

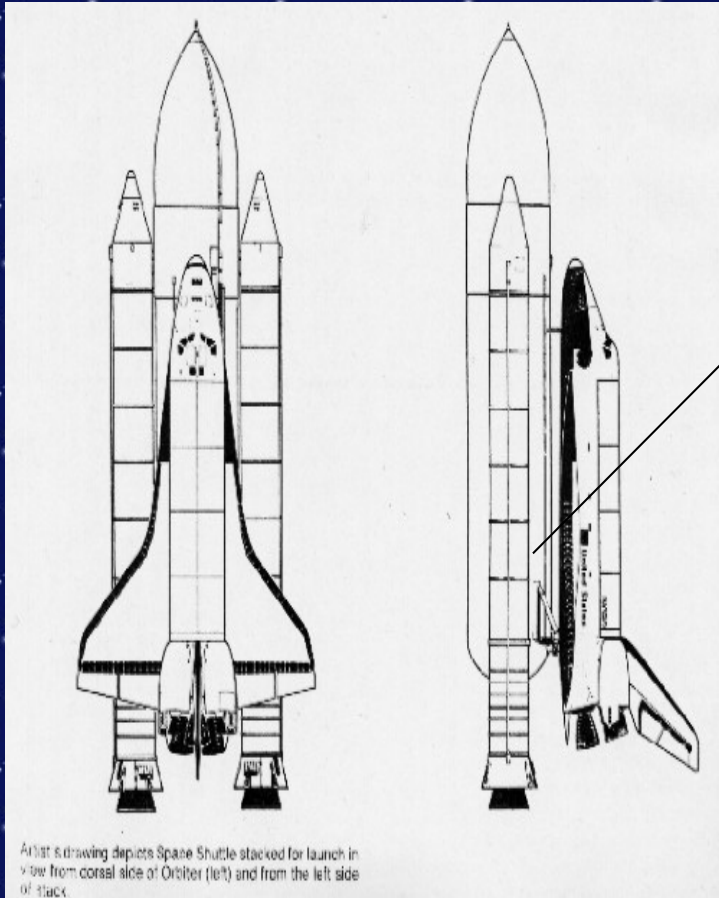
Ejemplo de la importancia de que
los estadísticos realicen los
experimentos.

