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The International Space Station and the Iran Nonproliferation Act (INA): The Bush Administration's Proposed INA Amendment

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Summary

The Iran Nonproliferation Act (P.L. 106-178) prohibits the National Aeronautics and Space Administration (NASA) from purchasing Russian goods and services for the International Space Station (ISS) unless the President certifies that Russia is not proliferating certain technologies to Iran. On July 12, 2005, the Administration submitted to Congress an amendment to the act to allow NASA to purchase goods and services from Russia to support the U.S.-led ISS. This presents a classic policy dilemma. Without access to Russian spacecraft, the U.S. use of the ISS could be extremely limited. Yet Russian entities are continuing proliferation activities relating to missile proliferation according to the Department of State. This report focuses on the amendment proposed by the Bush Administration. CRS Issue Brief IB93017 discusses the ISS program; CRS Report RS22072 discusses the origins of the Iran Nonproliferation Act (INA) and its relationship to the ISS program. The Senate passed S. 1713 on September 21. It is different from the Administration's proposal, but would allow NASA to purchase needed services from Russia until January 1, 2012. A similar bill (H.R. 4003) was introduced in the House. This report will be updated as needed.

Background

The United States has passed laws and used sanctions to deter Russia and other countries from providing technologies related to nuclear, chemical, and biological weapons, ballistic missiles, and advanced conventional weapons to Iran (see CRS Report RL32048, *Iran: U.S. Concerns and Policy Responses*.) The 2000 Iran Nonproliferation Act (P.L. 106-178) widened some of the sanctions, and, in Section 6, contained a ban on U.S. government payments to Russia in connection with the U.S.-led International Space Station (ISS), unless the President determines that Russia is taking steps to prevent proliferation of weapons of mass destruction (WMD), and ballistic and cruise missiles to Iran. For more information on the origins and nonproliferation aspects of the INA, see CRS Report RS22072, *The Iran Nonproliferation Act and the International Space Station: Issues and Options*.

The ISS is a multinational research laboratory under construction in Earth orbit. Russia, Canada, Japan, and 11 European countries are partners with the United States in the effort. ISS segments are taken into orbit, primarily on the U.S. space shuttle, and assembled there. The ISS program began in 1993, replacing an earlier effort begun in 1984 (for more on the history of the space station program, see CRS Issue Brief IB93017, *Space Stations*). Bush Administration decisions that led to a delay in development of a U.S. “crew return vehicle” for the ISS, ongoing uncertainty associated with the space shuttle launch schedule (see CRS Report RS21408, *NASA’s Space Shuttle Program: The Columbia Tragedy, the Discovery Mission, and the Future of the Shuttle*), and a 2004 announcement of a new Vision for Space Exploration by President Bush that includes retiring the space shuttle in 2010 (see CRS Report RS21720, *Space Exploration: Issues Concerning the “Vision for Space Exploration”*), all would increase NASA’s reliance on Russia if U.S. astronauts are to continue to live and work aboard the ISS. On July 12, 2005, NASA, on behalf of the Administration, submitted to Congress a proposed amendment to the INA that would allow it to purchase goods and services from Russia without regard to Russia’s proliferating behavior with Iran.

ISS and the INA

The United States invited Russia to join the ISS partnership in 1993 in part to encourage its adherence to the Missile Technology Control Regime (MTCR) to stop sales of ballistic missile technology.¹ By the end of the decade, however, it appeared that Russian entities were violating the MTCR, including some of those under the jurisdiction of the Russian space agency. Concerns also were rising about Russia selling certain technologies to Iran. On July 29, 1999, during markup of the Iran Nonproliferation Act by the House Science Committee’s Subcommittee on Space and Aeronautics, Science Committee Chairman James Sensenbrenner explained that “Earlier this year, there were publications of the fact that entities of the Russian Space Agency were violating the MTCR. That’s why there is Section 6 in this bill.”²

