

## Debunking “Damage History”

The term “Damage History” is a widely used and largely misunderstood term in the aviation community. For almost as long as aircraft have been flying, aircraft have needed to be repaired. Actually the same is true for any complex machine – if it moves, it will at some point break. Whether the result of operator error, engineered lifecycle, mechanical malfunction, or Act of God, machines require routine maintenance and or repair in order to remain in “like new” condition.

Automobiles, boats, homes, appliances and computers for example are no exception. However, there is a significant difference between aircraft and other types of machine insofar as aircraft repairs must be done in compliance with standard procedures, by authorized individuals trained to ensure that, to the extent humanly possible, the aircraft is returned to its original functional state.

The term “Damage History” makes people cringe only because an aircraft with a documented damage history may not retain its full resale value or comparable resale value for a similar year, make and model aircraft without damage history.

### **What is the real effect of “Damage History” on an aircraft?**

Where most price guides simply deduct a fixed percentage from the total aircraft value, the National Aircraft Appraisers Association (NAAA) system analyzes all aspects of the aircraft's history. Most damage is usually contained to one area of the aircraft (i.e., landing gear, wing, propeller, etc.) leaving the major components that account for a significant portion of the aircraft's value (i.e., avionics, engine, etc) unaffected by the damage event.

However, if an appraiser deducts 10% - 20% of the aircraft's total value due to the past damage event, they are in essence deducting that same percentage from potentially high-value items like avionics and engine(s) that may not have been affected and may even be added or replaced since the event. The aforementioned notwithstanding, the stigma of damage history does impact residual value so selecting a knowledgeable appraiser can translate into dollars in your pocket.

### **What constitutes “Damage History” and what does not?**

Damage history usually refers to repairs to surfaces or systems after an accident or incident rendered the aircraft no longer airworthy (i.e., gear up landing, bird strike, severe hangar rash, etc.). Simple paint and refinishing of an aircraft surface does not constitute damage history if it was only cosmetic in nature. Simply repainting a stripe, wing, fuselage for whatever reason has no adverse effect on the residual value of an aircraft and is not considered “damage history”. In fact depending on the age of the aircraft, refinishing the aircraft will increase residual value.

### **Below is the NAAA guideline for rating an aircraft exterior based on paint:**

#### **10 Rating:**

Condition of the exterior paint is flawless. External painted surfaces have a deep, rich, wet look. There is no pooling, sagging, running, orange peeling, thin areas or over-spray on any painted surfaces. Stripes and numerals are well defined with crisp lines and no irregularities. The paint is of high quality. If the aircraft was repainted or detailed, all surfaces have been stripped and prepared properly and are consistent with the manufacturers recommended application procedures. The age of the paint is two years old, or less.

#### **9 Rating:**

Exterior painted surfaces are nearly flawless. In almost every aspect, the painted surfaces would meet the #10 rating criteria except for minor exceptions. The paint may be over two years old but less than 5 years old if the aircraft is tied down outside or 10 years if old if the aircraft is stored under cover. There may be a small amount of dust particles in the paint, chips in the paint under the fuselage from props wash. Paint looks like new and the above discrepancies are only discernible upon very close inspection.

**8 Rating:**

Paint has a wet look with a few chipped areas under wings, fuselage and empennage. Leading edges may show first stages of abrasion wear but overall the paint is in very good condition and shows very well within 20 feet.

**7 Rating:**

Paint has a good shine with some abrasion wear on leading surfaces but still retaining good coverage. Repainted surfaces or touched up areas are not noticeable. The paint may be new with a limited amount of orange peel, pooling, sags or over-spray. However, painted surfaces are well protected and the aircraft has good eye appear.

**6 Rating:**

Paint is beginning to oxidize with evident abrasion wear on leading edges. Paint needs to be cleaned and/or waxed to restore a semi-gloss appearance. If recently painted, there may be pooling, sagging, running or orange peeling and/or significant amount of foreign particles in paint. Accent trim may be of poor quality, but paint overall would be adhering well to surfaces. Overall appearance within 30 feet is fair to good.

**5 Rating:**

Paint is oxidizing and there may be numerous areas of chipping on lower surfaces of aircraft. Leading edges show significant signs of abrasion wear, but are protected by paint. Surface corrosion may be apparent on the airframe and will affect paint because the painted surface must be stripped in order to treat the corrosion. Overall appearance is fair within 30 feet.

**4 Rating:**

Consistent with all of the characteristics of #5 rating except the aircraft will soon need to be repainted. Overall appearance is poor to fair and cleaning/waxing will not significantly improve the appearance or protection of the aircraft surfaces.

**3 Rating:**

Paint is poor quality, oxidized and shows excessive wear on leading edges and control surfaces. Many chips and scratches are apparent and overall the aircraft need to be painted. However, the paint is protecting the aircraft surfaces, but looks poor.

**2 Rating:**

Aircraft needs to be painted. No good points.

**1 Rating:**

Aircraft needs to painted, and additional preparation of the aircraft surfaces is required. Generally consistent with aircraft having extensive corrosion on surfaces.

Obviously, if an aircraft was repaired, detailed or touched up in any way, as long as the end result is a #10 exterior rating, the aircraft will retain the highest possible residual value for its relative year, make and model. Repainting, detailing and touching up an aircraft's painted surfaces does not constitute "damage history" and should only serve to increase residual value.