

PREVENTING PROTECTING RESPONDING



European Cooperation and Collaboration to support Fire Investigation: the ENFIP Network and the EUFOFINET Project



Dr Robert Stacey
Northumberland Fire & Rescue Service
(United Kingdom)





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2. European Network for Fire Investigation and Prevention (ENFIP)
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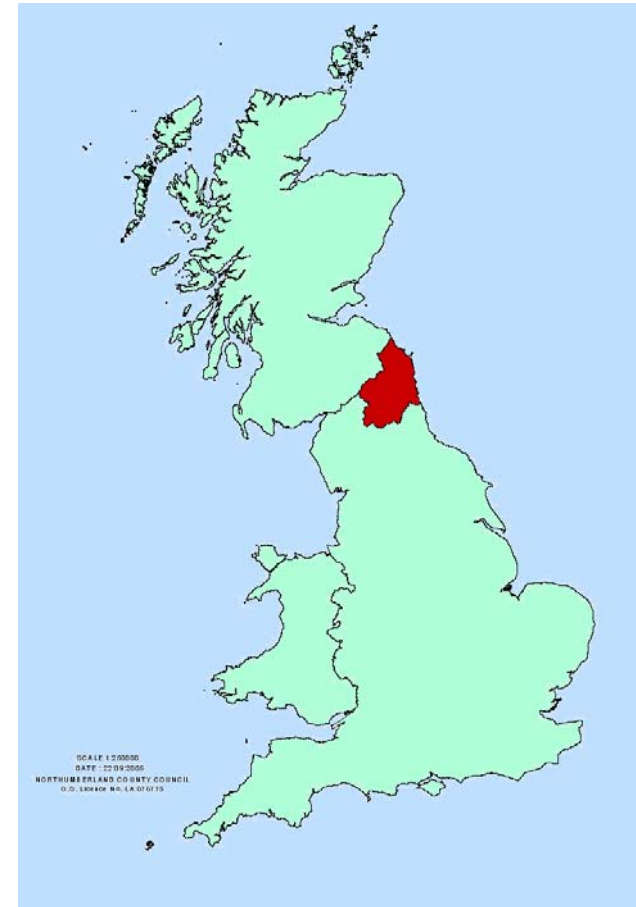


1. Introduction to Northumberland and Northumberland Fire and Rescue Service



Summary Facts

- Northumberland - Land area: 5013 km² ; population of 300,000
- 50% of population live in 5% of land area
- NFRS's Long Term Strategic Aim is to improve the social, economic and environmental well-being of residents
- Central to this is preventing fires and emergencies before they happen



Northumberland: A picturesque rural county...





PREVENT - PROTECT- RESPOND

Community Safety (PREVENTING)	Legislative Fire Safety (PROTECTING)	Emergency Response (RESPONDING)
<ul style="list-style-type: none">• Home Risk Assessments• Smoke Alarm Fitting• Schools Education Programme• Arson Task Force – Preventing and Investigating Arson• Smoke Detector Installation Partnerships• Crime and Disorder Reduction Partnerships (CDRPs)• Road Traffic Collision Reduction Initiatives• Youth Engagement Activities• Vulnerable Adults Initiatives	<ul style="list-style-type: none">• Regulatory Reform (Fire Safety) Order• Building Regulations• Petroleum Licensing• Licensing Applications• Residential Care Home Inspections• Inspection and Enforcement in Business and Commercial Premises	<ul style="list-style-type: none">• Fire• Road Traffic Collisions• Wildfire• Chemical, Biological, Radiation and Nuclear Incidents• Flooding Incidents• Urban Search and Rescue• Special Service Requests• Emergency Call Handling (Control Room)



