

# 17. Revving Up

Revving Up  
SpaceX, 2002

Growing up in the small logging village of Saint Maries, Idaho, Tom Mueller's childhood revolved around model rockets and assisting his lumberjack father. This early hands-on experience not only nurtured his interest in rocketry but also his practical skills in building and innovation. Mueller, with his unyielding fascination for science fiction and rockets, crafted his path from makeshift backyard launches to engineering studies at the University of Idaho, working as a logger to finance his education.

Upon graduation, Mueller moved to Los Angeles, eager to dive into the aerospace sector. His spirited enthusiasm landed him a position at TRW, a firm renowned for its aerospace achievements, including the engine that powered the Apollo 11 moon landing. Mueller's spare time was dedicated to the Mojave Desert, where he and other rocket enthusiasts, including his partner John Garvey, tested homemade rockets. Their collective efforts led to the creation of the world's most potent amateur rocket engine, a testament to Mueller's ingenuity and ambition.

A pivotal moment arrived in January 2002 when Elon Musk, then an internet millionaire venturing into space exploration, sought out Mueller for his rocket expertise. Musk's encounter with Mueller, handling an eighty-pound engine in a rented warehouse, swiftly transformed into a rapid-fire technical exchange. Musk was intrigued by Mueller's experience, particularly his work on TRW's TR-106 engine with its staggering 650,000 pounds of thrust, and Mueller's ability to conceptualize and potentially build a similar engine independently.

Their discussions soon extended to a vision that transcended a mere project – founding SpaceX. Despite initial hesitations about meetings on important occasions like the Super Bowl, Mueller was captivated by Musk's ambition to build a launch vehicle. Their collective brainstorming led to the initial design plan for SpaceX's first rocket, focusing on using liquid oxygen and kerosene as propellants. Musk offered Mueller the pivotal role of head of propulsion, urging him to join in what was to become a groundbreaking venture in private space flight.

Mueller's conditions for joining – including a financial safety net – mirrored his practical mindset but also positioned him more as a pivotal employee rather than a cofounder in Musk's view. This dynamic underscored a recurring theme in Musk's ventures: a blend of inspiration, perspiration, and risk constituted the essence of true entrepreneurship and founding status.

Securing Mueller's expertise was a cornerstone for Musk; it meant not only advancing the engineering prowess behind SpaceX but also signifying a tangible step towards establishing a dedicated team and facility. Musk's drive led him to locate a warehouse in Los Angeles, setting the stage for SpaceX to evolve from an ambitious idea into a tangible entity, laying down its roots near the aerospace hub of LA airport, ready to challenge the frontiers of space exploration.