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U.S. National Space Policy and Bilateral Launch Service Agreements

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Abstract

In the past 18 months, the United States has entered into new bilateral trade agreements with China, Russia and the Ukraine. These agreements set market quotas for launches of commercial communications satellites to geostationary orbits, establish requirements for "par-pricing" with Western launch providers and create structured consultations in the event of disputes. On September 19, 1996, President Clinton released his National Space Policy. That policy envisions the expiration of the bilateral trade agreements on launch services at the expiration of the present agreements in 2001. While launch service providers will need to plan to operate within the confines of these agreements for the next five years, satellite manufacturers and users with product or project cycles beginning up to three years prior to the first launch, undoubtedly will start to plan for a free trade regime.

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Introduction

On September 19, 1996, President Clinton released his National Space Policy¹ which assesses and attempts to balance United States military, commercial and civil space activities and goals. By this first post cold-war space policy assessment, President Clinton's administration has set forth its expectations for international cooperation, inter-agency governmental cooperation, and privatization in United States space programs. The new policy represents the culmination of a year-long review undertaken by the National Security Council and the National Science and Technology Council. The policy is spelled out in a classified Presidential Decision Directive and is expected to serve as the administration's platform for an upcoming bipartisan national space summit (scheduled for mid-December, 1996) and a conference on space exploration (scheduled for late-November, 1996).

National Space Policy

The new space policy contains several provisions relating to the United States national (civil) space programs and commercial space activities.

National Programs

With respect to the national (civil) space programs, the policy reaffirms a U.S. commitment to develop the next generation of

launch vehicles and stresses the importance of building alliances between the United States and foreign countries on projects such as the International Space Station. The Administration supports cooperative projects for furthering human knowledge of space and supports programs of discovery which will result in obtaining in-situ measurements and sample returns from celestial bodies. The policy also reasserts the existing U.S. commitment to a long-term program of environmental monitoring from space.

Commercial Space

The new space policy encourages alliances between the government and the private sector. In order to foster private-sector investment in space activities, the government pledges to help expand commercial space activities, and to refrain from conducting any activities that deter commercial space activities except for reasons of national security or public safety.

The new policy states that United States Government agencies will be required to purchase commercially available space goods and services to the fullest extent feasible. Commercially available goods and services are defined as those currently offered commercially, or those that could be supplied commercially in response to a government request. It is the policy of the United States Governments not to directly subsidize commercial space activities.

Export Licensing

Exports of space systems and components continue to be regulated, and the United States Government will retain a strong presumption against the export of complete space launch vehicles or other components classified as

Category I components under the Missile Technology Control Regime ("MTCR").² The U.S. Government will consider the export of other MTCR controlled components to MTCR countries only on a case-by-case basis.

Reusable Launch Vehicle

The development of a reusable space launch vehicle will continue to be a primary objective of the national U.S. space program, but the United States will not support the development or acquisition of space launch vehicle systems from nations that are not signatories to the Missile Technology Control Regime ("MTCR").

Trade Agreements in Launch Services

The President also expressed the intent to allow free and fair trade in commercial launch services to prevail when the bilateral agreements with China, Russia and the Ukraine expire at the beginning of the next decade. The United States entered into these agreements under the rationale that these countries had "economies in transition" that should be accorded access to the U.S. launch market but on limited terms. The goal was to promote free and fair trade in the international commercial space launch market but not to allow ruinous competitive pricing from economies that did not yet operate according to market principles.

The new Clinton National Space Policy foresees the end of the transition period and implementation of the goal of free and fair trade:

"In support of this goal, the United States will implement, at the expiration of current space launch agreements, a strategy for transitioning from

negotiated trade in launch services towards a trade environment characterized by the free and open interaction of market economies. The U.S. Trade Representative, in coordination with the Office of Science and Technology Policy and the National Economic Council, will develop a strategy to guide this implementation”³

This is a definite policy shift in an attempt to reconcile the President’s policies on trade and the existing regime of bilateral agreements. The new policy also strikes a better balance between competing U.S. satellite manufacturing and launch provider interests. The new policy creates a real challenge for the U.S. launch service providers who must prepare for eventual unfettered market entry of Chinese, Russian, and Ukrainian launch service providers.

