

Re: Why not a circular landing field?

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On May 16, 7:45 am, George Orwell <nob...@xxxxxxxxxxxxxx> wrote:

Why not a circular landing field for the shuttle and any winged spacecraft to follow? The idea of a circular field dates back to the very beginnings of flight, the theory being that no matter what the direction of the wind, the aircraft can always land directly into it, thus no crosswind component.

Cost? ~20 sq km vs. ~0.6.

<http://www-pao.ksc.nasa.gov/kscpao/nasafact/landingfac.htm>

"The paved runway is 15,000 feet (4,572 meters) long, with a 1,000-foot (304.8-meter) overrun on each end. The width is about the length of a football field, 300 feet (91.4 meters), with 50-foot (15.2-meter) asphalt shoulders on each side. The KSC concrete runway is 16 inches (40.6 centimeters) thick in center, and 15 inches (38.1 centimeters) thick on the sides. The landing strip is not perfectly flat; it has a slope of 24 inches (61 centimeters) from the center line to the edge to facilitate drainage."

Wouldn't this greatly increase the envelope in which the Shuttle or its successors operate? Landing in an 80 knot wind should be possible, even if it shifts around or is gusty, given a good pilot who has had some barnstorming experience.

64+ knots = hurricane (beaufort scale)
IIRC shuttle landing crosswind limit is 15 knots.