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Engineer Roger Boisjoly—who vigorously warned against launching Challenger because of the cold weather on the morning of the launch—examines a model of the O-Rings, at a meeting of senior executives and academic representatives in Rye, New York in September of 1991. Image online via NPR.

Some of the Morton Thiokol and NASA engineers tried to convince company and NASA officials to fix the joint O-ring flaw and/or ground the shuttle flights until a new design was implemented. A task force was even supposed to be created to immediately address the problem. Nothing was done. Not everyone agreed something had to be done.

In the summer of 1985, six months before the *Challenger's* fatal launch, an Applied Mechanics Engineer at Morton Thiokol, Roger Boisjoly, sent a memo to the company's Vice President of Engineering. (Follow this link to see the actual memo.) In it, he urged that action be taken to immediately correct the well-known O-ring issue. The memo begins:

*This letter is written to insure that management is fully aware of the seriousness of the current O-ring erosion problem in the SRM joints from an engineering standpoint.*

Continuing, Boisjoly refers to his company's knowledge that O-ring erosion had occurred during a launch of the shuttle *Discovery* (with Ellison Onizuka, a *Challenger* crewmember aboard). Directly contradicting the company and NASA's position that shuttles could fly without failure while a solution was worked on, Boisjoly notes:

*This position is now drastically changed as a result of the SRM 16A nozzle joint erosion which eroded a secondary O-ring with the primary O-ring never sealing.*

Anticipating the very problem (the aft field joint) that caused the *Challenger* disaster, Boisjoly addresses field joints:

*If the same scenario should occur in a field joint (and it could), then it is a jump ball as to the success or failure of the joint...The result would be a catastrophe of the highest order - loss of human life.*

Stressing his concern that a mission could be lost, Boisjoly ends his memo with these words:

*It is my honest and very real fear that if we do not take immediate action to dedicate a team to solve the problem with the field joint having the number one priority, then we stand in jeopardy of losing a flight along with all the launch pad facilities.*

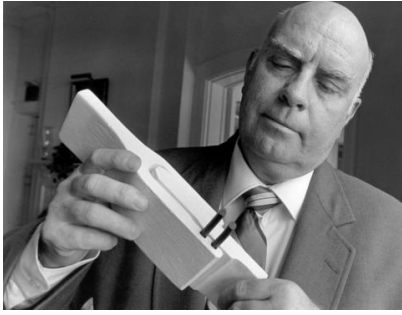
Morton Thiokol did not follow Boisjoly's recommendations.

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