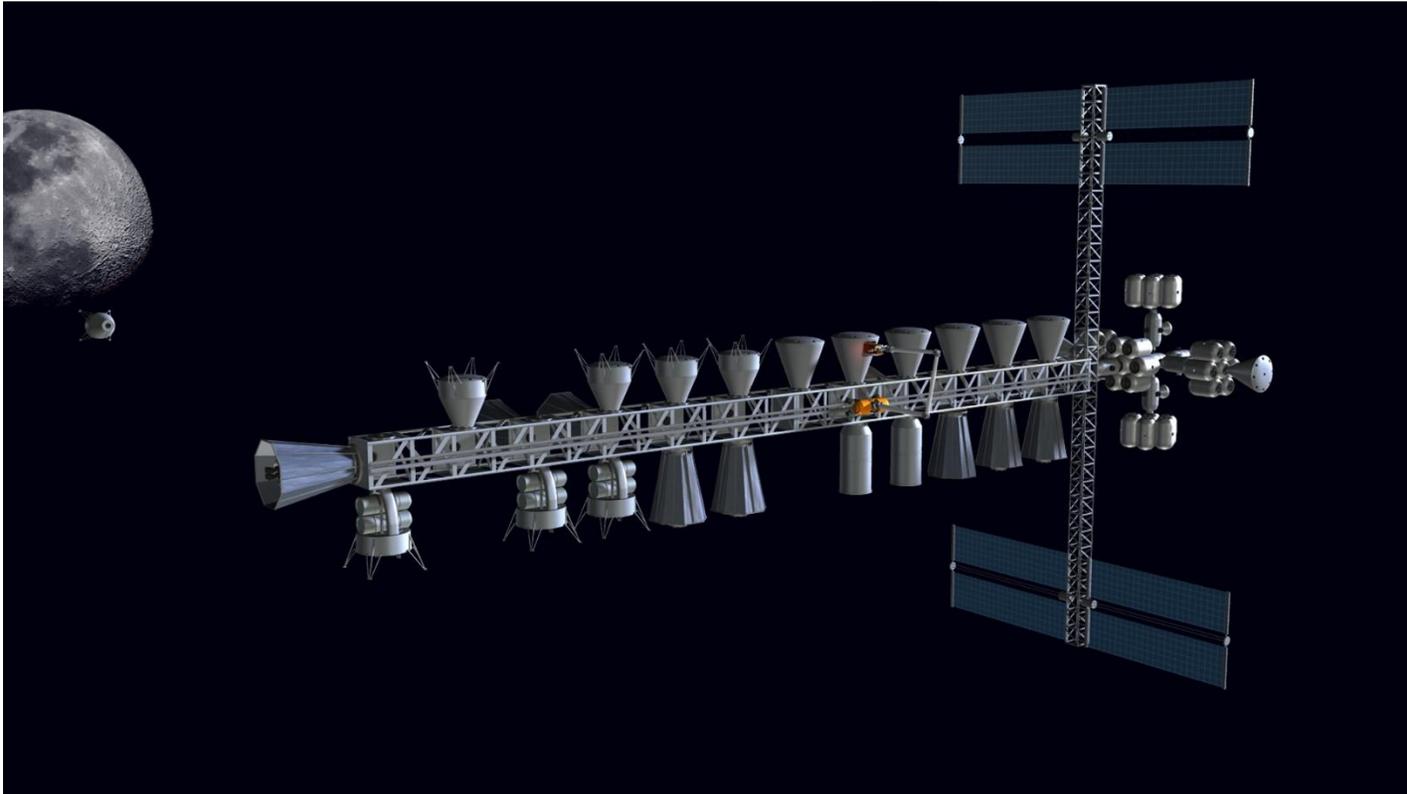


# Cis-Lunar Commercialization Act of 2017



March Storm 2017

Alliance for Space Development

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**SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

- (a) Short Title.--This Act may be cited as the "Cis-lunar Commercialization Act of 2017".
- (b) Table of Contents.--
  - Sec. 1. Short title; table of contents.
  - Sec. 2. Definitions.

**TITLE I—FEDERAL ACQUISITION OF CIS-LUNAR RESOURCES**

- Sec. 101. Findings.
- Sec. 102. Policy and reports
- Sec. 103. Requirement to purchase commercially produced fuel/consumables and other products in Cis-lunar Space or the Lunar Surface.
- Sec. 104. Purchase of Commercially Produced Fuel/Consumables in Cis-lunar Space or the Lunar Surface

**TITLE II--FEDERAL ACQUISITION OF CIS-LUNAR TRANSPORTATION, SERVICING AND LOGISTICS SERVICES**

- Sec. 201. Requirement to procure commercial cis-lunar space transportation, servicing and logistics services.
- Sec. 202. Acquisition of commercial cis-lunar space transportation, servicing and logistics services.

