

News Flash

Thatch Fires

During October 2011, the East Anglia Master Thatcher's Association thatch fire spokesman Stephen Letch has given presentations on probable causes and prevention of chimney related thatch fires, two presentations were given at Norfolk Fires Services seminars and one at a conference for the Suffolk Preservation Society at Lavenham.

The summary of those venues is as following:

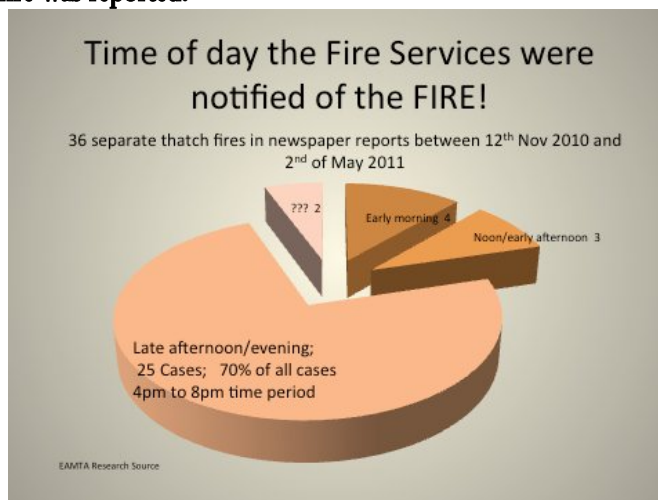
The current popular claim from those with an interest in thatch fires is that 90% of chimney related thatch fires are caused by heat transfer, by which through relatively normal constant use of wood burner type stoves over a long period of time can cause heat to transfer horizontally from inner flue liner to chimney brickwork to finally set thatch alight.

This view has been challenged by two independent investigations that have been running this past two years.

Keith Benjamin of Burgoyne's Consulting Forensic Scientists and Engineers found through reviewing 61 of their thatch fire investigations that the vast majority of thatch fires had been reported to the fire services soon after light up of stoves, which made heat up of chimney stacks highly improbable and that ejecting embers from the chimney were the most likely cause!

Link to Burgoyne's report! <http://www.burgoyne.com/fires-thatched-buildings>

The EAMTA had also been reviewing thatch fires from a slightly different perspective, they clearly had no access to forensics on site, so they monitored newspaper reports on thatch fires throughout the UK over a period of 4 years and what our membership knew from unfortunate thatch owners description of events. This flagged up a number of trends such as seasonal clusters of fires in late autumn and early spring; high pressure; the presence of spark arrestors, rain deflectors/hoods and bird guards; and the time of day that the fire was reported.



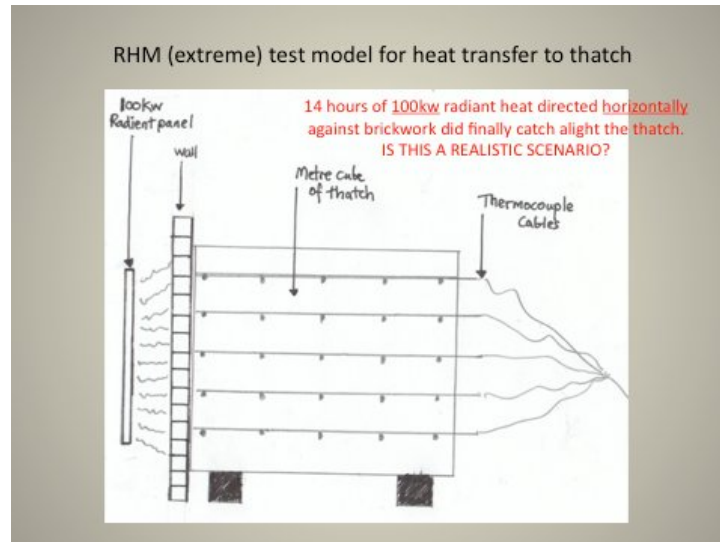
This suggests that embers are falling onto the thatch

We need to...Link this information with Burgoyne's report that tells us that thatch fires start soon after the stove has been lit.

The timing of this suggests that people are returning home from work, college or the school run to light the stoveas the temperature drops outside.

Clearly these findings were not tying in with the conventional thinking of these past 10 years that tells us that heat transfer is the main cause!

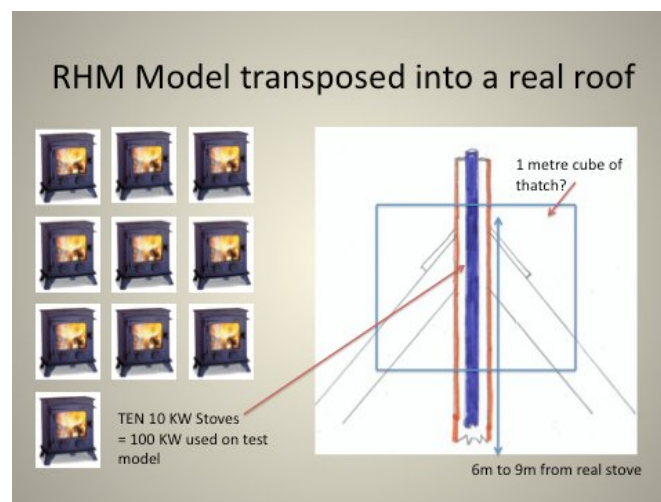
A closer look at where this heat transfer theory in relationship to thatch fires originates from raises a number of questions.



