



The  
Emergency  
Program

With the support of:

# FIRE ANALYSIS TRAINING

Understanding, forecast and communicate fire behavior and movement



## Pau Costa Foundation

The Pau Costa Foundation (PCF) is a non-profit organization established as a knowledge-exchange hub on wildfire management and, at the same time, an instrument for disseminating and understanding fire ecology.

PCF is the common platform that brings together experts from around the world in wildfires for research and management, facilitating the creation of knowledge and providing tools and techniques for the management of fires.

## The Emergency Program – TEP

TEP is an online training program on forest fire emergencies taught by the most powerful professionals in wildland fire. They base their teaching on their own personal experiences and reproduce the dynamics found in their specialty areas considering all the changes being seen in the real world.





## **Pau Costa Foundation's training and support approach**

Training of stakeholders and first responders is a key part of risk reduction. However, Pau Costa Foundation do not understand “training” in a traditional way, a group of people listening and learning from an expert instructor. We go beyond the traditional concept and refer to “training and support”, which aims at offering courses tailored to the needs and expertise of the stakeholders and firefighters, their current and future capabilities, site needs and a follow-up method to help them during the learning process.

A group of qualified trainers from the Pau Costa network are selected based on the course participants needs. Upon completion the participants would have developed high specific qualification to perform as Fire Behavior Analyst.



# FIRE ANALYSIS TRAINING

Understanding, forecast and communicate fire behavior and movement

The objective of the course is to provide tools and knowledge so that operational commanders and managers can anticipate the behavior and evolution of a forest fire and be able to design strategies and tactics based on such anticipation, improving the efficiency of operations and safety.

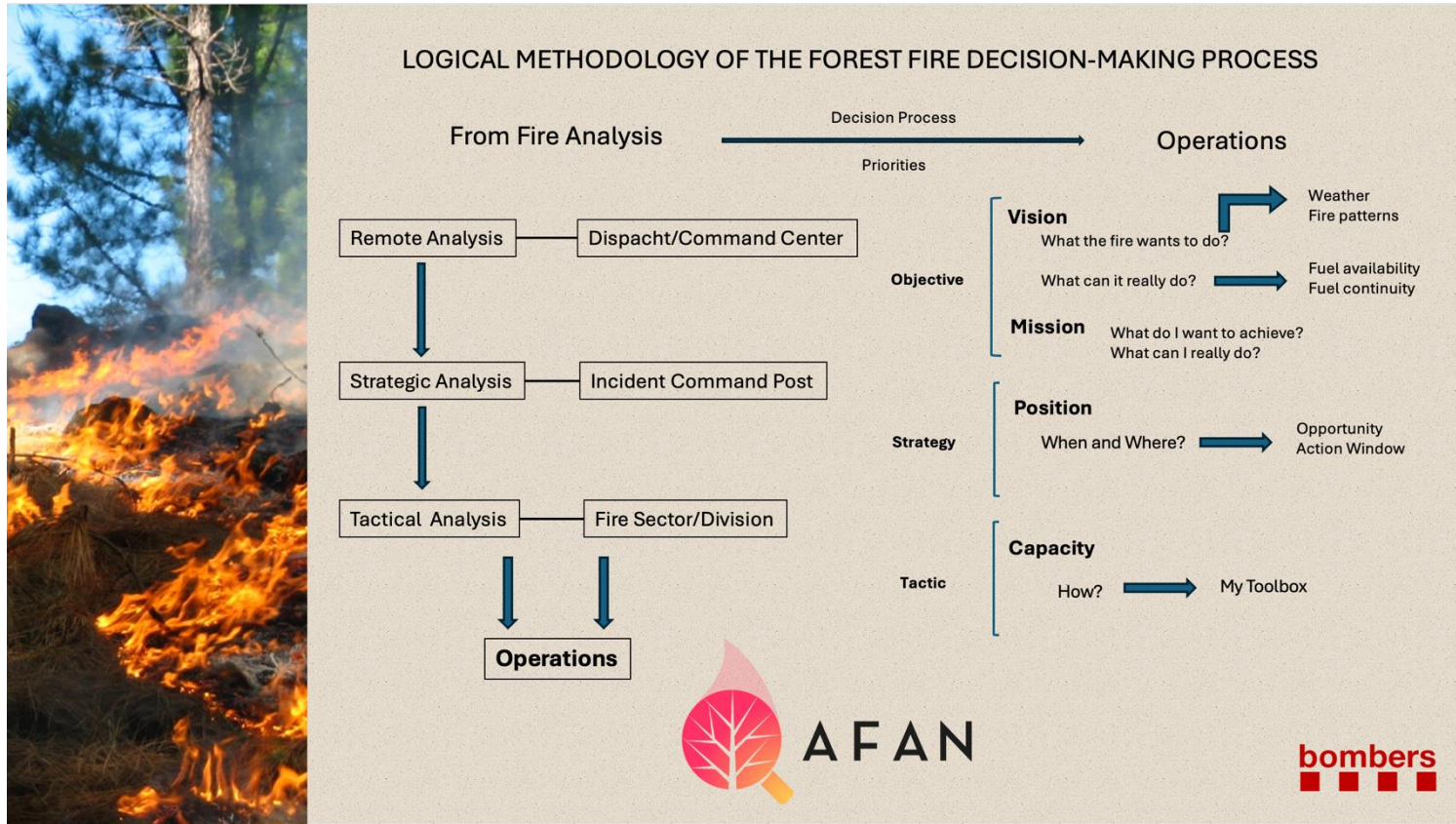
Training in fire behavior analysis allows understanding the dynamics of fires and their evolution, to assess emergency and safety. The objective of this module is to advance in the knowledge of the analysis of the fire behavior of a forest fire, in such a way that it generates a technical improvement in the prediction of the evolution of the forest fire and allows the managers of emergency teams to anticipate its evolution and plan strategies safer and more effective attacks.

