46ESS-63: Liquid Rocket Engines

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Liquid rocket engines have been the primary focus of rocket propulsion evolution since the end of World War II. They had little renown since their initial publication release in 1903, but Wernher von Braun's V2 brought the concept into world focus. He was influential in the creation of the Saturn V rockets, the rockets which used liquid fuelled engines to take humans to the moon. The Soviet design similarly used liquid rocket engines however used many smaller, more efficient engines rather than the American view of fewer, more powerful engines. Both designs have been mirrored in modern lift vehicles; NASA maintaining the low number, high thrust engines, Space X using high number, low thrust engines.

Traditionally the two main types of liquid propelled engines are used in different aspects of space travel. Lower specific impulse engines - high thrust - are used as initial stage engines, to propel rockets through the densest part of the atmosphere, and higher specific impulse engines – low thrust - are used high in the atmosphere and in space as they lead to higher fuel efficiencies.