

LEGEND: (TBD) To Be Determined

(NET) – No Earlier Than

(U/R) – Under Review

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SMSR INTEGRATED MASTER SCHEDULE

September 3, 2020

Legend
Delegated to JSC
Chaired by HQ
Informational Briefing

MISSION TASK NAME	MILESTONES				LAUNCH VEHICLE	LAUNCH SITE OR RETURN SITE	CHAIR	SMA REP.
	Pre-SMSR	SMA MAP MTG.	SMSR	LAUNCH OR OPS				
<i>Northrup Grumman-14</i>	N/A	N/A	9/2/2020	9/30/2020	Antares	Wallops	JSC	GW
Comments: SORR: 9/10/2020; FRR: 9/19/2020 (Source: CoFR matrix dated 8/14/2020)								
<i>63S</i>	N/A	N/A	10/5/2020	10/14/2020	Soyuz	Kazakhstan	HQ	VH/GW
Comments: SORR: 9/24/2020; FRR: 10/7/2020 (Source: CoFR Matrix dated 8/14/2020)								
<i>62S Return</i>	N/A	N/A	10/5/2020	Undock 10/21/2020	N/A	Kazakhstan	HQ	VH/GW
Comments: SORR: 9/24/2020; FRR: 10/7/2020 (Source: CoFR Matrix dated 8/14/2020)								
<i>SpaceX Crew 1</i>	TBD	N/A	10/9/2020	10/23/2020 NET	Falcon 9	KSC	HQ	RG
Comments: SORR: 9/30/2020; FRR: 10/14/2020 (Source: CoFR matrix dated 8/18/2020)								
<i>Sentinel 6 Michael Freilich</i>	9/2/2020	N/A	10/2/2020	11/10/2020 U/R	Falcon 9	VAFB	HQ	PP/GL
Comments: FRR: 11/4/2020 (Source: LSP Milestone Review Schedule dated 6/25/2020)								
<i>SpaceX-21</i>	TBD	N/A	N/A	11/15/2020	Falcon 9	KSC	JSC	VH/GW
Comments: SORR: 10/29/2020; FRR: N/R (Source: CoFR Matrix dated 8/14/2020)								
<i>3R (MLM)</i>	TBD	N/A	TBD	11/30/2020	Proton M	Kazakhstan	JSC	GW
Comments: SORR: 11/5/2020; FRR: 11/19/2020 (Source: CoFR Matrix dated 4/10/2020)								
<i>75P Disposal</i>	TBD	N/A	TBD	Undock 12/1/2020	N/A	South Pacific Ocean	JSC	GW
Comments: SORR: 11/19/2020 (Source: CoFR Matrix dated 5/22/2020)								
<i>76P Disposal</i>	TBD	N/A	TBD	Undock 12/4/2020	N/A	South Pacific Ocean	JSC	GW
Comments: SORR: 11/19/2020 (Source: CoFR Matrix dated 5/22/2020)								
<i>77P</i>	TBD	N/A	TBD	12/11/2020	Soyuz	Kazakhstan	JSC	GW
Comments: SORR: 11/19/2020 (Source: CoFR Matrix dated 4/10/2020)								
<i>Boeing-OFT2 (Uncrewed)</i>	TBD	N/A	TBD	1/4/2021 NET	Atlas V N22	CCAFS	HQ	RG
Comments: SORR: TBD; FRR: TBD (Source: Email from Shandy Mcmillian dated 8/24/2020)								
<i>Northrup Grumman-15</i>	TBD	N/A	TBD	2/1/2021	Antares	Wallops	JSC	GW
Comments: SORR: 1/7/2021 (Source: CoFR Matrix dated 4/10/2020)								

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<i>SpaceX-22</i>	TBD	N/A	TBD	3/12/2021	Falcon 9	CCAFS	JSC	GW
Comments: SORR: 2/16/2021 (Source: Flight Planning Board (FPB) Manifest dated 6/5/2020)								
<i>77P Disposal</i>	TBD	N/A	TBD	Undock 3/17/2021	Soyuz	South Pacific Ocean	JSC	GW
Comments: SORR: 2/25/2021 (Source: CoFR Matrix dated 6/12/2020)								
<i>78P</i>	TBD	N/A	TBD	3/19/2021	Soyuz	Kazakhstan	JSC	GW
Comments: SORR: 2/25/2021 (Source: CoFR Matrix dated 6/12/2020)								
<i>SpaceX Crew 2</i>	TBD	N/A	TBD	3/30/2021	Falcon 9	KSC	HQ	RG
Comments: SORR: 3/4/2021; FRR: 3/23/2021 (Source: CoFR Matrix dated 8/14/2020)								
<i>Boeing-CFT 1 Launch (crewed)</i>	TBD	N/A	TBD	Apr 2021	Atlas V N22	CCAFS	HQ	RG
Comments: SORR: TBD; FRR: TBD (Source: Tuesday Tag-up meeting on 5/26/2020)								