NFRS's Involvement in EU Projects

- **The Fire Focus Project** (Fire Investigation Training) – 2012-2013. Co-financed by Leonardo da Vinci.
- **The EUFOFINET Project** (good practice for wildfires) – 2010-2012. Co-financed by INTERREG IVC. (www.eufofinet.eu)
- **The EVROS Project 2010** (flooding simulation exercise in Northern Greece). Co-financed by DG Environment.
- **The ANSFR Project** (accidental, natural and social fire risk) – 2009-2010. Co-financed by DG Environment/DG ECHO (www.fire-risk.eu)
- **The European Exchange of Best Practice in Arson Investigation and Prevention Project** – 2007-2008. Co-financed by DG Environment (<http://www.northumberland.gov.uk/default.aspx?page=1311>)



2. The European Network for Fire Investigation and Prevention (ENFIP)





Brief History

ENFIP was created in 2007 under the original name of ENAP

The European Exchange of Best Practice in Arson Prevention and Investigation Project

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European Commission Directorate-General for Environment Funding
January 2007 to December 2008



Northumberland
COUNTY COUNCIL

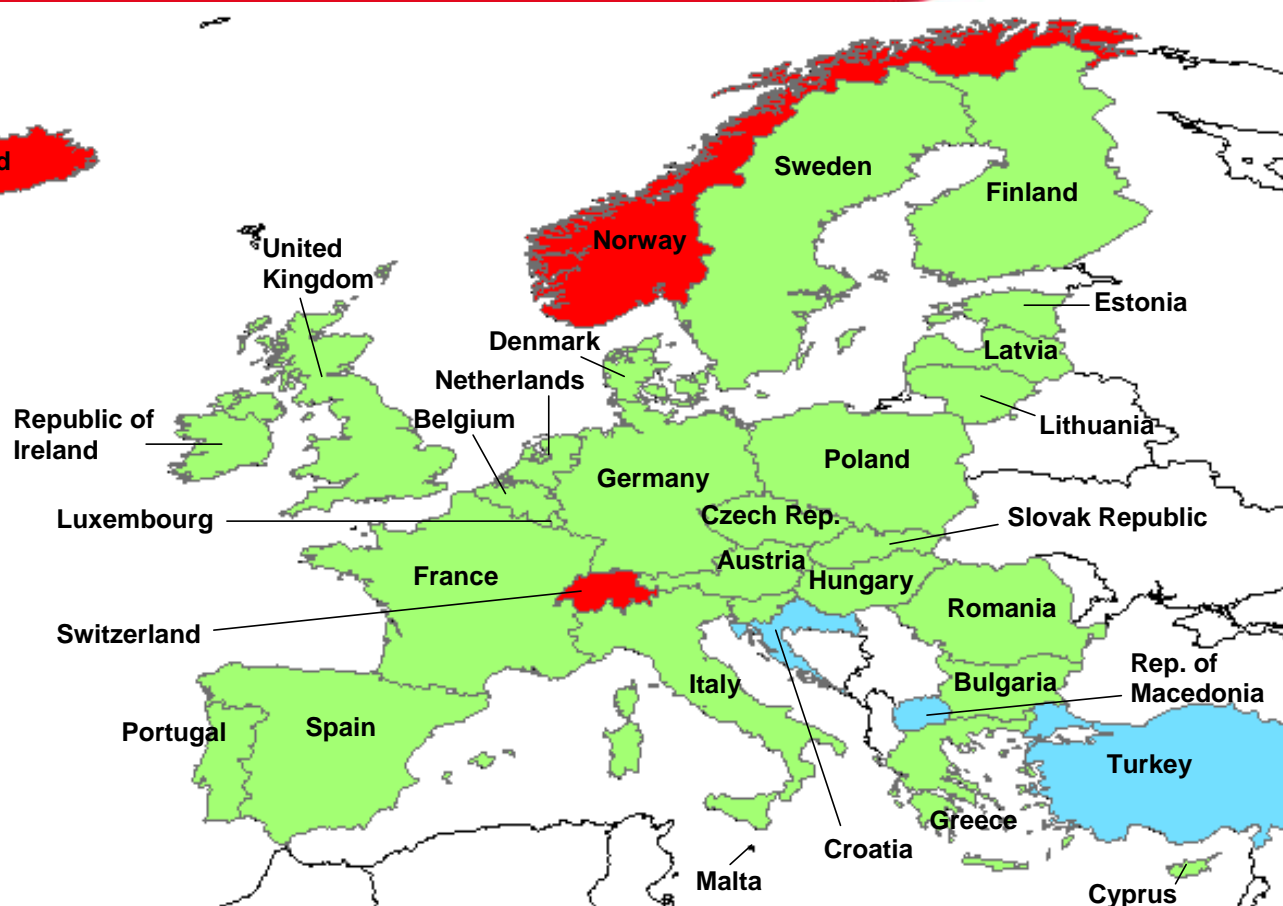


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Legend

- EU Member State
- EU Candidate Country
- Non EU Member State/
Candidate Country



Northumberland
COUNTY COUNCIL

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Fire Crime in Europe Conference 2008

15th and 16th Sept 2008 in Northumberland

18 speakers/presentations

3 workshop sessions led by 3 countries

174 delegates from 21 countries





Information sharing network for practitioners

Fire
Investigation

Fire
Prevention



ENFIP aims to:

1. Facilitate and stimulate international exchange of knowledge, information, experience and ideas.
2. Identify, inform and support good practice and good quality training material in fire investigation and fire prevention.



ENFIP also aims to:

3. Contribute to debates regarding the development and modification of fire investigation and fire prevention policy and legislative frameworks.
4. Work with all stakeholders to improve mutual understanding, maintain effective working relationships and emphasise the benefits of international and inter-agency co-operation.



