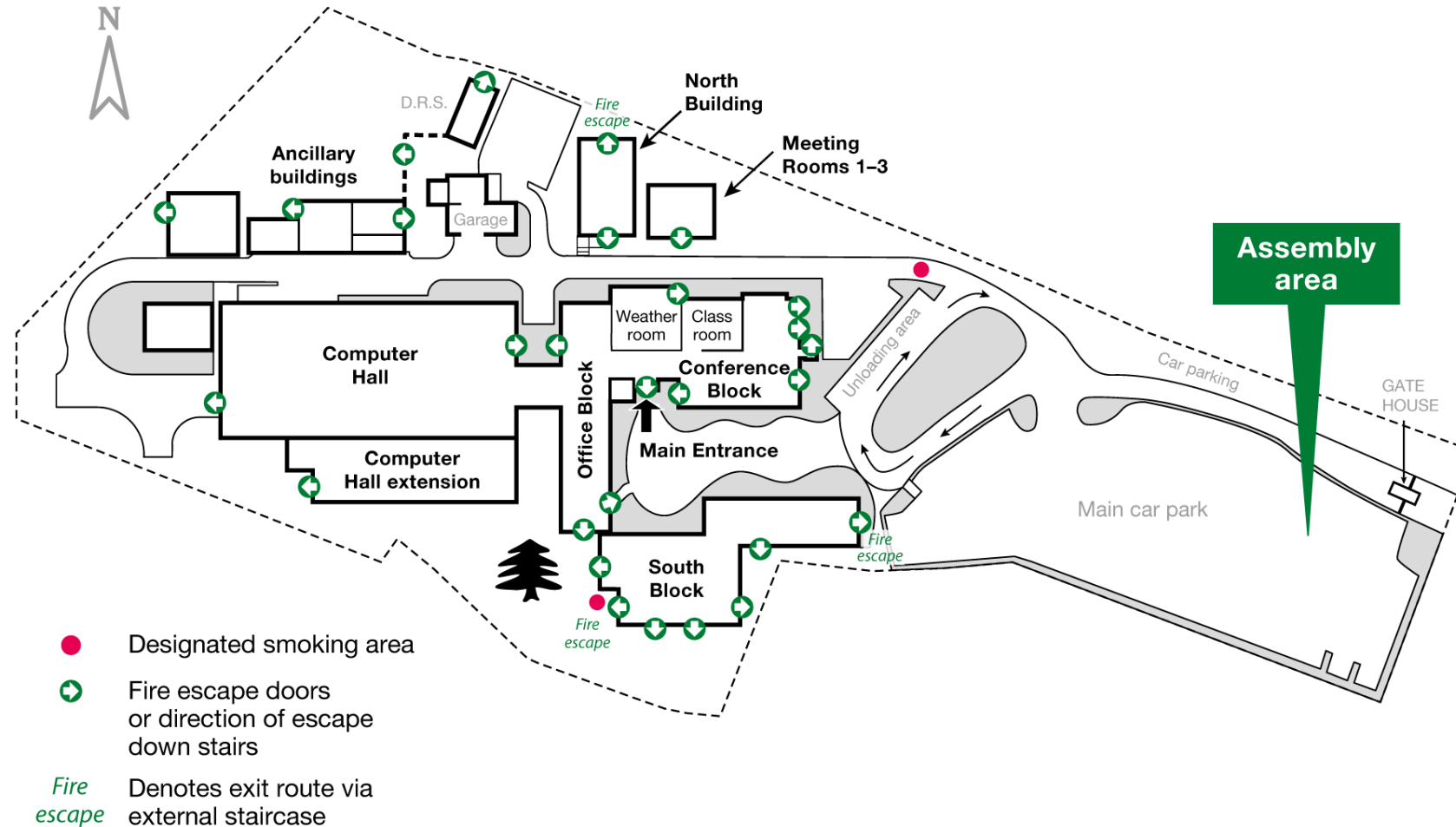


Health and Safety

- Fire safety
 - Fire exits
 - Assembly area in car park
 - Do not leave site or return to building unless instructed
- Sign in/out each day at Reception
- Health and safety guidance is available in the FAQ section of the event platform

