

The 1998 Mooney Caravan to Oshkosh,

Part One, Planning

by Jonathan Paul

Between February and July of this year (1998), I had the privilege to help organize the First Mooney Caravan to Oshkosh. This culminated in the incredible experience of being the lead aircraft for the group flight into the EAA Convention. This story is a personal recounting of how the Caravan was begun and executed. This article is written as a personal memoir from my particular viewpoint. Many other people contributed to the success of the Caravan. Some are mentioned in this article; some are not. All have our thanks.



"The List"

For the last two years there has been an Internet-based electronic mail list for exchanging information among a growing community of Mooney owners and pilots. For the technical, its e-mail address is mooney@hades.engr.sgi.com. To most of us it's known only as The List. Over six hundred Mooney owners and pilots around the country, in fact around the world, exchange technical information and experiences, ask questions and receive answers, tell jokes and lies, fuss at one another, and BS around the cracker barrel at the speed of light. The list has informed, entertained, and possibly saved lives. It's a good thing.

The "host" of The List is Akmal Khan. Akmal is one of those near geniuses who has made an impact in the computer industry through hard work, a bear trap mind, and good timing. Akmal looks like a leprechaun who fell in with Ali Baba. His prematurely gray hair does not detract from his youthful and mischievous smile nor does his intensity mask his warmth. It is clear to all that Akmal loves flying and we forgive him for his constant reminders that his Mooney 252 is the fastest magic carpet around.

Anyway, to get back to the thread of this story, on February 21st of this year, an electronic message appeared on the list that said, in part:

From: akmal@wrlo2.engr.sgi.com (Akmal Khan)

>Subject: Let's caravan to Oshkosh this year

I am taking my family over to Oshkosh this year. I know a number of you Northwest Mooniacs were planning on flying over this year. I thought it might be fun to organize a caravan of Mooneys to fly in together. I will have my speed brakes on so you can keep up :-). I will even fly below 12,500 to accommodate those of you who are oxygen challenged. We could arrange for a couple of stops along the way and maybe do a formation flight into Oshkosh. What do you think?

This message was the seed from which sprang a truly incredible grass roots affair. It was organized and nurtured over the Internet by an all-volunteer effort. All of us who participated in the Mooney Oshkosh Caravan think it was a great success and a tradition that is well worth carrying on in future years.

Oshkosh

The EAA convention at Oshkosh Wisconsin hardly needs any introduction to anybody who is a pilot or a plane owner. It is, simply, the world's biggest air show in terms of number of people (850,000) and airplanes (13,000) that arrive for seven days in late July. It is truly unique in that it caters to general aviation, the little guy, in other words, us. It is big, but friendly. I have been a regular visitor since 1985. Each year, I and members of my family and friends have camped next to our planes and absorbed essence of airplane through every pore from dawn till after dark.

When Akmal's message hit the Internet, I was interested, but I neither lived in Washington State nor had any desire to ask the FAA if we could make a fly-by of the tower. I suspected that Akmal had not yet been to Oshkosh and that he might not fully appreciate the bee swarm of airplanes that surrounds Wittman Airport making a fly-by somewhat impractical.

Organization

I eventually joined the discussion with my own message to the list, suggesting that the goals of a Mooney arrival should simply be that we arrive together and park (and camp) together and that this, by itself, would be a great accomplishment. Such a group arrival would require the full cooperation of the FAA and the EAA and a bunch of others along the way. I wrote to the list that MAPA, with its significant clout, should really be making these arrangements. I felt that only with the MAPA's influence behind us could we get any attention from the officials. I was wrong on several counts.



Some of the organizers and the MAPA brass. Don Bymaster, Tom Canavera, Akmal Khan, and Jonathan Paul.

I volunteered to explore, on behalf of the fledgling Mooney Caravan (from the beginning it was known as The Caravan), how we might make the necessary arrangements. Akmal, having started it all, seemed pleased to have somebody take up the cause. My first step was to call Tom Canavera, Executive Director of MAPA. Tom was sympathetic and supportive, but he was also pessimistic. It turned out that in a prior year, he had personally spent a lot of time and organization money setting up a group arrival into the EAA convention. Nobody came. It was a personal embarrassment to Tom, since he had widely publicized this grand event, which turned into an expensive flop. Tom said he would help where he could, but he did not have the time or resources to take on the full burden of organization.

