Overview Environmental Assessment for the Space Based Infrared System (SBIRS)

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Abstract: The United States needs to procure a consolidated, cost-effective, flexible system that will meet the Nation’s infrared space surveillance needs through the next two to three decades. The system must fulfill four broad mission areas: missile warning, missile defense, technical intelligence, and battlespace characterization. This overview Environmental Assessment (EA) identifies, describes, and evaluates the potential environmental impacts that could result from implementing the Space Based Infrared System (SBIRS) High Component, which is the development and testing of satellites for the geosynchronous orbit, development and testing of infrared sensors for the highly elliptical orbit, design and testing of antennas for the overall SBIRS program, and Atlas IAS or Evolved Expendable Launch Vehicle (EELV) operations at Cape Canaveral Air Station, Florida. The major impacts that were assessed were as follows: global impacts, which consist of launch vehicle impacts to the stratospheric ozone layer from rocket exhaust and deorbiting debris; and local impacts, which consist of launch clouds from the launch vehicles that will contain hydrochloric acid and aluminum oxide, electromagnetic radiation from antennas, and local spills from prelaunch activities. The EA evaluated how the Geosynchronous Earth Orbit Satellites and the launch vehicles would affect air quality, water resources, the water supply, cultural resources, biological resources, threatened and endangered species, and stratospheric ozone, and whether their use would result in environmental problems due to the creation of solid waste, hazardous materials, hazardous waste, nonionizing radiation, and noise. The EA also assessed how the SBIRS program would affect the environment of Cape Canaveral Air Station. The conclusion reached by this EA is that the SBIRS program will not produce significant environmental impacts, and an environmental impact statement is not required. (13 tables, 8 figures, 74 refs.)

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