Fire escapes and assembly area

Fire Escapes and Assembly Area



WiFi and facilities

- Connect to Wi-Fi network "ECMWF-Visitors". The password is on the back of your name badge.
- Tea/coffee served in the weather room and reception lobby
- Nearest toilets on the concourse outside the lecture theatre
- The restaurant will be open during the lunch breaks

Event platform

- All workshop information can be accessed on the event platform, this includes abstracts, posters and presenter details.



A screenshot of the ECMWF event platform website. The page features the ECMWF logo at the top left. A navigation menu on the left includes 'Home' (selected), 'CONTENT', 'Live Stream', 'Agenda', 'Posters', 'Presentations', and 'FAQs'. The main content area displays the title 'The 5th workshop on waves and wave-coupled processes' with a date of '10-12 April 2024' and hashtag '#5thWSwaves'. Below this, a welcome message states: 'Welcome to the 5th workshop on waves and wave-coupled processes. It is with great pleasure that we welcome all participants to the 5th workshop on waves and wave-coupled processes. All workshop information is available on this event platform. The agenda and poster and presentation abstracts can be accessed using the menu. You can visit the FAQ section for practical information about getting to and arriving at the workshop and what you can expect during the event. We hope you have a stimulating, fruitful and enjoyable time at the workshop. If you have any questions, please contact us: events@ecmwf.int'. A 'Time zone: Europe/London' indicator is visible in the top right corner.

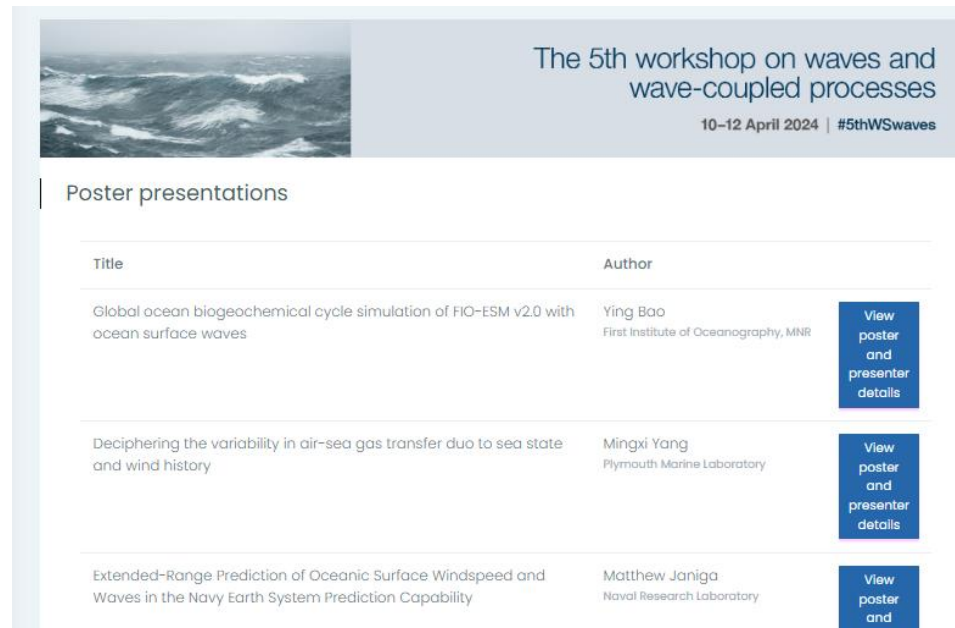
Questions for the speakers

- When presenting, please allow time for questions.
- Please wait for the roaming microphone before asking a



