

# B.F Goodrich Air Force A7D Brake problem.

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# Key Issues of the Case.

In this case the engineers and supervisors of A7D aircraft brake at B.F. Goodrich put aside safety and instead allowed their ego to guide them to the final design. Robert Sink, the lead supervisor, didn't want his authority to be undermined and bring his mistake to the attention of everyone in the process of creating the brakes. This led to a faulty product being made. Sufficient evidence that the brakes did not work was tossed aside and not taken into account.



# Ethical Issues.

All parties, when continuing to distribute the braking system and wheel, Lawson and Vandivier are moral relativist, because he placed his family before the families of the pilots who test pilot the aircraft, which were fitted with the A7D. The loss of integrity could have impacted his life further in the future than the loss of income. Also his reputation was ruined and would cause him to be unemployed. “Saving face, Sink advised Lawson to continue with the tests: if Sink agreed with Lawson, it would undermine his professional judgment.” As stated in the article, this problem came because of Sink’s inability to set his ego aside and do the right thing, which was to add an additional disk to the brake and Lawson should have stood up to his supervisor and done the right thing.

# Known Relevant Facts.

- The four disk design of the brakes was known to not be sufficiently strong enough to stop the aircraft on landing. In light of this situation, Lawson reported the facts to Warren who disregarded the information and told Lawson to continue using four disks believing that the problem was not the amount of the disks but the material used.
- Sink and Line only cared about their professional credibility. Sink and Line had the moral, professional, and legal responsibility to investigate the issues with the A7D.

# Unknown Relevant Facts.

- Lawson ordered a technician to mis-calibrate the testing apparatus.
- While testing the brakes there were multiple tests done and on the 48th and 49th tests the disks were so hot that it caused the tire to deflate. Both tests were not compatible with military requirements and performance criteria.
- 80 false entries were made and put into the logs to show that the brakes performed better than they actually did.

# How Might The Situation Have Been Different If The Ethical Issues Were Addressed Earlier?

- The brakes could have been redesigned at a cost to the company but increased safety of people flying the aircraft.
- They would not have lost their credibility that they had built up over the years
- The company would have a better reputation and make back the losses in future contracts

# What Conclusion Was Reached In This Case?

This situation was a conflict between morals, as the ones working on this forged test results to protect the financial well-being of their families. By doing so, they disregarded the wellbeing of the test pilots' lives and their families.

The results were forged to protect the company and in the process, it could have taken human lives.

# Sources Cited

<http://ethics.tamu.edu/wp-content/uploads/sites/7/2017/04/Goodrich.pdf>

<https://www.engineering.com/Blogs/tabid/3207/ArticleID/70/categoryId/7/BF-Goodrich.aspx>

<https://cliffordcolvard.wordpress.com/2014/06/14/the-a7d-and-b-f-goodrich/>

[https://www.jec.senate.gov/reports/91st%20Congress/Air%20Force%20A-7D%20Brake%20Problem%20\(474\).pdf](https://www.jec.senate.gov/reports/91st%20Congress/Air%20Force%20A-7D%20Brake%20Problem%20(474).pdf)