Heat Transfer to thatch theory is based solely on this test model

All this test achieved, is that heat transfer exists, nothing new here.

The question we need to ask is.... What relevance was the test to a real life thatched roof.



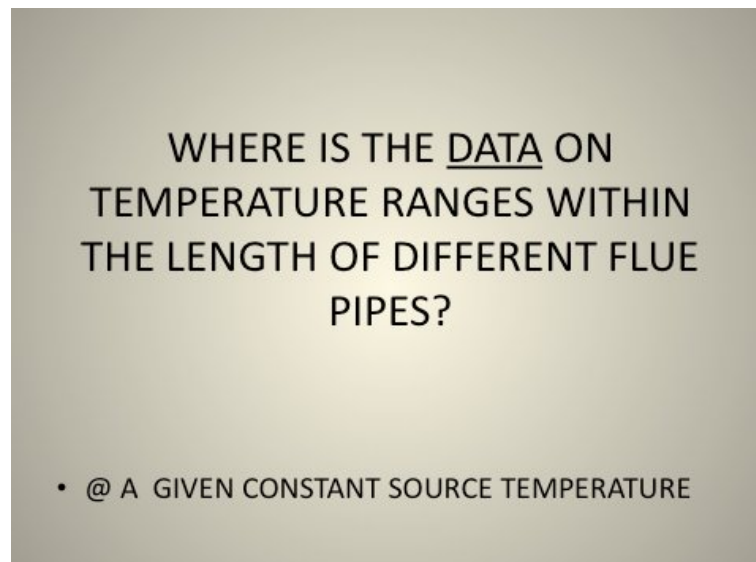
It would be Difficult to cram ten stoves into the chimney inner flue at thatch height.

We've since been told by the testing scientists that the temperature was controlled down to a constant 300 degrees centigrade.

If this is the case- why didn't they just use a 15Kw heater; which is equivalent to a large wood burning stove?

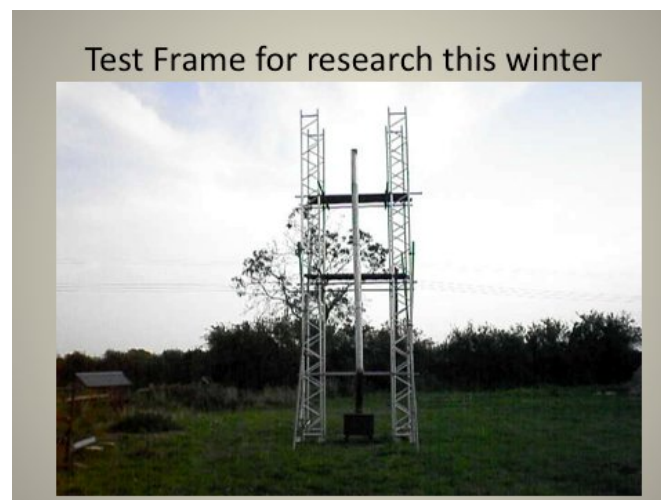
And why place the heat source directly adjacent to the thatch material?

This slide may have summed up the science behind heat transfer to thatch!



The original researchers now suggest that only multi coated thatch in excess of 1 meter thick are susceptible to heat transfer, however this does not really explain why single coats (300mm to 450mm) of water reed and straw thatch go up in flames?

The EAMTA will be carrying a number of realistic tests this winter, we shall be assisted by Hawkins Forensic Fire Scientists.



EAMTA will be testing

A number of different flues for temperature ranges.

Ember ejection factors and probabilities.

Devices to hinder or stop embers, to be fitted just above the stove in the flue pipe.

Setting alight to thatch & testing fire fighting techniques.

Any useful info will be posted on the EAMTA and NTSGA websites over the coming few months.

The EAMTA think that wood burners are the source of the problem with rain deflecting hoods, bird guards and spark arrestors exaggerating the problem. If inappropriate stove fuel is lit too quickly and the flow rate of the inner flue is fast it could lead to burning material caught up in any chimney top obstruction, even a relatively clean spark arrestor/rain deflector will have some soot encrustations and creosote deposits, these could burn like charcoal and drop down onto the ridge where they could get caught up in the ridge pattering and wire netting. Tests have shown that thatch fires initially behave strangely by tunnelling deep into the thatch well before spreading over the surface, this explains why thatch fires may not be noticed until 30 to 90 minutes have passed since lighting a stove.

Raising the thatch fire Probability

Firstly thatch owners need to continue to believe that heat transfer is the major factor in chimney related thatch fires.

That confidence in heat transfer theory will allow them to continue to:

Use their stoves as incinerators

Build their fires upside down

Burn inappropriate fuels/woods

Open the stove air vent wide open on light up

Keep rain and bird deflectors on top of their stacks

Allow their novice tenants, friends and relatives to play around with the stove

Have their chimney swept only rarely

Allow themselves to buy useless heat transfer based products (not actually dangerous.....)

Each one of these factors increases the risk of a thatch fire;

If you add them all together we fear that we will be hearing from you sooner rather than later.

We really would prefer to work on worn out thatched roofs rather than burnt out ones.

Thatch fires are not only bad for thatch owners; they damage the future of the thatching industry as well!

Please, please be careful!