In summary, ENFIP:

- Facilitates
- Connects
- Signposts



Fire Investigation and Fire Prevention Practitioners



Membership:

620 members from 37 countries Worldwide

No fees. Free to join and leave at any time.

Informal network, coordinated through email.



On-going Activities:

Circulation of monthly information bulletins

Support for conferences/seminars/meetings –
recruiting delegates from network

Receiving and forwarding requests for information
– **162 requests facilitated since 2007!**



Do you want to become a member of ENFIP?

If so, please email:

Robert Stacey, Chair ENFIP Working Group:
robert.stacey@northumberland.gcsx.gov.uk



and

Marco Dorresteijn, Vice Chair ENFIP Working Group:
Marco.Dorresteijn@politieacademie.nl



3. The European Forest Fire Network Project (EUFOFINET) and the *European Glossary for Wildfires and Forest Fires*





EUFOFINET Project Summary

- **Co-financing:** INTERREG IVC Programme (ERDF)
- **Duration:** October 2010 – December 2012
- **Aim:** to facilitate the transfer of good practice to improve national and regional policies for forest fire risk prevention and management

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PARTNERS



ACADEMIA GALEGA
DE SEGURIDADE PÚBLICA



ΠΕΡΙΦΕΡΕΙΑ ΗΠΕΙΡΟΥ
REGION OF EPIRUS



REGIONE
TOSCANA



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5 Themes of EUFOFINET

No.	Name of Theme	Lead
1	Wildfire Suppression Tactics	Northumberland Fire and Rescue Service (UK)
2	Prevention and Detection of Wildfires	Frederikssund-Halsnæs Fire and Rescue Service (DEN) and National Forest Center (SLO)
3	Cartography of Wildfire Risks and Hazards	CESAFOR (SPA)
4	Training and Simulation for Wildfire	ENTENTE (FRA)
5	Restoration of Land Burned by Wildfires	Office National des Forêts (FRA)



Key Deliverables

1. 8 Technical Workshops
2. 5 Technical Guides (one per theme)
3. Final Conference for European stakeholders
4. EUFOFINET Action Plans
5. European Glossary for Wildfires and Forest Fires



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EUFOFINET Technical Workshops

« Sharing knowledge and expertise »