While satellite manufacturers and satellite operators will not enjoy the full benefit of open competition for the next five years because of the constraints imposed by the bi-lateral agreements, those agreements do provide limited benefits to launch consumers during the transition period as these three market agreements, taken together, allow up to a total of 60 U.S.-built satellites to be launched by China, Russia and the Ukraine through the end of this century. The agreements are not intended to close the U.S. market but to stabilize the market in a period of transition. They are intended to provide satellite manufacturers with access to foreign launch vehicle and launch services providers from economies in transition, to provide safeguards against unfair or disruptive practices by those providers, and to ensure the flexibility of the agreements so as to take account of changing market conditions.⁴

The Bilateral Agreements

In the 18 months prior to the issuance of President Clinton’s space policy, the United States has renewed bilateral commercial space launch services agreements with China and Russia and has entered into a new agreement with the Ukraine. The avowed purpose of these agreements was to balance the interests of the U.S. space launch, satellite, and telecommunications industries.⁵

The bilateral agreements were intended by the United States to be transitional measures with annual consultations built-in to review and consider market conditions. The transitional measure of a stabilized price comparison appeared to the United States to be necessary as the one-time non-market economies often receive funding or products from their governments. The theory was that the agreements would provide a period of adjustment by the market as China, Russia, and Ukraine evolved their internal markets adopted market pricing mechanisms.

In order to avoid a disruption of the market, the agreements were intended to provide some stability by placing quantitative limits and pricing controls on future launch services contracts. The U.S. Trade Representative’s Office is directed to investigate the prices offered by China, Russia, and Ukraine.

The bilateral agreements are not favorable to U.S. satellite manufacturers who want increased access to foreign launchers. The Agreements are intended to strike a balance between competing interests by allowing the supply of launch services available to the U.S. satellite industry to grow in a controlled fashion. It was believed that such limited growth would protect the U.S. launch industry

and at the same time not harm the leading world market position of U.S. satellite manufacturers.⁶

Bilateral Agreement with China

On March 13, 1995, the U.S. and China signed a Memorandum of Agreement regarding international trade in commercial launch services for the period from January 1, 1995 to December 31, 2001.⁷ The Agreement replaced the first U.S.-China Memorandum of Agreement which was signed on January 26, 1989 and expired on December 31, 1994.

The U.S. Trade Representative's Office established guidelines, which became effective on April 27, 1995, to assist in the implementation of this bilateral agreement. The Trade Policy Staff Committee's Subcommittee on Commercial Launch Services (Subcommittee) is responsible for overall implementation of the agreement. The Subcommittee is chaired by the USTR. The Subcommittee has performed two key functions with respect to the agreement: (1) conducting an ongoing assessment of the operation of the agreement relative to U.S. goals and objectives; and (2) monitoring China's compliance with its specific obligations under the agreement.

The agreement provides that China shall offer launch services at prices "on a par" with those prices, terms and conditions prevailing in the international market for comparable commercial launch services. The agreement further describes the mechanism that is utilized in applying the "par-pricing" requirement for launches to geosynchronous earth orbit (GEO): an adjusted Chinese price falling within 15 percent of the lowest Western price is assumed to be in compliance with the bilateral agreement. That assumption is reviewed by the United States if clear evidence to the contrary is

presented to the Subcommittee. In those instances in which the price differential is greater than 15 percent, compliance with the "par pricing" obligation will be evaluated in light of the comparability factors and values contained in the agreement.

The United States makes a preliminary evaluation prior to any decision to request special consultations. Information for an evaluation by the U.S. is collected by the Subcommittee through information exchanges, consultations (annual, semi-annual, special), and comprehensive reviews.

In July of this year, U.S. Trade Representative's Office met with its counterpart in Beijing to discuss implementation of the bilateral agreement. At these first consultations, the United States had three objectives: 1) to reconcile the Parties' projections of the size of the global markets for GEO and LEO (low-earth orbit) payloads; 2) to review China's participation in competitive bidding for launch contracts; and 3) to examine specific pricing issues for the burgeoning LEO market. The results of these consultations have not yet been made public.

The United States interprets the agreement to require that the 15 percent price differential is applicable only to the difference between Western and Chinese offer prices. If China's offer price is more than 15 percent less than the lowest Western price, the relevant comparability adjustments are to be made to the unadjusted Chinese or Western offer prices, as appropriate. Comparison will then be made of the prices adjusted only for the relevant comparability factors, and not for the 15 percent differential as well.

In the event of a perceived problem with compliance, the Subcommittee is responsible for notifying the TPSC and recommending consultations with China if appropriate. If consultations proceed and satisfactory resolution is not achieved or, if consultations are deemed to be inappropriate in the circumstances based on recommendations of the TPSC, the Committee may consider whether the USTR should initiate an investigation in accordance with United States law.⁸

The bilateral agreement places no direct limit on the number of commercial LEO launches, but stipulates that the Parties will reconvene in three-and-one-half years to discuss the issue. The agreement also allows China to increase its number of GEO launches if a shortage of launch vehicles occurs in the global market.

