InfoLog 24 April 2013

Refilling 'meths' stoves

The Issue.

A fifteen year old girl was engulfed in what was described as a 'fireball' when trying to refill a cooking stove with methylated spirits ('meths'). The stove had not gone out but she had not realised this. With this fuel the flame is not very bright as it dies down and it is easy not to see that the stove is, in fact, still alight. Meths is highly combustible, and will ignite immediately. Sadly these sort of accidents have been occurring for as long as there have been these sort of stoves. In this case the accident was massively worsened because she was decanting the 'meths' from a 5 litre container.

The Outcome.

There are many tried and tested ways of avoiding similar accidents.

Training.

 Some of the approaches below may supplement thorough training but can never replace it. These stoves are very stable and very simple to use. However if there *is* an accident it can be a very serious one. Refuelling stoves must always be included in 'camp-craft' training.

Avoidance.

- There are many ways to safely check if the stove is still alight. Simply tapping the burner with the back of your hand is probably the simplest. If it's cold it's not alight.
- Some people advocate taking the burner out of the stove and carrying it to where the fuel is stored. If it's still alight you won't be able to do this.
- Some people advocate carrying two burners: you replace the number one burner with the number two burner and refill that, and vice versa.

Mitigation.

- Never fill a stove from a large volume container. Carry fuel in several small purpose designed containers rather than one large one.
- Use a container that only delivers fuel in a slow trickle.

• Use a container with an automatic (spring loaded) shut off.

All of these features are widely available commercially.

- Don't fill the stove indoors, in a tent, or in a confined space.
- Hold the container at arm's length: don't peer into the burner to see better.