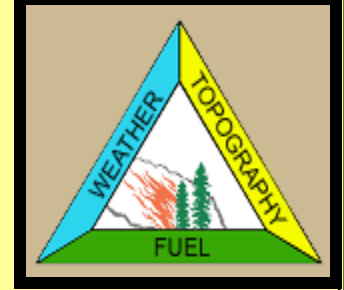




TOPIC 22

HEAT TRANSFER - RADIATION



RADIATION is when heat is transferred evenly in all directions from the heat source to the surrounding environment at the speed of light. Air movement (wind) does not affect radiation. Unburned fuel ahead of a moving flame front is pre-heated primarily through radiation. The degree of radiation (heat) depends on the characteristics of the flame front such as tilt angle, depth, height and distance from the fuel. An effective fuel break is sufficient to slow or stop the forward spread of a fire – as long as there is no spotting.

Intense heat radiation can be very dangerous and may prevent firefighters from undertaking a direct attack. Firefighters can be seriously burned from radiant heat.

