

Re: Deep Rescue: Will a shuttle float?

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I liked the concept of snagging a gliding booster mid-flight and air towing it back to the launch center, in a manner similar to the snagging of film canisters from Corona spy satellites;

<http://msl.jpl.nasa.gov/Programs/corona.html>

<http://www.fas.org/spp/military/program/imint/4recvry.jpg>

<http://www.fas.org/spp/military/program/imint/4case2.jpg>

Hmm... I can't seem to find photos of the aircraft actually snagging a Corona film capsule. There used to be such photos on line, but the links all seem to be broken! lol.

Seven External Tank sized boosters equipped for ballistic downrange recovery, propelled by five SSME class engines – or better yet, five SSME class turbopumps feed an aerospike engine at the base of the External tank sized boosters. All are strapped together in a hexagonal close packed sstructure. four of the six outer tanks feed all seven boosters at lift off, draining them. These four are dropped when empty, and the three remaining boosters of the seven, continue firing, all three being fed by the two outboard boosters. When those are drained, they are dropped, and they execute a downrange re-entry. The remaining booster continues onward, carrying a 700 ton ballistic orbiter – again based on an External Tank sized system– the final stage of the seven completes its burn and is recovered farthest downrange. Meanwhile the orbiter propels 600 tons of payload into LEO. All of the seven boosters, which have the same sort of airframe and propulsion system, are recovered downrange by an air-tug built out of an old airliner. The tug tows the booster/glider back to the launch center and rele