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<i>Surface Water and Ocean Topography (SWOT)</i>	Jul 2021	N/A	Feb 2022	3/5/2022	Falcon 9	VAFB	HQ	PP/GL
Comments: The SWOT mission brings together two communities focused on a better understanding of the world's oceans and its terrestrial surface waters. U.S. and French oceanographers and hydrologists and international partners have joined forces to develop this satellite mission to make the first global survey of Earth's surface water, observe the fine details of the ocean's surface topography, and measure how water bodies change over time. (Source: LSP Milestone Review Schedule dated 4/2/2020)								
<i>SpaceX-25</i>	TBD	N/A	TBD	Apr 2022	Falcon 9	CCAFS	JSC	GW
Comments: SORR: TBD; FRR: TBD (Source: LSP Waterfall dated 6/4/2020)								
<i>Boeing Crew 2</i>	TBD	N/A	TBD	4/21/2022	Atlas V N22	CCAFS	HQ	RG
Comments: SORR: TBD; FRR: TBD (Source: LSP Waterfall dated 6/4/2020)								
<i>Low-Boom Flight Demonstrator (Lbfd) X-59 QueSST</i>	Jul 2021	N/A	Aug 2022	Jun 2022	X-59	AFRC	HQ	JL
Comments: The Lockheed Martin X-59 QueSST is an American experimental supersonic aircraft being developed at Skunk Works for NASA's Low-Boom Flight Demonstrator program. (Source: Email from John Lapointe dated 5/12/2020)								
<i>Psyche</i>	May 2022	N/A	Jun 2022	7/13/2022-8/26/2022	Falcon Heavy	KSC	HQ	PP/GL
Comments: The Psyche mission is a journey to a unique metal asteroid orbiting the Sun between Mars and Jupiter. What makes the asteroid Psyche unique is that it appears to be the exposed nickel-iron core of an early planet, one of the building blocks of our solar system. (Source: LSP Milestone Review dated 6/25/2020)								
<i>SpaceX-26</i>	TBD	N/A	TBD	Sep 2022	Falcon 9	CCAFS	JSC	GW
Comments: SORR: TBD; FRR: TBD (Source: LSP Waterfall dated 6/4/2020)								

