

OBSERVATIONS FROM THE FLIGHTDECK

- LIFE LESSONS LEARNED THROUGH AVIATION -

by Jerry Tobias

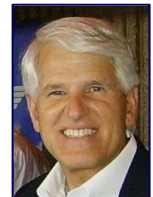
"I applied my heart to what I observed and learned a lesson from what I saw."

Proverbs 24:32



CORROSION

...HIDDEN DANGERS BENEATH THE SURFACE



Corrosion is the process by which something is gradually and progressively destroyed by something else. Iron that is turned to rust by water and oxygen is a common example of this process.

Corrosion damage to aircraft is a serious and expensive problem. The cost of corrosion-related maintenance on aircraft in the U.S. alone is estimated to be a staggering 1.7 billion dollars per year. Even more alarming, however, is the threat that corrosion is to aviation safety.

A well-known case in point is the Aloha Airlines Flight 243 accident that occurred in April of 1988. The aircraft involved, a Boeing 737-200, experienced a small rupture on the upper left side of the fuselage while flying at 24,000 feet. The resulting explosive decompression tore off the entire top half of the aircraft skin from just behind the cockpit to just in front of the wing. Incredibly, even with this major loss of structural integrity, the crew was able to land the airplane

safely. The rupture in the aircraft's skin was later determined to be directly caused by major, but previously undetected, corrosion damage.

The most common corrosion found on aircraft is crevice corrosion. This phenomenon occurs whenever water is trapped between two surfaces, such as aircraft skin lap joints or particles of loose paint. If uncorrected, this can lead to molecular changes that significantly weaken the component. If observed, however, the trapped moisture can be removed, and the corroded components either repaired or replaced.

The problem, though, is that such *corrosion is often neither visible nor easily detectable*. Because of this, serious damage - or even component failure - can occur before corrosion is discovered. Protection techniques, inspections that lead to early detection, and appropriate repairs, therefore, are all critical strategies for maintaining an airplane's structural integrity.

You and I are also susceptible to the physical dangers of hidden, below-the-surface "corrosion." Many cancers, for example, are neither visible nor symptomatic until they have grown and/or spread significantly. That is why cancer prevention measures and early detection efforts are so important.

Even more dangerous, though, are the elements that "corrode" our hearts. Things like unforgiveness, resentment and bitterness; fear, anger and rage; insecurity and the desire to control; prejudice, envy, jealousy, greed and hatred can all exist, unseen, beneath our facades and our smiles. These dangerous and often-insidious bits of corrosion not only become the filters through which we process life, but they also slowly but certainly destroy our attitudes, our perspectives, our feelings, our ability to respond appropriately, our compassion, our relationships...even our health.

How can we prevent this from happening? By our choices. Forgiving everyone for everything, working hard to maintain right relationships, trusting that God - in *every* situation - is aware and is able, and living for His purposes, pleasure and glory instead of our own are some of the choices we can make to help keep our hearts free of corrosion.

Just as with cancer, though, frequent self-examinations are crucial, as we need to have a current and accurate understanding of our own heart's true condition. Because early detection is vital, allowing - even inviting - others to observe our hearts is also important. We should pay attention, for example, when someone asks, "Are you okay?" or "Is something troubling you?" Those close to us, it seems, often notice that our responses are leaking from a corrosion-influenced heart long before we recognize it ourselves.

Yes, corrosion damage to the human heart can be extensive, since many people carry years and years of accumulated hurt, pain and disappointment deep within. And, just as with that Aloha Boeing 737, what is seen on the outside often belies the devastation and destruction just beneath the surface.

Incredibly, though, *all* of us can have our hearts completely cleansed and totally healed...no matter how much feeling the pain and fears of life have eaten away nor how deeply they have penetrated. God has promised to give a *new* heart to any who ask, repent and believe. The rotten

things within us can actually be replaced by His love, joy, peace, patience, kindness, gentleness and faithfulness. And that's the best corrosion control plan ever devised!

A heart at peace gives life to the body, but envy rots the bones. Proverbs 14:30

Keep and guard your heart with all vigilance, for out of it flow all the issues of life. Proverbs 4:23

I will give you a new heart and put a new spirit in you. Ezekiel 36:26

THE BOTTOM LINE? What is in our hearts ("beneath the surface") dictates our attitudes, our perspectives and our responses. There are really only two options: live with a heart full of corrosion, or live - because of the gift of God's Son - with a cleansed, repaired and restored heart. The first option leads to continual turmoil and frustration. The second, though, leads to deep and consistent peace and joy - no matter what happens *outside* of the heart. ■

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