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Critical Incidents in Adventurous Activities

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Critical Review of the Crib Goch Incident



Figure 1: (Jackson, n.d.). *Crib Goch in Eryri National Park, Wales*

Introduction

The Crib Goch incident, portrayed in the video “An Intense Day on Crib Goch,” exemplifies the risks faced by mountaineers in challenging environments (Miller and Mair, 2019). In Eryri National Park, Crib Goch is renowned for its difficult terrain, exposed rock, narrow ridges, high altitudes, and unpredictable weather (Hughes, Glasser, and Fink, 2022). The incident, detailed in the Brave Dave (2020) footage and supplemented by the Llanberis Mountain

Rescue Team's report (2020), provides insights into the complexities of mountain rescues and the importance of incident analysis for improving safety and decision-making. It highlights key strengths and areas for improvement and offers preventative and corrective measures to mitigate the risk of similar incidents.

Reflection of the Crib Goch Incident

The incident unfolded in challenging weather conditions, which worsened, with high winds and limited visibility hindering navigation and response. These conditions, prone to rapid change, emphasise the critical need for thorough preparation (McDonald et al., 2023). The video and the Rescue Team's report emphasise the need for quick, coordinated responses in mountain rescues. Suggested improvements include enhancing communication tools, such as satellite phones or personal locator beacons, to minimise delays in remote areas (Jones, Tang, and Neustaedter, 2020). Although responders were experienced and able to assess and manage the situation, The video shows Crib Goch's steep, narrow terrain. The fall on a treacherous section worsened injuries, requiring swift action. Risk factors included the challenging terrain, cold conditions, and the potential for hypothermia or shock, making swift and cautious action essential (Paal et al., 2022).