Into the Enemy Camp

Not feeling very encouraged, I called the American Bonanza Society. I was aware that the ABS had been making large group arrivals into Oshkosh for a number of years and if anybody would know how to do it, they would. But would they talk to me? I was referred to Wayne Collins, a steely-eyed former Air Force fighter pilot. Once I had qualified the group and myself as serious and safety-minded, Wayne was more than gracious and quite willing to offer advice. I should give full credit to the Bonanza group for generously sharing their experience. The Mooney Caravan was patterned entirely on the Bonanza model, but with one significant difference. Whereas the Bonanza group flies in three-plane elements in tight formation, we felt, from the beginning, that we were unqualified for any close-in formation flying. Wayne referred me to their web page, to the key people in the FAA and EAA, and told me the essence of their procedures. The Bonanzas to Oshkosh Flight launches from Rockford IL, about 150 miles south of Oshkosh. The FAA

treats the flight as a unit and permits special procedures that avoid the regular EAA Convention VFR arrival procedures. Wayne strongly suggested that our group should be small this first year. He noted that the first Bonanza flight had only 9 planes. He strongly advised against any thoughts of flying close formation.

I now felt more knowledgeable, but I still had Tom's concerns on my mind. If we threw a party, would anybody come? I called the FAA's EAA Convention Tower Chief, Manny Torres of the Green Bay FSDO. Manny was cordial, but admitted that this was his first year in this job and needed to consult with his predecessor to see how this was done. I also called Jim Casper, who is a volunteer for the EAA Convention and is responsible for all aircraft ground operations and parking. I told both of these gentlemen of our tentative plans. I projected a small group of Mooneys, perhaps 20 planes, and indicated we wanted to arrive using the same special procedures as the Bonanza group. Once landed, we wanted to park together. I asked for their assistance and advice and, in retrospect, we received it to the fullest extent at every opportunity.

For those who have not been to the EAA convention before, imagine an aircraft arrival rate of over 10 aircraft a minute, with several aircraft landing on the same runway at the same time. Up to four runways are used simultaneously, the two main runways, a taxiway, and a turf strip. This doesn't include the sea plane base just off the approach end of Runway 27. All these aircraft have to be controlled in the air and on the ground and parked in a safe manner. It's quite an operation. Injecting a burst of Mooneys into this process was asking for a lot.

Where Do We Start From?

One of the first questions that we had to settle early was where would the Caravan start from. Early on it became clear that the Caravan was actually two activities. The main event was the last leg into Oshkosh. Before that, small groups of planes might choose to fly in together from their regional starting points. A group of five planes flew in from the Northwest with Akmal. Another small group was organized and originated in Anderson, Indiana. To my knowledge all other planes arrived individually. But where should we gather for the last leg? What was the correct distance for this flight? How could we get good service and the facilities that we needed?

In the middle of March, the list agreed, by consensus, that Madison, Wisconsin was a good place to start from. Madison is only 71 nautical miles from Oshkosh and seemed to be a big airport that could probably handle our expected twenty or so aircraft. We made this decision without too many hard facts and only time would tell what a lucky choice that was.

Dave Piehler of Wausau, Wisconsin joined the organization at this point. Dave offered to be the local point-man and to coordinate local arrangements. Dave, who looks like Paul Bunyan if the latter had also gone to law school, generously pitched in with all his energy. The fact was, Dave was typical of the surprising volunteerism that began to permeate the organization of the Caravan. Whenever there was a gap to fill or a task to be

done, somebody piped up with an e-mail saying "I can do that." It was really quite inspiring and the enthusiasm seemed to feed on itself. Somebody could write a doctoral thesis on group dynamics as represented by the Mooney Caravan.



Some of the 42 Mooneys on the Ramp at Madison

Dave called the FBO on Madison's Dane County Airport, Wisconsin Aviation, and got hooked up with Don Winkler. How many FBO's do you know that have Customer Service Representatives? Well, that was Don's job, and he and his organization went all out for us. Dave and Don worked out a reduced fuel rate, a fuel truck for our exclusive use on launch date, a special parking ramp, ramp attendants, a courtesy van, and space for our briefing, but I'm getting ahead of myself.

Selecting the Date

The Oshkosh Convention runs for one week from Wednesday till the following Tuesday. A major problem is that the popularity of the convention can cause all parking/camping places to be taken before the convention even begins. To ensure we could get into Wittman Field it was necessary to arrive Monday afternoon or Tuesday morning (at the latest). We also took our cue from the Bonanza group, which traditionally arrives Monday afternoon at 4pm. So we planned for an arrival on Monday at 5pm just after the Bonanzas. The Mooney Corral was virtually next door to those Sons of Beeches.

