



EUMETSAT/ECMWF NWP-SAF satellite data assimilation training

Introduction to training

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European Centre for Medium-Range Weather Forecasts (ECMWF)

Three sites: one unique role

ECMWF's role is to address the critical and most difficult research problems in medium-range NWP that no one country could tackle on its own



EUMETSAT/ECMWF NWP-SAF Satellite Data Assimilation

11-15 March 2024

	Monday 11 March	Tuesday 12 March	Wednesday 13 March	Thursday 14 March	Friday 15 March
09:30-10:45	Welcome and introductions Sophie Marsden, Students, Lecturers	The detection and assimilation of clouds in infrared radiances Chris Burrows	GNSS Radio Occultation: principles and NWP use Katrin Lonitz	Satellite information on the land surface Patricia de Rosnay	Satellite wind information on the ocean surface (Scatterometer & Altimeter) Giovanna De Chiara
10:45-11:15	Group Photo		<i>Coffee break</i>		
11:15-12:30	Theoretical background (1) What do satellites measure? Tony McNally	The infrared spectrum: measurement, modelling and information content Chris Burrows	GNSS Radio Occultation: extended applications Sean Healy	Microwave applications: clear sky temperatures, cloud and rain detection and assimilation Alan Geer	Wind information from satellites (Atmospheric Motion Vectors) Francis Warrick
12:30-13:30	<i>Lunch break</i>				
13:30-14:45	Theoretical background (2) Data assimilation algorithms, key elements and inputs Tony McNally	Future evolution of satellite observing systems Stephen English	Bias correction methods for satellite data and observation monitoring Niels Bormann	Satellite Data Assimilation of Atmospheric Composition Melanie Ades	Final Discussion, Q&A Panel of lecturers
14:45-15:00	<i>Coffee break</i>				
15:00-16:15	The microwave spectrum: measurement, modelling and information content Alan Geer	Wind information from Aeolus Michael Rennie	Observation errors for satellite data assimilation Niels Bormann	Background errors for satellite data assimilation Tony McNally	
16:15-16:30	<i>Comfort break</i>				
16:30-17:30	Q&A for the first day Tony McNally Welcome drink	Practical: implementation of Radiative Transfer for operational NWP, Marco Matricardi & Tony McNally		Practical: implementation of radiance data assimilation	

Icebreaker

Certificate of attendance & course material

- Presentations will be available via course website:
 - <https://events.ecmwf.int/event/375/timetable/>
- Certificate of attendance awarded at end of course

The screenshot shows the ECMWF website interface. The top navigation bar includes 'Home', 'About', 'Forecasts', 'Computing', 'Research', 'Learning', and 'Publications'. Below this, there are sub-sections for 'Training', 'Workshops', 'Seminars', and 'Education material'. The main content area displays the title 'Training course: EUMETSAT/ECMWF NWP-SAF satellite data assimilation'. On the left, a sidebar menu lists 'Overview', 'Code of conduct', 'Timetable', '2023 Covid-19 Health and Safety Guidance', 'Accessibility', and 'Contact'. The 'Timetable' section is active, showing a schedule for Monday, 11 March. The schedule includes three sessions: a welcome and introductions session from 09:30 to 10:45, a coffee break from 10:45 to 11:15, and a theoretical background session from 11:15 to 12:30. A dropdown menu for selecting a timezone is set to 'Europe/London'.

Monday, 11 March	
09:30 → 10:45	Welcome and introductions Speakers: Lecturers and Participants, Sophie Marsden (ECMWF) Slides
10:45 → 11:15	Coffee break
11:15 → 12:30	Theoretical background (1): What do satellites measure? Speaker: Tony McNally (ECMWF) Slides

The certificate is titled 'Training Course' and is issued by ECMWF (The European Centre for Medium-Range Weather Forecasts) and NWP SAF (Numerical Weather Prediction). It certifies that 'XXXXX' participated in the 'EUMETSAT/ECMWF NWP-SAF Satellite data assimilation' course, which was held at ECMWF on 11 - 15 March 2024. The certificate notes that the course consisted of 27 hours of lectures and practical sessions. It is signed by Andrew Brown, Director of Research, on 15 March 2024. The ECMWF logo is visible in the bottom right corner of the certificate.

General Housekeeping

Access to Centre

- Please sign in/out each day at reception

Personal belongings

- Do not leave any personal belongings at ECMWF outside office hours.
- We recommend that you do not leave valuables unattended in the classroom or any other part of the building.
- ECMWF will not take any responsibility for items lost at the premises.

Smoking

- Smoking is not allowed inside the building. Please ask at Reception Desk and you will be directed to the outside smoking area.

