I Learned About Flying My Mooney From That.....

Part 1: How I spun like a top, then fell out of the bottom….

BY HAL PROTTER, MOA DIRECTOR

At first I thought about not going at all that night. But after all, being a well seasoned Turbo Mooney IFR pilot with lots of long distance night cross country experience, and even though there were scattered local LA thunderstorms, I simply couldn't justify not spending the night in my own bed at my home plate St. Louis. Since buying my first new Mooney M20J in 1980 and trading it in on my 1983 M20K/231 nee modified into a 252, my job in the TV industry allowed me to amass several thousand hours flying long distance cross country, mostly to unfamiliar airports. I was used to departing after meetings in late afternoons so flying at night was sometimes part of my repertoire.

After delaying my departure nearly 2 hours for the nearby weather to improve, I departed from Baton Rouge, LA one early Sept. night around 7 PM an filed direct to St. Louis Bi-State Airport. While I usually preferred most of my "night" flights at least starting out in daylight hours, and perhaps only ending the last hour or so in actual total "night" conditions, having a moderate case of "gethomeitis," I elected to depart some 2 or 3 hours later than was my usual style.

As dusk quickly turned to night, my 2 1/2 hr. flight right up the big muddy was nearly due north and relatively uneventful until about 60 miles south of St. Louis, near Farmington, MO. VOR (FAM), which lies about midway between Cape Girardeau, MO. and St. Louis. In fact, prior to this I couldn't help feeling more relaxed as the flight droned on and soon I found myself mentally preparing for the upcoming decent from 9,000 ft. into the quickly approaching, familiar St. Louis Class B TCA.

It was about time to start down when I became concerned because of apparent "cloud to cloud" lightning ahead and just slightly right of course. By this time however, a witch's black brew, or totally moonless night, had long since be fallen, and my attention was mostly welded to my familiar WX-10a StormScope, which I had long trusted to keep me out of harm's way. I had, after all, always trusted my StormScope since I had purchased the turbo brand new with it installed, and in prior years it had never let me down, presenting (what appeared

to be) a most accurate representation of severe storms. This night however, it was to demonstrate its frailty for showing a close in, rapidly developing area of severe turbulence that would test both my and my Mooney's mettle.

Flying what fighter jocks term "popeye" conditions (In and out of clouds; ed.) at 9,000 ft., I queried the Kansas City Controller who suggested a slight vector left, around the apparent lightning I was visually reporting at about 1 o'clock. I turned left approximately 20 deg. and started cockpit preparations to descend into the St. Louis area. Approaching some light to middling bumps, I remember reducing power from 70% (30"-2200 rpm) to about 26" to approach maneuvering speed.

Then it happened. A night ride I, and my favorite Mooney shop, shall never forget.

It happened faster than you can read this paragraph. I was all over the sky, the turbulence was like being inside a rotating cement mixer, getting beat up with its hard internal paddles. My HSI started spinning like a top but I thought I was in a decent or fall, and probably turning to the left. Airspeed rapidly climbing meant I was in rapid descent or worse; maybe a spin! To this day I can't tell you which. My memory of the events seems to be blurred and I can't actually remember exactly which instrument was indicating what! All I could remember was something one of my first instructors drilled into me: "fly the airplane first"..... Maybe I did and maybe I didn't; frankly, I don't remember.

Lacking speed brakes, instinctively I dropped the gear used opposite rudder to stop the (apparent) spin, or at least spiral descent. Looking back I remember thinking I just "trashed" my (freshly rebuilt) $1,200 55a HSI. I guess I hadn't (as yet) lost enough of my composure to wonder if it was still in warranty from the last overhaul facility, having been sent out only a few months earlier.....

I remember thinking about my new, blond-haired baby son waiting for me in St. Louis. I also thought to thank Al and Art Mooney while recalling all the stuff I had heard about an M20's legendary inherent strength. With the gear extended, I somehow kept a form of composure and somehow knew I would come through it if I kept my wits. My Mooney (apparently) spun down from 9K to when I exited the base of the clouds at approx. 2,500 ft M.S.L. in about 1-3 minutes or less. During this time, I declared an emergency with KC ATC and, most importantly, didn't give up - but continued to fly the aircraft as best I could, partial panel.

Exiting the clouds (apparently) spinning but with the use of opposite rudder, I stopped the turning and leveled off slightly under the clouds, somewhat in the clear with adequate nighttime ground contact. Keeping the gear extended, I started to argue with the controller who wanted me to immediately climb up to his MVA (minimum vectoring altitude; ed.) which would take me back up into the clouds. Frankly, I flatly refused. I repeatedly reminded him that I had declared an emergency and felt I wanted to assess the aircraft, and find out what equipment was working and if my gear was even still intact, while keeping in good ground contact. After all, I feared I might have damaged my landing gear by extending it at some unknown airspeed well above "gear extension speed," and perhaps even above VNE.

