



CHAPTER 81

SKY WRITER

July 2011 Newsletter

Notice!

**Regular Chapter Meeting at Ryan Field
Administration Building
Saturday, 9 July 2011, at 10 AM**

2011 EAA 81 Dues Payment Status

Annual dues are \$20. As of 30 Jun, 82 of 107 regular members are paid-up. Checks should be made payable to: EAA Chapter 81 and sent to Mick Myal, 2900 E. Weymouth, Tucson, AZ 85716, or brought to a chapter meeting.

EAA Chapter 81 Meeting Minutes Saturday June 18, 2011

Meeting was called to order by President Duane Boyd at 1008 at the Ryan Field Meeting Room. Duane announced that the planned speaker from Evergreen Aviation had to cancel at the last minute; we are hoping to reschedule him for the October meeting.

	Calendar of Events (Please send event info to the editor)
Jul-09	EAA81 Meeting at Ryan Field, 10AM (Note early date in the month)
Jul-25 to Jul-31	EAA AirVenture 2011
Aug-20	EAA81 Meeting at Ryan Field, 10AM
Sep-17	EAA81 Special Meeting (TBD)
Oct-15	EAA81 Meeting at Ryan Field, 10AM
Nov-19	EAA81 Meeting at Ryan Field, 10AM
Dec-17	EAA81 Holiday Party (date TBD)

Treasurer's Report: Mick Myal reports that we have \$12, 715.87 in the bank. This princely sum exists in part because the three \$500 scholarships still haven't been sent to the Pima Community College Aviation Program. The Prez promises that the disbursement will occur this month.

Secretary's Report: Unfortunately, this time no one was able to stifle Bob in time, and the entire Minutes from the May meeting were read aloud over the snores of those present. The long-winded Bob has a knack for turning Minutes into Hours. In the future, the bringing of rotten fruit for flinging will be mandatory.

Old Business: Joe Seibold, one of our Board of Directors, spoke to Tom Hinman of the Pima Community College Aviation Program; it would seem that the program does not permit the donor to earmark

the scholarships toward any specific program (i.e. Avionics vs A&P). Furthermore, they are accepting no applications for scholarships until the fall. The present membership voted just to give the \$1,500 to the program and let them figure out how to distribute it among the three aviation programs. Joe also reminded us that he drives the Welcome Wagon at Airventure; this is a chopped Plymouth van, open from the cab back, and it will take you to anywhere on the field and back to your aircraft. Call for a ride at (920) 230-7906, or you can call Joe himself on his cell at (520) 904-8905. Joe is also looking for "highly-detailed information," and especially interior pictures, of the Hawker Typhoon, the Republic P-47 Thunderbolt (the Jug), and the Heinkel HE 219. (This is actually New Business, but the airplanes are old, and so is Joe!)

Bruce Newlan still has his Express for sale, but has dropped the price to \$55,000. It features a Continental IO-550G making 280 HP through a McCauley CS prop and is a genuine 200 MPH four-seater with 1300 pound useful load. It is one of only two tailwheel Expresses, but Bruce claims that it is easy-to-fly. Time has been flown off, but it is still in primer and only the seats are upholstered: a project awaiting final finish at a more affordable price.

New Business: Lloyd Howerton made an impromptu presentation about how Al Howerton and Greg Hale built the RV-10 featured in the June issue of Sport Aviation. This plane featured an amazing interior, more characteristic of a Lexus automobile than an aircraft, with such features as a pop-up panel which conceals switches (street-rod style), hidden rudder cables, an elaborate entertainment system, and pull-out cup-holders. Even the screws holding on the prop spinner are concealed. Lloyd also told us about how his older brother found his picture on the front page of the Cessna 120/140 newsletter, along with the 140 that they bought in 1949.

Buck Clippard has a friend at La Cholla Airpark who has a particularly fascinating hangar that we might be able to tour. Unusual features include modified aircraft, a flight simulator, and a Boeing 707 fuselage which has been made into a guest house! We will try to arrange this as the September Special Meeting. Buck said that, after the lawsuit that ensued from Tom Tingle's fatal accident at La Cholla, the residents of this privately-owned airpark are requiring FAXed proof-of-insurance and advanced notice for anyone who would like to fly in. It would appear that the EAA event insurance did not apply to this incident.

Bob Miller pontificated on the topic of adequate rudder authority, the lack of which has caused many loss-of-control crashes. Bob cited the Vaught F4U Corsair, originally intended to be flown from aircraft carriers.

