

9. Learning from Human Factors in Catalonia (NE Spain) from 1999-2011

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In 1998, a wildland fire over 20.000 ha burnt in two days across a forested rural area, affecting a dense, scattered populated area. This was the third major season in 12 years, with crown-fire, long distance spotting, and fast fire behavior related to land abandonment, 40 to 60 years before. Political and social pressure was enough to recognize that fire scenario has changed. Thus, major changes in fire suppression began in 1999, such as lowering tactical decision-taking based on anticipation, incorporation of firing techniques, technological improvements in information management, implementing strategies to delay fire spread based on fire patterns, building a learning culture and promoting exchanges of key personnel with USA, UK, Sardinia, France and Portugal & hellip. Most of these changes were lead by a small group of highly trained fire-fighters and fire analysts, GRAF.

Ten years later, on the 21st of July 2009, several fire-fighter units were working in a wildfire started the previous day in Horta de Sant Joan. More than 80 fire-fighters became trapped while trying to surround and close the fire perimeter. 5 GRAF fire-fighters died and one was badly injured.

Our objective is to share the lived lessons on anticipating and containing uncertain, speculative risks. So, human factor dynamics will be analyzed, from leadership and roles to crew cohesiveness, from the level of decision-taking to the speed of information circulation on the chain of command, from the culture of the organization to team dynamics and agencies coordination.

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10. Next Generation Emotional Intelligence

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Emotional Intelligence has been a hot topic in leadership training since Dan Goleman published his book on the subject in 1995. Emotional intelligence competencies are typically focused on recognition and regulation of emotions in one's self and social situations, yielding four categories: self-awareness, self-management, social awareness and relationship management. Recent research in affective neuroscience is making a distinction between emotions and feelings, with emotions playing

out in the theater of the body and feelings playing out in the theater of the mind. Emotions are processed in the main somatosensing regions of the brain. Recent innovative mind fitness programs, such as Mindfulness-Based Mind Fitness (MMFT) Ö, that include somatic mindfulness practices and somatic psychological first-aid are showing dramatic changes in neural peptide Y (NPY) and the insular cortex (the part of the brain that helps insulate the organism from dangerous conditions). The first generation of emotional intelligence focused on preventing system 1 mind processes (fast, automatic, nonconscious, emotion driven) from shutting down system 2 (slow, conscious, rational choice), sometimes referred to as an emotional hijacking. Next generation emotional intelligence will recognize the importance of the body and focus more on the skillful integration of system 1 and system 2 mind/body processes. Recent wildland firefighter fatality accident investigations will be used to illustrate the importance of developing the next generation of emotional intelligence. This will have significant implications for leadership training, the development of expertise, firefighter health & safety and critical incident stress management.

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11. Preparing... for What? Exploring the Dimensionality of Wildfire Preparedness

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Emergency services authorities spend a considerable amount of effort each year on increasing hazard prone community members' risk mitigation activities (i.e., hazard preparedness). Risk and disaster researchers have thus been trying to assist by examining which factors are most effective in motivating community members to engage in such preparatory behaviors. In the context of wildfires, studies of preparation have typically utilized self-report 'checklists' comprising sets of preparatory actions. Participants are asked to indicate which of these actions they have taken already and/or which they intend to take prior to the next peak wildfire season. In some studies, the number of actions taken or the strength of the reported intentions have been aggregated to form a single 'preparedness' score. One limitation of this approach is that it implicitly assumes that all actions are motivated by the same factors and that all are equally effective at reducing