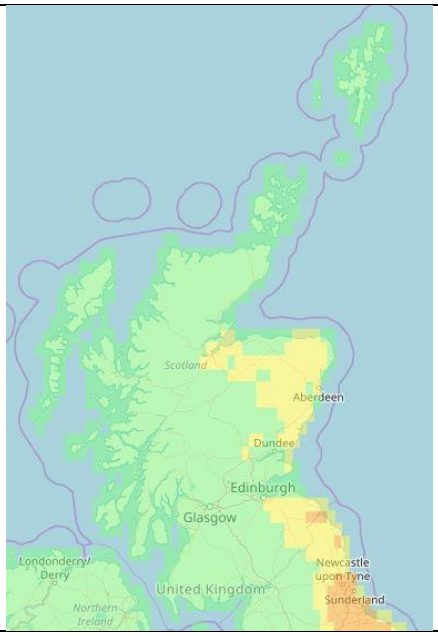
Wildfire Danger Assessment for Wednesday 8th July to Tuesday 14th August 2018 for Scotland.

Wildfire danger assessments are made on a broad area basis. For more local risk assessments both the seasonal condition of fuels and local weather conditions should be taken into account.

The fire danger assessment is HIGH for eastern Scotland until Saturday 11th August, then becomes LOW to 14th August. Central and western Scotland it is LOW 8th – 14th August.

Ignition potential – Fine Fuel Moisture Code

EFFIS Fine Fuel Moisture Code forecast 06/08/18 for 10/08/18	EFFIS Fine Fuel Moisture Code forecast 06/08/18 for 14/08/18
	

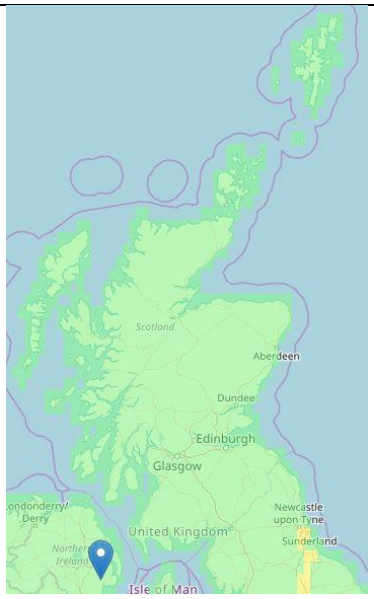
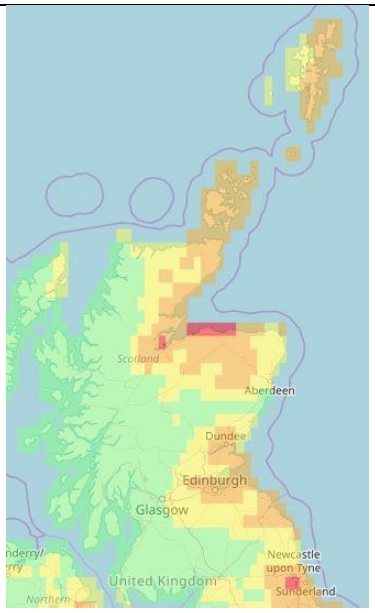
The EFFIS FFMC forecast for the period 06/08/18- 14/08/18 indicates a reducing ignition potential over the whole of Scotland.

Images courtesy of European Forest Fire Information Service (EFFIS)

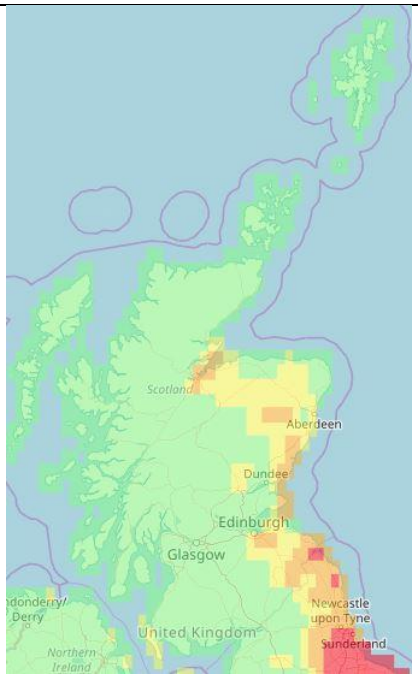
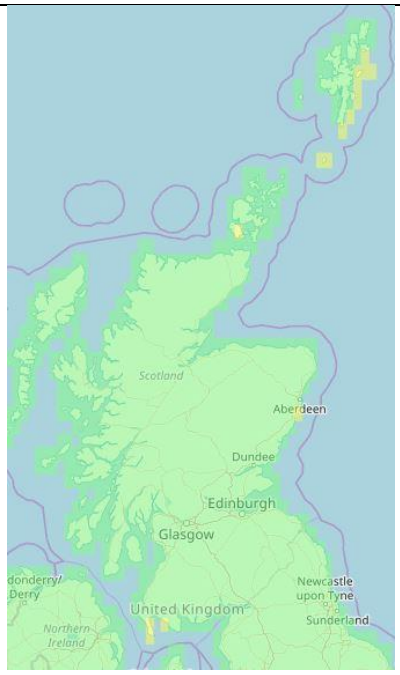
EFFIS FFMC Fire Danger class bands:

The scientific evidence indicates that significant numbers of wildfires often occur in the UK in the when FFMC is above 80. Any yellow area on the map indicates an FFMC of more than 83 and the brown areas are over 86 and red is over 89.