Poster session

- Poster session on Wednesday at 18:00 in the Weather Room
- In addition to viewing the posters on display in the Weather Room, registered participants can view all posters on the event platform and leave comments



The 5th workshop on waves and wave-coupled processes
10-12 April 2024 | #5thWSwaves

Poster presentations

Title	Author	
Global ocean biogeochemical cycle simulation of FIO-ESM v2.0 with ocean surface waves	Ying Bao First Institute of Oceanography, MNR	View poster and presenter details
Deciphering the variability in air-sea gas transfer duo to sea state and wind history	Mingxi Yang Plymouth Marine Laboratory	View poster and presenter details
Extended-Range Prediction of Oceanic Surface Windspeed and Waves in the Navy Earth System Prediction Capability	Matthew Janiga Naval Research Laboratory	View poster and

Networking

- Poster session and drinks reception on Wednesday (Day 1)
- Workshop dinner on Thursday (Day 2) – pre-registered only
- Join the X (formerly Twitter) conversation #5thWSwaves
- Coffee breaks and lunches!

Group photo

- In the courtyard (by the ducks) at the start of the afternoon coffee break on Thursday 11 April at 14:50.



Recordings and presentations

- Recordings and presentation slides will be published on the event platform presentation pages as possible after the talks have been given.



- They will also be made available on the workshop webpage on the ECMWF event website.



Logistical questions?

- Contact us: events@ecmwf.int



The 5th workshop on waves and wave-coupled processes

10–12 April | #5thWSwaves



Workshops on waves and wave-coupled processes:



7 – 9 December 2016 The University of Melbourne
Alan Gilbert Theatre 2, Corner of Grattan & Barry Sts Carlton [Map](#)

The focus of the workshop spans modelling, analysis and observations of wind-generated waves and wave-coupled processes. We aim to increase discussion and collaboration within this field amongst the international community.

We invite abstracts with a focus in ocean wave research. This meeting will be conducted in plenary, with time reserved for discussion to identify key research questions within the international community.

- The workshop will cover a number of research themes
- ▣ fluid mechanics of water waves
 - ▣ dynamics of ocean waves
 - ▣ air-sea interactions
 - ▣ wave-coupled effects in the upper ocean
 - ▣ near-shore processes
 - ▣ observations and remote sensing
 - ▣ numerical modelling, spectral and phase-resolving
 - ▣ extreme meteocean conditions
 - ▣ wave climate
 - ▣ waves in ocean engineering

Organisers: Australia-China Centre for Maritime Engineering
Professor Alexander Babanin
The University of Melbourne, Australia
Professor Fangli Qiao
First Institute of Oceanography, China



Register your interest [here](#) prior to 30 October 2016.
Abstracts, along with any queries, should be submitted to Prof. Babanin a.babanin@unimelb.edu.au

Accommodation at [Hotel Ibis Melbourne](#). Special rate of AUD\$135 p/n (room only).
Email: H154@accor.com and quote University of Melbourne with required dates.

2nd Ocean Surface Waves and Wave-Coupled Processes

Workshop
October 10-12, 2017 Qingdao, China

1st Round Announcement



Background

Recently, the critical role of ocean surface waves in ocean and climate systems is attracting more and more attentions. However, the modelling, analysis and observation of ocean surface waves and wave-coupled processes are still facing several challenges. ACCME (Australia-China Centre for Maritime Engineering), which is a joint research center between First Institute of Oceanography (FIO) and University of Melbourne (UM), together with FIO and UM, organize second workshop to increase discussion and collaboration within these fields amongst the international community. First workshop was held on December 7-9, 2016 in Melbourne, Australia.

Registration

We invite abstracts with the focus in ocean surface waves research, especially in wave-coupled processes. This workshop will be conducted in plenary, with time reserved for discussion to identify key research questions within the international community.

If you are interested in the workshop, please send your **Abstracts with title, authors, and affiliations** to Dr. Zhenya Song (songroy@fio.org.cn) before **August 15, 2017**.

