

SPACE EXPLORATION SYMPOSIUM (A3)
Mars Exploration – missions current and future (3A)

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POSSIBLE MARS EXPLORATION ARCHITECTURES FOR THE 2020'S

Abstract

The Mars 2020 mission begins an exciting new decade of exploration. After Mars 2020, there are options every Mars opportunity. The options range from further steps along the path for possibly returning samples to investigating some of the tantalizing clues of current liquid water and trace gases. Another axis of the options involves partnerships within and external to NASA for mutually beneficial Mars exploration. All of the options revolve around possible payloads hosted on various platforms. Platform options span the range of orbiters, subsats, landers, rovers, areal vehicles, and smallsats. While there are many options one thing is constant: the decade of the 2020's promises another set of exciting discoveries.