The condition of the fuels (vegetation) is not uniform over the country. Vegetation is still growing in the West. Grasses that cured significantly in the recent hot, dry weather, have started to grow again in many places. The moss and litter layer absorbed water from recent rain but will lose it again after 2-3 days without rain. Crops are ripening early everywhere.

EFFIS Duff Moisture Code forecast 06/08/18 for 14/08/18	EFFIS Drought Code forecast 06/08/18 for 14/08/18
	

The Duff Moisture Code (1.2cm - 7cm) and the Drought Code (7cm – 14cm) give us an indication of the dryness of the deeper organic soil layers. The DMC soil layer is moister due to recent rain. The Drought Code is still indicating dry soils at depth in the east.

EFFIS Initial Spread Index forecast 06/08/18 for 08/08/18	EFFIS Initial Spread Index forecast 06/08/18 for 14/08/18
	

The Initial Spread Index (ISI) is based on FFMC, plus an additional factor for wind. **This ISI forecast for the period 08/08/18 to 14/08/18 indicates the potential for fires to spread rapidly in eastern parts of Scotland, for the next few days, which reduces after 11th August.**

General weather forecast information:

There a few days of sun and showers then a series weather fronts crossing Scotland from the west to the east, bringing rain and cooler temperatures. In the east there are higher temperatures and lower humidity levels Winds across Scotland are moderate - strong westerly. Rain will cover the whole country by Saturday 11th August.

Discussion:

On Saturday heavy rain will dampen all but the deepest fuel layers virtually everywhere. From Saturday ignitions become very unlikely. The rain will reduce fire danger when and where it happens.

There are large areas of semi-natural vegetation, forest and grassland with last year's dead vegetation and cured vegetation from this year. In the east there is the potential for ignitions and significant fire behaviour for the next few days. Then there is a reducing ignition potential in all areas. Should a wildfire ignition occur it is likely low fire behaviour will occur, because of the increasing dampness of the grass, moss, and litter layers peat fuel. Should a fire occur in the next few days, it could smoulder in the deeper organic soils, and continue smouldering.

There have been a large number of crop fires in England over the last few weeks. As crops ripen in Scotland farmers need to be aware of the potential for fires to occur and take appropriate measures to prevent them.

Land managers in the east should start fire prevention and preparedness activities, put up HIGH FIRE RISK signs Wed - Friday but then should be able to remove them over the weekend. The messages to the public are that they should exercise caution **in eastern Scotland** Wednesday to Friday.

Fire Danger for period:

The fire danger for eastern Scotland from for Wednesday 8th August – Saturday 10th August is high but low in western Scotland. It will reduce rapidly to low for all parts of Scotland, when the rain arrives.

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Date 07/08/18

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Appendix A: Background information

The EFFIS system is based on the Canadian Fire Weather Index system, of which FFMC, DMC, DC & ISI are a sub-indices. FFMC looks at the dead fuel moisture of the litter layer on the soil surface. The Initial Spread Index (ISI) is FFMC plus a wind function. DMC & DC look are deeper soil moisture indices.

Table 1 EFFIS Five fire danger class bands:

	VERY LOW	**LOW**	**MOD**	**HIGH**	**VERY HIGH**
	Green	Yellow	Brown	Red	Black
FFMC	< 82.7	82.7 - 86.1	86.1 - 89.2	89.2 - 93	>= 93
DMC	< 15.7	15.7 - 27.9	27.9 - 53.1	53.1 - 140.7	>= 140.7
DC	< 256.1	256.1 - 334.1	334.1 - 450.6	450.6 - 749.4	>= 749.4
ISI	< 3.2	3.2 - 5	5 - 7.5	7.5 - 13.4	>= 13.4

EFFIS fire danger classes were originally created to support decision making in Mediterranean areas. The equivalent fire danger with typical grass and shrub fuel types in the British Isles is significantly lower. European Forest Fire Information Service (EFFIS) can be viewed at:

http://effis.jrc.ec.europa.eu/static/effis_current_situation/index.html

The weather data that is used in the EFFIS Fire Weather Index model is from the European Centre for Medium Range Forecasts (ECMWF).