**SEC. 2. DEFINITIONS.**

For purposes of this Act--

- (1) the term "Administrator" means the Administrator of the National Aeronautics and Space Administration;
- (2) the term "commercial provider" means any person providing cis-lunar transportation services, engaged in the extraction of cis-lunar resources, or other space-related activities, primary control of which is held by persons other than Federal, State, local, and foreign governments;
- (3) the term "payload" means anything that a person undertakes to transport to, from, or within outer space in the vicinity of the Moon, asteroids, or in any related orbit, or to the lunar surface by means of a cis-lunar space transportation vehicle, but does not include the space transportation vehicle itself except for its components which are specifically designed or

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adapted for that payload;

- (4) the term “space-related activities” includes research and development, manufacturing, processing, resource extraction, service, and other associated and support activities;
- (5) the term “cis-lunar transportation services” means the preparation of a space transportation vehicle and its payloads for transportation to, from, or within outer space in the vicinity of the Moon, asteroids, or in any related orbit, including the lunar surface, and the conduct of transporting a payload to, from, or within outer space in the vicinity of the Moon, asteroids, or in any related orbit, including the lunar surface;
- (6) the term “cis-lunar transportation vehicle” means any vehicle constructed for the purpose of operating in, or transporting a payload to, from, or within, outer space in the vicinity of the Moon, asteroids, or in any related orbit, including the lunar surface, and includes any component of such vehicle not specifically designed or adapted for a payload;
- (7) the term “State” means each of the several States of the Union, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any other commonwealth, territory, or possession of the United States; and
- (8) the term “United States commercial provider” means a commercial provider, organized under the laws of the United States or of a State, which is--
  - (A) more than 50 percent owned by United States nationals; or
  - (B) a subsidiary of a foreign company and the Secretary of Transportation finds that--
    - (i) such subsidiary has in the past evidenced a substantial commitment to the United States market through--
      - (I) investments in the United States in long-term research, development, and manufacturing (including the manufacture of major components and subassemblies); and
      - (II) significant contributions to employment in the United States; and
    - (ii) the country or countries in which such foreign company is incorporated or organized, and, if appropriate, in which it principally conducts its business, affords reciprocal treatment to companies described in subparagraph (A) comparable to that afforded to such foreign company's subsidiary in the United States, as evidenced by--
      - (I) providing comparable opportunities for companies described in subparagraph (A) to participate in Government sponsored research and development similar to that authorized under this Act;
      - (II) providing no barriers, to companies described in subparagraph (A) with respect to local investment opportunities, that are not provided to foreign companies in the United States; and
      - (III) providing adequate and effective protection for the intellectual property rights of companies described in subparagraph (A).
- (9) the term “cis-lunar” refers to all near-space areas, including the area between the Earth and Moon, orbits around the Earth/Moon system, asteroids that cross relatively close to the Earth (Near Earth Objects – NEO – asteroids), asteroids transferred from deep

space to the vicinity of the Earth/Moon system, and the lunar surface.

## **TITLE I—FEDERAL ACQUISITION OF CIS-LUNAR RESOURCES**

### **SEC. 101. FINDINGS.**

The Congress finds that—

- (1) the United States commercial space industry is technically capable of providing reliable and cost efficient access to Cis lunar space and is an essential component of national efforts to assure access to Cis-lunar space for Government and commercial users;
- (2) the Federal Government should encourage, facilitate, and promote the United States commercial cis-lunar industry, including the development and enhancement of commercial fuel depot facilities, in order to ensure United States economic pre-eminence in cis-lunar space;
- (3) the interests of the United States will be served if the commercial cis-lunar space industry is competitive in the international marketplace;
- (4) cis-lunar commercial vehicles are effective means to challenge foreign competition;
- (5) the use by the Federal Government of performance specifically in lieu of detailed specifications relating to vehicle design, construction, and operation will facilitate the efficient operation of the United States commercial cis-lunar industry;
- (6) the procurement of commercial cis-lunar space services in a commercially reasonable manner permits a reduced level of Federal Government regulation and oversight and economies of scale which may result in significant cost savings to the commercial cis-lunar space industry and to the United States.
- (7) it is the general policy of the Federal Government to purchase needed goods and services, including cis-lunar space services, from the private sector to the fullest extent feasible; and
- (8) predictable access to National Aeronautics and Space Administration fuel/consuable markets would encourage continuing United States private sector investment in cis-lunar space and related activities.

