



**COMANDO DA AERONÁUTICA
DIRETORIA DE ENSINO DA AERONÁUTICA
UNIVERSIDADE DA FORÇA AÉREA**

**PROCESSO SELETIVO PARA ADMISSÃO DE ALUNO REGULAR NO
PROGRAMA DE PÓS-GRADUAÇÃO EM CIÊNCIAS AEROESPACIAIS**

MESTRADO PROFISSIONAL - TURMA 2021

PROVA DE COMPREENSÃO DE LÍNGUA INGLESA

Orientações para a prova:

- 1) É permitido somente uso de dicionário convencional (não eletrônico), de uso individual e exclusivo, inglês/inglês.
- 2) O tempo **máximo** de realização da prova é de 3 horas.
- 3) Utilize caneta esferográfica azul ou preta.
- 4) Desliguem ou silenciem seus aparelhos celulares.
- 5) Só será permitido ao candidato se retirar do local de prova após decorridos 60 minutos.
- 6) Só será permitido ao candidato levar o caderno de questões após decorridos 120 minutos.

Boa sorte!

NOVEMBRO / 2020

READ THE TEXT.

International perspectives on space weapons

Defining Space Warfare and Space Weapons

If weapons are instruments of war, then defining what constitutes war in space can help elucidate what is or is not a space weapon. Clausewitz defined war as an "act of violence intended to compel our opponent to fulfill our will." He went on to further refine his definition of war, writing that "violence, that is to say, physical force . . . is therefore the means; the compulsory submission of the enemy to our will is the ultimate object. In order to obtain this object fully, the enemy must be disarmed, and disarmament becomes therefore the immediate object of hostilities in theory." Thus, the act of making war includes actions intended to disarm one's opponent and to limit its ability to fight. While Clausewitz did not contemplate war extending into outer space, there is little reason to believe that the object of a war that begins or extends into space would be fundamentally different than terrestrial warfare.

Space has been used to support military planning and operations on Earth since the beginning of the space age, even before human spaceflight. Early military space missions used space systems for intelligence, surveillance, and reconnaissance (ISR); communications; position, navigation, and timing (PNT); and other functions to allow terrestrial forces to operate more effectively. These passive uses of space to support military forces are often referred to as the militarization of space, and there is little disagreement that space systems have and will continue to be used for military purposes.

The weaponization of space, however, is generally viewed as going beyond mere passive support to military forces on Earth. As Joan Johnson-Freese defines it in her book, *Space as a Strategic Asset*, "force application is the overt weaponization of space, as compared with the de facto weaponization that has occurred under the guise of space control." Air Force doctrine previously defined space force application as "those forces that deliver kinetic effects to, from, or through space." However, the most recent update to joint space operations doctrine in 2018 does not use this terminology and explicitly calls for its "removal from the DoD dictionary." The 2018 joint doctrine defines space control as both offensive and defensive operations "to ensure freedom of action in space for the US and its allies and, when directed, to deny an adversary freedom of action in space."

A 1991 United Nations report on space security adroitly noted that, "the adoption of common definitions must take account of complex technical, legal, and doctrinal meanings of words, phrases, terms, and weapon systems, as well as military and military-related space activities." The UN report notes that "the term weaponization of outer space has been used to include space-based weapons consisting of space/Earth-strike devices. For some delegations, however, weaponization of outer space also covers ground-based weapons consisting of space-strike devices."

A wide variety of nations have attempted to define what a space weapon is and is not. For example, in 1982 the Italian delegation to the United Nations Conference on Disarmament raised a number of key questions for defining anti-satellite (ASAT) weapons, such as whether non-kinetic means of interfering with a satellite (such as radio frequency jamming or lasing) should be considered ASAT activities. The Conference on Disarmament established an ad hoc committee to explore these issues in 1985.

The following year the Venezuelan delegation proposed a definition for "space strike weapons" that included both offensive and defensive systems launched from the ground, air, sea, or space. However, it limited its initial definition to only include weapons that targeted an object in space. In 1988, Venezuela tabled a more comprehensive proposal that defined space weapons to also include systems capable of attacking targets on the land, air, and sea from space. It specifically included all types of weapons "whatever the scientific principle on which its functioning is based," which includes both kinetic and non-kinetic forms of attack. Germany weighed into the definition debate in 1989, but the German proposal focused on kinetic forms of ASAT weapons from Earth and space-based platforms.

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Fonte: <<https://www.csis.org/analysis/international-perspectives-space-weapons>>

Acessoem: 07/10/2020.

BASED ON THE TEXT ABOVE, CHOOSE THE CORRECT ALTERNATIVE A, B, C or D.

Question 1

Based on the text, the initial definition for space strike weapons included _____.

- A) systems capable of attacking targets on the land, air and sea from space.
- B) all types of weapons
- C) defensive systems only
- D) weapons that targeted an object in space.

Question 2

According to the text, how does the most recent joint doctrine define space control?

- A) A simple support to military forces on Earth.
- B) Forces which carry kinetic effects to, from or through space.
- C) Defensive and offensive operations to guarantee freedom of actions in space for American and allies, refuting an adversary freedom of action in space.
- D) The militarization of outer space.

Question 3

According to the text, which of the following statements about warfare is true?

- A) The definition of space warfare is not connected to the definition of space weapon.
- B) According to Clausewitz, violence is the ultimate object of any war.
- C) Disarmament is a compulsory part of the act of making war.
- D) The objects of war in space warfare and terrestrial warfare are totally different from each other.

Question 4

According to the text, _____.