## Specific Objectives:

- Obtain the analytical skills needed to plan fire suppression operations on a designated area.
- Achieve analytical skills to identify potentials and priorities in forest fires.
- Analyze the fronts of the fire and learn to identify and communicate the behavior of the forest fire, as well as the task involved in monitoring and assessing the fire's behavior in the work area.



The Pau Costa Foundation led the European [Advance Fire Analysis Network](#) project, with one of its key objectives being the development of [Guidelines for fire analyst competencies and skills](#). These guidelines have been used to design the course content and exercises, ensuring that our training aligns with a broad consensus on the essential characteristics and capabilities required for fire analysts at a European level.



**AFAN**  
Advanced Fire Analysis Network

Weather Data, Earth Observations, GIS TOOLS, Lessons Learnt

Fire analysts are **active resources** to be deployed during emergencies and **assess incident commanders** in decision-making

As a result, **strategical, tactical and operational vision** improves, overall increasing the **safety of crews** during emergency management

AFAN **strengthens and empowers** networks by learning together and **harmonising methodologies**

Fire analysts collect fire information and develop expertise to transform it into **knowledge**. This is **shared between networks** based on trust, commitment and confidentiality

PAU COSTA FOUNDATION, bombers, D.R.E.A.M. ITALIA, ENSOSP, VALABRE, Gwasoneth Tân ac Achub De Cymru, South Wales Fire and Rescue Service

European Union Civil Protection

# TRAINING METHODOLOGY



## Putting Knowledge into practice

Through exercises and real practical cases, we help the student put knowledge into practice in a simulated environment.

Practical Training Exercises

## Acquisition of knowledge through real stories

Through different face to face and online modules we will review concepts and acquire new knowledge about fire analysis methodology. Explanatory classes will help understand the applicability of the knowledge in the decision-making process.

Knowledge and Experience

\*Online training



TEP

INCENDIOS FORESTALES



\* Participants will have access to the TEP online training program designed for this course weeks before starting the face-to-face part.

