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Space Shuttle

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Space Shuttle

Die letzten Space Shuttles stehen inzwischen im Museum, die Ära der „Weltraumflugzeuge“ ist endgültig vorbei. Grund genug, einen Blick zurück zu den Anfängen der Raumschiffe mit Tragflächen zu werfen.

The space shuttles fly no more. *Fraught with* exceptional *achievement* and equally exceptional tragedy, the shuttle era has come to an end. Nearly everyone has seen pictures of NASA Space shuttles flying *piggy-back* over various cities on their way to their final resting places. Places where generations to come are able to view and explore these *flawed* but great machines. Machines that have a longer history than you might realize.

As NASA was preparing to land men on the moon, visionaries were already thinking up the next generation of space ships. There was no *shortage* of ideas, of course, but one concept that became very *common* was that of a *re-usable* space vehicle. The rockets used to send men to the moon were big and powerful, but also almost completely thrown away after every launch. Only a small *fraction* of a vehicle that started out nearly 120 meters tall would come back to earth. So if we were to *conquer* space travel, we would need vehicles that were far less *wasteful* and more like an airliner. So the theory went.

Early designs of a re-usable space vehicle *bore* little *resemblance* to The Space Shuttle. One concept had what looked like two airplanes *stacked* onto one another. Another idea even had helicopter rotor blades for landing.

Not to be left out was Wernher von Braun – father of the American space program. Von Braun had his own ideas for a space transportation system way back in the 1950's. His idea of a re-usable space plane was mostly seen as science fiction at the time. But just a decade later his general concepts would be taken very seriously.

That would be another design called the Dyna-Soar. A ship that would dynamically *soar* through the atmosphere. This was the first of the re-useable space vehicle concepts. And it somewhat *resembled* the shuttle design. It was never built. But the Dyna-Soar can be *considered* the first real *attempt* at building a *winged* spaceship.

NASA did go on to build several other *oddly* shaped airplanes. These were used to simulate flying a shuttle like vehicle. If you watched the old TV show, "Six million Dollar man", then you've seen the crash of one of them in the

	*see list
	astoundingly
	feasibility
Full of triumph	
	section
*see list	
	advanced
imperfect	
	achievements
lack	
widespread	
*see list	
part	
triumph over	
inefficient	
displayed ... similarity	
assembled	
climb	
looked like	
regarded as ... try	
*see list	
strangely	

opening credits. Just like the TV show, its test pilot *miraculously* survived. These tests also proved the *viability* of flying an unpowered aircraft from orbit to a controlled landing. And by the early 1970s, the design that would eventually become The Space Shuttle was chosen.

This Shuttle was not meant to be the final word on the re-usable space vehicle concept. The next generation of shuttles were to be something called single *stage* to orbit. This means that the spacecraft would actually take off like an airplane and fly into space using *sophisticated* engine technology. Most of those designs never really left the drawing board. Though, one was nearly completed just before being cancelled.

For better or worse, the Space Shuttle remains one of the great engineering *feats* of the 20th century. The shuttle era is over. Long live the shuttle! ■ *Fitz Walker*

<i>achievement</i>	Leistung, Erfolg
<i>attempt</i>	Versuch, Ansatz
<i>bear, to (bore, borne)</i>	ausüben, hervorbringen
<i>common</i>	gängig, verbreitet
<i>conquer, to</i>	erobern, bezwingen
<i>consider, to</i>	betrachten, erwägen
<i>feat</i>	Leistung
<i>flawed</i>	fehlerhaft, mangelhaft
<i>fraction</i>	Bruchteil, Teil
<i>fraught with</i>	voller, erfüllt von
<i>miraculously</i>	wunderbarerweise
<i>oddly</i>	seltsam, sonderbar
<i>opening credits</i>	Vorspann
<i>piggy-back</i>	huckepack
<i>re-usable</i>	wiederverwendbar
<i>resemblance</i>	Ähnlichkeit
<i>resemble, to</i>	ähneln, ähnlich sein
<i>shortage</i>	Mangel, Knappheit
<i>soar, to</i>	emporschnellen, steigen
<i>sophisticated</i>	raffiniert, anspruchsvoll
<i>stack, to</i>	stapeln, schichten
<i>stage</i>	Stufe
<i>viability</i>	Durchführbarkeit
<i>wasteful</i>	verschwenderisch, aufwendig
<i>winged</i>	geflügelt

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