

Types of Laser Technology in the Army

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DESCRIPTION

Archimedes is credited with first conceiving about the use of light as a weapon. In the second century AD, the author Lucian claimed that Archimedes used fire to destroy the opposing ships during the siege of Syracuse (214–212 BC). He might have burned the Roman ships invading Syracuse by using mirrors working as a parabolic reflector collectively. French physicist Louis des Brailles predicted a bright future for laser technology at the time. Although it is difficult to foresee where and how it will be used, I believe that this is a completely new era of technology.

In 58 years, the laser has transformed from "a solution looking for a problem" to a vital technology that supports important facets of the global economy. In several industries, including transportation, healthcare, and telecommunications, laser devices are the primary technology in instruments performing essential tasks. It is important to recognise the intricate social, security, and environmental contexts in which chemical warfare agents (CWA) are employed. CWA is typically cloaked in secrecy, lacks recent data, and is associated with both personal and governmental security issues. Although CWAs have been in use for centuries, little is known about the environmental hazards they present. Also, there is still need for improvement in analytical methods for CWA detection in the environment and controlled exposure in the lab.

To make matters worse, it is difficult to locate and use standards and reference materials to develop analytical processes and examine the CWA properties of these banned substances. The concern is that these casings have rusted, potentially harming the marine environment greatly by releasing CWA into it. CWA bombs have been dropped at sea often and in a wide range of casings since World War Two. This chapter's goals are to make clear the CWA's historical context, provide insight into the potential environmental and human risks it might pose now, and address the methodological questions it unavoidably poses.

Types of laser technology

Several decades after T. Maiman presented the first laser demonstration in 1960, improvements in a wide range of scientific fields have allowed laser technology to advance and advance for both civilian and military uses. High-energy lasers, which are frequently propelled by chemical fuel, electricity, or an electron stream, direct intensely focused energy rays towards the target. Its employment in the commercial sector, where they are regularly employed for operations including cutting, welding, marking, engraving, and drilling holes, has accelerated significantly during the past 20 years. Military and law enforcement organisations also utilise lasers to designate targets, relay information, maintain targets, and calculate distances.

Effects of army technology

Physical properties: After being transported, stored, and stored as liquid aerosols or vapours, CWAs are frequently distributed. Three main routes-skin (high concentrations of liquid and vapour), eyes (liquid or vapour), and respiratory tract are commonly used to expose victims to toxins (vapor inhalation). In general, many liquids can be harmful if consumed or absorbed *via* the skin. Vapours may be impacted by winds. Even a slight breeze can waft the vapours of a nerve agent away from its intended target. Vapour works more effectively when used in a closed space.

CONCLUSION

Recent years have seen a rapid development of laser weapon systems. The state of the art has significantly advanced thanks to focused R&D. Things that were unthinkable only a few years ago are now a reality. As a result, if effective research and development techniques are used, war combatants will soon have more weapon alternatives to choose from for addressing a variety of threats and eventualities.

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