NATIONAL FILM & SOUND ARCHIVE

AUSTRALIA

# Fire affected videotapes

**What effect does excessive heat have on a video tape?**

1. The cassette casing may distort making it impossible to align correctly in the machine. The tape can be re-cased into a new cassette shell.
2. Charring or distortion of the carrier tape and or binder.
3. The magnetic signal may still be recoverable if the tape can be physically transported through a player.

**What other problems may occur as a result of the fires?**

1. Water damage, caused by fire suppression or exposure to rain. Water is very dangerous to video materials, it attacks binders and can affect the magnetic record.
2. Physical damage, caused by poor handling or disturbance during recovery. Videos should be handled carefully and protected from impact shock, especially Metal Evaporative (ME) type tapes (DV/Mini DV).
3. Smoke and dirt, these may adhere to the surface of the tape and cause problems in playback or physical damage to the tape or machine. Often dirt is only able to find it's way onto the tape as a result of poor handling. The case that tape cassettes are supplied in can offer a high degree of protection from these problems, even if the case appears to be damaged as a result of the fire.

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**Can damaged tapes be recovered?**

1. Certainly in some instances damaged tapes can be recovered, however it does depend on several factors such as:
    - how soon after the disaster the recovery operation can start,
    - the handling that the tape has received since the disaster
    - the exposure to water
    - the condition of the tape before the disaster
2. There is less likelihood of being able to recover ME tapes. These are very fragile and susceptible to water.

**For the future:**

1. Always store video tapes in the protective case.
2. Store the tapes vertically with the opening of the case face down, this will help shed water.
3. Always fully wind the tapes to one end or the other. This means that it is the leader that will be most affected by a disaster and the import content will be most protected.

**Format Tape formulation**

| **Format** | **Tape formulation** |
|---|---|
| VHS/Betamax | Oxide (Poly Urethane binder) |
| 8mm | Oxide (Poly Urethane binder) |
| Hi8 | Oxide (Poly Urethane binder) & Metal Particle (MP) |
| DV/MiniDV | Metal Evaporative (ME) |

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