### **SECTION 102: POLICY AND REPORTS**

- (a) Policy.--The Congress declares that a priority goal of constructing gateways, bases, fuel depots and mining complexes in the vicinity of the Moon and asteroids as well as on their surfaces is vital to the economic development of cis-lunar space. The Congress further declares that free and competitive markets create the most efficient conditions for promoting economic

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development, and should therefore govern the economic development of cis-lunar space. The Congress further declares that the use of free market principles in operating, servicing, allocating the use of, and adding capabilities to bases, gateways, fuel depots, and mining complexes, and the resulting fullest possible engagement of commercial providers and participation of commercial users, will reduce cis-lunar space operational costs for all partners and the Federal Government's share of the United States burden to fund operations.

**(b) Reports.—**

- (1) The Administrator shall deliver to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate, within 120 days after the date of the enactment of this Act, a study that identifies and examines--
  - (A) the opportunities for commercial providers to play a role in cis-lunar gateway, lunar base, and fuel depot activities, including operation, use, servicing, and augmentation;
  - (B) the potential cost savings to be derived from commercial providers playing a role in each of these activities;
  - (C) which of the opportunities described in subparagraph (A) the Administrator plans to make available to commercial providers in fiscal years 2020 and 2022;
  - (D) the specific policies and initiatives the Administrator is advancing to encourage and facilitate these commercial opportunities; and
  - (E) the revenues and cost reimbursements to the Federal Government from commercial users of the cis-lunar infrastructure.
- (2) The Administrator shall deliver to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate, within 180 days after the date of the enactment of this Act, an independently conducted market study that examines and evaluates potential industry interest in providing commercial goods and services for the operation, servicing, and augmentation of a cis-lunar gateway, lunar base, and fuel depot activities, and in the commercial use of these facilities. This study shall also include updates to the cost savings and revenue estimates made in the study described in paragraph (1) based on the external market assessment.
- (3) The Administrator shall deliver to the Congress, no later than the submission of the President's annual budget request for fiscal year 2020, a report detailing how many proposals (whether solicited or not) the National Aeronautics and Space Administration received during calendar years 2018 and 2019 regarding commercial operation, servicing, utilization, or augmentation of cis-lunar gateway, lunar base, and fuel depot activities, broken down by each of these four categories, and specifying how many agreements the National Aeronautics and Space Administration has entered into in response to these proposals, also broken down by these four categories.
- (4) Each of the studies and reports required by paragraphs (1), (2), and (3) shall include consideration of the potential role of State governments as brokers in promoting commercial participation in cis-lunar gateway, lunar base, and fuel depot

activities.

**SEC. 103. REQUIREMENT TO PURCHASE COMMERCIALY PRODUCED FUEL/CONSUMABLES AND OTHER PRODUCTS IN CIS-LUNAR SPACE.**

(a) **IN GENERAL.**— Except as otherwise provided in this section, the National Aeronautics and Space Administration shall purchase commercially produced fuel/consumables and other products manufactured in space for its activities in cis lunar space, including activities targeted for deep space but initiated in cis-lunar space, from commercial providers whenever such products are required in the course of its activities. Such purchases shall be made in such a fashion as to obtain fuel/consumables and other products without prejudice to the source from which they are obtained, whether the lunar surface or asteroids, or from some other source.

(b) **EXCEPTIONS.**— The National Aeronautics and Space Administration shall not be required to purchase fuel/consumables as provided in subsection (a) if, on a case by case basis the Administrator of the National Aeronautics and Space Administration determines that—

- (1) cost effective commercially provided fuel/consumables and other products to meet specific mission requirements are not reasonably available and would not be available when required;
- (2) the use of commercially provided fuel/consumables and other products poses an unacceptable risk of loss of a unique scientific opportunity; or
- (3) the usage of commercially provided fuel/consumables and other products works against national security or foreign policy purposes.

Upon any such determination, the Administrator shall, within 30 days, notify in writing the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate of the determination and its rationale.

(c) **NATIONAL AERONAUTICS AND SPACE ADMINISTRATION OWNERSHIP OF FUEL/CONSUMABLES AND OTHER PRODUCTS IN CIS-LUNAR SPACE .**— Fuel/consumables in cis-lunar space shall be acquired or owned by the National Aeronautics and Space Administration only—

- (1) As required under circumstances described in subsection (b); or
- (2) by the National Aeronautics and Space Administration for conducting research and development on, and testing of, cis-lunar space technology.

(d) **PHASE-IN PERIOD.**— Subsections (a) and (c) shall not apply to fuel/consumables or other products purchased by the

National Aeronautics and Space Administration before the date of enactment of this Act.

