

## COMMENTARY

**Ensuring U.S. Access to the International Space Station**

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In his highly publicized July 24 speech in Berlin, presumptive Democratic presidential nominee Barack Obama struck a conciliatory chord in saying, “we must reject the Cold War mindset of the past and resolve to work with Russia when we can.” A few days later, Russia’s envoy to NATO, Dmitri Rogozin, raised the idea of a new security framework for Eurasia that would include the United States and Russia, as well as China and India. Skeptics’ views that this might be a ploy to undermine NATO were significantly reinforced on August 11, when Russia launched a punitive expedition against Georgia. Destruction of the U.S. ally’s prospects of joining the alliance is most certainly one of Russia’s objectives.

But, Russia’s invasion of its Western-leaning south Caucasus neighbor is not an isolated incident. It is part of a pervasive increase in tensions between Washington and Moscow. Just before Obama’s July 24 speech, the Kremlin leaked plans to deploy, for the first time since the 1962 Cuban Missile Crisis, strategic nuclear weapons and delivery systems in Cuba as a response to U.S. missile defense plans involving Poland and the Czech Republic. Russia’s new president Dmitri Medvedev has also followed in the footsteps of his predecessor, Vladimir Putin, in scuttling agreed UN Security Council plans for sanctions on Robert Mugabe’s regime in Zimbabwe and in selling advanced air-defense units to Iran in the midst of international concerns over its uranium enrichment program.

It is contentious points like these that have led some commentators to speak of a new Cold War. Some policymakers argue that Europe and the United States should see things for what they are. The presumptive Republican presidential nominee John McCain has more than once called for Russia to be expelled from the G-8 as unqualified and uncooperative. He is also a strong supporter of U.S. efforts to bolster the NATO and EU membership aspirations of nascent democracies Ukraine and Georgia—even in the face of violent Russian opposition. Other potential flashpoints loom: Russia has made claims to the Arctic seabed, with its vast mineral and hydrocarbon deposits, while the United States and Europe look toward exploiting the same Caspian energy resources that Moscow covets.

Despite hopes for a new world order, tension is spreading into almost every realm of U.S.-Russia relations—except for that most visible of Cold War battlegrounds: space. Following the collapse of the Soviet Union, the United States and Russia have cooperated, along with Canada, Japan, and Europe, to build and operate the International Space Station (ISS), the most technologically complex and ambitious international project ever undertaken. From the first crew to take up residence in the ISS in October 2000, the station has been inhabited continuously, principally by U.S. and Russian crews, with additional visitors from Europe, Japan, Canada, and elsewhere. Currently, all station partners rely on the U.S. space shuttle and the Russian Soyuz capsule together as the only vehicles able to transport people to and from the space station. That is, until the 2010 retirement of the U.S. space shuttle. The retirement of the three-decade-old system will mark the beginning of a U.S. inability to send its own astronauts into space, a gap in capability that will last for at least five years, as well as the start of an absolute reliance on the Russian Soyuz.

However, even the U.S. ability to continue to purchase seats on the Soyuz capsule is now in jeopardy. The *Iran, North Korea, and Syria Nonproliferation Act* (PL 109–112) prevents the purchase, either in kind or in cash, of Russian space technology and services, so long as Russia remains viewed as a proliferation threat for nuclear and missile technology. Due to a 2005 congressional waiver of these restrictions for operating the ISS, the United States has been able to purchase seats on launches of the Soyuz spacecraft to augment U.S. space shuttle flights. Although the current purchase of Soyuz flights will extend through 2011, the manufacturer of the Soyuz has stated that there is a three-year lead time to manufacture new capsules. Therefore, the uncertain fate of a new waiver currently under discussion in Congress means that the United States would lose access to a key component of the station logistics and transport system, requiring it to radically restructure its ability to maintain a presence on the station. This already precarious situation could become disastrous when combined with the planned 2010 retirement of the aging U.S. space shuttle fleet.

Granted, the ISS is the most significant achievement remaining from the glory days of Russia’s space endeavors and remains both a potent symbol and a steady source of income for their cash-strapped program. Today, the Russian inclination to rely on the ISS as source of revenue may provide some reason to believe that Russia will continue to ensure access to the ISS. If recent Russian actions are any indicator, a technical excuse to completely block U.S. access to the ISS for geopolitical reasons would fit nicely into the Kremlin toolkit. Almost immediately after the Czech Republic signed an agreement with the United States to place a missile defense tracking radar in its territory, oil supplies through the Druzhba pipeline to the Central European country were reduced to a

trickle. Lithuania, one of the European Union's most vocal critics of Moscow's policies, has grappled with similar cuts to its energy supplies from Russia for years, ostensibly for technical reasons. Given the current tense climate between the United States and Russia, Moscow would have ample incentives to exert oblique leverage over Washington or other countries by restricting access to the ISS.

