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Space engineer's warnings brushed aside before *Challenger* exploded

ROGER BOISJOLY
US ROCKET ENGINEER
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ROGER Boisjoly, an engineer whose warnings of catastrophe were ignored on the eve of the 1986 *Challenger* space shuttle disaster, which killed seven crew members and plunged the US space program into crisis, has died aged 73.

Boisjoly worked at Morton Thiokol, the company that made shuttle booster rockets. In his time he had watched several successful shuttle launches, including *Discovery* on January 24, 1985.

Examining *Discovery's* discarded boosters, he was horrified that seals in the rockets had been burned through. Only a secondary seal had prevented *Discovery* becoming a fireball.

By the middle of that year, Boisjoly thought

he had identified the fault, and wrote a report to alert the company and NASA.

The problem was that in cold temperatures, the seals' rubber stiffened and became more likely to fail. Morton Thiokol formed a study group but, by January 27, 1986, as temperatures dropped to zero on the eve of *Challenger's* blast-off, little progress had been made. In a pre-launch conference, he and four other engineers demanded the launch be postponed.

But their testimony was brushed aside. The next day, unable to watch, his worries seemed unfounded. He had expected the seals to fail on the launch pad. As *Challenger* cleared the launch tower, a colleague whispered to him: "We just dodged a bullet." Seconds later, the spacecraft exploded.

Roger Mark Boisjoly was born in Lowell, Massachusetts, and studied mechanical engin-



eering at the city's university. He then worked for aerospace companies in California on projects including NASA's lunar module and the moon vehicle.

After the *Challenger* disaster, Boisjoly experienced intense feelings of guilt and depression not helped by the fact that many in the business he loved rejected him as an unwelcome whistleblower.

Boisjoly is survived by his wife, the former Roberta Malcolm, and two daughters.

TELEGRAPH

The article EM1201 reprinted above is used on page 7.12 (the second side) in Figure 7.3 of the STAT 220 Course Materials.