**SEC. 104. PURCHASE OF COMMERCIALY PRODUCED FUEL/CONSUMABLES AND OTHER PRODUCTS IN CIS-LUNAR SPACE**

(a) **FULL AND OPEN COMPETITION.**—

- (1) Contracts to provide fuel/consumables to the National Aeronautics and Space Administration under section 102 shall be awarded on the basis of full, fair, and open competition, consistent with section 2304 of Title 10, United States Code, and section 311 of the National Aeronautics and Space Act of 1958.
- (2) The National Aeronautics and Space Administration shall limit its requirements for submission of cost or pricing data in support of a bid or Proposal to that data which is reasonably required to protect the interests of the United States.

(b) **SPECIFICATION SYSTEMS.**— Reasonable performance specifications, not detailed Government design or construction specifications, shall be used to the maximum extent feasible to define requirements for a commercial provider bidding to provide fuel/consumables and other products in cis-lunar space. This subsection shall not preclude the National Aeronautics and Space Administration from requiring compliance with applicable safety standards.

(c) **REPORT.**— By March 21, 2018 the Administrator, in consultation with the Office of Federal Procurement Policy, shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report outlining the minimal requirements for documentation and other administrative data needed to procure fuel/consumables for cis-lunar usage in a commercially reasonable manner.

**TITLE II--FEDERAL ACQUISITION OF CIS-LUNAR SPACE TRANSPORTATION, SERVICING, AND LOGISTICS SERVICES**

**SEC. 201. REQUIREMENT TO PURCHASE CIS-LUNAR SPACE TRANSPORTATION, SERVICING, AND LOGISTICS SERVICES.**

(a) **IN GENERAL.**— Except as otherwise provided in this section, the National Aeronautics and Space Administration shall purchase crew and cargo transportation, servicing, and logistics services for its activities in cis-lunar space, including activities targeted for deep space but initiated in cis-lunar space, from commercial providers whenever such products are required in the course of its activities.

(b) **EXCEPTIONS.**— The National Aeronautics and Space Administration shall not be required to purchase cis-lunar space crew and cargo transportation, servicing, and logistics services as provided in subsection (a) if, on a case by case basis the Administrator of the National Aeronautics and Space Administration determines that—

- (1) cost effective commercially provided cis-lunar space crew and cargo transportation, servicing, and logistics services to meet specific mission requirements are not reasonably available and would not be available when required;
- (2) the use of commercially provided cis-lunar space crew and cargo transportation, servicing, and logistics services poses an unacceptable risk of loss of a unique scientific opportunity; or
- (3) the usage of commercially provided cis-lunar space crew and cargo transportation, servicing, and logistics services works against national security or foreign policy purposes.

Upon any such determination, the Administrator shall, within 30 days, notify in writing the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate of the determination and its rationale.

(c) **NATIONAL AERONAUTICS AND SPACE ADMINISTRATION OWNERSHIP OF CREW/CARGO TRANSPORTS IN CIS-LUNAR SPACE .**— Cis-lunar space crew and cargo transportation equipment shall be acquired or owned by the National Aeronautics and Space Administration only—

- (1) As required under circumstances described in subsection (b); or
- (2) by the National Aeronautics and Space Administration for conducting research and development on, and testing of, cis-lunar space technology.

(d) **PHASE-IN PERIOD.**— Subsections (a) and (c) shall not apply to cis-lunar space crew and cargo transportation equipment purchased by the National Aeronautics and Space Administration before the date of enactment of this Act.

## **SEC. 202. ACQUISITION OF COMMERCIAL CIS-LUNAR SPACE TRANSPORTATION, SERVICING, AND LOGISTIC SERVICES.**

(a) **FULL AND OPEN COMPETITION.**—

- (1) Contracts to provide cis-lunar space crew and cargo transportation, servicing, and logistics services to the National Aeronautics and Space Administration under section 102 shall be awarded on the basis of full, fair, and open competition, consistent with section 2304 of Title 10, United States Code, and section 311 of the National Aeronautics and Space Act of 1958.
- (2) The National Aeronautics and Space Administration shall limit its requirements for submission of cost or pricing data

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in support of a bid or Proposal to that data which is reasonably required to protect the interests of the United States.

- (b) SPECIFICATION SYSTEMS.— Reasonable performance specifications, not detailed Government design or construction specifications, shall be used to the maximum extent feasible to define requirements for a commercial provider bidding to provide cis-lunar space crew and cargo transportation, servicing, and logistics services. This subsection shall not preclude the National Aeronautics and Space Administration from requiring compliance with applicable safety standards.
- (c) REPORT.— By March 21, 2018 the Administrator, in consultation with the Office of Federal Procurement Policy, shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report outlining the minimal requirements for documentation and other administrative data needed to procure cis-lunar space crew and cargo transportation, servicing, and logistics services in a commercially reasonable manner.