

SpaceX Rocket Wreckage Discovered on Cumberland Island

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Large parts of a SpaceX rocket have been found on Cumberland Island. The large debris has been discretely removed from Cumberland Island National Seashore. The discovery of rocket debris was not publicly reported by officials.

The debris comes from a SpaceX Falcon 9 rocket recently launched from Cape Canaveral. One large piece includes a distinctive American Flag emblem identifying the part as coming from the 43-foot long SpaceX payload fairing. This 2,000-pound part is half of a pair routinely discarded above 50 miles altitude during a launch. It falls to earth or ocean where it becomes scattered space-junk. The carbon-fiber/aluminum core honeycomb construction is not biodegradable so the debris will last for centuries if not recovered. SpaceX does not attempt to reclaim these discarded rocket parts.

The debris likely floated onto Cumberland's beach where it was quickly buried in the sand by waves. A web search discloses that the discovery of significant pieces of space-junk elsewhere generates local news interest and reporting. However, because falling space debris does not fit Spaceport Camden supporters safety narrative while they pursue a spaceport license, concealment of this debris discovery compelled this letter.

Congressional finding: "Space transportation is inherently risky..."

U.S. Law 51 U.S. Code § 50901

There are multiple sources of discarded rocket debris. Rockets cast-off parts as an expected launch event consequence even when there is no malfunction. Rockets always jettison the range of debris found on Cumberland Island and the even heavier inter-stage housing. The most infamous incident of random debris loss occurred when a large chunk of insulation broke loose from Space Shuttle Columbia's fuel tank damaging the Shuttle's heat-shield which lead to the tragic loss of Columbia during

reentry. Any rocket that drifts off-course or malfunctions is intentionally destructed in flight, creating a huge debris field. And of course, rockets occasionally explode on their own and litter wide areas with space-junk and hazardous debris.

Boris Urmatov, who is asking for 1 million rubles (\$42,000) from the Roskosmos agency, lives in a small village that lies underneath the flight path of rockets taking off from the Baikonur launchpad Russia leases in nearby Kazakhstan. One night, he heard an explosion and in the morning found an enormous metal rocket casing. "It nearly crushed the outhouse." Reuters, March 26, 2008

It is well-known that space-junk graveyards lay immediately offshore from each FAA-licensed spaceport. At other US spaceports, the debris lands in the ocean, but in Camden County, space-junk will end up on our populated Cumberland Islands and in our marshes where it will be next-to-impossible to remove.

The Spaceport Camden Draft Environmental Impact Statement failed to study the consequences of any accident scenario. For that reason, I initiated a Freedom of Information Act request to the FAA requesting an inventory of the debris that has resulted within 10 miles of all FAA-licensed launch sites. In violation of 5 U.S.C. § 552, the FAA has ignored the request.

It is possible that the FAA has not kept such debris logs since previous rockets have launched directly over oceans cleared of the public. The debris sections found on Cumberland are larger than a factory's overhead door. Considering that a spoon-sized piece of a rocket-junk falling from 30,000 feet can kill an adult, the FAA appears to trust Camden's calculations rather than existing evidence to make decisions about risk to humans, property, and the environment in Camden County. Significantly, the FAA admits calculations have errors of up to "3 orders of magnitude." *Flight Safety Analysis Handbook, 2011*

If the FAA doesn't keep count of what falls off rockets, how can we trust pronouncements about our safety?

Columbia Accident Investigation Board Finding: "Building and launching rockets is still a very dangerous business and will continue to be so for the foreseeable future while we gain experience at it. It is unlikely that launching a space vehicle will ever be as routine an undertaking as commercial air travel." CAIB August 26, 2003

Camden has also refused to release the hazard analysis provided to the FAA for the EIS. From their perspective, it's easy to understand why Camden County and the FAA have refused to respond to my Open Records requests, and why local supporters of the spaceport don't want citizens to know we're at risk not only from space-junk floating in but also from space-junk raining down.

If we needed further confirmation of the risk, the Coast Guard, at the request of Camden County, is proposing to close more than 250 square miles of our waters for each rocket launch for "our safety."

I guess that is to protect us from the "spaceport hazards-that-must-not-be-named."

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Mostly buried wreckage of a SpaceX rocket found on Cumberland Island. A complete SpaceX payload fairing is about 43 feet long and weighs over 4,000 pounds.



Section of carbon-fiber honeycomb debris found on Cumberland Island with American Flag identifying it is from a SpaceX Falcon 9 rocket. The lack of sea-growth indicates the debris is from a recent launch.



Mostly buried wreckage of a SpaceX rocket found on Cumberland Island. Visible latch devices identify the debris as a large portion from a SpaceX payload fairing weighing over 4,000 pounds.



SpaceX rocket debris found on Cumberland Island showing carbon fiber delamination, insulation, and aluminum honeycomb composite construction. These non-biodegradable components are space-junk that would contaminate the natural environment for centuries.