Section 6 of the INA prohibits the U.S. Government from making “extraordinary payments” in connection with ISS (and possibly other human space flight activities) to the Russian space agency, organizations or entities under its control, or any other element of the Russian government, after January 1, 1999, unless the President determines that it is Russia’s policy to oppose proliferation to Iran, that Russia is demonstrating a sustained commitment to seek out and prevent the transfer of WMD and missile systems to Iran, and that neither the Russian space agency nor any entity reporting to it has made such transfers for at least one year prior to such determination. The President must notify Congress five days in advance of making such a determination, and provide a written justification. Exceptions include payments needed to prevent imminent loss of life by or grievous injury to individuals aboard ISS (the “crew safety” exception); payments to construct, test, prepare, deliver, launch, or maintain Russia’s Zvezda Service Module; and \$14 million for certain Russian docking hardware already under consideration before the INA was enacted. The President must provide reports or notifications to Congress within

¹ House Committee on Science, Space, and Technology. Subcommittee on Space. U.S.-Russian Cooperation in the Space Station Program: Parts I and II. Hearing. October 6, 14, 1993. p. 45.

² House Committee on Science. Markups of H.R. 356, H.R. 1883, H.R. 2607, and H.R. 2767. July 29, September 9, and November 3, 1999. p. 44

specified time limits if the exceptions are used. The term “extraordinary payments” is defined in Section 7(1) of the act, and is discussed later in this report. President Clinton provided the required notification for the \$14 million for Russian docking hardware on June 29, 2000, but there have been no subsequent determinations or notifications. NASA wanted to purchase other Russian goods and services in 2000, and considered them permissible under the agency’s interpretation of the meaning of “imminent” in the crew safety exception, but terminated those efforts after strong criticism at an October 12, 2000 House International Relations Committee hearing.

Impact of the INA on NASA’s Use of the ISS: the 2006 and 2010 Deadlines. Prior to the 2003 space shuttle *Columbia* tragedy, NASA planned to complete assembly of the ISS in 2006, followed by at least 10 years of operations. ISS crews were to be taken to and from the ISS either using the U.S. space shuttle, or Russian Soyuz spacecraft. Under the international agreements that govern the ISS program, Russia is obligated to provide a “crew return” capability — essentially a lifeboat so crews can evacuate the ISS in an emergency — for three crew members throughout the lifetime of the ISS. The United States is obligated to provide such a capability for four additional crew members once assembly of the ISS is completed, but terminated its program to build such a vehicle, so Russia’s Soyuz spacecraft is the only option.

Under a 1996 U.S.-Russian “Balance Agreement,” Russia is obligated to provide 11 Soyuz spacecraft for crew rotation and crew return of U.S. crews at no cost to NASA in exchange for services that NASA was providing to Russia. It is because of this agreement that Russia has been providing free crew transport and crew return services to NASA since the 2003 *Columbia* accident. The last was launched in October 2005, with its return to Earth scheduled for April 2006. After that, Russia no longer must allocate any of the seats on its Soyuzes for U.S. astronauts. Russian space officials have repeatedly said that they will not continue to provide these services to NASA at no cost. Meanwhile, President Bush’s 2004 Vision for Space Exploration directs NASA to terminate the space shuttle program in 2010, and build a new spacecraft by 2014 — the Crew Exploration Vehicle (CEV). During the gap between 2010 and 2014, NASA would rely on Russia to take astronauts to and from the ISS. NASA’s Administrator, Michael Griffin, wants to accelerate the CEV schedule to 2012, but it is not clear if that can be achieved.

Thus, there are two deadlines facing NASA: April 2006, after which U.S. astronauts would have access to the ISS only when the shuttle is there; and 2010, after which U.S. astronauts would have no access to the ISS until the new CEV is available. Under the INA, NASA also would not be able to pay for use of Russia’s Progress spacecraft, which take cargo to the ISS, beyond what Russia agreed to provide in the international agreements. NASA is hoping that U.S. companies will develop capabilities to take cargo to ISS. The INA prevents NASA from buying such services, however, if any of the funds would go to Russia. For example, it cannot purchase commercial launch services for ISS using Lockheed Martin’s Atlas V launch vehicle because it uses Russian rocket engines.