Organizers

- Professor Fangli Qiao
 - First Institute of Oceanography, China
 - Australia-China Centre for Maritime Engineering
- Professor Alexander Babanin
 - The University of Melbourne, Australia
 - Australia-China Centre for Maritime Engineering

Local Organizers

Dr. Zhenya Song
First Institute of Oceanography, SOA, China
Australia-China Centre for Maritime Engineering
E-mail: songroy@fio.org.cn
Tel: +86 532 88965937
Fax: +86 532 88965937



Third Asia-Australia Workshop on Ocean Waves and Wave Coupled Processes

October 22 – October 24, 2018
Hangzhou, China

Organizing Committee

- Prof. Fangli Qiao, Co-Chair, First Institute of Oceanography, China
Prof. Alex Babanin, Co-Chair, University of Melbourne, Australia
Prof. Dake Chen, Co-Chair, Second Institute of Oceanography, China
Prof. Changlong Guan, Ocean University of China
Prof. Takuji Waseda, University of Tokyo, Japan
Prof. Ian Young, University of Melbourne, Australia

Local Organizers

Associate Prof. Hailun He, Second Institute of Oceanography, China.

Email: hehailun@sio.org.cn

Prof. Zhenya Song, First Institute of Oceanography, China

Email: songroy@fio.org.cn

The 4th workshop on waves and wave-coupled processes

14-16, Feb. 2023, Uppsala, Sweden
Villavägen 16, Geocentrum, Uppsala University



The critical role of ocean surface waves in ocean and climate system is attracting more and more attentions. However, the modelling, analysis and observation of ocean surface waves and wave-coupled processes are still facing a number of challenges. After the previous three successfully workshops, Uppsala University (UU), University of Melbourne (UM), and First Institute of Oceanography (FIO) will organize the 4th workshop to increase discussion and collaboration within this field among the international community. This meeting will be conducted in plenary, with time reserved for discussion to identify key research questions within the international community.

- The workshop will cover the following sessions:
- Wave breaking and dynamics of ocean waves
 - Wave-current interactions
 - Air-sea fluxes and atmospheric wave boundary layer
 - Wave influences in the upper ocean
 - Wave-ice interactions
 - Waves in the large-scale air-sea system
 - Wave-coupled processes in extreme meteocean conditions
 - Wave-coupled effects in gas transfer, ocean biogeochemistry, other air-sea interface processes

Register your interest prior to 10 January 2023 at
(<https://www.geo.uu.se/taledarium/evener/7eventid=74074>).
Any queries should send to A/Prof. Lichuan Wu (lichuan.wu@geo.uu.se)

Keynote Speakers:

- Dr. Jean Bidlot, ECMWF, UK
Prof. William Drennon, University of Miami, USA
Prof. Aleksey Marchenko, University Centre in Svalbard, Norway
Dr. Mark McAlester, University of Oxford, UK
Prof. Anna Rutgersson, Uppsala University, Sweden
Prof. Victor Shiria, Keele University, UK

- Organizers: Professor Alexander Babanin
The University of Melbourne, Australia
Professor Fangli Qiao
First Institute of Oceanography, China
Local organizer: Associate Professor Lichuan Wu
Uppsala University, Sweden



The 5th workshop on waves and wave-coupled processes

10-12 April 2024, Reading, UK



Over the years, it has become clear that ocean surface waves play a critical role in the Earth System, modulating many surface exchanges as well as acting in both atmospheric and oceanic boundary layers. Accounting for their impact in weather and climate systems has recently attracted renewed interest. However, the actual modelling of wave-coupled processes, analysis and observation of ocean surface wave role in the Earth System still require much attention.

After the previous four successful workshops in Melbourne, Qingdao, Hangzhou and Uppsala, ECMWF will organise the 5th workshop on waves and wave-coupled processes in Reading, aiming to foster discussion and collaboration within this field among the wider community. This meeting will be conducted in plenary, with time reserved for discussion to identify key research and technological questions relevant for the uptake of relevant wave information in Earth System models.

