

National Aeronautics and Space Administration



# HLS Services Phase

*Industry Forum*

**May 3, 2021**

HLS Program



# Agenda



Time (CT)	Topic	Speaker
11:15 am	Welcome and Introductions	JENA ROWE HLS Public Affairs Officer, NASA/MSFC
11:20 am	Artemis Overview	MARK KIRASICH Deputy Associate Administrator, Advanced Exploration Systems, HEOMD, NASA/HQ
11:35 am	HLS Acquisition Planning – Services Acquisition Structure, App N Overview	DR. LISA WATSON-MORGAN Program Manager, Human Landing System, NASA/MSFC
12:05 pm	Questions & Answers	All



# Industry Survey Ground Rules

- **This meeting is being recorded for purposes of capturing questions and answers**
- **NASA will address questions during this meeting to clarify the content of the presentation**
- **Participants may submit questions by:**
  - Submit questions via chat in WebEx (must be to 'All Participants')
- **NASA will not provide evaluations, opinions, or recommendations regarding any suggested approaches or concepts**
- **NASA remarks and explanations at this briefing do not qualify the terms of any future solicitations (i.e., the solicitation governs)**
- Comments and questions shall be submitted electronically to [hq-hls-baa@mail.nasa.gov](mailto:hq-hls-baa@mail.nasa.gov) no later than 5:00 p.m. Central Time on May 6, 2021



# **ARTEMIS OVERVIEW**

**MR. MARK KIRASICH**

**Deputy Associate Administrator, Advanced Exploration Systems**



# Overview

**DR. LISA WATSON-MORGAN**

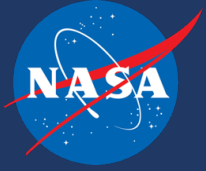
**Program Manager, Human Landing System (HLS)**