These vulnerabilities come at a particularly sensitive time for the United States and its allies in the area of space cooperation. The United States and its partners on the station will have spent more than \$100 billion on the ISS by the time of its completion in 2010. Current U.S. spaceflight plans will effectively cede the control of the ISS to Russia on its 2010 completion by leaving with Russia a monopoly on the ability to transport crew—including U.S., European, and Japanese astronauts—to and from the station. Effectively, the United States will have worked at great length with its partners to give Russia the best space station money can buy. Beyond this, as we have seen with the aftermath of the 2003 *Columbia* disaster, logistical support for the ISS is always difficult, and without an alternate means to send crew and supplies to the station, continued operation of the ISS could be seen as too risky to continue. In the longer term, there are already significant doubts about the future of ISS after 2015, when the United States is planning to shift its focus to returning to the Moon before the 50th anniversary of the first 1969 Moon landing. However, these plans to return to the Moon are also somewhat shaky and reflect a lack of concrete international participation. This host of future uncertainties makes it clear that it is in the interest of the United States and other ISS partners to strongly consider other options for transporting astronauts to the station and space in general.

At first glance, the possibility of a U.S.-led joint effort with Europe and Japan to quickly develop a backup transportation system, perhaps a capsule that could make use of existing U.S., European, or Japanese launch technologies. A joint program would bring the original space station partners together, finally delivering on the more than 20-year-old promises of the space station. A joint effort would leverage resources and capabilities using the U.S., European, and Japanese common interest in succeeding on the ISS, even if only to declare the station a success and move forward. However, the lack of any discussions thus far—let alone any concrete planning along these lines—means that although such an approach might be most beneficial, such an outcome is by no means certain and will most certainly require a fair amount of time to implement.

It therefore behooves U.S. policymakers to explore other options for access, if nothing else to prevent the reintroduction of Cold War competition to space. Perhaps somewhat ironically, a more promising option may lie with the world's fastest-growing space power: China. Since China generated great controversy with its unannounced and highly polluting antisatellite test in early 2007, the United States and other space-faring nations have been skeptical about the underlying nature of China's space program. Although there is no real practical way for China to immediately step up as an alternate means of station access today, such an option could still prove to be a fairly quick remedy, despite the fact that the United States has substantially blocked any dialog on the subject. However, Chinese officials have for many years expressed a keen interest in joining the ISS and seem determined to push forward with ambitious objectives for a Chinese role in space. The United States' space gap—the half-decade period in which it will not be able to launch its own astronauts into space—would seem an opportune time to attempt confidence-building measures with Beijing. Although China has seen Russia as its historical partner in developing much of its spaceflight infrastructure, an overture from Washington could serve to break down significant barriers on space policy.

After China's antisatellite test, the strong world reaction led many analysts to speak anew about the weaponization of space. It was thought that Beijing was either testing its ability to counter the U.S. asymmetric advantage in networked warfighting prowess or was reacting to intelligence about U.S. plans for satellite defense mechanisms. However, there have been few notable incidents since, and details have emerged that suggest Chinese military planners may have overstepped their bounds in ordering the test. That said, although cooperation on specific military technology is unlikely between China and the United States, exploring synergies in the realm of commercial space activities and civil space exploration hold the potential to build confidence and reduce skepticism across the board.

With China rallying its growing resources to host the 2008 Olympic Games, the sensitivity of its decisionmakers to the advantages and ideals of international cooperation will be heightened. This presents an excellent opportunity for senior U.S. policymakers to begin a new era of space cooperation with the world's fastest-growing major economy. Alternately, the United States could pursue cooperation with its traditional partners in space to find solutions to the problems it faces. Either option has the potential to not only provide much-needed international support for U.S. plans to return to the Moon but also to ensure access to the ISS for the foreseeable future, effectively isolating the United States from any potential new Cold War tensions. U.S. civil space activity should not become a hostage to Russian objections to Georgia's NATO membership goals, U.S. missile defense plans, or any facets of new Cold War political maneuvering. In a time of increasing tensions, the International Space Station can now help to serve the mission for which it was undertaken: greater cooperation among all space-faring nations.

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