

# **The new jettison policy for the International Space Station**

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During more than seven years of operations by the International Space Station (ISS), approximately three dozen pieces of debris were released and subsequently cataloged by the U.S. Space Surveillance Network (SSN). The individual mass of these objects ranged from less than 1 kg to 70 kg. Although some of these debris were separated from the ISS accidentally, some were intentionally cast-off, especially the larger items. In addition, small operational satellites are candidates for launch from the ISS, such as the TNS-0 satellite deployed from ISS in March 2005. Recently an official ISS Jettison Policy was developed to ensure that decisions to deliberately release objects in the future were based upon a complete evaluation of the benefits and risks to the ISS, other resident space objects, and people on the Earth. The policy identifies four categories of items which might be considered for release: (1) items that pose a safety issue for return on-board a visiting vehicle, (2) items that negatively impact ISS utilization, return, or on-orbit stowage manifests, (3) items that represent an EVA timeline savings, and (4) items that are designed for jettison. Some of the principal issues to be addressed during this evaluation process are the potential for the object to recontact the ISS within the first two days after jettison, the potential of the object to breakup prior to reentry, the ability of the SSN to track the object, and the risk to people on Earth from components which might survive reentry. This paper summarizes the history of objects released from ISS, examines the specifics of the ISS jettison policy, and addresses the overall impact of ISS debris on the space environment.