Workshop 1 – May 2011

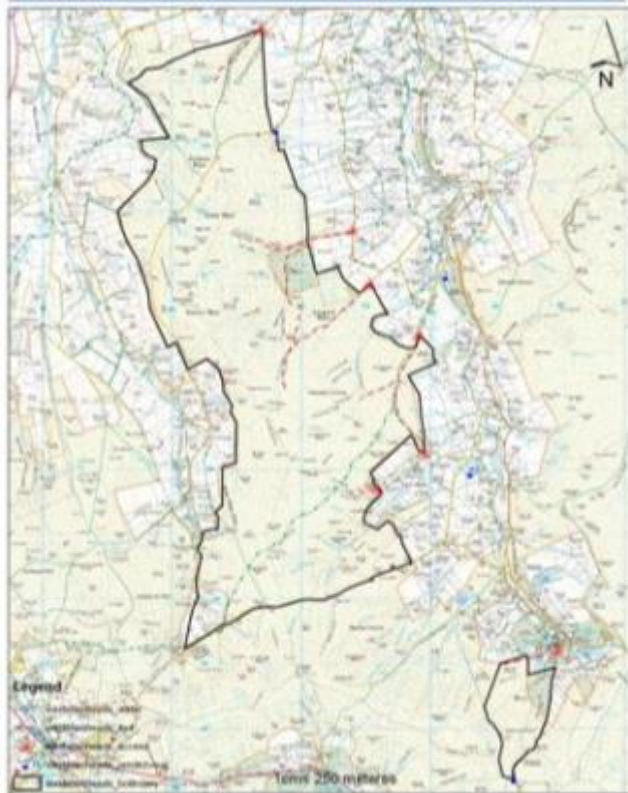
Aix-en-Provence (FRA) “Restoration”





Workshop 2 – Sept 2011

Frederikssund (DK) “Prevention”





Workshop 3 – Nov 2011

Aix-en-Provence (FRA) “*Training and Simulation*”



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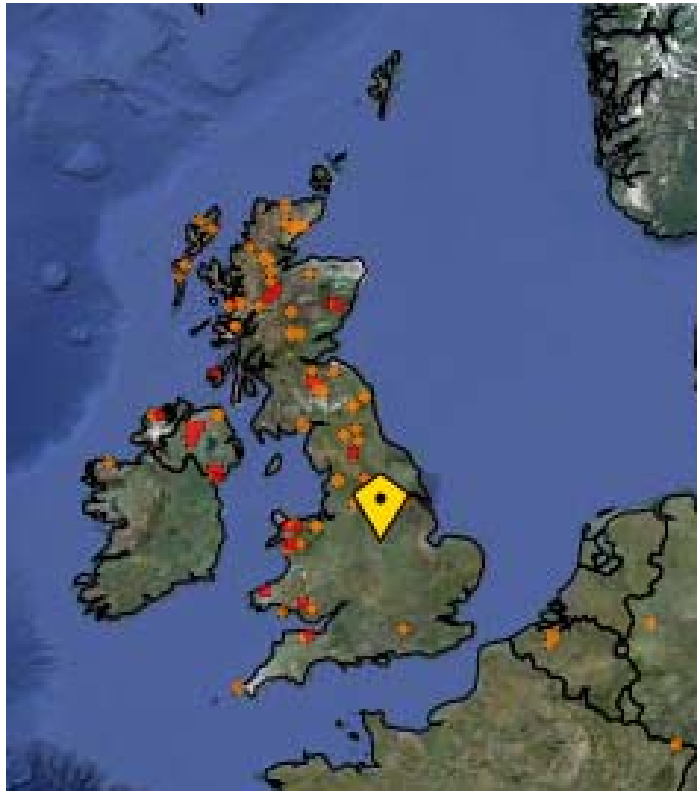
Workshop 4 – Jan 2012 **Athens (GRE) “Action Planning”**





Workshop 5 – Feb 2012

Leon (ESP) “Cartography”



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Workshop 6 – March 2012

Northumberland (UK) “*Wildfire Suppression Tactics*”



More than 40 delegates from 12 countries



Live Burn Exercise
Use of fire as a suppression tool



Workshop 7 – May 2012

Zvolen (SK) “Detection”