# TRAINING PROGRAM

## FIRE ANALYSIS TRAINING

COURSE SCHEDULE	29th November	30th November	1st December	2nd December
		<b>Understanding what the Fire can and wants to do</b>	<b>Operational Reasoning. "What do I want and what can I do about the fire?"</b>	<b>Tactical Analysis</b>
8:00 - 9:00	Course Introduction. AFAN Guidelines	<b>Module 3:</b> Understanding my response limits. What do I want and what can I do?	<b>Module 5:</b> Tactics: Position and Capacity	<b>Module 7:</b> Tactical Architecture. Examples
9:00 - 10:00				
10:00 - 11:00	<b>Module 1:</b> Understanding how a fire spreads. What the fire wants to do?	<b>Module 4:</b> Understanding what I can do. My suppression toolbox	<b>Module 6:</b> The concept of potential polygons	<b>Module 8:</b> Representation and communication of the analysis carried out on a fire. Operational analysis reports and mapping.
11:00 - 11:30	Break	Break	Break	Break
11:30 - 12:30	<b>Module 1:</b> Understanding how a fire spreads. What the fire can do?	<b>Module 4:</b> Understanding what I can do. My suppression toolbox	<b>Module 6:</b> The concept of potential polygons	<b>Module 8:</b> Representation and communication of the analysis carried out on a fire. Technological tools and GIS projects
12:30 - 13:30	<b>Module 2:</b> Understanding how a fire spreads. Campbell prediction System	<b>Module 4:</b> Understanding what I can do. Action Window	<b>Module 7:</b> Tactical architecture, the concept	<b>Module 9:</b> 2023 Chile case
13:30 - 15:00	Break	Break	Break	Break
15:00 - 16:30	Exercise on fire pattern identification. Digital Sand Table (DST)	Exercise. Digital Sand Table (DST)	Polygons exercise (DST)	Final Exercise
16:30-18:30	CPS Exercise. Digital Sand Table (DST)	Exercise. Digital Sand Table (DST)	Exercise	

## FIRE ANALISYS TRAINING

Risk management phase	Response
Addressed to	Fire services, Fire weather specialist, Fire Behavior analyst
Format	Online and face to face
Duration	10 hours online and 32 hours in person (42 h in Total)
Description	Learn how to read, predict and communicate the behavior and movements of forest fires. This course teaches you to interpret fire data with the aim of anticipating future scenarios in the event of a forest fire emergency.
Cost*	<b>1.700 €</b>
Dates**	29 <sup>th</sup> of November till 2 <sup>nd</sup> of December 2024
Deadline to sign up	27 <sup>th</sup> of October 2024
Source	<a href="https://www.paucostafoundation.org/en/lineas-actuacion/intercambio-de-conocimiento/">https://www.paucostafoundation.org/en/lineas-actuacion/intercambio-de-conocimiento/</a> <a href="https://www.emerprogram.com/en">https://www.emerprogram.com/en</a>
Number of participants *	25

\* The price includes airport transfer, lunches and dinners throughout the course and a social dinner in Berlin. The price does not include accommodation. There will be two options for participants' accommodation, in a hotel (75€ per night in share room) or in a bunkhouse (20€ per night). The accommodation selection will be made at registration, and we will take care of making the reservation.

\*\* Participants should arrive on November 28<sup>th</sup> and the course will end on the 2<sup>nd</sup> at 18:30pm. There is a possibility of staying the night of December 2<sup>nd</sup> and leaving on the morning of the 3<sup>rd</sup>.

\*\*\* For the course to be held there must be a minimum of 20 registered participants. If this minimum is not reached, the course will have to be cancelled.





## Where will the training be held?

@fire location on the Military training area Lehnin / Brück (Bundeswehr)

Training Room is called Seidlitzsaal, Adress: Beelitzer Straße 35 | D 14822 Brück

