Logistics for Army
The Term Defined

CLAWS RESEARCH TEAM

The word "logistics" is derived from the Greek adjective logistikos meaning "skilled in calculating". The first administrative use of the word was in Roman and Byzantine times when there was a military administrative official with the title Logista. At that time, the word apparently implied a skill involved in mathematical computations. Research indicates that its first use in relation to an organised military administrative science was by the Swiss writer, Antoine-Henri Jomini, who, in 1838, devised a theory of war on the trinity of strategy, ground tactics, and logistics. The French still use the words logistique and loger with the meaning "to quarter."

The military activity known as logistics probably is as old as war itself. In the early history of man when the first wars were fought, each man had to find his own food, stones, and knotted clubs. Each warrior was responsible for foraging for his own food and firewood. Not until later, when fighters joined as groups and fighting groups became larger, was there any basis for designating certain men to specialise in providing food and weapons to the combatants. The men who provided support to the fighters constituted the first logistics organisation.

By the seventeenth century, the French were using a magazine system to keep a network of frontier towns supplied for sieges and to provide for campaigns beyond their borders. The American Civil War saw the introduction of railways for transport of personnel, supplies and heavy field pieces. Until the Napoleonic wars, the military supply was ensured by looting requisition or private companies. In 1807, Napoleon created the first Train Regiments, entirely

dedicated to the supply and the transport of the equipment. During the Seven Weeks War, railways enabled the swift mobilisation of the Prussian Army, but the problem of moving supplies from the end of rail lines to units at the front resulted in nearly 18,000 tons trapped on trains unable to be unloaded to ground transport.

The Prussian use of railways during the Franco-Prussian War is often cited as a prime example of logistic modernisation, but the advantages of maneuver were often gained by abandoning supply lines that became hopelessly congested with rear-area traffic. During World War I, unrestricted submarine warfare had a significant impact on the ability of Britain's allies to keep shipping lanes open, while the great size of the German Army proved too much for its railways to support except while immobilised in trench warfare.

The most dynamic and diverse functional element on the army battlefield is logistics. The effectiveness of this element determines the success or failure of the battle. For the maneuver commander to be successful, logistics must deliver value through its management. Furthermore, logistics is successful when the industrial base extends its assets into the hands of individual soldiers located worldwide. To create long-term growth and success, the global market must play a role in the theatre of operations. This relationship will allow soldiers and battlefield sustainment systems to focus on achieving combat success.

Logistics, occasionally referred to as "combat service support", must address highly uncertain conditions. While perfect forecasts are rarely possible (this is also true in most sciences) forecasts models can reduce uncertainty about what supplies or services will be needed, where and when they will be needed, or the best way to provide them. Ultimately, responsible officials must make judgments on these matters, sometimes using intuition and scientifically weighing alternatives as the situation requires and permits. Their judgments must be based not only upon professional knowledge of the numerous aspects of logistics itself but also upon an understanding of the interplay of closely related military considerations such as strategy, tactics, intelligence, training, personnel and finance.

However, case studies have shown that more quantitative, statistical analysis is often a significant improvement on human judgment. One such recent example is the use of Applied Information Economics by the Office of Naval Research and the Marine Corps for forecasting bulk fuel requirements for the battlefield.

In major military conflicts, logistics matters are often crucial in deciding the overall outcome of wars. For instance, tonnage war - the bulk sinking of cargo ships - was a crucial factor in World War II. The successful Allied anti-submarine

campaign and the failure of the German Navy to sink enough cargo in the Battle of the Atlantic allowed Britain to stay in the war and establish the second front against the Nazis; by contrast, the successful US submarine campaign against Japanese maritime shipping across Asian waters effectively crippled its economy and its military production capabilities. Protecting one's own supply lines and attacking those of an enemy is a fundamental military strategy; an example of this as a purely logistical campaign for the military means of implementing strategic policy was the Berlin airlift.

Military logistics has pioneered a number of techniques that have since become widely deployed in the commercial world. Operations research grew out of WW II military logistics efforts. Likewise, military logistics borrows from methods first introduced to the commercial world. The Kargil Conflict in 1999 between India and Pakistan also referred to as 'Operation Vijay' is one of the most recent examples of high altitude warfare in mountainous terrain that posed significant logistical problems for the combating sides. The ALS or Ashok Leyland Stallion which forms the bulk of the Indian Army's logistical vehicles proved its reliability and serviceability with 95% operational availability during the operation.