

MODERN WARFARE IN MOUNTAIN ENVIRONMENTS

This **first session** brought together **French and American military officials** to analyse the **specific challenges of modern warfare in mountainous environments**. Moderated by **Jean-Luc THEUS**, the discussions **contextualized key lessons learned from the conflict in Ukraine**, highlighting the **strategic and operational shifts** imposed by the **new realities of high-intensity combat**.

The central themes of the session included:



- **The impact of emerging technologies** (drones, advanced sensors) on the conduct of operations in mountain warfare;
- **The importance of preparation and training** to ensure the effectiveness of forces in extreme environments;
- **Challenges related to maintaining operational capabilities and the resilience of units** in response to the constraints of the terrain.

- [Colonel Sébastien LESPINASSE, Commander of the 13th Mountain Infantry Battalion \(BCA\)](#)

Mountain warfare presents unique challenges that require constant adaptation. The mountainous environment is far more than just terrain; it is a complex geography shaped over centuries, with passes, valleys, and extreme climatic conditions that directly impact military operations.

Modern warfare is now multidimensional. The rise of digitalization and new technologies is transforming military strategies, requiring increased flexibility. The use of drones, advanced reconnaissance, and cyber capabilities demand an adaptation of engagement doctrines. It is imperative to reconcile these technological advancements with the fundamentals of mountain warfare, notably mobility, concealment, and the use of terrain.

Troop training plays a key role in this evolution. The preparation of mountain soldiers relies on a progressive acclimatization to the harsh environment in which they operate. This involves not only developing specific technical skills but also integrating the physical and psychological constraints inherent to high-altitude combat.

In conclusion, mountain warfare requires a thorough mastery of the environment, seamless integration of new technologies, and rigorous troop training. Cooperation between allied forces and the coordination of resources are essential to ensuring the effectiveness of future engagements.



- Colonel Jackson DOAN, Commander of the Marine Corps Mountain Warfare Training Center (MCMWTC)

Colonel Jackson DOAN, representing the United States Marine Corps, expressed his gratitude for the opportunity to participate in this summit. He emphasised that, unlike forces specifically trained for mountain warfare, the Marine Corps does not have units dedicated to this environment. This reality necessitates accelerated troop training to enable them to adapt quickly and operate effectively in extreme conditions.

He highlighted the evolution of mountain warfare, which now incorporates a "fifth domain": cyberspace. The integration of digital capabilities and advanced communication systems in these complex environments represents a major challenge. He therefore stressed that cooperation between allied forces is essential to overcoming these obstacles and leveraging technological advancements while ensuring tactical and operational efficiency.

Regarding force training, he explained that it follows a structured, multi-phase process, incorporating:

- Preparation for extreme environmental conditions ;
- Development of mobility capabilities ;
- Immersion in large-scale exercises.

Particular attention is given to high-altitude combat tactics, where highly demanding conditions require both physical endurance and advanced technical expertise.

In conclusion, he reiterated that although the Marine Corps does not have units exclusively dedicated to mountain warfare, it has established rigorous training methods that allow troops to adapt quickly to the specific requirements of this environment. He also emphasised the importance of integrating new technologies and ensuring interoperability with international partners, which, in his view, are essential levers for enhancing the operational capabilities of forces operating in mountainous terrain.

