

# When a Lower Standard

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**W**hy is the natural tendency in safety to cheat and to cut corners so you can keep going? Is it because of the cost, time constraints, or rushing to get the job done so you can end your workday early?

When we cut corners in the Navy, complacency often sets in afterward, and a feeling that “nothing has happened yet” becomes the norm. How do we overcome this problem? How do we shift our thought processes to accommodate safety in all our work practices?

Regretfully, the loss of the shuttles Columbia and Challenger all too clearly illustrates how these natural tendencies can become disastrous, and the Navy can learn a lot from these events to prevent future catastrophes. Both of these shuttles were vulnerable because of “*normalization of deviance*.”

In this long-term phenomenon, individuals or teams repeatedly accept a lower standard of performance until that lower standard becomes the “norm.” Acceptance of the lower standard usually occurs because the individuals or team is under pressure (e.g., from budget or schedule problems) and perceives it will be too difficult to adhere to the higher standard. Their intention may be to revert back to the higher standard when this period of pressure passes. However, by getting away with the deviation, it's likely they will do the same thing when stressful circumstances arise again. Over time, the individuals or team fails to see their actions as deviant.

In the case of the shuttle Challenger, the NASA team had become so comfortable with seeing occasional O-ring damage and getting away with it, the original standard, in which any O-ring damage was defined as intolerable deviance, no longer was considered. Disaster resulted.

Several memos generated by the quality-assurance department that went up the chain had stated that the O-rings were faulty on

the solid-booster rockets and should be redesigned. At that time, though, NASA was trying to complete a hectic schedule—maintaining a record shuttle launch every two weeks. Budgetary constraints also existed.

Investigation into the Challenger disaster found that NASA had become complacent and had continued launching shuttles with the “nothing has happened thus far” mentality. They regrettably kept up their tedious and rigorous schedule, and, in 1986, during the launch of STS-51-L, seven astronauts died.



# Becomes the “Norm”



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Those memos clearly predicted what would happen...they were off by 73 seconds...the shuttle probably would blow up on the launch pad, not on its ascent, because of failed O-rings. The NASA team accepted a lower standard of performance on the solid-rocket booster O-rings until that lower standard became the “norm.” As a result of that tragedy, NASA added more O-rings and fixed the problem with the solid-booster rockets.

Had the safety culture at NASA changed as a result of Challenger? Seventeen years later, memos were routed several times, stating there was an extreme chance that foam from the external fuel tank might hit the leading edge of the shuttlecraft during liftoff. Again, it was predicted before it happened, and those seven astronauts aboard Columbia unfortunately were doomed as the shuttle disintegrated 40 miles above the earth—just 16 minutes before touchdown.

The Navy should learn from NASA’s pitfalls and the definition of *normalization of deviance*. You would think, of all agencies, NASA would have the most stringent of all safety programs. Just think—in both of those two incidents, a failure of a mechanical system was at fault.

Sailors face numerous hazardous jobs every day. For example, they launch and recover aircraft, launch and recover small craft, and participate in underway refuelings, simultaneous vertical and underway replenishments, and tactical maneuverings. They also load stores, assemble munitions, fire weapons, and conduct deep-diving evolutions. Dangers always are lurking in the shadows, making adherence to procedures paramount.

Some common tasks, such as emergency break-aways and rescue operations on flight decks, are practiced so often they become second nature. Less common events, though, require just as much care and forethought in planning and execution. If we went back in time and examined the historical archives, we would find that common, everyday safety procedures were designed and tested because of a tragedy or near-tragedy.

An important point to remember is this: If Sailors do the little things right, like wearing all the fire-fighting ensemble during GQ, they are more apt to respond the same way when a real crisis arises. Let’s learn from the space-shuttle disasters and continue stressing safety in everything we do ashore and afloat. ■