

# Fire Safety

2011 HDT Rally

Jack Mayer

Fire Suppression Section: [www.jackdanmayer.com](http://www.jackdanmayer.com)

# RV Fire Statistics

- Difficult to identify good data
- About 10,000 RV fires per year. (6500-20,000 reported range)
- About HALF of the fires are while parked. (RV Alliance America)
- 70% start in engine compartments.
- 20% are tire or brake fires. And these are usually undetected until too late.
- 25% of RV fires are in the 12-volt electrical system. (National Interstate)



# Prevention

- Obvious things
  - Don't use cooktop to heat with !
  - Keep portable heaters away from flammables
  - Don't leave things on the stove unattended
  - Don't leave your electric fireplace on unattended
- Maybe not so obvious.....
  - Make sure your shore power cord is undamaged
  - Tighten electrical box, generator, inverter and transfer switch lugs yearly
  - Check battery lug torque during battery maintenance
  - Make SURE you have a catastrophe fuse on inverter/battery line
  - Don't use cheap electric heaters – use ceramic heaters
  - Properly service your furnace and refrigerator (“out of sight – out of mind”)
  - Make sure you have good tires, brakes, bearings

# Detection

- Smoke, propane and carbon monoxide detectors need testing – they may not work!
- Replace detectors after 5 years. Test function does not guarantee proper operation.
- Make sure you use RV approved smoke detectors – they are different than residential ones.
- Mac McCoy recommends the dual-sensor, battery-operated smoke alarm by Kidde, which uses both photoelectric and ionization sensors. This detects smoldering fires better.

# Detection

- Use tire monitors – many fires start from undetected blown tires
- Experts say that in an RV you have 90 seconds before the fire is uncontrollable. You must be able to knock it down fast.

**Get OUT of the RV and STAY OUT!!!**

# Firefighting

## Extinguishers

- Extinguisher classes
  - Class A: ordinary combustibles like paper
  - Class B: flammable liquids like gas, oil
  - Class C: electrical
- RVs require class B:C
- Better for all extinguishers to be class A:B:C
- Common RV extinguisher is a dry chemical; a “foam” extinguisher is better (wetting agents)
- Look at *ColdFire* and *FireAde 2000* extinguishers that use advanced suppression agents
- Extinguisher source
  - Mac McCoy <http://www.macthefireguy.com>

# Firefighting

## Extinguishers

- Have a minimum of three extinguishers
  - Kitchen area
  - Bedroom
  - Outside compartment (unlocked)
  - Truck DOT compliant extinguisher (in truck)
- Maintain your extinguishers; pressure, date, settling
- Need an advanced extinguisher for tire/brake fires – outside compartment extinguisher (ColdFire or FireAde)

# Firefighting

## Refrigerators

- There are MANY fires
- They are hard to detect before serious damage
- You need automatic extinguishing
- We use a halon extinguisher that deploys at 165\*
- ColdFire would be equally effective



This fire caused \$100,000 of damage to a \$600,000 coach



# Halon Extinguisher



# Other Preparation

- Escape plan and discussion
- Have you opened your bedroom escape window?
- Can you climb out? Can you get to the ground?
- Are you sure of where your extinguishers are?
- Quick connects on hoses; spare hose for water-down.
- Grab bag? Duplicate some items and store in truck?
- Medication – keep a couple day supply outside rig....
- Important papers in fireproof safe? Copies of drivers license? Scanned and offsite storage in “cloud”?
- If driving, can you “separate” your rig or toad FAST? Does your equipment operate easily? Can you act as a team?