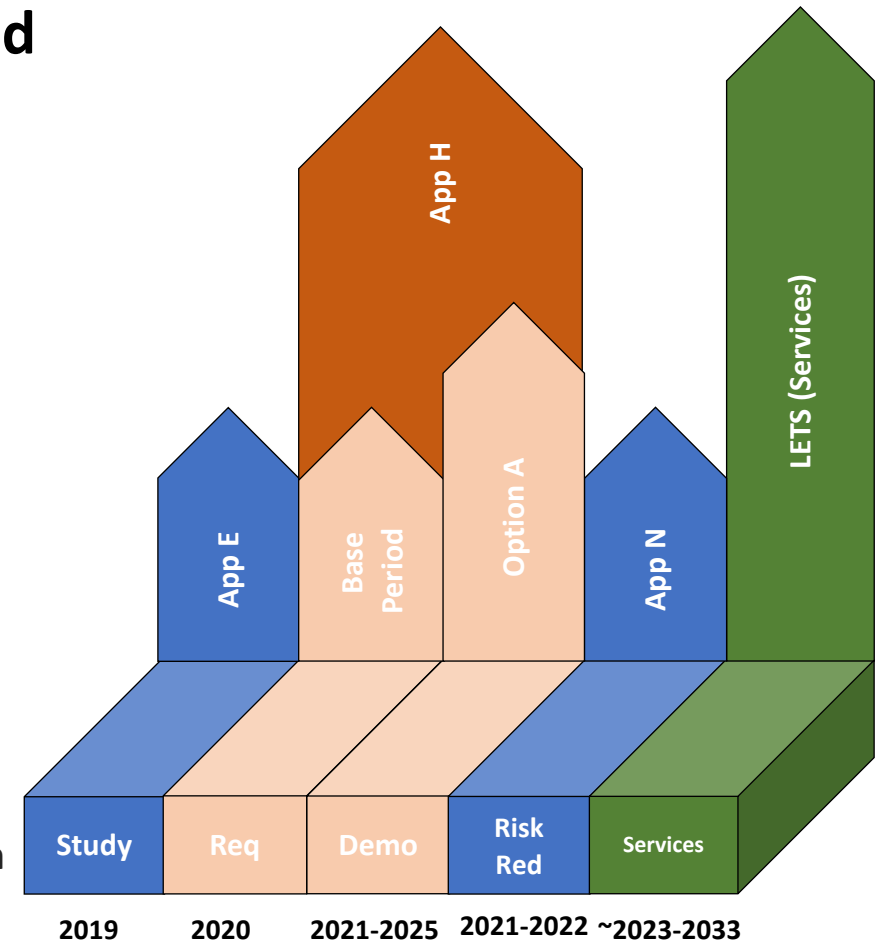
# Industry Survey Purpose

- Today provides an update on NASA's Lunar Exploration Transportation Services (LETS) Planning
  - Provide industry information on NASA's HLS acquisition acceleration to achieve Service missions for the late 2020's
- Describe HLS planned activities prior to LETS (Services) contract RFP
  - Advance sustaining mission requirements development and risk reduction using NASA's NextSTEP-2 Broad Agency Announcement (BAA)
  - Proposed Appendix N activities
  - Outside of and completely separate from Appendix H
  - Solicit comments from U.S. industry on the planned Appendix N engagement model and Services contract structure
  - Additional information available at: <https://www.nasa.gov/nextstep/humanlander3>
- Address questions from interested industry participants

# HLS Acquisition Structure for Service Contract



- **App E: 11 contractors performed early architecture and trade studies for a human lander**
- **App H:**
  - **Base Period – 3 contractors:**
    - Adjudicate standards (CBR in August 2020)
    - Preliminary design-tailored (CR in December 2020)
  - **Option A award 2021: DDT&E through first flight based on 2024 requirements, demo mission**
- **App N:**
  - Transportation services risk reduction for industry
- **Services Contract – Late 2020's**
  - Includes the DDT&E for sustaining design & transportation services between Gateway and the Lunar surface, supporting recurring missions after cert



# Draft NextSTEP-2 Appendix N



- **Objectives:**
  - Open competition using draft Sustaining Requirements (to be released with RFP) for risk reduction
  - Mature Sustaining Requirements in advance of Transportation Services
  - Enhance Service contract formulation and solicitation development from market data and feedback
- **Severable CLINs within each BAA proposal**
- **Firm-fixed price, milestone-based contracts; active government collaboration (expertise and testing)**
- **Schedule**
  - Solicitation in June 2021; ATP in August - October 2021
  - Must end before Service RFP release
- **Appendix N Period of Performance:** ~7 to 12 months
- **Funding:**– *final amounts TBD*, up to ~\$15M/award, multiple awards expected
- **Contract Highlights:**
  - Sustaining Lander design specifications and concept development / risk reduction activities
  - Work towards technical standards, Safety & Mission Assurance, and Health & Medical
  - Testing to mature components/architecture



# HLS Lunar Exploration Transportation Services (LETS)



- **Objective:** Develop and certify integrated lunar landing solutions for Sustaining missions, with ability to award recurring service missions in same contract structure
- **Open solicitation to U.S. industry**
- **Firm-fixed price, milestone-based contracts; separable CLINs for mission types (TBD)**
- **Contract Structure Highlights:** Mixed R&D and Services IDIQ (may use FAR Part 15)
  - DDT&E for certification – encouraged to have milestone success criteria linked to hardware-based activity completion (tests, delivery, etc.) to include flight demonstration
  - Interim certification milestones, with associated DRDs, culminating in completion of the Design Certification Review
  - Services (after certification) - IDIQ task orders for mission assignments (includes flight readiness, post-flight review, etc.)
    - At least six (TBR) service missions starting in late 2020's; minimum of 2 (TBR) services missions awarded to a given certified contractor
    - Contractor to include Launch Vehicle acquisition and planning
    - Cost capped (TBR)
    - Government resource (subject matter expertise, facilities, property) availability (Qty TBD)
- **Period of Performance:** 10 (TBR) years total (DDT&E front years; Recurring services starting in late 2020's)

# Closing



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## Resources

- NASA Capabilities: [https://beta.sam.gov/api/prod/opps/v3/opportunities/resources/files/bd0a2a14be97a31860c6523fe8089776/download?api\\_key=null&status=archived&token=](https://beta.sam.gov/api/prod/opps/v3/opportunities/resources/files/bd0a2a14be97a31860c6523fe8089776/download?api_key=null&status=archived&token=)
- NextSTEP Appendix E: <https://www.nasa.gov/nextstep/humanlander>
- NextSTEP Appendix H: <https://www.nasa.gov/nextstep/humanlander2>
- More about HLS: <https://www.nasa.gov/content/humans-on-the-moon-0>

