



Dynamic Design: Launch and Propulsion

Launching Genesis: How Do You Spell Success?

STUDENT ACTIVITY

BACKGROUND INFORMATION

The Delta series of rockets have been a very successful launch vehicle since its first launch failed in 1960. In this activity you will determine the success rate of the Delta rocket.

PROCEDURE

 The chart below contains a record of launches the Delta rocket has made for every decade from 1960 to present. Use this chart to answer the questions that follow.

Year	Success	Failure	Success Rate
1960-1969	69	5	
1970-1979	70	5	
1980-1989	38	1	
1990-1999	81	3	
2000-2001*	9	0	

^{*} So far

- 2. Calculate the success rate of the Delta rocket for each decade by filling in the last column in the table above.
- 3. Which decade (ten-year period) had the greatest success rate for the Delta?



- 5. Which decade had the most launches of the Delta?
- Calculate the success rate of the Delta rocket since 1960.



7.	The Delta II has launched 93 payloads into orbit with only one failure and one that was partially successful. Calculate
	the success rate of the Delta II rocket.

8. (Optional) Using the data in table 2 of the Student Text "Genesis Launch Vehicle: The Delta Rocket," graph the Delta rocket model versus the payload capacity. Make two graphs one for Low Earth Orbit information and one with Geosynchronous Orbit Information.