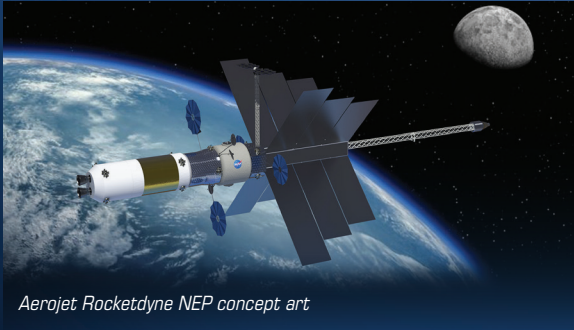


NUCLEAR PROPULSION

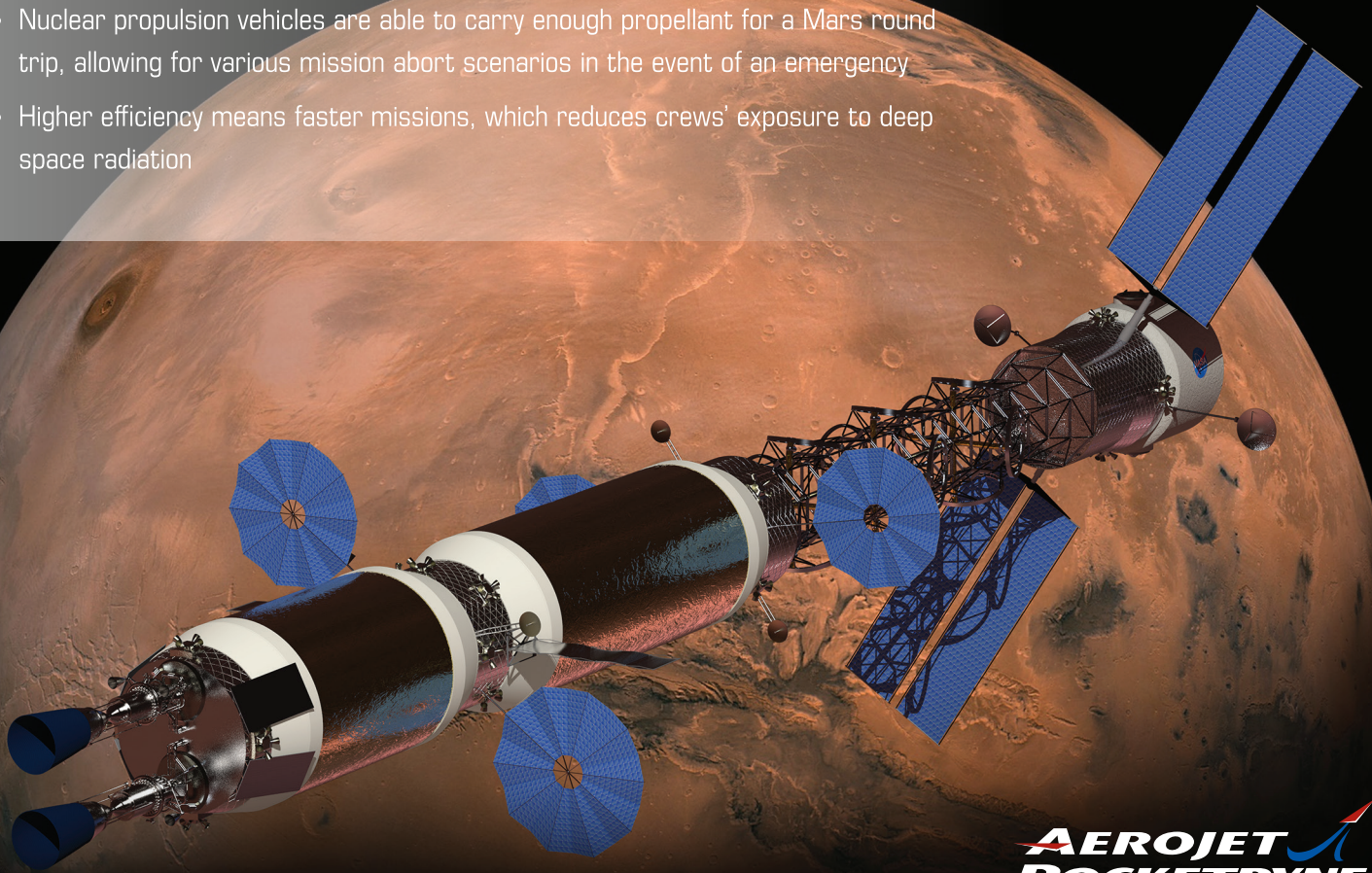


Aerojet Rocketdyne NEP concept art

Nuclear propulsion uses a nuclear reactor as a heat source to create thrust. Aerojet Rocketdyne is developing space nuclear propulsion engine system technologies for both nuclear thermal and nuclear electric propulsion (NTP and NEP). These technologies will provide quick, safe and reliable in-space transportation to support a variety of mission profiles for human-based deep space exploration.

BENEFITS OF NUCLEAR PROPULSION:

- More efficient than traditional chemical-fueled rocket engines (NTP is more than twice; NEP is 5-10 times as efficient)
- High efficiency enables smaller NTP and NEP vehicles (1/3 to 1/2 the size of traditional chemical propulsion vehicles) that can be used for several missions
- Nuclear propulsion vehicles are able to carry enough propellant for a Mars round trip, allowing for various mission abort scenarios in the event of an emergency
- Higher efficiency means faster missions, which reduces crews' exposure to deep space radiation



Aerojet Rocketdyne NTP concept art

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