**Case Study**

Life is never boring at NASA, but you and your team are really in the hot seat today. You’re in charge of an exciting project: a mission to deliver some of the last large pieces of the International Space Station to the crew constructing it. You’re supposed to launch tomorrow and you’re in the middle of countdown, but the engineering team found a potentially dangerous hydrogen gas leak. Although you’re not an engineering whiz, you fully recognize that hydrogen gas is very volatile and could cause major damage to the space shuttle, if not an all-out explosion. This discovery comes at a very inconvenient time. There’s not much room to delay launch, because NASA has so many other missions planned and you risk backing up the schedule or delaying this mission for a whole month because conditions in space will be problematic for this mission for the next couple of weeks. You’ve got a big problem, a short window in which to solve it, and a lot at stake if you don’t solve it properly.

Speaking of potential explosions, your mind jumps back to 2003 and the tragic explosion of the space shuttle *Columbia*. In that case, the explosion was caused by a piece of foam debris that hit *Columbia*’s wing and damaged it during launch, allowing gases into the wing on reentry, which caused the entire craft to explode. Not only were seven astronauts and a craft from its fleet lost, the incident was also an organizational disaster for NASA because it probably could have been prevented. The team knew that foam debris was a potential problem because it caused some damage to the space shuttle *Atlantis* in 2000. Moreover, engineers watching the launch of *Columbia* knew it had been struck by foam debris in this case, too. Although they requested photos from satellites and powerful ground telescopes to help assess the damage, these were never acquired.

What happened? The culture at NASA can be challenging to navigate. The goal of these missions is science and exploration, but they are extremely expensive and exist at political whim, so they also have to be sold. Problems and delays do not build confidence in NASA among the public or in Congress, and there is a lot of pressure for success. As a consequence, key people at NASA rationalize problems, shut out information that could raise a problem—like those satellite photographs of *Columbia*’s wing that were never taken—especially if they come from independent sources outside of NASA, and are overly confident that shuttle missions are now routine operations and need not be scrutinized to the degree they once were. And, although people know they should speak up when there’s a problem—indeed, some do—the system doesn’t exactly encourage it. It’s intimidating to raise a potential technical problem that you can’t yet fully support with data in a team meeting only hours before launch.

In other words, NASA culture easily breeds groupthink on its teams. And, as the *Columbia* explosion showed, the results of groupthink can be catastrophic—more catastrophic for NASA, perhaps, than failing to meet political pressures. Thankfully, the hydrogen leak has been flagged as a problem. But now it falls on your team to combat the tendency toward groupthink and come up with a plan that can ensure a safe mission *and* a timely one—and come up with that plan quickly.

**Question:**

**How would you apply strategies to manage team conflict?**