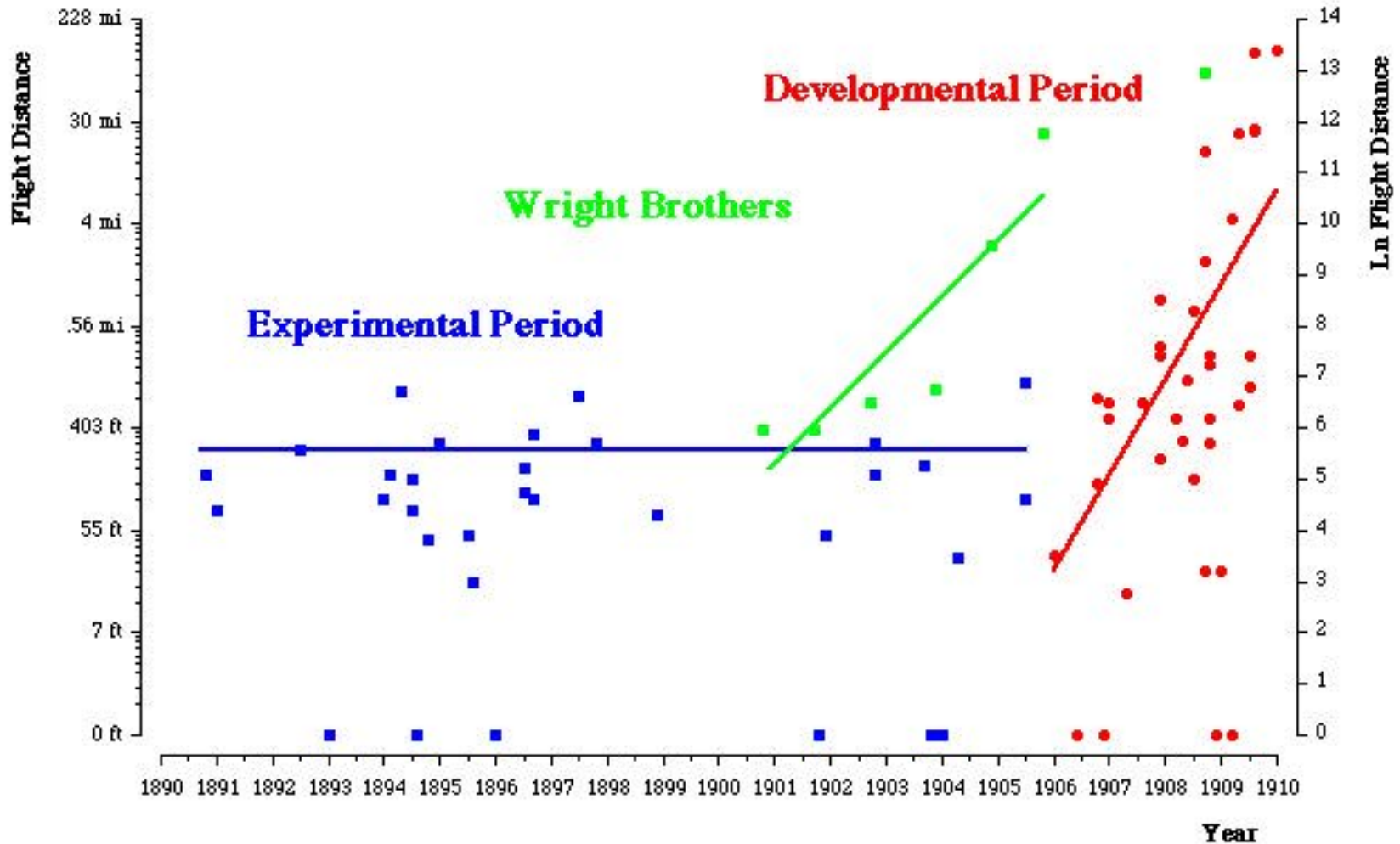


Another ‘Moore’s Law’

Attempts at Flight 1890 - 1909



Flight

- From Kitty Hawk to the Moon in 65 ½ years
- As much a triumph of *materials science*, as anything else
- How do we do it again?

Pioneers

- Otto Lilienthal
 - the courageous experimentalist
- Samuel P. Langley
 - the accomplished theorist
- Orville and Wilbur Wright
 - the patient but stubborn synthesizers

Who will be our “Wright brothers” for reactor walls?

- The key breakthrough may or may not come from a large team
- *Large teams can systematically develop the tools that some brilliant scientist can use as a platform*
- It will take a large team of theorists, experimentalists, and simulation whizzes to harness the advances