

Missile Technology Control Regime (MTCR)

The Missile Technology Control Regime (MTCR) is an intergovernmental organization whose members implement voluntary export controls on missiles capable of delivering nuclear, chemical or biological weapons, as well as related technology. As of April 2021, [35 nations](#) are members of the MTCR.

Objective

The MTCR [was founded](#) in 1987 by Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States to control the spread of nuclear-capable missiles and the technology used in their production. In 1993, the group broadened its focus to include chemical and biological weapons-capable missiles.

Member states of the regime agree to impose export controls on missiles, [defined](#) as rocket systems and unmanned aerial vehicle systems (UAVs), as well as [a wide variety of technical components and software](#) related to missile production. The equipment, software and technology covered by the agreement are broken down into Category I and Category II items. Category I items are strictly controlled under the organization's guidelines; these items are missiles capable of delivering a warhead weighing 500 kilograms or more to ranges exceeding 300 kilometers, as well as their major subsystems like engines and re-entry vehicles. Member countries have more discretion regarding the transfer of Category II items, which are considered less sensitive, such as propulsion and launch components, and missile systems with a range of at least 300 kilometers, no matter the payload.

Consequences for Violated MTCR Guidelines

MTCR guidelines are an informal standard set by a selected group of countries rather than an international treaty adopted by its members. The agreement has no legally binding provisions or regime-wide compliance procedures. If disagreements occur, member states can consult bilaterally to clarify the issue, or bring their concerns up at the MTCR's annual policy-level Plenary Meeting. For instance, MTCR guidelines were updated in 2002 to standardize how the range of cruise missiles is calculated after France and the U.K. sold a Storm Shadow (Black Shaheen) cruise missile to the United Arab Emirates (UAE). France and the UK [claimed](#) that the missile sale was in compliance with the MTCR, as its range was less than 300 km calculated at sea level. The U.S. calculated the missile's range at altitude to be over 400 km, and thus considered its sale a violation.

While the agreement outlines no legal repercussion for breaking the adopted standards of the MTCR, the United States government has passed legislation [allowing for the introduction of sanctions](#) against any nations that export items restricted by the MTCR agreement, and has made use of such sanctions in the past against [China](#). China is not a member of the MTCR, but [agreed to adhere](#) to it in 1992. Israel is not a member, but adheres to MTCR guidelines.

Why Join the MTCR?

Joining the MTCR provides member countries with international legitimacy and signals support for the non-proliferation of missiles. Adoption of the treaty may also assist in legitimizing existing long-range ballistic missile capabilities in the eyes of other MTCR members by showcasing responsible handling of existing missile technology, which may have influenced India's [decision](#) to join in 2016.

MTCR Today

In July 2020, the United States reinterpreted the MTCR guidelines to treat selected MTCR Category I UAS with maximum speeds less than 800 kilometers per hour as Category II in part to increase sales of these systems.

Category I systems are subject to [“strong presumption of denial”](#) and [“greatest restraint”](#) is applied to these items, while Category II systems are considered [“less sensitive”](#) and evaluated on a case-by-case basis. This was done to supposedly keep up with the growing demand for UAS, the proliferation of UAS by China, and to aid allies such as South Korea by allowing exports of more advanced UAS technology. The U.S. decision has drawn criticism for potentially weakening the regime by providing more avenues to circumvent the arrangement’s intent.

In October 2022, experts from MTCR partner countries [met](#) in Switzerland to discuss recent developments. In addition to the regular discussion of trends and best practices, attendees also discussed potential amendments to the MTCR Technical Annex and raised questions about the relevance of the MTCR to the emerging commercial space sector.