Proposed Amendment of the INA

The INA was enacted following reports in the mid- and late-1990s that Russia was assisting Iran in building the Bushehr nuclear power reactor, and providing ballistic missile assistance to Iran. There are differing views on the effectiveness of the INA in changing Russia’s behavior (see below and CRS Report RS22072). The INA’s potential

effect on the ISS is more clear-cut, and on July 12, 2005, the Bush Administration formally submitted a proposal to Congress to amend the INA to allow NASA to purchase Russian goods and services for the ISS by changing the definition of “extraordinary payments.” Section 7(1) of the INA now defines this as:

The term “extraordinary payments in connection with the International Space Station” means payments in cash or in kind made or to be made by the United States Government —

(A) for work on the International Space Station which the Russian Government pledged at any time to provide at its expense; or

(B) for work on the International Space Station, or goods or services relating to human space flight, that are not required to be made under the terms of a contract or other agreement that was in effect on January 1, 1999, as those terms were in effect on such date.

The proposed amendment would delete subsection (B). Thus the prohibition would apply only to payments for work Russia previously agreed to provide at its own expense, which would not include the use of Soyuz (or any successor vehicle) by U.S. astronauts beyond those covered by the Balance Agreement. (Subsection B also states “or goods and services relating to human space flight.” There are differences of opinion as to whether that broadens the effect of the INA to implementation of the Vision.)

The justification provided to Congress on July 12, 2005 by NASA Administrator Griffin stated that the proposed amendment would “maintain key existing U.S. nonproliferation tools.” It specifies that the proposed amendment leaves the first five sections of the INA intact (those that establish reporting requirements to Congress), particularly a ban on U.S. payments in connection with the ISS to any persons (including entities) subject to sanctions under the INA or Executive Order 12938.

The amendment would affect future contracts with the Russian space agency, leaving other aspects of the INA in place. In its report on the INA (H.Rept. 106-315, Pt. 1), the House International Relations Committee recognized the impact of Section 6 on future contracts, but believed it was “warranted by the magnitude of the threat to international peace and security posed by continued proliferation of weapons technology to Iran from Russia.” Further, the committee hoped that “that this section will give the Russian Space Agency more incentive than it has had in the past to seek to prevent transfers to Iran....”

In August 2005, the State Department reported: “While some progress has been made, Russian entities continued ... to supply sensitive missile-applicable items, technology, and expertise to missile programs in India, Iran, and China”³

Congressional Action

On May 20, 2005, the House passed the FY2006 Department of Defense authorization bill including a sense of Congress statement that the INA has been a “critical tool in preventing the spread of weapons of mass destruction and their associated

³ U.S. Department of State. Adherence to and Compliance with Arms Control, Nonproliferation and Disarmament Agreements and Commitments. August 30, 2005. p. 107. Available at [<http://www.state.gov/documents/organization/52113.pdf>].

delivery systems to Iran” and it “should not be weakened by creating exceptions to requirements of such Act to serve lesser policy priorities” (H.R. 1815, Sec. 1211). Some interpreted that latter phrase as a reference to the ISS program.

By contrast, Representative Dana Rohrabacher, who helped draft Section 6 of the INA, stated at a June 28, 2005 House Science Committee hearing that the strategy embodied in the INA “has not worked.” During markup of the FY2006-2007 NASA authorization act (H.R. 3070) by the House Science Committee on July 14, 2005, Mr. Rohrabacher offered and withdrew an amendment similar to that proposed by the Administration. He argued that the Clinton and Bush Administrations had not properly implemented the INA because they offered just the stick, and not “a carrot approach to the Russians to get them to cease their cooperation with the Iranians. Unfortunately, that cooperation on that nuclear power project is over now and the Russians have completed their contribution” (H.Rept. 109-173, p. 182). A House Science Committee press release following the markup said that the Science Committee was working with the House International Relations Committee on the INA issue. It quoted House Science Committee Chairman Boehlert as saying that the final NASA authorization bill that is sent to the President for signature must address the INA issue, “but I have no idea at this point what that resolution will be.” [<http://www.house.gov/science/press/109/109-110.htm>].

The Bush Administration proposed its amendment as a provision in NASA authorization legislation or “another appropriate legislative vehicle.” Neither the House- nor Senate-passed versions of the NASA authorization bill (H.R. 3070/S. 1281) contains the amendment. On September 21, 2005, the Senate passed S. 1713 (Lugar) that would allow NASA to make payments in cash or in kind to Russia to meet U.S. obligations under the ISS international agreements until January 1, 2012, and add reporting requirements. A similar bill (H.R. 4003, Paul) was introduced in the House.

