Congressional Research Service
Informing the legislative debate since 1914

The Open Skies Treaty: Background and Issues

Updated October 11, 2019

The United States, Canada, and 22 European nations signed the Treaty on Open Skies on March 24, 1992. It entered into force on January 1, 2002, and now has 34 members. Each participant must permit unarmed observation aircraft to fly over its entire territory to observe military forces and activities. The treaty is designed to increase transparency, build confidence, and encourage cooperation among European nations.

The parties to the Open Skies Treaty have conducted 1,500 flights through early October 2019. Some parties provide their own aircraft, but the parties can also join on overflights on aircraft provided by other nations. Both the observing nation and observed nation have access to the data from each flight; other parties can purchase copies of the data, so all can share information collected during all flights. The United States and Russia have both conducted numerous observation flights over the other's territory, although, according to the State Department, the United States conducted nearly three times as many flights over Russia as Russia did over the United States. Further, the parties can invite flights over their territories in special circumstances, as Ukraine did in 2014, when Open Skies flights helped monitor activities along the Ukraine-Russian border.

Background

President Eisenhower proposed an Open Skies agreement in 1955 to reduce the risk of war. Before satellites existed, aerial overflights provided information for both intelligence and confidence-building purposes. The Soviet Union rejected the proposal because it considered overflights equal to espionage and believed the United States had more to gain than it did. President George H. W. Bush revived the proposal in May 1989. By this time, both the United States and Soviet Union collected intelligence with satellites and remote sensors. As Europe emerged from the East-West divide of the Cold War, the United States supported increased transparency to reduce the chances of military confrontation. The Open Skies Treaty was one of three arms control arrangements—including the Vienna Document and the Conventional Armed Forces in Europe Treaty (CFE)—which could serve, as then-Secretary of State Baker noted, as "the most direct path to greater predictability and reduced risk of inadvertent war."

Key Provisions

Open Skies participants make all their territory accessible to overflights by unarmed fixed-wing observation aircraft. They can restrict flights for safety concerns, but cannot impede or prohibit flights over areas, including military installations that would otherwise be off-limits. In most cases, the nation conducting the observation flight provides the aircraft and sensors; officials from the host nation participate in the flight.

The nation conducting an observation flight must provide 72 hours' notice before arriving in the host country. This provides the host with time to suspend sensitive military exercises or activities. The observation team presents a mission plan, specifying details including the route and altitude for the flight. The host nation can propose changes to the mission plan, due to weather or flight safety considerations, but it cannot deny access to any area of its territory.

Open Skies aircraft can be equipped with four types of sensors: optical panoramic and framing cameras (for still photography) with a ground resolution of 30 centimeters (around one foot); video cameras with a ground resolution of 30 centimeters; infrared line-scanning devices with a ground resolution of 50 centimeters (around 20 inches); and sideways-looking synthetic aperture radars (SARs) with a ground resolution of 3 meters (around 8 feet). This equipment can collect basic information on military forces and activities, but would not provide detailed technical intelligence. It also allows monitoring of military and civilian infrastructure, such as industrial plants, airports, roads, and railway lines, but would not allow recognition of sensitive details about items such as electronic equipment.

The participants can upgrade cameras and sensors as technology advances, as long as the capabilities remain within treaty parameters. The party using the new technology must demonstrate that technology to the others participants and receive consensus approval before they can transition to new cameras. Russia has recently equipped its aircraft with electro-optical cameras, replacing film with digital cameras. In 2018, the United States blocked approval of Russia's use of new cameras, delaying flights planned for that year; it reversed this decision in late 2018, and flights resumed in 2019.

Russian Compliance

According to the U.S. State Department, Russia has restricted access for Open Skies flights over Kaliningrad, over Moscow, and along the border of Russia with the Georgian regions of South Ossetia and Abkhazia. Russia has reportedly also failed to provide priority flight clearance for Open Skies flights on a few occasions. The United States has raised these issues in the Open Skies Consultative Commission, and some have been resolved. Nevertheless, the United States responded to limitations imposed by Russia by limiting the length of flights over Hawaii and removing access to two U.S. air force bases used during Russian missions over the United States.

Benefits and Risks

When the United States first signed Open Skies, most analysts agreed that the treaty would provide little information not already available from observation satellites. But supporters argued that the treaty could still benefit the United States and its allies. For example, most treaty participants do not have observation satellites, so, as former Secretary of State George Schultz noted, "Open Skies is their only means of alleviating security concerns through timely overhead imagery." This reduces the risk of misunderstandings or crises that could involve the United States and contributes to "a more stable and secure European continent."

In 1992, analysts asserted the treaty would create few risks for the United States because Russia could collect more detailed information with observation satellites. Nevertheless, some U.S. military and intelligence officials have recently cautioned that better optical technology might allow Russia to overcome weaknesses in its satellite surveillance capabilities. Others have questioned these conclusions, noting that Russia will operate commercially available cameras, with resolutions that are both within the bounds established by the treaty and also less precise than those offered by commercial satellites.

Author Information

Amy F. Woolf
Specialist in Nuclear Weapons Policy

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.