Taking the conservative route, and knowing the only smaller unmanned airports were nearby, I declined to land at any airport without crash equipment. Keeping in full radio contact with the controllers, I elected to fly (relatively) VFR at 2,500 ft. to a manned St. Louis area airport with gear down and, because my HSI was trashed, I was using my KLN 90 and wildly swinging compass as a primary heading source. Notifying ATC I wanted the full ensemble of fire trucks etc., I decided to land at Spirit of St. Louis (SUS) with its wide long runway and hope for the best.

I gave up the idea of going directly to home plate, and asked for vectors to the nearer Spirit of St. Louis Airport. When approaching Spirit I found a small nearby cell had caused a sudden wind reversal while on downwind but I ignored it and continued with my original plan to land (now downwind) on runway 8R. Sensing something wasn't quite right with my gear, I declared an emergency. I then remember thinking at the time that it probably wasn't necessary, but I was still shaken and what the heck. The landing was made with all lights blazing on high, and all the rescue equipment up and running down the runway. I set it down about 10+ mph faster than normal due to the tailwind. While it didn't perhaps feel quite right taxiing in, much to my amazement, the gear seemed to hold down all the way to shut down. It was then, and more the next day, that I learned exactly what aston-

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Revolutionary New Generation Piston Engine Oil from ExxonMobil

FAIRFAX, VA, April 2000 – Exxon Aviation Oil Elite™ is the new multi-grade semi-synthetic, ashless dispersant piston engine oil recently introduced by ExxonMobil the world's largest marketer of finished lubes. Exxon's Elite™ provides outstanding rust protection, shear stability, wear and corrosion protection, and contains the Lycoming additive, making it an FAA approved fluid that can be used as an alternate method to economically comply with AD 80-04-03. The new Exxon Aviation Oil Elite™ is SAE J 1899 certified, meets MIL-L-22851D (obsolete) and is U.S. Military approved.

Superior Rust Protection:

Exxon Elite™ has been blended to provide outstanding rust protection, particularly during extended periods of inactivity. In extremely severe ASTM D 665A testing (Standard Test Method for Rust-Preventing Characteristics of Inhibited Mineral Oil in the Presence of Water), Exxon Aviation Oil Elite™ 20-50 demonstrated enhanced rust protection at least four times longer than popular SAE 50 or 20W-50 oils with conventional technology.

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Exxon Elite™ 20W-50 is a multi-grade engine oil, providing better cold start protection without sacrificing wear protection at operating temperatures, lower oil consumption and better fuel economy than mono-grade oils. And the better your multi-grade oil retains its viscosity at high temperatures, the better your wear protection.

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Extensive research has demonstrated that Exxon Aviation Oil Elite™ retains its viscosity - even under extreme conditions. In fact, in a recent laboratory test, loss in viscosity was approximately half that of a popular lubricant after 250 cycles when tested through a diesel injector.

Reduced Engine Wear and Tear

The additive technology of Exxon Aviation Oil Elite™ ensures that engine parts are protected against wear. Pitting and scuffing are common failure modes for piston engine camshafts and followers. A commercial 15W-50 multi-grade oil, containing Lycoming's additive, reached the 300 hours but typically showed severe surface damage. Parts using Exxon Elite™ 20W-50 showed virtually no surface damage at the end of these stressful test conditions.

Yellow and White Metal Corrosion Protection

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A team of independent inspectors took a look inside the crankcases of engines that had been run for more than 500 hours with Exxon Aviation Oil Elite™, the parts were clear of sludge, clear of varnish. In fact, the group included experts who concurred that these were the cleanest engines they had ever evaluated.

For more information about Exxon Aviation Oil Elite™ see the Aug. issue of AVIATION CONSUMER Magazine. To order Exxon's new "Super Oil" Elite™ on line, visit a new site set up especially for Mooney owners; http://www.oiltogo.com or call (800) 224-7253 to purchase Elite by the case and have it delivered directly to you at competitive prices.

ishingly rare and most unusual damage had befallen my beloved Mooney because of its excursion to, perhaps, well beyond its "never to exceed" (VNE) speed. I also saw just how much force high speed airflow can put on M20 gear while "in transit."

Ed note: (Occasionally our space limits us and, rather than edit important or interesting information, sometimes we will run two-part articles or, perhaps, a series of articles on a specific subject which may be published in one or more issues as well.) Please see the next issue of THE MOONEY PILOT Magazine for the enlightening conclusion and aftermath of Mr. Protter's experience, and what unusual mechanical damages occurred as a result of his incursion into the Black Witch's Brew.