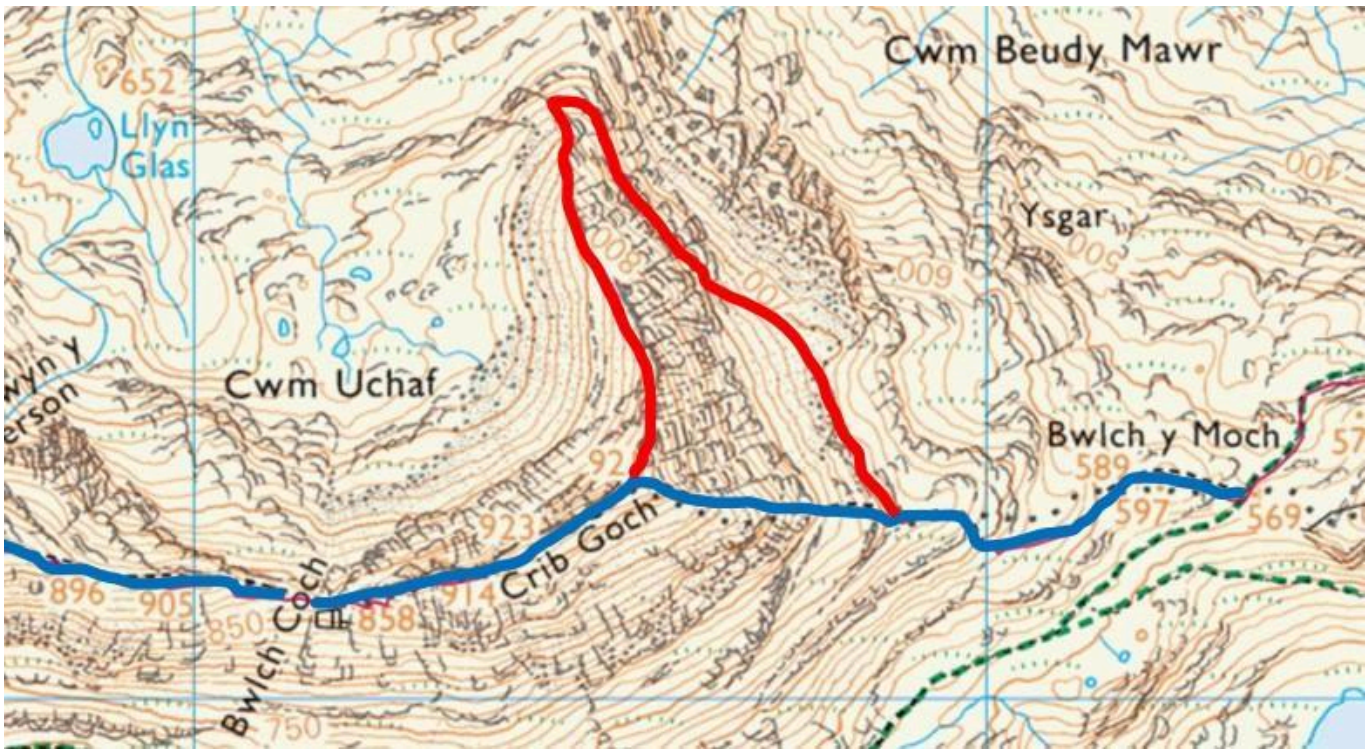


Figure 2:Yr Wyddfa, (2025). Crib Goch North Ridge & the Fox's Path Ordnance Survey Map.

Analysis of the Response

The Llanberis Mountain Rescue Team (LMRT) was called out on 7 March 2020 after a walker fell over 200 metres from Crib Goch, coming to rest near Bwlch Coch (Figure 2). This aligns with the video, which recounts the dramatic fall, though the distance is not specified. The video highlights the difficulty of moving the casualty from an exposed position while stabilising and keeping them warm, and LMRT corroborates this. Stretcher evacuation began once the casualty was located, but poor weather hindered helicopter evacuation plans. The situation highlights the importance of contingency plans in remote rescues where conditions can change rapidly. Apollo (2017) remarks that mountaineers with a better understanding of accessibility are more likely to achieve successful summit attempts while ensuring safer expeditions.

Communication with the casualty party was difficult, slowed by their location, and contact with the rescue team was delayed, which hindered the operation's pace. Whether the team had advanced communication tools like satellite phones or radios was unclear. The rescue plan was to use Rescue 936, an award-winning civilian helicopter SAR team based at Caernarfon

in North Wales (International Maritime Rescue Federation, 2016). However, the weather hindered helicopter use and illustrates how weather can delay or prevent timely evacuations (Yarwood, 2010). The group acted swiftly, recognising the severity of the situation. They assessed the casualty, provided basic first aid, and used jackets to prevent heat loss and mitigate cold exposure. It was crucial to keep the casualty still to avoid further harm, particularly with suspected fractures (Waghmare and Singh, 2024b). The rescue team acted professionally, treating multiple fractures and evacuating the casualty.

Cold exposure can worsen an injured person's condition, as Henriksson et al. (2009) note, stressing the importance of preventing core cooling. Stabilising the casualty and providing warmth was vital to prevent hypothermia and further injury during extraction. Freeman et al., (2018) found that cold exposure at night impairs navigation and judgement. Van Veelen et al., (2021) highlight that heavy gear can cause overheating during strenuous activities. Prehospital treatment or stabilisation was necessary to prevent and manage hypothermia, reducing risks of further deterioration, with modern equipment providing effective insulation systems (Haverkamp, Giesbrecht, and Tan, 2018). Insulation with a vapour barrier may require active rewarming via heat packs, heated blankets, or forced air warming (Haverkamp, Geisbrecht and Tan, 2018).

The video footage shows Dave with only a small “day bag,” limiting the amount and scale of safety equipment he could have carried. The footage shows snow on the ground, and there is no clear evidence of any of the group carrying an ice pack or crampons, equipment that may have assisted in arresting sliding momentum on these surfaces. The group did not have any rope that may have helped establish a safety line and allowed them to anchor and stop the incident.

The video shows Dave was unprepared, with little extra clothing or resources. The group faced risk, with small slides nearly causing multiple casualties. As a leader, Dave should have ensured safety before proceeding.

Preventative and Remedial Measures

Preparation is crucial on Crib Goch—checking weather, terrain, and fitness. Conditions worsened with elevation, and Dave's team lacked proper gear. Crib Goch is a Grade 1 scramble (Walk Snowdonia, 2024) requiring use of hands. Clouds often hide snow and ice on Yr Wyddfa. As a leader, Dave should have prepared. Crib Goch, a Grade 1 scramble, was slippery in poor weather, exposing and unprepared the group.

Dave should have led the group down the mountain once slippery snow and ice conditions became more apparent on elevation (Guide Dolomiti, 2024). Mountaineers should also recognise their equipment's limits and limitations (Guide Dolomiti, 2024). Berghaus (2018), an expert in night navigation, recommends having a contingency plan for disorientation. Orienting the map and identifying features help leaders minimise risk and guide the group to safety.