Enquiries

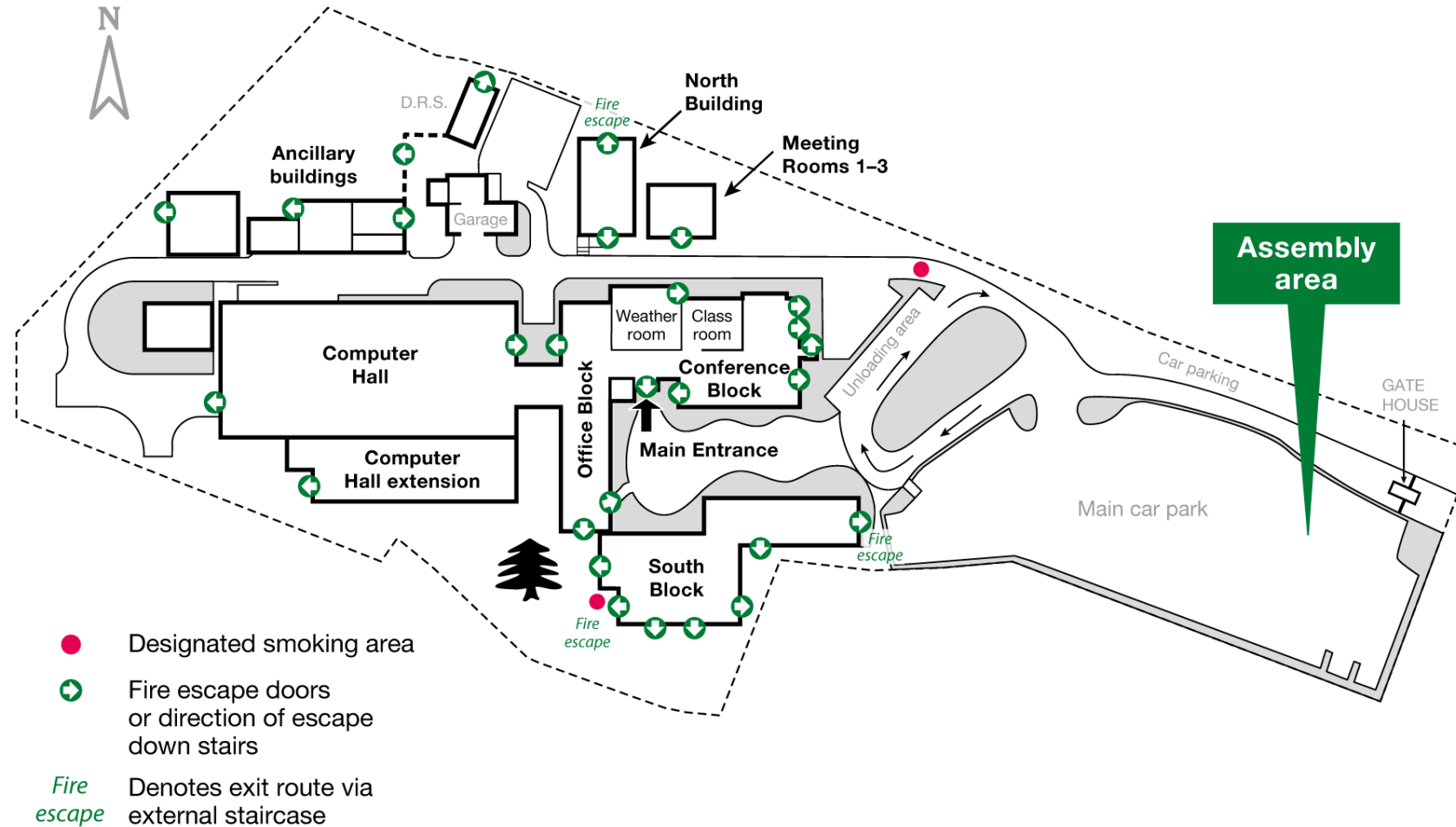
- If you have any questions, please contact the Reception Desk who will liaise with the course organisers.

Make the most of the training!

- There are no stupid questions!

General Housekeeping

Fire Escapes and Assembly Area



Visitor WiFi

Follow these steps to use the visitor WiFi.

1. From the list of available SSIDs, select "ECMWF-Visitors-Self-Register"
2. Enter your details in the appropriate boxes on the registration screen and press the Register button.
3. You will be redirected to a page that informs you of a successful registration and provides your personal Access key.
4. Select "ECMWF-Visitors" from the list of available SSIDs and enter the Access key to connect.

Restaurant

- The restaurant provides the following daily services:
 - Light breakfast from 08:00
 - Lunch: hot counter choices, salads, sandwiches, soup and desserts.
- Please speak to the restaurant staff if you have any special dietary requirements.
- The restaurant can only accept chip and pin and contactless card payments.
- Coffee/tea will be supplied during the breaks as specified on the programme.



Good luck with the training!