The torque of its enormous radial engine would often cause a ground loop before the aircraft could reach flying speed. It was relegated to the Marines and flown (with great success) from ground-based operations. On a more personal note, Bob learned to fly in a Grumman American Aviation AA-1B, a sleek little hot-rod with bonded skins and, in his opinion, not enough rudder. A large placard on the panel pronounced "NO SPINS." Bob presumed that this referred to intentional spins, not the spontaneously-occurring ones that happen, for instance, when one loses energy at the top of a sloppy loop (don't ask Bob how he knows this). Many aircraft lack rudder authority, and, obviously, a powerful rudder is not a requirement for certificated aircraft, much less experimentals, as long as the Operating Limitations preclude intentional spins. Bob suggested that those who learned to fly in tricycle-gear aircraft with little adverse yaw might want to take some training in an older tailwheel design in which you will definitely learn what your feet are for.

Dave Schiffman told us about the Valle-Grand Canyon Airport June 25 Fly-In, and made circulars available. Features include free tie-down parking, a pancake breakfast, a meeting of the P-38 Natl. Pilots Association, and the museum hangar open to view, among others, the Lockheed C-121A Constellation "Bataan" and a Martin 4-0-4 walk-through. There are planned flying displays of the Lockheed P-38 Lightning, North American P-51 Mustang and B-25 Bomber, a Vultee BT-13 modified to resemble a Japanese Val dive bomber (used in the movie Tora Tora Tora), and the Boeing Stearman "Big Red." Gates open at 0800 and admission is \$4, or \$2 if you can convince them that you are under 12 years old. This airport and Planes of Fame museum are located about half-way between Williams, AZ and the south rim of the Grand Canyon, at about 6,000 feet elevation.

A raffle was held for three items: a Boeing B-17 photo album entitled "The Lady" went to Bruce Noon, a book about WWI went to Dennis Hall, and a Prop Plane Calendar, only 6 months out-of-date, to Buck Clippard.

Meeting was adjourned at 1110. The next meeting will be held earlier in the month than usual, on July 9th, the 2nd Saturday, not the usual 3rd, to accommodate those traveling to Airventure.

Respectfully Submitted by
Secretary Bob Miller

Aviation Interest Articles

MACH 3.18 IN-FLIGHT BREAKUP OF AN SR-71 BLACKBIRD (Part 2)

By Bill Weaver, Chief Test Pilot, Lockheed

(Continued from last month) My next concern was about stability and tumbling. Air density at high altitude is insufficient to resist a body's tumbling motions, and centrifugal forces high enough to cause physical injury could develop quickly. For that reason, the SR-71's parachute system was designed to automatically deploy a small-diameter stabilizing chute shortly after ejection and seat separation. Since I had not intentionally activated the ejection system--and assuming all automatic functions depended on a proper ejection sequence — it occurred to me the stabilizing chute may not have deployed.

However, I quickly determined I was falling vertically and not tumbling. The little chute must have deployed and was doing its job. Next concern: the main parachute, which was designed to open automatically at 15,000 ft. Again I had no assurance the automatic-opening function would work.

I couldn't ascertain my altitude because I still couldn't see through the iced-up faceplate. There was no way to know how long I had been blacked-out or how far I had fallen. I felt for the manual-activation D-ring on my chute harness, but with the suit inflated and my hands numbed by cold, I couldn't locate it. I decided I'd better open the faceplate, try to estimate my height above the ground, and then locate that "D" ring. Just as I reached for the faceplate, I felt the reassuring sudden deceleration of main-chute deployment.

I raised the frozen faceplate and discovered its uplatch was broken. Using one hand to hold that plate up, I saw I was descending through a clear, winter sky with unlimited visibility. I was greatly relieved to see Jim's parachute coming down about a quarter of a mile away. I didn't think either of us could have survived the aircraft's breakup, so seeing Jim had also escaped lifted my spirits incredibly.

I could also see burning wreckage on the ground a few miles from where we would land. The terrain didn't look at all inviting — a desolate, high plateau dotted with patches of snow and no signs of habitation.

I tried to rotate the parachute and look in other directions. But with one hand devoted to keeping the face plate up and both hands numb from high-altitude, subfreezing temperatures, I couldn't manipulate the risers enough to turn. Before the breakup, we'd started a turn in the New Mexico-Colorado-Oklahoma-Texas border region. The SR-71 had a turning radius of about 100 miles at that speed and altitude, so I wasn't even sure what state we were going to land in. But, because it was about 3:00 p.m. , I was certain we would be

spending the night out here.

At about 300 ft. above the ground, I yanked the seat kit's release handle and made sure it was still tied to me by a long lanyard. Releasing the heavy kit ensured I wouldn't land with it attached to my derriere, which could break a leg or cause other injuries. I then tried to recall what survival items were in that kit, as well as techniques I had been taught in survival training.

Looking down, I was startled to see a fairly large animal — perhaps an antelope— directly under me. Evidently, it was just as startled as I was because it literally took off in a cloud of dust.