At the start of the video, Dave appeared to know the ridge well and seemed confident that the group could continue; however, Dave should have identified his group's capabilities to ensure everyone was competent.

Van Tilburg et al., (2023) indicated that regular first aid, navigation, and risk management training is essential for recreational mountaineers and professional rescuers. This training should include recognising hypothermia, shock, and other medical emergencies. Dave describes himself as a mountain guide on Instagram and uses this platform to document many trips he has led. Forum debates responding to this video question his skill as a mountain leader and his initial response to the incident where he continued to film debates question his leadership and response, noting he prioritized filming over safety, risking himself instead of assisting in the exposed environment (Pyro, 2020). This incident very nearly became a multi casualty incident with fatalities. It is unclear whether the group fully considered the relevant Mountain Weather Information Service (2020) weather forecast which predicted rapidly deteriorating conditions, with upland gales, clouds lowering onto the hills, and persistent rain and drizzle. Severe weather should have served as a warning. In such conditions, swift and effective communication with rescue teams is crucial.

Mountain leader training should incorporate identifying injuries and securing patient safety to reduce the risk of further harm. However, the other group members all scrambled and moved

the casualty to get him dressed, as clothes were missing, risking hypothermia. If the group or the mountain leader had been better prepared with a wind shelter, emergency blanket, or bivvy bags, the group could have secured the casualty more safely.

Pre-disaster planning, including proactive communication and energy strategies, is essential to mitigating the impact of such events and mountain rescuers frequently emphasise the importance of carrying the right equipment, such as satellite phones or personal locator beacons, which could have expedited the group's connection with the rescue team. All these are covered in mountain leadership courses (Beyond the Edge, 2024). Additionally, Mountain rescuers frequently emphasise the importance of wearing appropriate clothing; the group were underequipped, with footage showing the group searching bags for additional clothing rather than using standard emergency equipment like a shelter or bivvy bag. A BBC (2021) report highlighted how many walkers are ill-equipped and fail to plan properly, with one rescuer stating, "We get calls from people who should be able to sort themselves out if properly prepared and this is a common issue." According to a review by Knott (2011), poor planning, limited or insufficient equipment, and bad navigation are among the top causes of mountain accidents.

Karaman et al. (2024) emphasised that real-time communication tools and emergency solutions facilitate swift deployment and coordination of rescue teams. Devices like satellite phones and radios are crucial for improving response times and outcomes (Karaman et al., 2024). Emergency whistles were used after the initial shock of the incident to help the group find the casualty. These could have been deployed earlier, and Dave should have ensured each group member had a whistle close to hand in case of emergencies. Remote field emergencies pose challenges in accessing resources despite technological advances (Curran et al., 2018). Responders must quickly assess and stabilise the casualty, ensuring they remain warm and still. Despite technological advances, remote field emergencies pose resource access challenges (Curran et al., 2018). Swift transport, such as helicopters, is crucial for accelerating treatment, aligning with the second rescue phase L.A.S.T: Locate, Access, Stabilise, Transport. The first phase, is S.T.O.P: Stop, Think, Observe, Plan (Little, 2024).

Reflection on Critical Incident Risks and Management

The Crib Goch incident is a powerful case study for critical incident management. Although the decisions made by the casual group and the Mountain Rescue Team were not without challenges, they demonstrated the skill and professionalism essential for saving the casualty's life. The unpredictable nature of mountain rescues makes decision-making even more complex. Changing conditions, coupled with severe injuries, created a high-pressure environment. The team's ability to adapt while maintaining focus on safety and care was crucial in preventing the situation from worsening.

The psychological impact on both the casualty and rescuers is crucial. The casualty may experience fear and anxiety, worsening physical injuries, while rescuers can also suffer emotional strain due to regular exposure to traumatic events. Psychological support, including debriefing and counselling, is essential for maintaining their well-being and effectiveness in future operations. Humans have developed various strategies to improve survival in complex environments. In outdoor adventures, knowledge, training, and technological advances can help people feel safer in uncertain terrains (Groves & Varley, 2020). The DRABC response prioritises safety by addressing danger, response, airway, breathing, and circulation, is crucial in managing incidents. However, its application during the Crib Goch incident remains unclear (Jones, 2018).