NASA

Space Shuttle Challenger: January 28, 1986



Noche antes del despegue

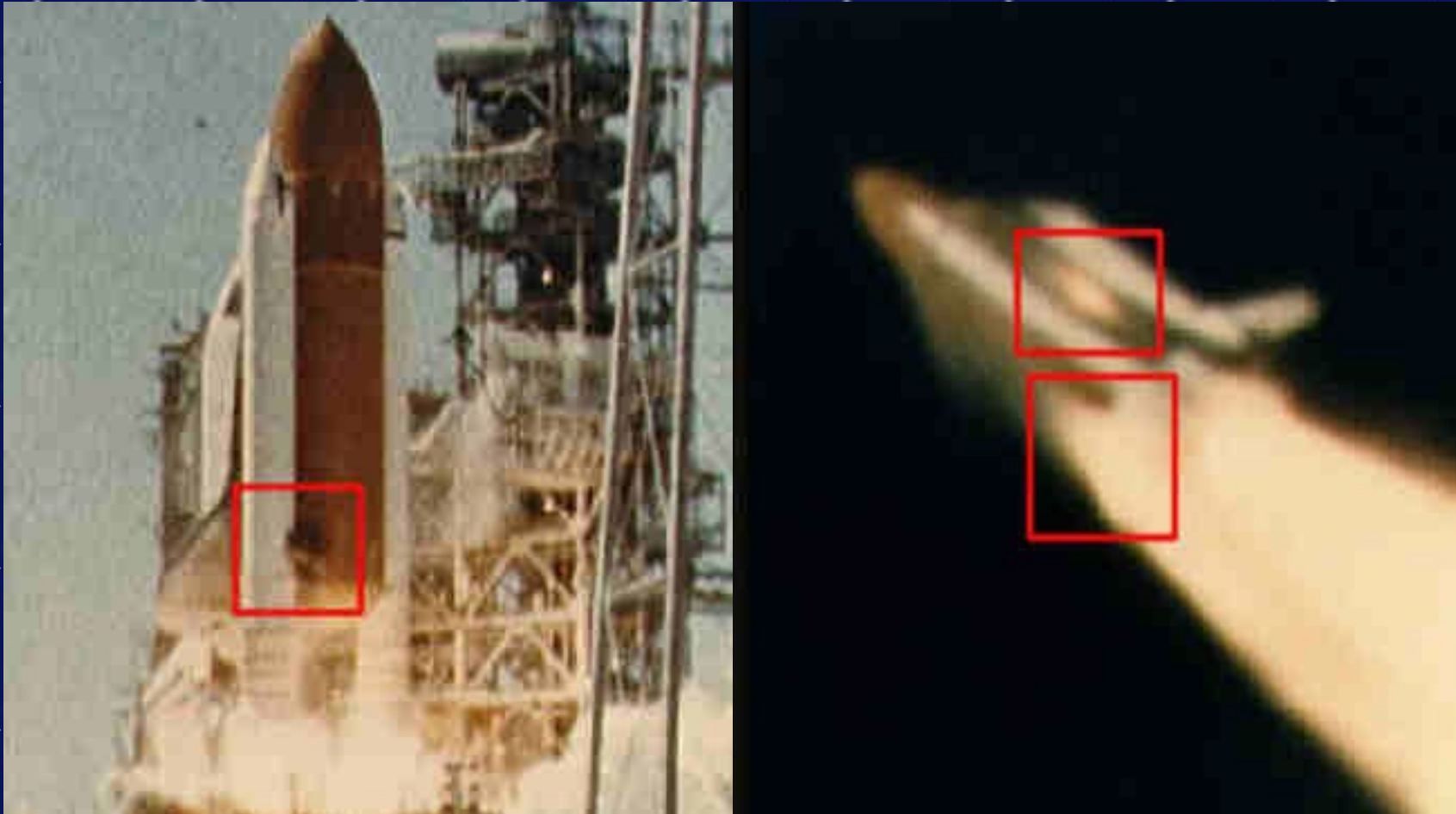


O-Rings

Información

- Pronóstico temperatura ambiental del día siguiente 31°F
- O-Rings no sellan apropiadamente en temperaturas frías
- Datos del comportamiento de O-Rings en vuelos anteriores

