

The Evidence for Animation

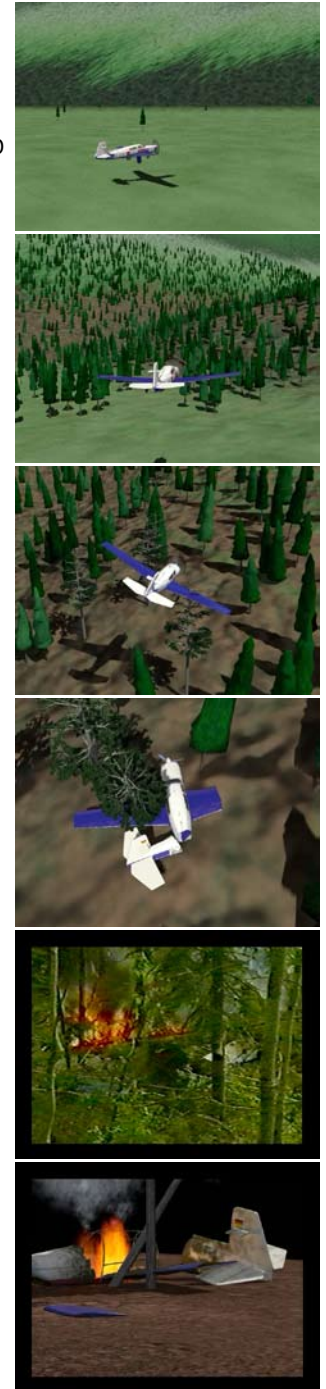
By Matthew Davis & Karen R. Dodge

Technological advances in many fields have changed the world dramatically in recent years. Unquestionably, the legal profession has been swept up by this revolution, too. In the past ten years, computer animation has become more prevalent in mediation talks and in the courtroom. As a mediation or settlement tool, animation excels at cementing one's position, and demonstrating one's preparedness. In trial, there is often no better way to hold a jury's attention and generate dramatic tension. When constructed by a skilled animator, this type of computer simulation is both extremely accurate and undeniably captivating. It can fairly and effectively portray a wide variety of scenarios. One particular plaintiff's case that profited immeasurably from use of animation recently settled extremely favorably out of court. Here is the story of that case which began back in June 1997...

It is four years ago, and a documentary film crew has just begun recording the flight of two men determined to circumnavigate the earth in a small single engine plane. Several months into the journey, the plane is preparing for a scheduled landing in Northern Canada on the clear-cut valley floor. The film crew's camera captures the plane as it approaches the valley, circles around and aligns itself with a level grass-covered strip of land. The plane throttles back, descends gracefully and just as the wheels are about to touch down, the pilot suddenly aborts the landing fearing there is not enough room to safely stop the plane. Thus, the single-engine Mooney floats across the grassy field toward the 20-foot tall spires of the evergreen forest as it tries desperately to gain altitude.

The camera crew loses sight of the plane as it brushes over the increasingly higher treetops blanketing the steep mountainside. Moments later, the film crew hears the staccato cracking of the plane crashing through the forest canopy and onto the ground.

Fifteen minutes pass before the crew reaches the crash site. They find the disintegrated and molten carcass of a fuselage engulfed in flames with one wing severely clipped, and the other wing completely sheared off. The two occupants are found approximately 100 feet from the plane. The pilot is nearly dead as a result of untold burn wounds completely covering his body. The passenger is lying nearby in a foggy delirium of pain with severe burns over eighty percent of his body. This passenger is a German citizen named Bernie Heitz. He survived these horrific events.



After undergoing eighteen months of complicated surgeries and ongoing rehabilitation, Heitz approached attorney Terry Butler seeking to file a lawsuit in hopes of ameliorating the costs of past and planned medical procedures. He recalled the events to Butler, who learned, interestingly, that when the plane had initially crashed, both Heitz and his friend, pilot Harald Fresenius, were relatively unhurt. In fact, Heitz had safely exited the plane before going back to retrieve Fresenius, who was looking for something he had lost in the crash. Just as Heitz pulled him from the cockpit, flames burst out from behind the seats and swallowed them instantly. The merciless inferno left Heitz almost fatally wounded, and ultimately killed Fresenius who died after 32 days in a burn ward. Butler now focused on the elusive cause of the mysterious cockpit fire.

One of the final legs of the Heitz and Fresenius' earth-orbiting odyssey was to be over the Pacific ocean from Honolulu, Hawaii to Palo Alto, California. Because of the Mooney's limited fuel capacity, the two men hired a local airplane repair service to install auxiliary "ferry tanks" behind the seats in the cockpit. After a lengthy, painstaking review of the crash site video footage, Butler and his expert, Abdon Llorente, believed that the inadequate and unsafe installation of this fuel system had caused the deadly fire. The flames had been almost exclusively contained in the rear of the cockpit, precisely where the ferry tanks had been tied down. Had the plane's main fuel tanks ruptured, the fire would have erupted on the wings, but the video footage and scene photos suggested otherwise. This discovery answered the question of "what" had caused the fire, but "how" was still unknown.