Issues

Several issues may arise during consideration of the Bush Administration’s amendment. A first order question is whether Section 6 of the INA has served its nonproliferation purpose. While some Members such as Mr. Rohrabacher conclude that it has not worked (see above), others support INA as a whole and do not wish to see it weakened. Several bills in the 109th Congress that would tighten sanctions on Iran have attracted broad support, suggesting there is little sentiment in Congress to unwind any U.S. sanctions on Iran. H.R. 282, for example, which promotes a policy of regime change for Iran and closes some loopholes in the Iran-Libya Sanctions Act, has 318 co-sponsors. Some may argue that if the Russians have, in fact, “completed their contributions” to Iran’s nuclear program, as Mr. Rohrabacher states, then the President should make the determinations required by the law, and amending the act would be unnecessary.

A second set of questions deal with the impact of the INA on future U.S. utilization of the ISS. Debate is ongoing about what NASA should do on the ISS. Although it was designed primarily as a research laboratory in space, and a broadly-based research agenda was planned, President Bush directed NASA to limit its research on the ISS to only that which is needed to implement his Vision. However, some in Congress want to restore the broadly-based research program planned prior to the Vision. That view is illustrated in the House- and Senate-passed versions of the NASA authorization bill (H.R. 3070/S. 1281). The answer to what research should be conducted on the ISS is an important element of

determining whether it is critical for NASA to have its astronauts on the ISS for long duration missions between 2006 and 2010, or to have any astronauts there after 2010. Another consideration is potential damage to U.S. international standing if the United States fails to meet its commitments to ISS partners, or intentionally suspends its ability to launch astronauts into space for several years. Senators Hutchison and Bill Nelson have a pending amendment to the FY2006 Department of Defense authorization bill (S. 1042) expressing the sense of Congress about the importance of uninterrupted U.S. preeminence in human space flight, noting that China and Russia can launch astronauts (*Congressional Record*, pp. S.8638-40).

Some in Congress may want to modify the Bush Administration's proposed INA amendment. As proposed by the Bush Administration, NASA would be allowed to purchase whatever goods and services it needs for the ISS (and other human space flight activities). This would allow maximum flexibility in meeting NASA's needs, including those for transporting both crews and cargo to and from the ISS. The primary limit would be how much funding NASA has available for purchases, and how much Russia charges. From 1994-1998 (pre-INA), NASA paid Russia approximately \$800 million through several contracts for space station-related activities. Some may want to place limits on what could be purchased, how much could be spent, what Russian entities could receive the money, or the length of time the restrictions would be lifted. There is some concern, for example, that Russia might charge exorbitant prices if it is the only source for the needed services. Russian space officials routinely complain that the Russian space program is underfunded, and are actively seeking funds to build a replacement for the Soyuz (called Kliper). Others worry that NASA or its supporters may lose some of the drive to build the new CEV expeditiously if they know Russian spacecraft can be used instead. Another concern is that buying services from Russia could undercut U.S. companies interested in developing commercial services to support the ISS.

Among possible options would be to limit payments only to crew-related flights, not cargo. Another approach could be to limit it to crew-related flights associated with the ISS program, but not for implementing the Vision. Alternatively, crew-related purchases could be limited only to time periods when NASA is unable to launch its own crews because the shuttle is grounded and the CEV is not available. Or the number of missions per year, or in total, could be limited. Imposing such limits could be costly in terms of negotiating with the Russians. For example, a block buy of a dozen flights could be less expensive than buying one or two at a time.

Another option could be to lift restrictions only for a certain number of years. Among the examples are to limit it to one or two years, enabling Congress to revisit the issue in a comparatively short period of time to see whether Russia is adhering to U.S. nonproliferation objectives, and to react to any changes in NASA's program. Or a time limit could be based on the lifetime of the shuttle (through 2010), assuming that the CEV will be available soon thereafter. If it were not, the issue could be reconsidered at that time. NASA currently hopes to have the CEV available in 2012, which is another potential time limit (as in S. 1713). Or the restrictions could be lifted through 2016, the most recent date NASA officials have suggested for when they expect to complete their utilization of the ISS. Such limitations could negatively affect the price Russia may charge for its services, however.