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U.S.-Proposed Missile Technology Control Regime Changes

Introduction

Beginning in 2017, the United States has submitted a series of proposals to the Missile Technology Control Regime (MTCR) partners that would relax the regime's export guidelines for certain Unmanned Aerial Systems (UAS). Advocates of altering the guidelines to ease such exports argue that increasing competition from foreign UAS manufacturers is undermining the competitive advantage of their U.S. counterparts. Other observers have emphasized the need to maintain the MTCR's standards, which are widely regarded as effective. For more information on the MTCR, see CRS Report RL33865, *Arms Control and Nonproliferation: A Catalog of Treaties and Agreements*.

The MTCR, according to its website, "seeks to limit the risks of proliferation of" nuclear, biological, and chemical weapons (NBC weapons) "by controlling exports of goods and technologies that could make a contribution to delivery systems (other than manned aircraft) for such weapons." Established in 1987 by the United States and six other countries, the MTCR, which holds several meetings per year and currently consists of 35 partner countries, is an informal voluntary arrangement whose partners agree to apply common export policy guidelines to an annex containing two categories of controlled items. Partner countries implement these guidelines pursuant to national legislation and regularly exchange information on relevant export licensing issues, including denials of technology transfers. The MTCR guidelines apply to both armed and unarmed UAS.

According to the MTCR, Category I items are the most sensitive and include complete UAS "capable of delivering a payload of at least 500 kg to a range of at least 300 km, their major complete subsystems … and related software and technology," as well as "specially designed" production facilities for these UAS and subsystems. Partner governments should have "a strong presumption to deny" such transfers, regardless of their purpose, but may transfer such items on "rare occasions." The guidelines prohibit exports of production facilities for Category I items. Regime partners have greater flexibility with respect to authorizing exports of Category II items, which include less sensitive and dual-use missile related components. This category also includes complete UAS, regardless of payload, capable of ranges of at least 300 km, as well as other UAS with certain characteristics.

Details

The United States first tabled a white paper concerning this aspect of UAS exports during the 2017 MTCR Plenary meeting. A U.S. proposal submitted during the March 2018 MTCR Technical Experts Meeting would have provided Category II treatment for a certain subset of UAS with a "maximum speed value," as well as associated parts and components, a Department of State official told CRS on December 4, 2018. The official did not specify the proposed speed value. The proposal also included a method for determining the speed of such a UAS, a feature not contained in the current MTCR annex, and a definition of "cruise missile." The proposed changes would not have applied to cruise missiles or affect current MTCR treatment of either complete production facilities or technology for the development and production of complete systems. Then-Assistant Secretary of State Christopher Ford noted during a July 24, 2020, event that the United States has "repeatedly … made technical changes and various other adjustments to our reform proposal in response to issues raised and ideas that were suggested by our MTCR partners." The proposed changes were a part of a broader Donald Trump Administration UAS export policy announced in April 2018 that replaced a similar 2015 Obama Administration measure.

On July 24, 2020, the first Trump Administration announced a new UAS export policy similar to the March 2018 proposal described above. The policy treated "a carefully selected subset of MTCR Category I UAS, which cannot travel faster than 800 kilometers per hour, as Category II" and thereby overcame the MTCR's "strong presumption of denial" for these systems. A January 12, 2021, final rule from the Department of Commerce's Bureau of Industry and Security (BIS) implemented the relevant changes to U.S. dual-use licensing procedures. The Joseph Biden Administration retained the 2020 UAS export policy.

According to a September 15, 2025, State Department fact sheet, the department "will now review requests to export UAS similar to how it reviews requests to export manned fighter aircraft." The department will "review all sales on a case-by-case basis pursuant to the U.S. Conventional Arms Transfer Policy, which accounts for nonproliferation factors."

Category I UAS Exporters

The United States has exported MTCR Category I UAS to France, Italy, Germany, and the United Kingdom; all of these governments are MTCR partners. Press and nongovernmental expert reports also name China and the United Arab Emirates (UAE) as exporters of MTCR Category I UAS. China is not an MTCR partner but agreed in 1992 to adhere to the MTCR guidelines. The UAE is not an MTCR partner; the government has no policy concerning Category I UAS exports, a UAE government representative told CRS on December 26, 2018, adding that the country needs no such policy because it does not produce or export such systems.

Potential Threat

Experts have expressed concern for at least 25 years that UAS proliferation would enable the spread of NBC weapons; specifically, some observers have argued that hostile actors could convert some types of UAS into cruise

missiles or incorporate UAS technology into such missiles. RAND reports from 2014 and 2018 have downplayed this risk, however. Whether any country is acquiring or attempting to acquire UAS for developing or producing cruise missiles is unclear. Some observers have also warned that hostile governments or nonstate actors could use UAS for disseminating chemical and biological agents.

