

Victus Nox: Tactically Responsive Space - Space Domain Awareness Mission

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Abstract

In partnership with U.S. Space Force Space Systems Command (SSC) and Firefly Aerospace, Millennium Space Systems launched the record-breaking VICTUS NOX space vehicle into Low Earth Orbit (LEO) September 14, 2023. VICTUS NOX executed a critical Space Domain Awareness (SDA) mission. What made this mission so groundbreaking was not necessarily just the technical challenges, but the unprecedented execution timelines in which they were achieved. VICTUS NOX proved our nation's ability to deliver an asset from the warehouse to orbit, mission-ready in less than a week. The implications of such tactically responsive capability are far-reaching within the field of Space Domain Awareness (SDA) and can be used to augment existing in-space constellations or rapidly responding to new on-orbit threats. In this submission, we will explore how we executed the SDA mission and lessons learned from the record-breaking VICTUS NOX mission.