Upon investigation, records detailing the ferry tank installation revealed that the aircraft repair company [case confidential] had committed a number of significant and dangerous errors. Of particular interest was the ordinary household-quality hardware (plastic tubing and hose clamps) used to connect the ferry tanks to the main fuel lines. It was the plaintiff's contention that this hardware did not meet the FAA's Federal Aviation Rules (FAR) standards. Based on examination of the Mooney's condition (extensive

wing damage and an almost completely detached tail), it was evident that the plane had been buffeted and twisted from side to side before finally crashing into the ground. Butler surmised that the inferior quality parts might have failed as a series of devastating collisions with trees rocked the plane violently from side to side. He believed these forceful jolts could have caused the ferry tank installation to rupture and allow fuel to escape into the cockpit. This fuel later ignited, perhaps from static electricity, as Heitz retrieved his friend.



All of this research and analysis left Butler with three main objectives to achieve during the mediation, and potentially, at trial. First of all, proving that the fire originated in the forward center of the fuselage, implicating the ferry tanks as the source was paramount. Secondly, illuminating the dangerous condition created by the ferry tank installation was

important to emphasize the repair service's culpability. Lastly, it was essential that all the intricacies, details, and emotions interwoven into the case were easily understood and absorbed. Butler states his dilemma, "I was very concerned about the ability of the average juror to comprehend the complicated testimony of defense counsel's multiple liability experts in this case. After our Judge had granted a defense motion dispensing with two of our own liability experts, I was seeking an alternative method of conveying our simple, straightforward theories. The perfect solution was animation since it naturally condenses highly complex terminology and hypotheses down into a simple and compelling moving picture.

To help achieve his goals, Butler contacted Executive Presentations, a company known primarily for their graphic boards, to create animations and video for the upcoming mediation. Rick Kraemer assured him that his personnel had the legal experience and technical expertise to create a bulletproof visual argument. One key piece of evidence, the documentary film showing the fire, was of very poor quality. The footage was grainy and dark, and the moving, partially blurred images were often unintelligible. To improve the effectiveness of the video, Butler had the animator, Matthew Davis, superimpose a three-dimensional computer animation of the burning plane over the muddy footage to help orient the viewer. The animation gradually replaced the video completely, allowing a "virtual" camera to climb upwards and show the cockpit-centered fire from directly overhead to emphasize that the fire was not in the wings as the defense suggested.

Mr. Butler's second objective of showing how the auxiliary ferry tanks could have failed was also accomplished through use of animation. This 3D simulation was developed under the close supervision of Butler and Heitz, who both made repeated visits to Executive Presentations to provide guidance, facts and suggestions. Davis ultimately created a mini-movie which followed the plane through the aborted landing, the clipping of treetops, the jarring collisions with several trees and finally the crash. Butler

decided the plane's interior needed to be shown too, so Davis suggested using a split screen to show the interior of the cockpit simultaneously. As the plane is hammered to and fro by the trees, the ferry tanks are shown jostling about due to their inadequate tethers. Ultimately, the jarring impact with the ground, knocks a hose clamp entirely off the ferry tank fitting and fuel begins leaking onto the cockpit floor.

To complete the third objective of creating a powerful and informative overview of the case, Mr. Butler used the services of Jim Curio, also of Executive Presentations, to compose a summary video. The video included tidbits of deposition testimony, and elucidated some of the finer points in the case. Like the animations, the video served to compress the information logically, and make it easily accessible. It also had the added ability to personalize the material, by showing actual people and letting them speak for themselves. It undoubtedly created a stronger emotional pull than simply reading testimony off a page.

With two animations under one arm, and the video under the other, Butler along with Browne Greene (a staunch advocate of using animation) marched into the mediation with a very powerful and meticulously prepared presentation. After some brief negotiations, the defense granted Butler and client Heitz an extremely favorable settlement and invaluable peace of mind. Subsequently, Heitz has used some of his settlement money to partner with the Canadian Burn Foundation's founder, Steve Williams, to launch the World Burn Foundation to provide assistance for burn survivors worldwide.

More and more, attorneys are turning to newer technologies like animation as a necessary component in their settlement and trial preparation process. In the past ten years, computer animation now has become so advanced that it approaches a near lifelike quality and helps to generate the immediacy, the atmosphere and the tensions that permeated throughout the actual incident. Sometimes photos or other static exhibits do not create the intended impact. When a case depends on showing movement, or the process of how something changed, animation is an

unparalleled method tool. As Terry Butler concludes, "Using animation to dramatically illustrate liability theories and recreate the actual incident is incredibly powerful and persuasive in mediation as well as trial. There is no better way to accomplish this." With the rapid advance of technology, animation continues to improve by becoming more versatile, and more accessible. Inevitably, these types of simulations will become increasingly prevalent as they serve as strong evidence in winning plaintiffs' cases.

*To obtain a free copy of the animation, e-mail
alma@executivepresentations.com.*

*(Originally appeared as an article in Advocate: The Journal
of the Consumer Attorneys Association of Los Angeles,
December 2001)*