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<i>Joint Polar Satellite System 2 (JPSS-2)/Low-Earth Orbit Flight Test of an Inflatable Decelerator (LOFTID)</i>	Jan 2022	N/A	Feb 2022	9/30/2022	Atlas V-401	VAFB	HQ	PP/GL
Comments: The Joint Polar Satellite System (JPSS) is the restructured civilian portion of the National Polar-orbiting Operational Environmental Satellite System (NPOESS) that will make afternoon observations as it orbits Earth. The system includes the satellites and sensors supporting civil weather and climate measurements and a shared ground infrastructure with the Department of Defense weather satellite system. (Source: Flight Planning Board (FPB) Manifest dated 8/3/2020)								
<i>OSAM-1</i>	Oct 2022	N/A	Nov 2022	12/1/2022	TBD	TBD	HQ	PP/GL
Comments: Changed the name or Restore-L to OSAM-1 (On-orbit Servicing, Assembly and Manufacturing 1 as informed by the OSAM-a Project Manager and LSP on 4/22/2020. (Source: Flight Planning Board (FPB) Manifest dated 5/1/2020)								
<i>Boeing Crew 3</i>	TBD	N/A	TBD	12/14/2022	Atlas V N22	CCAFS	HQ	RG
Comments: SORR: TBD; FRR: TBD (Source: LSP Waterfall dated 6/4/2020)								
<i>Plankton, Aerosol, Cloud, ocean Ecosystem (PACE)</i>	TBD	N/A	Jul 2022	12/15/2022	Falcon 9	CCAFS	HQ	PP/GL
Comments: PACE's data will help us better understand how the ocean and atmosphere exchange carbon dioxide. In addition, it will reveal how aerosols might fuel phytoplankton growth in the surface ocean. (Source: LSP Milestone Review Schedule dated 2/6/2020)								
<i>Polarimeter to Unify the Corona and Heliosphere (PUNCH)</i>	Dec 2022	N/A	Jan 2023	Feb 2023	TBD	TBD	HQ	PP/GL
Comments: PUNCH will focus directly on the Sun's outer atmosphere, the corona, and how it generates the solar wind. Composed of four suitcase-sized satellites, PUNCH will image and track the solar wind as it leaves the Sun. The spacecraft also will track coronal mass ejections – large eruptions of solar material that can drive large space weather events near Earth – to better understand their evolution and develop new techniques for predicting such eruptions. (Source: LSP Milestone Review Schedule dated 4/2/2020)								
<i>Artemis II</i>	Aug 2022	N/A	Sep 2022	Jun 2023	SLS	KSC	HQ	SM
Comments: With the Artemis program, NASA will land the first woman and next man on the Moon by 2024, using innovative technologies to explore more of the lunar surface than ever before. We will collaborate with our commercial and international partners and establish sustainable exploration by 2028. (Source: Information from Shandy McMillian on 8/24/2020)								
<i>Europa Clipper</i>	TBD	N/A	TBD	July 2023	TBD	TBD	HQ	PP/GL
Comments: NASA's Europa Clipper will conduct detailed reconnaissance of Jupiter's moon Europa and investigate whether the icy moon could harbor conditions suitable for life. (Source: LSP Milestone Review Schedule dated 2/6/2020)								

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<i>PPE+HALO</i>	TBD	N/A	TBD	Nov 2023	TBD	KSC	HQ	SM
Comments: The Habitation and Logistics Outpost (HALO) also called the Minimal Habitation Module (MHM) and formerly known as the Utilization Module, will be built by Northrop Grumman Innovation Systems (NGIS). A commercial launch vehicle would launch the HALO in November 2023 with Power and Propulsion Element (PPE) module. The HALO is based on a Cygnus Cargo resupply module. (Source: LSP Waterfall dated 5/7/2020)								
<i>Geostationary Operational Environmental Satellite (GOES-U)</i>	TBD	N/A	TBD	April 2024	TBD	CCAFS	HQ	PP/GL
Comments: The GOES-R satellite series consists of GOES-R, GOES-S, GOES-T, and GOES-U. This series is more advanced than the previous GOES fleet in that the imager can scan the Earth five times faster, at four times the image resolution, with triple the number of channels for more accurate, reliable weather forecasts and severe weather outlooks. They will also provide critical solar monitoring and space weather observations. (Source: LSP Milestone Review Schedule dated 4/2/2020)								
<i>Spectro-Photometer for the History of the Universe, Epoch of Reionization and Ices Explorer (SPHEREx)</i>	TBD	N/A	TBD	6/17/2024	TBD	TBD	HQ	PP/GL
Comments: SPHEREx will survey the sky in optical as well as near-infrared light which, though not visible to the human eye, serves as a powerful tool for answering cosmic questions. Astronomers will use the mission to gather data on more than 300 million galaxies, as well as more than 100 million stars in our own Milky Way. (Source: LSP Milestone Chart dated 8/20/2020)								
<i>Artemis III</i>	Aug 2024	N/A	Sep 2024	Sept 2024	SLS	KSC	HQ	SM
Comments: With the Artemis program, NASA will land the first woman and next man on the Moon by 2024, using innovative technologies to explore more of the lunar surface than ever before. We will collaborate with our commercial and international partners and establish sustainable exploration by 2028. (Source: Information from Shandy McMillian on 8/24/2020)								

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<i>Interstellar Mapping and Acceleration Probe (IMAP)</i>	TBD	N/A	TBD	Oct 2024	TBD	TBD	HQ	PP/GL
Comments: IMAP will sample, analyze, and map particles streaming to Earth from the edges of interstellar space. IMAP will help researchers better understand the boundary of the heliosphere, a sort of magnetic bubble surrounding and protecting our solar system. (Source: LSP Milestone Review Schedule dated 4/2/2020)								