## **Attempts to Master Catastrophic Fires**

General Protection Engineering GmbH, Hans J. Scheel. July 27, 2018

- 1. Stop conventional direct fire-fighting: the efficiency often is too low, it is too risky, and it is not healthy (smoke, lack of oxygen). Give up fighting burning houses, stables, cities unless there is a realistic chance of success of preserving useful structures. In extreme situations the application of explosions (bombs) may give temporary relief.
- 2. Protect important infrastructure buildings (electric power station, Radio/TV/Communication Center, water towers) and hospitals by high-power ventilators\* taking into account that fires may advance with strong winds, in combination with firemen assistance.
- 3. Clean the forests und gardens from all dry undergrowth, dry wood and dead trees starting from the houses to at least 1km, better 5km distance (in emergency case assisted by firemen).
- 4. Collect all dry material and transport it to an open field or meadow and prepare a pile. When this pile catches fire it would burn locally and not spread. Alternatively, the material could be transported to a recycling/waste-firing factory for energy generation.
- 5. Prepare at regular distances fire-defense lines\*\* (firebreaks), with a width corresponding to at least the double of the height of neighbour trees, by removing bushes and cutting trees followed by cutting the branches and transport all cut material to the pile (No. 4). Fire engines and 4-wheele trucks should be able to move on these defense lines (short tree stumps). If the time is too short for cutting trees, the application of explosions (bombs) may be considered.
- 6. Protect the fire-free side of the defense line with firemen, water lines, water splashes from airplanes and helicopters, also watering the cut trees which could not be removed in time.
- 7. Monitoring of the fire-risk area with satellites, drones, airplanes, manned and un-manned balloons to detect starting fires and in case immediately apply Step 8.
- 8. Prevent the spreading of fire and extinguish local fires, by means of the novel technology of General Protection Engineering GmbH of Hans J. Scheel, which requires material transport by trucks and by large helicopters and installation. Cities and villages could be protected in case of timely transport and arrangement for the new technology.
- 9. Most important is a reliable alarm system and its activation, complemented by siren cars and traffic control, so that population has time to flee, if possible in the wind direction.
- 10. Large ventilators with electric supply and material for project 8 are kept in stock at fire stations, at the important buildings of point 2, and at distributed external stores.

It is recommended to arrange projects 2, 3, 4, 5 and 8 in safe periods, before fire is approaching. House owners may be motivated to arrange these projects if it is appreciated by reduced insurance fees.

<sup>\*</sup>Addresses of manufacturers of high-power ventilators.

<sup>\*\*</sup>Planning the defense lines (locality, width, straight or curved) will involve geography, traffic infrastructure, wind directions, character of the forest, access to water, timeliness). Prepare paths with short tree stumps (maximum 8 cm above ground) so that trucks can move on these paths.