Planning the Caravan Formation

By default I found myself acting as the Caravan organizer. I spent considerable time theorizing about what sort of formation the Caravan should assume on the flight from Madison to Oshkosh. As stated earlier, we had immediately rejected flying in any sort of close formation. The official position was that such flying should be undertaken only by experienced and trained formation flyers. Therefore, we had to fly in trail, that is, in single file. I consulted my good friend and fellow Mooney owner Gaylon McSmith of Los Angeles. Gaylon is a former F-104 jock with hundreds of Vietnam missions under

his belt. Gaylon's comment was that flying in trail was the most difficult way to fly formation, since there are very few cues to help the following pilot judge his distance from the plane in front. Nonetheless, that is what we had to do.

The next decision was to determine the proper distance between the aircraft. This distance had to be big enough that it wasn't dangerous, but close enough that one could see the plane in front. This distance, it turns out, was dictated by other factors, namely, our takeoff rate and our enroute speed. Wayne Collins of the Bonanza group said that each aircraft starts rolling when the 3 plane element in front lifts off. Some experimentation at my local airport showed that a typical takeoff roll lasted 10 seconds.

After further discussion, we agreed on a flight cruise speed of 125 knots. This seemed like a good balance between aircraft controllability and providing a power margin for the slower models among us. This also happened to be the speed used by the Bonanzas. Each pilot was told to experiment with the power settings that would yield the desired speed at the altitude and expected gross weight. In my E model, this was 2400 RPM and 19.5 inches of MP at 3,500 feet.

Having determined our takeoff rate and our cruise speed, the aircraft spacing turned out to be 2,100 feet or almost half a mile. This distance represented about the maximum limit for reliably keeping visual contact with a single Mooney in front. This spacing did not work out exactly as planned for a number of reasons. In future Caravans, the distance between aircraft needs to be reduced, both to assist in the visual contact between aircraft but also to speed up the takeoff and landing rate.

Gaylon had one major concern to share about a formation flying in trail. He called this the whip saw effect. He said that any variations in speed or course by any aircraft would become exaggerated for the aircraft that follow. He stressed the need for all aircraft to keep power and heading changes to a minimum. This exaggeration, particularly in course, definitely occurred within our Caravan.

In summary, the theory was that each aircraft would first follow the aircraft in front and second follow the prescribed course. Since some aircraft drifted off course during the short flight to Oshkosh, the following aircraft were in a quandary as to which instruction took precedence. In the next Caravan, we will have better procedures to deal with this problem.

The Enroute Flight Profile

The flight from Madison to Oshkosh should have been simpler than any student pilot's first solo cross country. What's more, except for the lead aircraft, no one had to do any navigation or communicating since the instruction was simply to follow the aircraft in front and not to talk to ATC. In practice, whenever there are many aircraft in the sky together, nothing is simple.

The flight would cruise at 3,500 feet, about 2,000 AGL. The course was the 044 degree radial of the MSN VORTAC until a point due south of the Oshkosh airport. From this point, the flight would make a left turn to a heading of 360 and fly directly north 14 nm and land on runways 36L and 36R. The 044degree course was on a direct heading toward Fond du Lac Airport, over whose temporary Class D airspace the flight would pass at 3,500 feet. At the turn point, the flight would begin to slow to 105 knots, which is the gear extensions speed for the older models. At 8 nm south of Oshkosh, the aircraft would lower the gear and begin a descent at 105 kts and 500 fpm down.

The flight route had a number of variations built in to be exercised if the ceiling would not permit flight at 3,500 feet or if the landing runway was other than 36L and 36R.

Takeoff Procedures

In late April, I contacted Frank Whitezal, FAA ATC specialist in the Madison Control Tower. I introduced myself and explained what we were organizing. After a pause, he said "That's great. We could have a lot of fun helping you guys." I was thinking, "this is an example where our government really works!" After some exchanges of e-mail, Frank explained that there might be some problems. Madison, which normally had four runways, was down to two intersecting runways because of the construction of a new runway 4-22. This also reduced the number of taxiways available to move the caravan around. He stated that the biggest problem could be the Tower's need to interrupt the flight's takeoff in order to land other aircraft (read Commercial Airline flight) on the remaining runway. He hoped he could give us exclusive use of Runway 31 while landing operations with hold short restrictions would continue on Runway 36. He said, however, that some air carrier crews were refusing hold short instructions because of a labor job action. As it turned out, the takeoff was exactly as planned with no interruptions.