My first-ever parachute landing was pretty smooth. I landed on fairly soft ground, managing to avoid rocks, cacti and antelopes. My chute was still billowing in the wind, though. I struggled to collapse it with one hand, holding the still-frozen faceplate up with the other. "Can I help you?" a voice said. Was I hearing things? I must be hallucinating. Then I looked up and saw a guy walking toward me, wearing a cowboy hat. A helicopter was idling a short distance behind him. If I had been at Edwards and told the search-and-rescue unit that I was going to bail out over the Rogers Dry Lake at a particular time of day, a crew couldn't have gotten to me as fast as that cowboy-pilot had.

The gentleman was Albert Mitchell, Jr., owner of a huge cattle ranch in northeastern New Mexico and I had landed about 1.5 mi. from his ranch house--and from a hangar for his two-place Hughes helicopter. Amazed to see him, I replied I was having a little trouble with my chute. He walked over and collapsed the canopy, anchoring it with several rocks. He had seen Jim and me floating down and had radioed the New Mexico Highway Patrol, the Air Force and the nearest hospital.

Extracting myself from the parachute harness, I discovered the source of those flapping-strap noises heard on the way down. My seat belt and shoulder harness were still draped around me, attached and latched.

The lap belt had been shredded on each side of my hips, where the straps had fed through knurled adjustment rollers. The shoulder harness had shredded in a similar manner across my back. The ejection seat had never left the airplane. I had been ripped out of it by the extreme forces, with the seat belt and shoulder harness still fastened.

I also noted that one of the two lines that supplied oxygen to my pressure suit had come loose, and the other was barely hanging on. If that second line had become detached at high altitude, the deflated pressure suit wouldn't have provided any protection. I knew an oxygen supply was critical for breathing and suit-pressurization, but didn't appreciate how much physical protection an inflated pressure suit could provide.

That the suit could withstand forces sufficient to disintegrate an airplane and shred heavy nylon seat belts, yet leave me with only a few bruises and minor whiplash was impressive. I truly appreciated having my own little escape capsule.

After helping me with the chute, Mitchell said he'd check on Jim. He climbed into his helicopter, flew a short distance away and returned about 10 minutes later with devastating news: Jim was dead. Apparently, he had suffered a broken neck during the aircraft's disintegration and was killed instantly. Mitchell said his ranch foreman would soon arrive to watch over Jim's body until the authorities arrived. I asked to see Jim and, after verifying there was nothing more that could be done, agreed to let Mitchell fly me to the Tucumcari hospital, about 60 mi. to the south.

I have vivid memories of that helicopter flight, as well. I didn't know much about rotorcraft, but I knew a lot about "red lines," and Mitchell kept the airspeed at or above red line all the way. The little helicopter vibrated and shook a lot more than I thought it should have. I tried to reassure the cowboy-pilot I was feeling OK; there was no need to rush. But since he'd notified the hospital staff that we were inbound, he insisted we get there as soon as possible. I couldn't help but think how ironic it would be to have survived one disaster only to be done in by the helicopter that had come to my rescue.

However, we made it to the hospital safely--and quickly. Soon, I was able to contact Lockheed's flight test office at Edwards. The test team there had been notified initially about the loss of radio and radar contact, then been told the aircraft had been lost. They also knew what our flight conditions had been at the time, and assumed no one could have survived. I explained what had happened, describing in fairly accurate detail the flight conditions prior to breakup.

The next day, our flight profile was duplicated on the SR-71 flight simulator at Beale AFB, Calif. The outcome was identical. Steps were immediately taken to prevent a recurrence of our accident. Testing at a CG aft of normal limits was discontinued, and trim-drag issues were subsequently resolved via aerodynamic means. The inlet control system was continuously improved and, with subsequent development of the Digital Automatic Flight and Inlet Control System, inlet unstarts became rare.

Investigation of our accident revealed that the nose section of the aircraft had broken off aft of the rear cockpit and crashed about 10 miles from the main wreckage. Parts were scattered over an area approximately 15 miles long and 10 miles wide. Extremely high air loads and g-forces, both positive and negative, had literally ripped Jim and me from the airplane. Unbelievably good luck is the only explanation for my escaping relatively unscathed from that

disintegrating aircraft.

Two weeks after the accident, I was back in an SR-71, flying the first sortie on a brand-new bird at Lockheed's Palmdale, Calif. assembly and test facility. It was my first flight since the accident, so a flight test engineer in the back seat was probably a little apprehensive about my state of mind and confidence.

As we roared down the runway and lifted off, I heard an anxious voice over the intercom. "Bill! Bill! Are you there?"

"Yeah, George. What's the matter?"

"Thank God! I thought you might have left. □ The rear cockpit of the SR-71 has no forward visibility--only a small window on each side--and George couldn't see me. A big red light on the master-warning panel in the rear cockpit had illuminated just as we rotated, stating: "Pilot Ejected□. Fortunately, the cause was a misadjusted micro switch, not my departure.

**Please send items of interest, classifieds, etc to
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or to Erik's address on front page.**

**Check out the Chapter Website at
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