Bilateral Agreement with Ukraine

On December 14, 1995, the United States and Ukraine signed a bilateral commercial space launch agreement which established the entry for Ukraine into the global commercial launch market.⁹ The agreement allows international customers to launch spacecraft on Ukrainian launch vehicles available from a Ukrainian space launch services provider, or provided by an integrated space launch services provider of a U.S.-operated launch platform at sea. By this agreement, Ukraine is positioned to potentially become a major commercial launch provider.

The United States agreed to negotiate the agreement with Ukraine only after Ukrainian officials agreed to abide by the terms and conditions of various arms control agreements.

The U.S.-Ukraine agreement was modeled on then-existing agreements between the United States and Russia, and the United States and China. Under the terms of the bilateral agreement, the Ukrainians are permitted to conduct up to five launches of spacecraft to GEO until the agreement terminates at the end of 2001.

The agreement also allows Ukraine to conduct an additional 11 GEO launches through an "integrated space launch services provider." The integrated space launch services provider must be a U.S.-led joint venture with Ukraine that meets certain criteria affecting ownership, control and services. These qualifying criteria are: (1) the U.S. partner must maintain control in fact; (2) the U.S. must be the source of a significant share of the goods and services employed in any launch; (3) a majority of the goods and services, including financing and insurance, must originate in market-economy countries; and (4) the joint venture must receive a launch license from the U.S. Department of Transportation. In the Protocol to the Agreement, the U.S. and Ukraine agreed that the International Sea Launch (ISL) venture meets the criteria.

The Sea Launch venture is led by Boeing, with Energia and Yuzhnoye of Ukraine providing the engines and rocket for an initial launch in 1998.¹⁰ The Sea Launch concept involves a launch of the Ukrainian-built Zenit from a sea-based platform in the middle of the Pacific Ocean. Spacecraft will be prepared and integrated with the launch vehicle at a homeport in southern California. The platform and assembled vehicle will travel with a command and control ship to a selected launch point near the equator. To comply with the U.S.-Ukraine Agreement, Boeing maintains control of the Sea Launch venture and a significant percentage of

the goods and services associated with each launch also are provided by U.S. companies.

If the commercial satellite launch market continues to expand significantly over the next several years, the agreement provides for up to four additional launches, three of which are required to be for U.S.-Ukraine joint ventures. Of the 20 total launches which can then be conducted using Ukrainian vehicles, 14 must be conducted for U.S.-led joint ventures.

The bilateral agreement does not limit the number of launches by Ukrainian launch vehicles for spacecraft to LEO. However, the agreement states that the total participation in the initial deployment of any single LEO telecommunications constellation by Ukraine, Russia, and China combined must be less than that of market-economy launch providers. Additionally, the agreement imposes limits on Ukraine's commercial launch activity to the use of the Zenit and Tsyklon launch vehicles and their upgrades. This limitation purposefully excludes the use of converted excess ballistic missiles or new types of launch vehicles.

Like the bilateral agreement with China, the U.S.-Ukraine bilateral agreement sets pricing guidelines, as well as launch quotas, to ensure that Ukraine's entry does not disrupt the international commercial space launch market

As stipulated in the agreement, the bids, offers, or contracts for launch services must be comparable to those of market-economy launch service providers. For GEO launches, the price for the launch services must be within 15 percent of that of market-economy providers or be subject to special consultations. The special consultations may be convened at either the United States or Ukrainian request within 30 days on matters of particular concern, including prevailing international market conditions. The

agreement also prohibits grants, subsidies or credits that distort the production or cost for commercial space launch systems.

Bilateral Agreement with Russia

After the United States renewed its agreement with China and entered into a new agreement with Ukraine, Russia sought to amend its existing bilateral agreement with the United States. Russia perceived that it was significantly disadvantaged in pursuing the international space launch markets because the quotas for China were significantly higher than those originally agreed to by Russia. With expansion of the launch agreements to now include Ukraine, and an increase in the number of launches permitted with China, Russia sought from the United States a larger number of commercial launches for Russian launch vehicles. Under the 1993-negotiated agreement already in place, Russia was allowed only nine launches to GEO until the end of 2000.

Russia and the U.S. agreed on January 31, 1996 to amend Russia's launch quota along similar terms afforded China. Under the renegotiated agreement, Russia received permission to conduct up to 16 launches to GEO through the year 2000.¹¹

Russia also stands to gain from the Ukrainian agreement because Russia is a direct supplier of components and raw manufacturing materials for the Zenit, as well as the RD-171 first-stage engine of the Zenit and the Block-DM upper stage.