Organisers:

- Dr. Jean-Raymond Bidlot
ECMWF, UK
Professor Alexander Babanin
The University of Melbourne, Australia
Professor Fangli Qiao
First Institute of Oceanography, China
Professor Lichuan Wu
Uppsala University, Sweden

Research themes and keynote speakers:

- **Dynamics of ocean waves**
Prof. Nobuhito Mori, Kyoto University, Japan
- **Air-sea fluxes and atmospheric wave boundary layer**
Dr. Peter Janssen, ECMWF, UK
- **Wave influences in the upper ocean**
Prof. Øyvind Brevik, University of Bergen, Norway
- **Wave-ice interactions**
Erick Rogers, U.S. Naval Research Laboratory, U.S.A.
- **Wave-current interactions**
Dr. Trine Hestnes, Norwegian Meteorological Institute, Norway
- **Wave-coupled processes in extreme conditions**
Prof. Shuyi Chen, College of the Environment University of Washington, U.S.A.
- **Wave-coupled effects in gas transfer and aerosol production and other air-sea interface processes**
Sophia Brunner, Laboratoire d'arologie, France
- **Coupling strategies**
Dr. Hendrik Tolman, NOAA, U.S.A.

Register your interest prior to 1 March 2024
<https://events.ecmwf.int/event/364/registrations/240>
Any queries should be sent to: events@ecmwf.int

Melbourne
2016

Qingdao
2017

Hangzhou
2018

Uppsala
2023

Reading
2024

Programme

- We want to foster discussion.
- At the end of each day, there will be a one-hour discussion session.

Side story: how did my interest in wind and waves started

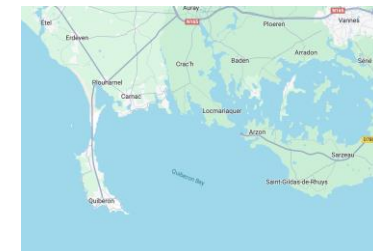
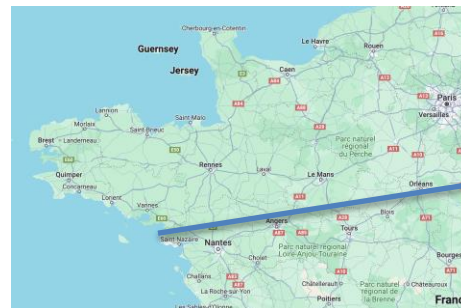