Workshop 8 – Oct 2012

Tuscany (ITA) “Action Planning”





European Glossary
for WILDFIRES AND FOREST FIRES
OCTOBER 2012 (1st Edition)



European Glossary for Wildfires and Forest Fires



- **Aim:** To develop a single European glossary of terminology for wildfire suppression practitioners .
- **Purpose:** To improve cross-border collaboration, joint-working and exchange of best practice
- **Collaborative work:**
 - Written by NFRS
 - Contributions from:
 - All EUFOFINET partners contributed
 - 80+ external experts



Design process for the Glossary

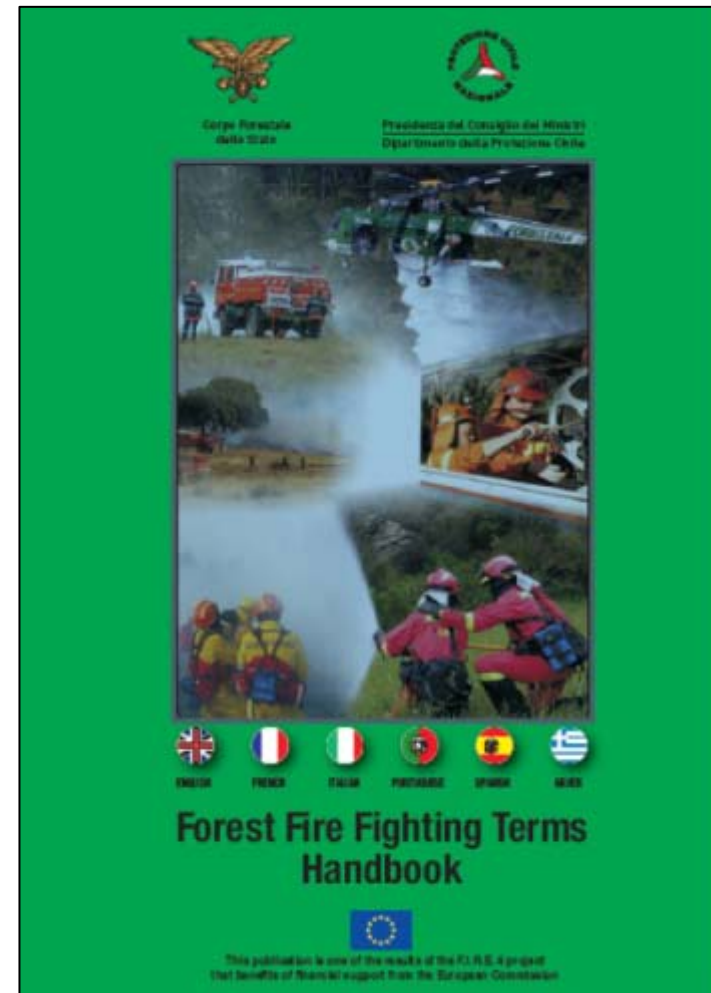
- NFRS evaluated 16 existing glossaries from across the World
- Made 15 recommendations
- Designed to specifically address a gap:
 - Existing glossaries for researchers or foresters
 - Existing glossaries from outside EU written for different contexts – terminology and definitions do not always transfer



Layout Inspiration

- “Forest Fire Fighting Terms Handbook” (EU F.I.R.E. 4 Project)
- Includes terms translated into 6 languages
- No definitions but terms are accompanied by photographs/diagrams

http://www.protezionecivile.it/cms/view.php?dir_pk=188&cms_pk=16469





Section 1 - Wildfire Environment

1. Fire Behaviour

2. Fuel

3. Topography

4. Weather





Section 2 - Wildfire Suppression Operations

5. Tactics

6. Safety

7. Incident Command

8. Aerial Operations

9. Equipment





Section 3 - Wildfire Preparation Prevention and Recovery

10. Training and Simulation

11. Prevention & Detection

12. Fire Investigation

13. Restoration





Chapter 14 – Fire Investigation

Fire Investigation: "The process of determining the origin, cause, and development of a fire."
(NFPA 921)