The United States and Russia also agreed, if the commercial space launch services market improves significantly beyond current expectations, Russia may conduct up to four additional launches to GEO for international

commercial customers by the end of the year 2000.

The amended launch agreement enhanced the prospects of commercial launches on Russia's Proton launch vehicle. The 4-stage Proton is Russia's only vehicle capable of launching spacecraft into GEO. To gain funding and marketing services, the Russian companies Khrunichev State Scientific and Production Space Center (the Proton's manufacturer), and RKK Energia (the manufacturer of the Block-DM upper stage) formed a joint venture with Lockheed-Martin to market Proton launches under the name International Launch Services (ILS).

The first commercial launch of the Proton arranged by ILS occurred on April 9, 1996 when the Hughes-built Astra-1F communications satellite was successfully boosted into GEO from the Baikonur Cosmodrome in Kazakhstan for the Société Européenne des Satellites.

The bilateral agreement allows Russian space launch service providers to contract to provide launch services for up to three launches of satellites to LEO for the Iridium system. In addition, with regard to the initial deployment of LEO telecommunications constellations, the United States will assess whether participation by Russia in the deployment of any single LEO constellation is greater than the participation of market-economy launch providers.

Conclusion

As seen from the brief discussion above, the bilateral agreements negotiated by the United States with China, Ukraine and Russia have put in place launch quotas and pricing policies for at least the next five years. At the insistence of

United States launch providers, the quotas and pricing policies were instituted to ensure the controlled entry of Chinese, Russian and Ukrainian services into the global, commercial space launch market.

The new National Space Policy appears to presage the end of the bilateral launch quotas and pricing restrictions by expressing the intention that the bilateral agreements will not be renewed beyond their present terms. Satellite manufacturers and satellite users who must contend with product design and construction cycles of up to three years or more should begin to plan for the end of the bilaterals, taking into account, of course, that Presidents and their policies change from time-to-time.

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1. National Space Policy, The White House, unclassified Fact Sheet prepared by National Science and Technology Council, released on September 19, 1996.
 2. Guidelines for Sensitive Missile Relevant Transfers (April 16, 1987).
 3. *Id.*, see "Commercial Space Guidelines," paragraph (5).
 4. Statements made by Donald Eiss, deputy assistant U.S. Trade Representative for industry and Catherine Novelli, deputy assistant U.S. Trade Representative for Central and Eastern Europe and Eurasia before the House Sub-committee on Space and Aeronautics, Washington, D.C., June 12, 1996.
 5. Comment by U.S. Trade Representative Michael Kantor following the conclusion of the U.S.-PRC Commercial Space Launch

Agreement, January 30, 1995, U.S. Department of State "Press Release, Q's and A's," February 1, 1995.

6. Public Statement, Office of the United States Trade Representative, Executive Office of the President, "United States Reaches Agreement with Ukraine on a Commercial Space Launch Agreement," December 14, 1995. In a separate statement following the two-day session of the U.S.-Russian Joint Commission on Economic and Technological Cooperation, U.S. Vice-President Al Gore said that the amended U.S.-Russian commercial space launch agreement "will benefit the U.S. economy through new investments by joint ventures and by diversifying the supply of launch services available to America's satellite industry, allowing that industry to maintain its world leadership position." (White House Office of the Press Secretary, Press Conference by Vice President Gore and Prime Minister Chernomyrdin of Russia, January 30, 1996, Washington, D.C.).

A noticeable reaction to the reliability and diversity offered by the launch systems covered by the bilateral agreements is the satellite manufacturers willingness to sign multiple launch contracts. For example: Hughes Communications Inc. signed multiple launch contracts with Boeing Sea Launch for 10 launches; and Space Systems/Loral signed contracts for 10 launches with International Launch Services (ILS) and five with Sea Launch.

7. Memorandum of Agreement Between the Government of the United States of America and the Government of the People's Republic of China Regarding the International Trade in Commercial Launch Services, (March 13, 1995).

8. The investigation would be conducted under section 301 of the Trade Act of 1974, as amended.

9. Agreement between the Government of the United States and the Government of the Ukraine Regarding International Trade in Commercial Space Launch Services. (February 21, 1996).

10. The first launch by the Sea Launch venture will lift the Galaxy 11 satellite to orbit for Hughes Electronics Corporation in June 1998.

11. Agreement Between the Government of the United States of America and the Government of the Russian Federation to Amend the 'Agreement Between the Government of the United States of America and the Government of the Russian Federation Regarding International Trade in Commercial Space Launch Services, (January 30, 1996).