The proliferation implications of the new U.S. policy are uncertain. The January 2021 BIS rule explains that the UAS subject to the new policy are "widely used in intelligence, surveillance, and reconnaissance (ISR) missions and various commercial and other applications not involving" NBC delivery. Faster delivery vehicles are widely regarded as more effective, but the potential effects of the proposal's speed component on NBC weapons proliferation are unclear. Furthermore, relaxing MTCR UAS controls could set a negative precedent, according to at least one expert. Former State Department official Vann Van Diepen warned in a February 2018 speech that "changes made to MTCR Category I controls on non-cruise-missile UAVs" could legitimize a future MTCR decision to relax controls on conventionally armed Category I ballistic and cruise missiles, given these missiles' "increasing role in conventional military operations."

Other MTCR Constraints on Proliferation

The MTCR guidelines state that governments should consider six factors when considering requests for the export of MTCR annex items: (1) concerns about NBC proliferation; (2) the "capabilities and objectives of the missile and space programs of the recipient state"; (3) the "significance of the transfer in terms of the potential development" of NBC delivery systems; (4) the "assessment of the end use of the transfers," including the government assurances described below; (5) the "applicability of relevant multilateral agreements"; and (6) the "risk of controlled items falling into the hands of terrorist groups and individuals."

The MTCR guidelines provide other mechanisms for preventing UAS exports from contributing to NBC weapons proliferation. For example, the guidelines stipulate that a strong presumption of denial applies to transfers of any item on the MTCR annex or any unlisted missile if the partner government "judges, on the basis of all available, persuasive information" that the items "are intended to be used for" NBC delivery. Moreover, partner governments' export controls must require authorization for the transfer of unlisted items in cases where the government has informed an exporter that such items "may be intended, in their entirety or part, for use in connection with [NBC] delivery systems … other than manned aircraft." These restrictions are known as "catch-all" controls.

In addition, the MTCR guidelines state that, in cases where the exporting government does not judge the proposed Category I UAS transfer as intended for NBC delivery, the government is to obtain "binding government-to-government undertakings" from the recipient state that "[n]either the items nor replicas nor derivatives thereof will be retransferred without" the exporting government's consent. The exporting government must also assume "responsibility for taking all steps necessary to ensure that the item is put only to its stated end-use." Moreover, a government is only to authorize transfers of items that "could contribute to [an NBC] delivery system" if the government receives "appropriate assurances from the [recipient] government" that the recipient will use the items only for their stated purpose and will refrain from modifying, replicating, or retransferring the items without the exporting government's prior consent.

Other multilateral regimes restrict the export of technologies that could enable the development of NBC payloads for UAS. For example, the Nuclear Suppliers Group (NSG) governs nuclear-related exports, and the Wassenaar Arrangement performs a similar function with respect to conventional arms and certain dual-use goods and technologies. The Australia Group is the analogous organization for technologies relevant to chemical and biological weapons.

U.S. Controls

In addition to the controls implemented as part of U.S. membership in the multilateral groups described above, the United States imposes a number of other restrictions on UAS exports. The State Department administers export controls on military UAS and other defense articles; the statutory basis for this system is the Arms Export Control Act (AECA; P.L. 94-329). Section 71(a) of that law requires the Secretary of State to maintain a list of all items on the MTCR annex that are not controlled pursuant to U.S. dual-use controls. The AECA also restricts the uses to which U.S.-origin defense articles may be put and prohibits transfers of such items to third parties without U.S. government permission. For example, Section 38(a)(2) requires that the executive branch "take into account" whether such an export would "contribute to an arms race or regional instability" or "aid in" NBC weapons development. The Export Controls Act of 2018 (P.L. 115-232, Subtitle B, Part I) provides broad, detailed legislative authority for the President to implement controls on the export of dual-use items, including dual-use UAS and related components. U.S. regulations on dual-use exports contain catch-all controls with respect to UAS.

The U.S. government also implements regulations to ensure that recipients of U.S.-origin UAS use the items for their declared purpose. According to an April 2018 State Department fact sheet, the United States will transfer military UAS "only with appropriate technology security measures." Both the State and Commerce Departments conduct end-monitoring to determine whether recipient countries are using exported items appropriately. Some military UAS "may be subject to enhanced end-use monitoring," as well as "additional security conditions," the fact sheet says. According to the Defense Security Cooperation Agency, articles subject to such monitoring "are accompanied by specialized physical security and accountability notes." U.S. transfers of MTCR Category I UAS also "shall require periodic consultations with" the U.S. government with respect to the systems' use, according to the State Department fact sheet.

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