World Championship 420 class, Nieuwpoort, Belgium, 1972

Side story: how did my interest in wind and waves started



World Championship 420 class, Quiberon, France, 25 August 1980, mid morning



Side story: how did my interest in wind and waves started



World Championship 420 class, Quiberon, France, 25 August 1980

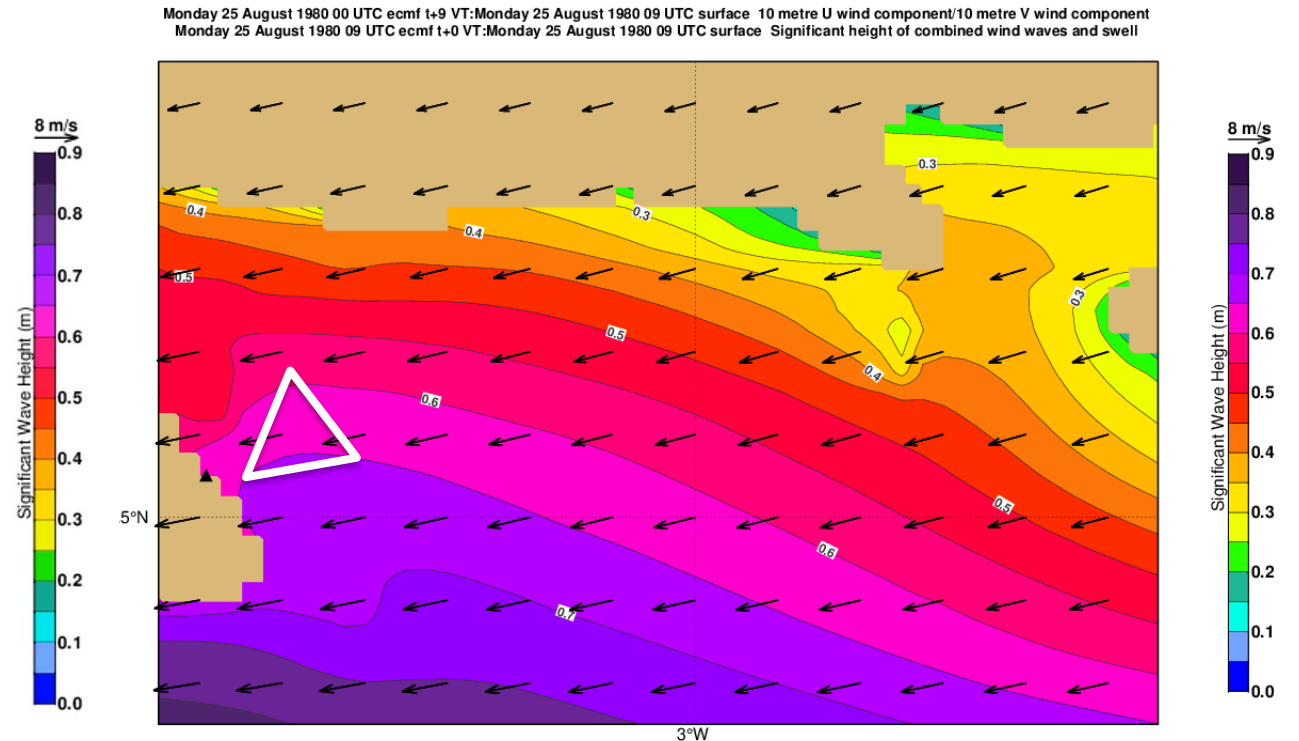
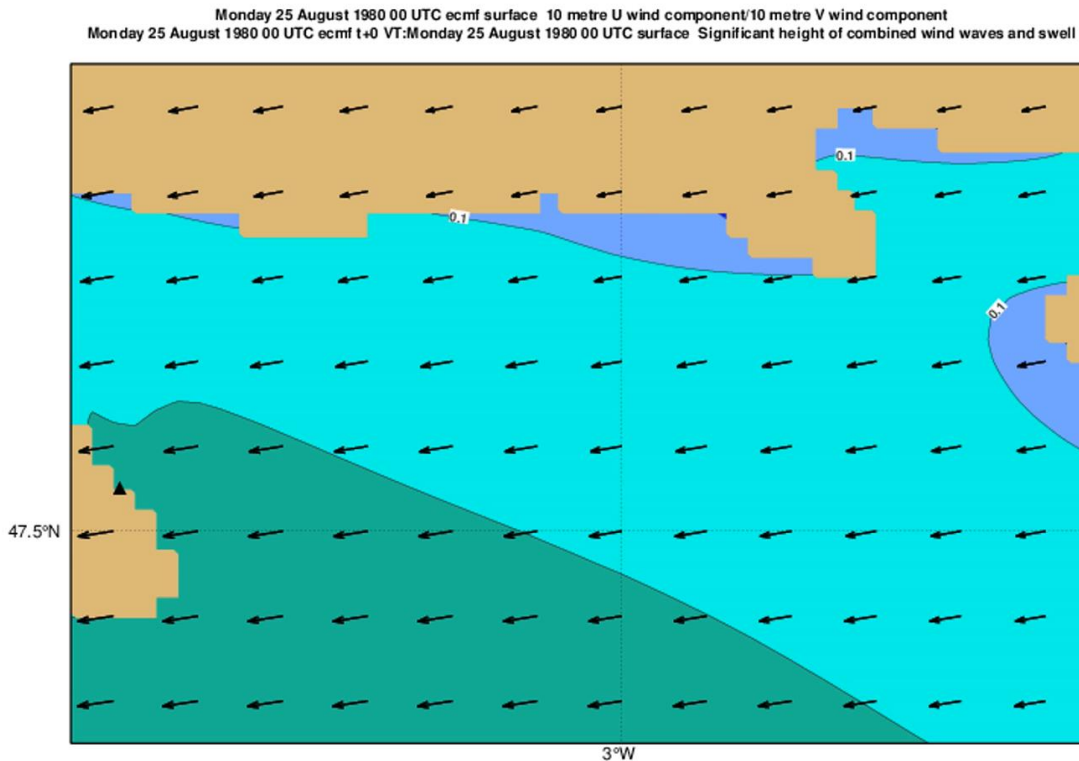
BUT,
We never finished the race,
because the bow got into a wave, and
as my dad tried to correct course,
The rudder snapped....

