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Subject: New China Bilateral Space Launch
Trade Agreement

Note: _____

**AGREEMENT BETWEEN THE
GOVERNMENT OF THE UNITED STATES OF AMERICA AND
THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA
TO AMEND THE MEMORANDUM OF AGREEMENT BETWEEN
THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND
THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA
REGARDING INTERNATIONAL TRADE IN COMMERCIAL LAUNCH
SERVICES**

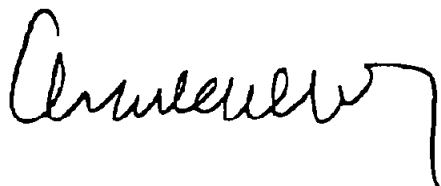
The Government of the United States of America and the Government of the People's Republic of China hereby agree, with respect to the *Memorandum of Agreement Between the Government of the United States of America and the Government of the People's Republic of China Regarding International Trade in Commercial Launch Services*, signed in Beijing, on March 13, 1995, as follows:

Provision II (B)(iv)(b) of the Memorandum of Agreement is hereby amended as provided in the attached "Annex III: Pricing Comparability Factors for Commercial Launch Services to Low Earth Orbit."

DONE at Washington, this twenty-seventh day of October 1997, in duplicate in the English and Chinese languages, both texts being equally authentic. This Agreement shall enter into force upon signature.

FOR THE GOVERNMENT OF
THE UNITED STATES OF AMERICA.

FOR THE GOVERNMENT OF
THE PEOPLE'S REPUBLIC OF CHINA:



ANNEX III: Pricing Comparability Factors for Commercial Launch Services to Low Earth Orbit

Both parties agreed to the following six factors for comparing or evaluating Low Earth Orbit (LEO) launch services and prices offered to customers in the international market for commercial launch services. Such factors, when applied to an examination of a particular LEO launch competition, can explain legitimate distinctions in the prices offered for a LEO launch by PRC and market economy providers of LEO commercial launch services.

For each factor, only a brief description is provided. It is not possible to include quantitative ranges at this time due to the current lack of data and experience pertaining to the commercial deployment of satellites to LEO (especially in the case of multiple-satellite LEO constellations.) The actual assignment of quantitative ranges for each factor will represent an important part of the ongoing implementation of the MOA, as data and experience with commercial LEO launches increases. In addition, it may be appropriate to review periodically the relevant comparability factors. At the same time, market pricing trends will be monitored to determine if orbital insertion accuracy evolves as a typical factor in LEO commercial launch pricing, or if the government license procedures become a quantifiable factor for explaining differences in LEO commercial launch pricing relative to the LEO pricing disciplines of the MOA.

Single and multiple-manifested launches to LEO can often involve different mission or contractual characteristics, especially in the case of LEO constellation deployment. Consequently, separate language is provided below for the two types of missions (when appropriate.)

Comparability Factor

Description

Risk Management

Addresses potential differences in insurance prices for customer, based on vehicle and scheduling reliability (as well as other forms of risk management, such as political risk insurance.) For multiple-manifested missions, two additional considerations may affect the application of this factor: 1) the total number of satellites covered by the risk management package (and how this coverage relates to the number of satellites that might fail in a particular launch); and 2) the uncertainty in performance for such launches (for all providers) given the newness of this type of commercial mission.

**Payment
Conditions/Terms**

Relates to various payment and financial conditions or incentives that may be offered as part of a launch services bid (governed by the provisions of any relevant trade agreements and OECD guidelines.)

Additional Costs

-- Integration Costs

For single-manifested missions, this factor addresses different types of payload/vehicle integration costs.

For multiple-manifested missions, it will relate to the integration of several payloads to a "dispenser," which is then mated to the vehicle. In both cases, it can involve mission software/hardware modifications necessary for the mission.

-- Launch Support

Involves extra transportation expenses, security costs, extra equipment, and personnel support costs (relative to Western launches) due to launching in the PRC. For multiple-manifested missions, it is still unclear how such costs will compare to the levels typically seen for GEO launches (due to differences in support philosophy and requirements.)

Dispenser Development

For multiple-manifested missions only, relates to the impact of the dispenser development on the overall launch services price. This factor will typically be a function of the maturity of the dispenser design and the number of times that it has been used (e.g., it must be determined whether the bid reflects the development of a new dispenser for the launch -- including any adjustments to the launch vehicle itself necessary to accommodate the new dispenser -- or simply minor changes to an existing dispenser design.)

Fairing Size

Considers possibility that vehicle might have insufficient fairing size (in terms of dimensions and internal volume) to accommodate customer's preferences for number of satellites per launch (potentially forcing customer to pursue other options.) This issue should be considered, when applicable, in comparisons of vehicles with comparable lift capability.

**Multiple Launch
Discounts**

For multiple launches supporting LEO constellations, addresses possibility that price discounts may be offered (by launch provider) in exchange for commitments to higher numbers of launches on a specific vehicle and for a particular constellation (either for deployment or replacement), yielding production economies.