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Chapter 14 – Fire Investigation

Term	Definition															
Accelerant	Material used to initiate or increase the spread of a fire. This will often be an ignitable liquid.															
Access	A point of entry, exit and/or route to an incident location.															
Advancing fire	This is fire progression associated with the head (front) of the fire. Fire behaviour in this area is usually characterized by more intense burning, increased flame height and length and more rapid rates of spread. It will usually occur when a fire burns with the support of one or more forces of alignment (for instance, wind, slope, or aspect). Fire direction indicators in this area are generally large and very noticeable (i.e. macro indicators). ¹⁵²															
Angle of char indicators	<p>The angle at which standing fuels (such as trees or fence poles) are burned. Angle of char is an indicator of the direction of fire spread. The angle that the fuel is burned will depend upon whether the fire burned with or without the support of one or more factors of alignment.</p> <p>The table below provides a summary of the characteristic angles of char produced by a fire burning with or without the support of the slope and wind.¹⁵⁴</p> <table><tr><th>Direction of fire spread</th><th>Wind direction</th><th>Angle of Char</th></tr><tr><td>Upslope</td><td>Upslope</td><td>Greater than the angle of the slope.</td></tr><tr><td>Downslope</td><td>Upslope</td><td>Parallel to the angle of the slope.</td></tr><tr><td>Downslope</td><td>Downslope</td><td>Greater on the downslope side of the fuel.</td></tr><tr><td>Upslope</td><td>Downslope</td><td>Parallel to the angle of the slope, with some additional damage to the fuel on the upslope side.</td></tr></table>	Direction of fire spread	Wind direction	Angle of Char	Upslope	Upslope	Greater than the angle of the slope.	Downslope	Upslope	Parallel to the angle of the slope.	Downslope	Downslope	Greater on the downslope side of the fuel.	Upslope	Downslope	Parallel to the angle of the slope, with some additional damage to the fuel on the upslope side.
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Area of origin	General geographical location within a fire perimeter where the point of ignition is believed to be located. See also: <ul style="list-style-type: none">General Area of OriginSpecific Area of OriginPoint of Origin															
Arson	The wilful or malicious burning of a fuel with criminal intent to cause damage. ¹⁵⁴															
Authentication of evidence	The process by which a piece of evidence is proven to be genuine.															
Authority	The legal right to attend and complete actions and assignments at a wildfire incident. Within the context of fire investigation, it is the legal right of an individual or organisation to investigate a fire.															
Backing fire	A lower intensity fire or part of a fire which burns against the wind and/or down slope.															

¹⁵² This is an amendment from the definition of "advancing fire" provided within the National Wildfire Coordinating Group (2005) *Wildfire Origin and Cause Determination Handbook* (National Wildfire Coordinating Group Fire Investigation Working Team, USA) p.7.

¹⁵³ Based on information presented at <http://www.winterfire.org/features/wildfires2.asp> and within NFPA (2011) *NFPA 921 - Guide for Fire and Explosion Investigations* (NFPA, Quincy, Massachusetts). Appreciation is also expressed to Prof. Vittorio Leone for his assistance in compiling this information.

¹⁵⁴ "Arson" is a legal term and as such its precise definition varies between jurisdictions/countries.



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Chapter 14 – Fire Investigation

*Fire Investigation: "The process of determining the origin, cause, and development of a fire."
(NFPA 921)*



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- 12 pages
- 119 terms + definitions
- Includes terms related to:
 - Fire behaviour
 - Scientific method
 - Practical organisation
- Assistance from experts in:
 - Italy
 - France
 - Australia
 - USA




Electronic copy of Glossary publicly available
for download:

<http://www.northumberland.gov.uk/default.aspx?page=15546>

Newsletters:

[illegible]



Thank you for your attention!

Contact:

Dr Robert Stacey
Project Officer, Northumberland Fire and Rescue Service

Telephone: +44 (0)1670 621167

Email: robert.stacey@northumberland.gcsx.gov.uk