Space and Security

A CONVERSATION WITH SEAN O'KEEFE

THE U.S. MILITARY'S INCREASING RELIANCE ON SPACE-BASED CAPABILITIES RAISES A NUMBER OF ISSUES, SUCH AS HOW TO DETER THREATS AND INCREASE COOPERATION WITH PARTNERS AND ALLIES IN SPACE. Todd Harrison, director of CSIS's Defense Budget Analysis and senior fellow in the International Security Program, spoke with CSIS distinguished senior adviser and former NASA administrator Sean O'Keefe on security and international cooperation in space.

What is one of the most significant challenges the U.S. military faces in the space domain today?

Sean O'Keefe: The most difficult challenge the Defense Department articulates regularly is assured access to space, a term that means the ability to launch satellites into orbit. Since many of these satellites are quite large due to military requirements, the Department is reliant on the heavy payload capacity of the United Launch Alliance's Delta and Atlas rockets. The Air Force has been in a defensive posture for the past couple of years trying to justify

trial capacity we don't have immediate control over. While there may be an opportunity to break through this logjam at some point and avail ourselves of the global market for space systems, the situation does not appear to be changing anytime soon.

How is the deterioration of relations with Russia affecting U.S. civilian and military space programs?

O'Keefe: On the civilian side, the operations, logistics resupply, and crew exchange process for the International Space Station rests entirely now on the coordination efforts of the Russians. We do not have

It's not easy to apprehend someone or to stop another nation from accessing space.

why its launch requirements need to be as unique as they are because this effectively keeps the military dependent on just one provider. There is an effort underway to allow certification for SpaceX to launch military satellites, but this is still an issue that is far from resolved.

What could the United States be doing to foster greater cooperation with its allies in military space?

O'Keefe: Looking at the access to space challenge, there are launch capabilities resident in other nations that, while foreign-sourced, could certainly augment our own launch capabilities. It may make people uneasy to see U.S. military satellites being launched from anywhere other than U.S. soil, but this is a challenge of our own choice. We have difficulty looking at broader competitive opportunities due to parochialism and concerns about being reliant on an indus-

a capacity to launch crews to the space station any longer with the retirement of the space shuttle, and we are completely beholden to the Russians to be accommodating in that regard—but so are the other partner nations involved. It is a great testimonial to the maturity of the ISS partnerships that even given the strained relations with Russia, the consortium is strong enough to keep these sustaining activities underway. How much longer it can last is anyone's guess, but at least for now it is holding up.

On the military side, there is a mixed story emerging. The United States is concerned about its continued dependence on the Russians to provide the RD-180 engines needed for the Atlas launch vehicle. The Russians seem to view it as in their best interest to keep providing these engines either because they are looking for the hard currency or are looking to maintain the relationship or some combination

of the two. But the stakes are much higher for the U.S. military because this is a dramatic exposure that compounds the access to space challenge.

What can the United States do to encourage China to be a responsible member of the space community?

O'Keefe: We are beginning to see positive signs of progress with the Chinese regarding our long-running concerns about intellectual property piracy and export-control compliance. Assuming that progress continues and we can effectively address these concerns, this will be a propitious time to invite the Chinese into the "club" of space-exploring nations. The Chinese have already demonstrated that they have the capacity for space exploration, and they have shown a remarkable ability to accelerate their pace of development—although this has in some cases been by emulating the capabilities of others. But there is no denying the fact that they have the ambition and ability to engage in space exploration—and it is not something we can prevent anyway.

During the Cold War we established, developed, and maintained relationships with the Russians for space exploration—something that could easily be emulated with the Chinese. What I found remarkable in my tenure as NASA administrator were the testimonials of so many Russian space agency officials and cosmonauts—and NASA officials and astronauts—that despite our political differences we were able to reach amicable arrangements on objective goals for space exploration that gave the U.S.-Russian relationship meaning and purpose even at the heights of the Cold War. It led to a better understanding of each other and ultimately contributed in some small part to the detente we achieved. There is a certain thawing effect that comes when we engage in space exploration as a human activity rather than a national activity.

Do we need an international code of conduct for space? If so, how should it be negotiated and enforced?

O'Keefe: We have more than 200 years of experience working on the Law of the Sea Treaty, but we don't have anything near that kind of history when it comes to space. Until just recently, space was the domain of really just two principal powers. But the heretic in me says that's all the more reason to try.

The challenge of creating something like this for space is that the ability for enforcement is limited—it's not easy to apprehend someone or to stop another nation from accessing space. There is also a greater risk of accidental collisions with satellites or with space debris. All of these challenges make the space domain a more difficult place to regulate. It may be more feasible to reach a workable set of protocols through a bilateral agreement first, and then use that as an approach to emulate with others. ◻