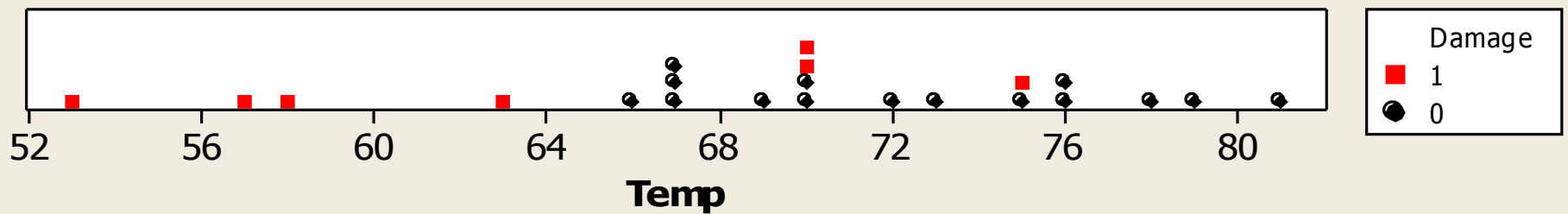
Durante el Despegue



Video del desastre del challenger

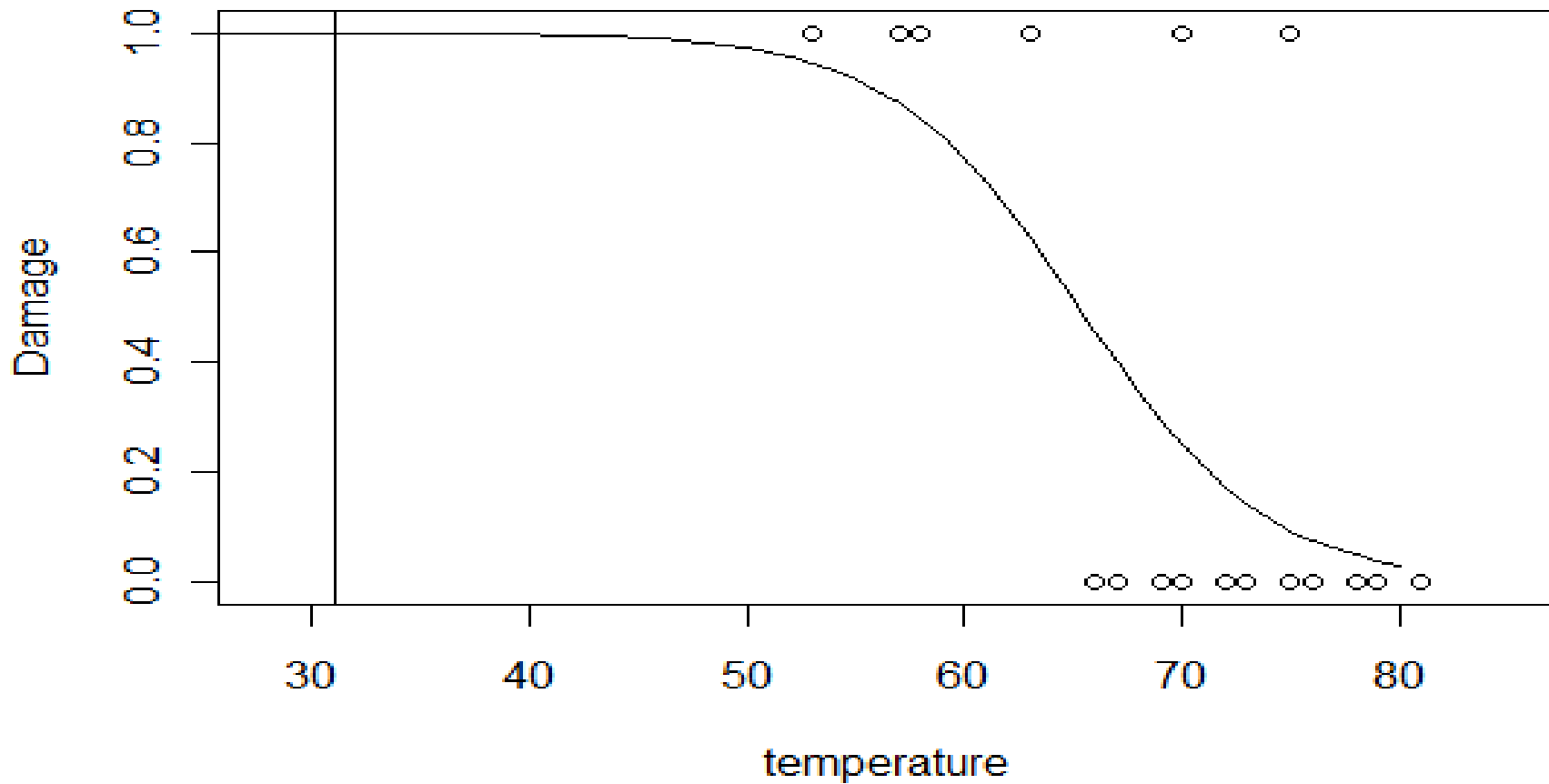
Datos de todos los vuelos anteriores

Temperature vs Damage



Método Estadístico: Regresión Logística

Incidence of Booster Field Joint Damage vs Temperature



Reacción del NASA Kennedy Space Center

- "January 28, 1986, 11:38:00 a.m. EST. First Shuttle liftoff scheduled from Pad B. Launch set for 3:43 p.m. EST, Jan. 22, slipped to Jan. 23, then Jan. 24, due to delays in mission 61-C. Launch reset for Jan. 25 because of bad weather at transoceanic abort landing (TAL) site in Dakar, Senegal.... Explosion 73 seconds after liftoff claimed crew and vehicle. Cause of explosion was an O-ring failure in right SRB. Cold weather was a contributing factor."

Natural selection is a mechanism for generating an exceedingly high degree of improbability.

Sir Ronald Fisher

The theory of probability as mathematical discipline can and should be developed from axioms in exactly the same way as Geometry and Algebra.

Andrey Kolmogorov