Vegetation Fire Data

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Vegetation Fires

• **Wildfires**
  – Forests, Grassland, Agricultural & Horticultural land, Heathland / Moorland, Green Infrastructure etc.

• **Prescribed Fires**
  – Prescribed burning operations
Scope of Vegetation Fires

Contingency planning phases:

• Preparedness
• Prevention
• Response (focus of most Fire Service data)
• Recovery (focus of most environmental data)
Why collect Wildfire data?

• Provides evidence for decision making
• Can be analysed
• Can support professional judgement
• Can be used for risk management
• Can be used to help partnerships
• Identify trends and correlation's
Considerations in Vegetation Fire Data

• International, national and local reporting (UK, EU and UN)
• Show the impact (positive and negative) of fires
• Reflect relevant land management and fire terms
• Simple and clear - must be understood by Fire Service & Land Managers
• Easy to complete
Past national data collection

Fire Service reporting systems:

• FDR 1 (Primary Fires)
  • Grassland and heathland
  • Other primary fires

• FDR 3 (Secondary Fires)
  • Grassland fires
  • Intentional straw and stubble fires
Number of FDR 1 & 3 Fires

- Grassland fires by year, UK, 1995-2004 (source: FDR3)
- Intentional straw or stubble fires by year, UK, 1995-2004 (source: FDR3)
- Primary grassland, heathland fires by brigade area and year, UK, 1995-2004 (source: FDR1)
- Other primary outdoor fires by brigade area and year, UK, 1995-2004 (source: FDR1)
FDR 1 & 3 by year

- Grassland Fires (source: FDR3)
- Intentional straw or stubble fires (source: FDR3)
- Primary grassland, heathland fires (source: FDR1)
- Other primary outdoor fires (source: FDR1)
Problems with FDR 1 & 3

- Limited breakdown of vegetation categories (grassland and heathland)
- Poor data recording? (Area, category types etc.)
- Limited reporting of FDR1 Primary Fires
- Poor comparison with Land Management terms
- Are the Fire fighters trained to report wildfire incidents? No
Incident Recording System (IRS)

- Developed by Department for Communities and Local Government (DCLG)
- Replaces FDR1 & 3
- Strong on structural fires
- Was weak on wildfires (but some parts have been addressed)
- National but some Fire Services using the own systems
- Software based recording system
- Live from 1st April 2009
UK Vegetation Fire Standard (UKVFS)

- Provides standardise terms for data recording between the Fire & Rescue Service and land managers
- Provides a glossary of terms
Scope of UKVFS

- Local Development Frameworks (Planning Policy)
- Land Use
- Regional / Local Risk Register
- Resilience of local services
- Local Area Agreements
- LA Emergency Planning
- Community Fire Safety (CFS)
- Arson Task Force
- Wildfire Training
- Incident Command (ICS)
- Fire Investigation
- Integrated Risk Management Planning (IRMP)
- Incident Reporting System (IRS)
- Wildfire Training
- Contingency Planning
- Land Management Strategies
- Land Management Policy
- Land Management Planning
- Land Management Operations
- Vegetation Fire Recording
What does UKVFS cover?

1. Core Reporting Data
   • Incident / Operation Reference Number
   • Fire Dates and Time
   • Fire Location
   • Fire Size (Area burnt)
   • Cause
Fire Dates and Times

1. Date and Time of fire start (ignition point or origin) (estimated or actual)

2. Date and Time of call:
   a. Organisation
   b. Fire and Rescue Service

3. Date and Time of call out:
   a. Organisation
   b. Fire and Rescue Service

4. Date and Time of arrival:
   a. Organisations equipment and/or
   b. Fire and Rescue Service

5. Date and Time of fire fighting start

6. Date and Time of fire under control

7. Date and Time of incident closed

Wind direction
What else does UKVFS cover?

2. Impact Data
   • Environmental and Heritage
   • Access and Social
   • Economic

3. Improvement Data
   • Fire Behaviour
   • Fire Suppression
   • Fire Preparedness and Prevention
   • Fire Safety
IRS Property Types (Outdoor Fires)

- Standing crop
- Stacked/baled crop
- Woodland/forest – conifer/softwood
- Woodland/forest – broadleaf/hardwood
- Other Trees
- Straw/stubble burning
- Domestic garden
- Nurseries and market gardens
- Heathland/Moorland

- Grassland, pasture, grazing etc.
- Scrub land
- Railway trackside vegetation
- Roadside vegetation
- Canal/riverbank vegetation
- Park
- Wasteland
IRS Item First Ignited

- Trees
- Crops
- Grassland, Heath, Scrub
- Straw / Stubble
- Leaves
- Hedge
- Other
IRS Incident Types

Fire in the Open - Small

- A fire in the open who’s area burnt covers less than 1 hectare (<10,000 square metres), a small area or involves small quantities of combustible materials. Single tree/s, Bushes, Scrub, Grass, Amenity area.

Examples:
- Bush, single tree, hedge, allotment, back yard, grass, garden fire, gorse, bonfire, common, Copse, embankment, field, grass, manure, park, park/playground equip, playground, shrubs, straw, stubble, waste, wasteland.

Fire in the Open - Large

- A fire in the open who’s area burnt covers greater than 1 hectare (>10,000 square metres), a large area or involves large quantities of combustible materials. Large open areas, Standing crops, Forests, Woodland, Game shooting heath/moor, Military Training Area (Live firing and troop training), Recreation Sites and Nature Reserves.

Examples:
- Hay stack, Bales of Hay / Straw, Standing Crop, Corn field, forest fire, heath, moor, moorland, moors, peatland, plantation, wood, woods
Other IRS Wildfire elements

• Type of FRS vehicle (4x4 Pump)
• Main action taken by FRS personnel?
• Type of Fire fighting equipment used?
• Cause of fire
Use of IRS Wildfire Data

• Annual CLG Fire Report
• Integrated Risk Management Planning (IRMP) - Evidence based decision making
• Partnership working
• Management of resources and staff
• Effectiveness of equipment and staff
• National performance management
Integrated Risk Management Planning (IRMP) 2007

• IRS Data for Risk Analysis
IRMP Wildfire Impact on Assets

- **Major Infrastructures** – How badly these may be affected is key when planning
- **Environmental Assets** – Fire can be an asset or a catastrophic event for the same ecosystem depending on several factors including the time of year that it occurs
- **Social Assets** – Fire can disrupt damage or destroy the asset and have a range of further impacts on the community
- **Economic Assets** – Fire can have a direct or indirect effect on the asset and can have further impacts and long term effect
- **Likelihood of Fire** – The likelihood of an event occurring is a key element in any risk assessment.
Review of Problems

• United Kingdom has a poor understanding of vegetation fires in terms of:
  – Data recording
  – Impacts (Social, Environmental and Economic)
  – Preparedness, Prevention, Response and Recovery
  – Partnership and cross border working
  – Strategy and Action required

• Important to consider the full scope of vegetation fires and not to work in silos of:
  – Corporate Sectors or individual bias
  – Ecological, Social or Financial lobbying
  – Research and Politics
Questions

• **Why** has the land management sector failed to support Fire Services with data?

• **What** can we do to support Fire Services with data for the future?

• **Who** should be responsible?

• **When and how** should they be doing this?
Responses from Fire Service

- Partnership working (training, planning etc.)
- Data is accessible / relates to all sectors (Fire, Land, Governance).
- Cost of wildfire incidents (Economic, Social and Environmental)

March 2009 - Six Fire and Rescue Services on Northumberland FRS Advanced Wildfire Training course.
Many thanks for listening

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