- A) a restricted number of countries have made an effort to state the meaning of space weapons
- B) the Italian delegation to the United Nations Conference thoroughly set forth the meaning of anti-satellite weapons
- C) in 1982 the Conference on Disarmament created a board with the purpose of investigating topics related to ASAT weapons
- D) in 1982 non-kinetic means, such as radio frequency jamming or lasing, hindered the ASAT activities

Question 5

All the following alternatives may be components of war, **except**:

- A) Support for the opponent's ability to fight.
- B) Submission of the enemy to our will.
- C) The use of physical force.
- D) Disarmament.

Question 6

According to the text, the German proposal focused on _____ of ASAT weapons.

- A) kinetic forms
- B) non-kinetic forms
- C) both kinetic and non-kinetic forms
- D) space-based platforms only

Question 7

Based on the text, the United Nations report on space security in 1991 notices that the term *weaponization* of outer space has been used to _____.

- A) characterize military and military related activities in the space.
- B) explain the weapon system in outer space.
- C) describe all the complex technical armament in space.
- D) include space-based weapons that consist of space / Earth strike equipment.

Question 8

Choose the statement which is **not** true regarding the militarization of space.

- A) Early military space missions used space systems to allow terrestrial forces to operate more successfully.
- B) Intelligence, surveillance and reconnaissance are considered passive uses of space to support military forces on Earth.
- C) The use of space systems for position, navigation, and timing is also part of the militarization of space.
- D) Space systems have been used for military purposes after human spaceflight.

Question 9

According to the 1991 UN report, the adoption of common definitions for the term *weaponization* of outer space has to take into account the following, **except**:

- A) Military and military-related space activities.
- B) Legal inquiries.
- C) Complex technical meanings of words.
- D) Weapon systems.

Question 10

The main idea of the text is _____.

- A) The UN conferences on disarmament
- B) Militarization of space
- C) Weaponization of space
- D) Definitions of the concepts of space war military operations and weaponization of space.

FIM



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3ª etapa do Processo Seletivo - Turma 2021

GABARITO COMENTADO

Questão nº 1 - letra (D)

No texto, o autor afirma que a delegação venezuelana propôs uma definição para o termo *spacestrikeyeapons* que incluía ambos sistemas defensivos e ofensivos lançados a partir do solo, ar, mar ou do espaço. Entretanto, a definição inicial foi limitada à inclusão somente de armas cujo alvo fosse um objeto no espaço. Conformedestacado no texto: *However, it limited its initial definition to only include weapons that targeted an object in space.*

Questão nº 2 - letra (C)

O texto nos revela que a mais recente doutrina de operações espaciais conjuntas, data de 2018. A doutrina de 2018 define o controle espacial como operações ofensivas e defensivas, "a fim de assegurar a liberdade de ação no espaço pelos Estados Unidos e seus aliados e, quando direcionado, negar a liberdade de ação adversária no espaço".

Questão nº 3 - letra (C)

No primeiro parágrafo do texto o autor cita Clausewitz e sua definição de guerra, na qual afirma que "o ato de fazer guerra inclui ações com o intuito de desarmar o seu oponente e limitar sua habilidade de lutar".

Questão nº 4 - letra (C)

O autor aponta no artigo que em 1982, durante uma conferência sobre desarmamento, foi estabelecida uma comissão para atuar no ano de 1985 com o objetivo de investigar assuntos referentes aos armamentos ASTA . A resposta pode ser confirmada no seguinte trecho: *For example, in 1982 the Italian delegation to the United Nations Conference on Disarmament raised a number of key questions for defining anti-satellite (ASAT) weapons, such as whether non-kinetic means of interfering with a satellite (such as radio frequency jamming or lasing) should be considered ASAT activities. The Conference on Disarmament established an ad hoc committee to explore these issues in 1985.*

Questão nº 5 - letra (A)

Todas as alternativas contêm elementos de guerra, com exceção da alternativa A, que descreve o “apoio à habilidade de lutar do oponente”. Segundo o texto, um dos objetivos da guerra é justamente “limitar a habilidade de lutar do seu oponente”.

Questão nº 6 - letra (A)

O autor aponta no texto que a proposta dos alemães era focada em formas cinéticas de armas ASAT. Tal afirmação pode ser comprovada no trecho a seguir: *...but the German proposal focused on kinetic forms of ASAT weapons from Earth and space-based platforms.*

Questão nº 7 - letra (D)

O artigo nos diz que o relatório das Nações Unidas de 1991 aponta que o termo armamentização do espaço sideral tem sido usado para incluir armamentos espaciais constituídos por dispositivos de ataque espacial e à Terra.

Questão nº 8 - letra (D)

A única alternativa que não condiz com as ideias expressas no texto é a alternativa D porque os sistemas espaciais têm sido usados com propósitos militares antes mesmo do vôo do homem ao espaço e não depois. Essa informação pode ser verificada no trecho a seguir: *“Space has been used to support military planning and operations on Earth since the beginning of the space age, even before human spaceflight.”*

Questão nº 9 - letra (B)

O relatório das Nações Unidas sobre segurança espacial de 1991 habilmente constatou que “a adoção de definições comuns deve-se considerar a complexidade técnica, jurídica e doutrinária do significado das palavras, frases e termos e os sistemas de armamento, bem como as atividades espaciais militares ou relacionadas.” O texto, no entanto, não faz referência a interrogatórios jurídicos.

Questão nº 10 - letra (D)

O texto aborda definições acerca do que vem a ser guerra espacial, militarização do espaço e sua conseqüente armamentização, conforme pode ser comprovado no seu subtítulo.