Never underestimate waves!



Side story: how did my interest in wind and waves started

Significant wave height (colour shading) and
10m wind (arrows)

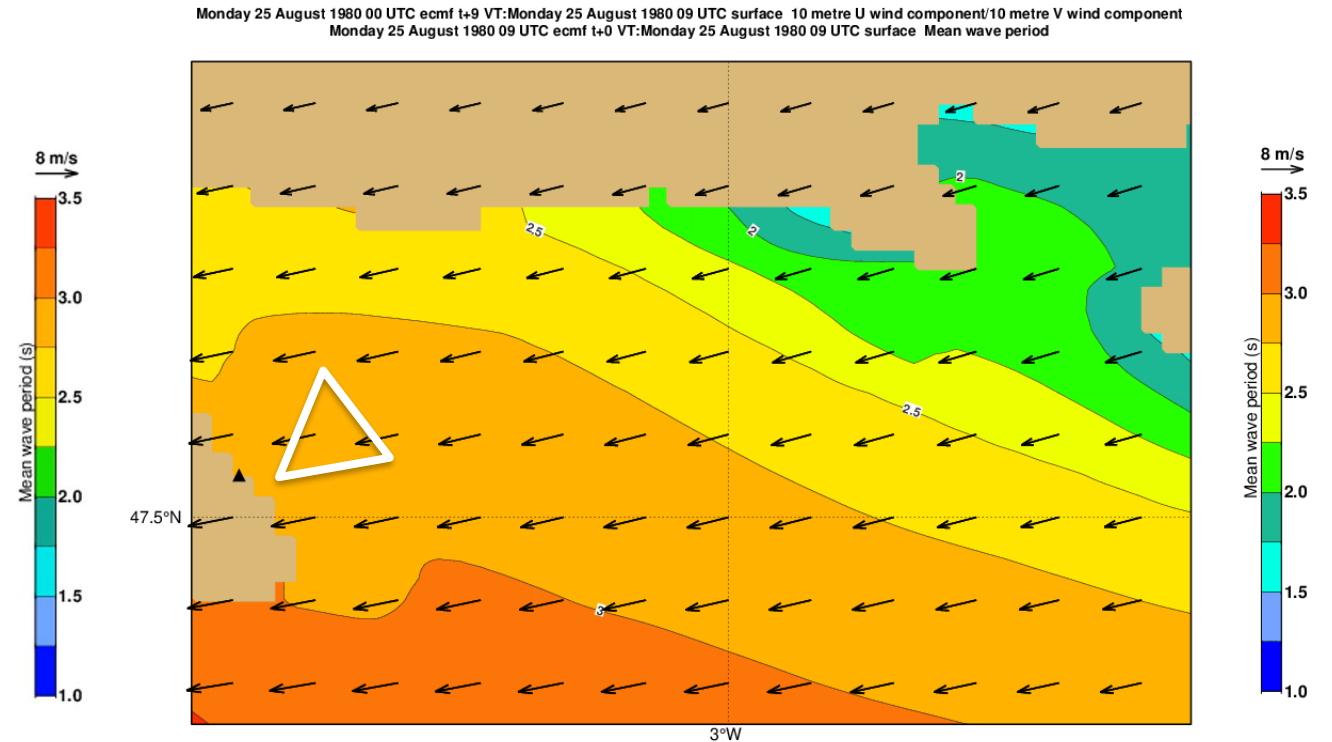
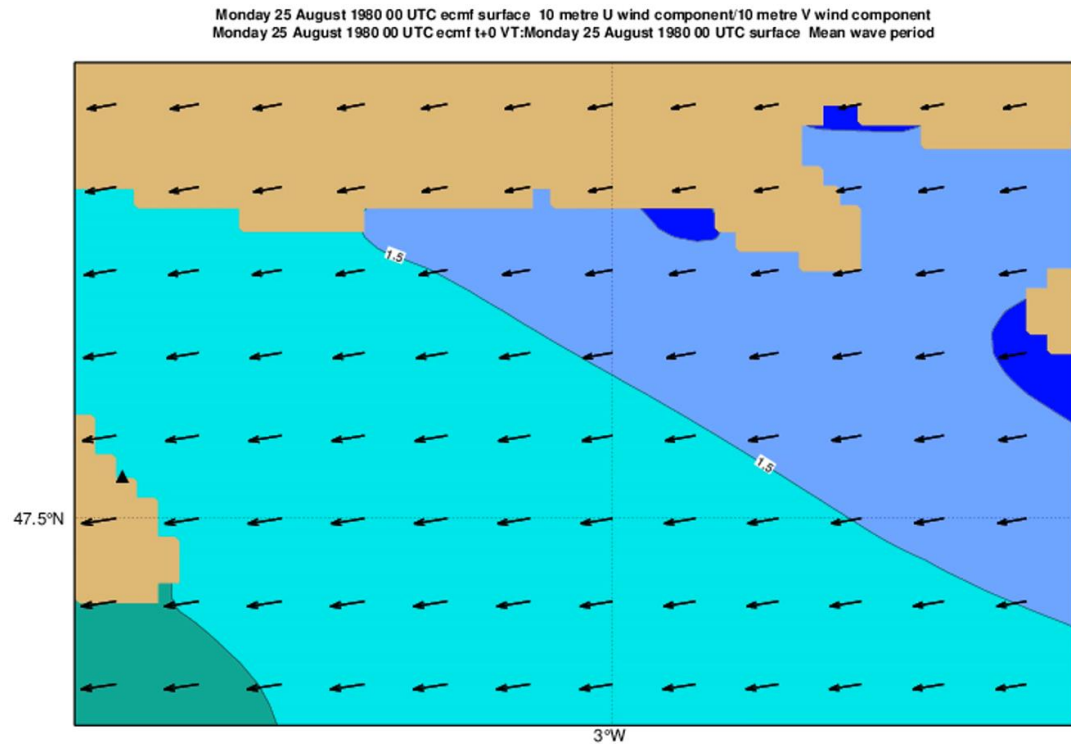


World Championship 420 class, Quiberon, France, 25 August 1980

Stand alone ecWAM, local area on $0.005^\circ \times 0.005^\circ$ grid
with hourly forcing from Tco2559 (4.4 km) short range forecast
initialized from ERA5 on 25 August 1980 0 UTC.

Side story: how did my interest in wind and waves started

Mean wave period (colour shading) and
10m wind (arrows)



World Championship 420 class, Quiberon, France, 25 August 1980

Side story: how did my interest in wind and waves started



Have a good meeting !