

In after exploitation.
the answer to this



In recent decades, in connection with the increase in the number of satellites launched into space, a question arose among scientists about their future fate after exploitation. The answer to this question is the appearance of garbage in space and the opinions of scientists differ as to whether this is a problem. According to some, space debris does not pose a threat to ships, missiles and operational satellites, while other specialists in this area believe that this garbage can interfere with other objects in space. There are also fears about the fact that these cosmic remains can harm our planet.

This issue remains open in the world of space sciences, despite the fact that there are a number of events related to the collision of satellites and missiles with this garbage. For example, the case of 2007 can be cited when space debris inflicted serious damage to the radiator panel of the space shuttle Endeavor (NASA, 2007). In fact, this is not an isolated case of problems with space debris, which indicates the need to find a solution to this problem.

Being a graduate of the physical and mathematical school and choosing the direction of the specialty related to science, I consider the problems of the cosmos as important enough and interesting to study them and find ways to solve them. There are significant consequences of the existence of space debris such as causing them damage to the planet, launched missiles and other equally dangerous moments. Therefore, this research project will address the problem of space wastes and how to remove them.

Research questions 1. What does the term space debris mean? 2.

What is the cause of appearance of space debris? 3. How do scientists describe their opinion about this problem? 4. What consequences can be

ignoring this problem? 5. What solutions to this problem will be discussed in this project? Outline1.

Introduction? definition of space debris? the appearance of rubbish in space? influence of different countries on the creation of spacewastes? the main reasons for the increase in the number of spacedebris? Thesis: ways to reduce space debris should be found by knowncircumstances2. Collision withoperational satellites? increase in the frequency of collision of rubbish andsatellites in space (NASA. 2011)? collision damage3. Possible hitting withEarth atmosphere? Falling of WT1190F object to the Earth in 2015 (IAC andEuropean Space Agency, 2015)? Aftermaths of this impact4. Obstacles to newlaunches? An attempt to evade space debris at the International SpaceStation (NASA. 2014)5. Conclusion? Re-statement of thesis? Summarize all shortcomings of inaction against space debris AnnotatedsourcesCrowther, Richard. " SpaceJunk-Protecting Space for Future Generations.

" Science 296, no. 5571(2002): 1241-1242. In this article from anacademic peer reviewed journal, Crowther discusses the problems of space debris describing their appearance and possible outcomes of ignoring their existence, as well as considering state agreements on this topic.

Since the article waspublished in the journal Science which is the peer-reviewed academic journal ofthe American Association for the Advancement of Science (AAAS) and one of theworld's top academic journal , this material is supposed to be a reliablesource of information. According to the Crowther, an appearance of artificialdebris in space is explained by launches and

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orbital operations, as well as theremnants of past explosions and collisions. Although approximately 99% of thecosmic waste is cataloged, it is only large remains that are larger than 1 cm. Small objects less than 1 cm in orbit are larger than 100, 000 and they cancause significant damage to spacecraft. At this forum, Crowther writes aboutinternational agreements between space-faring states about mitigating space debris near the Earth forthe next several decades.

Therefore, this article useful for me because itcontains information about the appearance and aftermath of the appearance ofremains in orbit. Kortenkamp, Steve. Space Junk.

Mankato, MN: Capstone Press, 2008. The second reliable source is the book “Space Junk” by Kortenkamp Steve. The title of the book indicates full information about space debris. In addition, the book describesnot only its appearance in orbit, but also the hazards and possible solutionsof this problem. The author of this book, Dr. Kortenkamp, received his doctoratein philosophy of astronomy in 1996 at the University of Florida. He was later afellow of George Westroll at the Carnegie Institution in Washington, Departmentof Terrestrial Magnetism until 2001, then he entered the University of Arizona.

Achievements in such areas make the author qualified enough to trust his work. Jerry Wright. “ Station Debris AvoidanceManeuver Conducted.” NASA. March 16, 2014.

<http://www.nasa.gov/content/station-debris-avoidance-maneuver-conducted>. The next source for writing the project is the internationally recognized organization NASA.

The article “ Station Debris Avoidance Maneuver Conducted” is suitable for explaining the maneuvers that were made to avoid space debris. The article was published in 2014, which shows the relevance of the chosen topic and also makes the source reliable because it was written relatively recently.