According to Khan, Gupta, and Gupta (2022), technology such as satellite phones, GPS, and drones enhances rescue coordination and response times. Accurate weather forecasting aids in decision-making and safety; expanding these tools can make rescues more efficient. Educating hikers on preparation, weather forecasting, dangers like hypothermia and dehydration, and proper equipment can significantly reduce accidents (Daniel et al., 2021). Campaigns by groups like the Mountain Rescue Council promote safe hiking. Bruun et al. (2022) note ethical dilemmas, such as deciding when to stop or prioritize casualties. Rescuers must balance their safety with the potential for harm to ensure survival.

Comparing Perspectives

The video by Steff Morris (2021), "How to Climb Snowdon via Crib Goch," offers a perspective on the Crib Goch route, focusing on the risks and challenges of scrambling the ridge. Following a failed attempt in January 2020 due to poor preparation and inexperience, Steff returns with an experienced mountaineer, highlighting the importance of preparation, planning, and knowing one's limits. Reflecting on his earlier mistakes, Steff acknowledges how poor visibility and misjudgements led to a life-threatening situation, resolved with help from the Llanberis Mountain Rescue Team. Steff's video offers valuable lessons on route-finding, ridge exposure, and caution in adverse conditions. His honesty about past mistakes makes it a useful resource, emphasising the importance of preparation, guidance, and supporting mountain rescue teams.

The "Winter Traverse of Crib Goch" by Beyond The Trail provides a detailed account of tackling the route in winter, focusing on added challenges and safety considerations. The presenter stresses the importance of preparation, awareness of UK mountain weather, and assessing skill level before attempting the route. Key safety tips, such as using an ice axe and adapting equipment, are practical for winter conditions. The video captures the technical aspects of the climb, including narrow, exposed ridges, down-climbs, and navigation challenges, effectively illustrating the route's risks.

These videos offer a more nuanced perspective of Crib Goch than Brave Dave's. Steff Morris' video provides a personal and reflective account, emphasising the dangers of misjudging the route and lessons learned from inexperience. The video highlights technical challenges, focusing on preparation, safety, and risk awareness, while Brave Dave emphasizes adventure without addressing risks or offering practical advice.

Before the Crib Goch incident, Dave (Brave Dave, 2019) posted a video of guiding a client on a Grade 2 scramble, sparking criticism for poor planning and negligence, especially regarding helmet use. Dave defended the decision, calling it an impromptu recce, but Steve Long, Technical Officer of Mountain Training, raised safety concerns and the appropriateness of the climb for a guided adventure.

The Brave Dave video and the Llanberis Mountain Rescue Team's Incident Report provide complementary perspectives on the Crib Goch incident. While the video offers a personal,

immediate account, the report provides critical supplementary details that enhance understanding of the incident's severity and the operational challenges faced by the rescue teams. Reviewing the BBC's (2020) report offers a clear summary of the Crib Goch incident, focusing on the climber's fall, injuries, and the challenging weather conditions during the rescue. It highlights the involvement of multiple rescue teams and a coastguard helicopter, providing insight into the scale of the operation.

The report is useful for understanding the basic facts, such as the severity of the weather and the climber's injuries. However, it lacks deeper details, such as the exact actions taken during the rescue or specific timelines. While informative, it could benefit from more in-depth analysis or quotes from the rescuers involved. These videos have practical advice, and the Crib Goch incident could have been prevented or mitigated if such advice had been followed.

Conclusion

The Crib Goch incident is a case study in critical incident management, demonstrating the importance of preparation, effective communication, and timely intervention. By learning from this case and implementing preventative measures, risks associated with mountaineering can continue to be reduced to improve safety. Funding and supporting mountain rescue services ensures availability of resources and training for effective responses. By reflecting on incidents like this and implementing preventative measures, we can reduce risks, enhance safety, and continue to support those who venture into the mountains. Crib Goch can sometimes be menacing, sharp, serrated, and spiky, but it is never boring. It is the very definition of a knife-edged ridge (Roddie, 2017).

Crib Goch remains a formidable challenge, highlighting the need for strict safety protocols and adaptive decision-making. Guides and adventurers must plan thoroughly, stay vigilant, and respect mountain conditions. This event is a cautionary tale, emphasizing the importance of proactive risk management and emergency preparedness.

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Figure List

Figure 1: Jackson, M. (n.d.) *Crib Goch in Snowdonia, Wales*. [Image] Available at: <https://www.ukscrambles.com/wales-scrambles/crib-goch/> (Accessed 25 Jan. 2025).

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