After takeoff, each aircraft was instructed to climb to 500 feet AGL and then turn to intercept the 044degree radial of MSN VORTAC.

Managing the Ramp at Madison

It was my personal concern that the hardest part of the flight would be to get all the Mooneys from their parking place to the takeoff runway in the right order and at the right time. I had visions of ramp gridlock and the aeronautical equivalent of road rage. We were lucky to be at Madison. They had a sparsely used apron called the South Ramp that was big enough to park 100 planes. They allocated the ramp for our nearly exclusive use. Also fortunate was the fact that the South Ramp was immediately adjacent to the departure end of Runway 31, which was our probable departure runway. Please, I prayed to the god of winds, do not kick up from the south.



The view from Mooney 35 as we lined up to takeoff.

Dave Piehler worked out a brilliant plan for parking the aircraft, all facing West, with a long U shaped taxi path that would permit room for all aircraft to get in line, do their run up, and then be ready to move onto the runway for takeoff. To insure that the aircraft were in the right order as we taxied out, Dave and Keith Hoyte assigned flight numbers to each aircraft based on their parking order. As it turned out, our taxi performance was flawless.

Mooney Lead and Mooney Tail

As with any flight of multiple aircraft, the ATC controllers talk only with the flight leader. So it was to be with the Mooney Caravan. The FAA said the flight was to be called "Mooney Flight" and the lead aircraft was to be called "Mooney Lead." Similarly, the last aircraft was to be called "Mooney Tail" and also had official duties. The job of "Mooney Lead" was turning out to be a big deal. This aircraft did all the talking to ATC, from Clearance Delivery at Madison to landing at Oshkosh. I advertised on the mailing list for a volunteer to be Mooney Lead, stating that it should be a plane with having three axis auto pilot, a GPS, a pilot familiar with Oshkosh, and a co-pilot to help. Frankly, in my heart, I hoped that nobody would respond and I could sneak into the job even though my E model lacked the auto pilot qualification. This is what happened. I must confess to everybody that being "Mooney Lead" was definitely the high point of my flying career which spans some 30 odd years and 2,500 hours. It is the closest thing to being a King that I can imagine. It's quite something to have over 8,000 horsepower following your directions. Having been Mooney Lead once, I relinquish the job to someone else and I envy the lucky souls who will have the job in coming years.

Dave Piehler volunteered to be "Mooney Tail." His job was to define the position of the end of the Caravan and to announce to Oshkosh Tower that the last aircraft in the flight

has landed. Akmal flew as Mooney Two and was prepared to take over as Mooney Lead should I have had to drop out for any reason.

Everything gets Official

The preparations and planning were happening in the very open forum of the Internet. Akmal set up a Caravan Web Page that contained a growing list of participants and all the rules and procedures that we were developing. The planning also took place in a very democratic way. The procedures, which totaled about 10 pages of text, went through five major revisions as people reviewed them and made valuable suggestions. Each update was posted on the web where all pilots could access them. There were a number of contentious issues, but all were resolved in a satisfactory fashion. The FAA delivered an eight page "Letter of Agreement," which every flight member was supposed to read. This letter covered the details of the arrival procedures for the flight for each of the four principal runways at the convention. This was also posted on the Caravan web page.



The Caravan had a tour of the Oshkosh tower. There were two teams of seven controllers handling arrivals and departures.

By the early May we had twenty five participants signed up and by June 1st (60 days before the actual flight) we had 40 planes. At this point I started to get worried that a population explosion would exceed our capabilities to safely manage the flight. I suggested that we establish an absolute maximum of 50 aircraft. Any additional candidates would go on a waiting list. As the final date approached we reached a maximum of fifty confirmed planes and four on the waiting list. Not surprisingly, there was some last minute attrition and two days before Caravan day we had 49 confirmed planes from all over the country poised to head out for Madison. In this respect, we

proved that Tom Canavera's concerns were unfounded and that there was great interest among the Mooney Community for an adventure such as the Caravan.

Part Two, Execution

On Saturday July 25th, Mooney Caravan participants from all over the country began their pilgrimage toward Madison Wisconsin. The first planes arrived around noon on Sunday and were directed by the savvy tower crew to the south ramp. An impromptu greeting area was established under a veranda and the early arrivals sat around on lawn chairs critiquing the landing technique of the later arrivals. At about 5pm the Northwest Caravan led by Akmal arrived with a total of five planes. By six p.m. we had 16 Mooney on the ramp with five more arriving before midnight. Ken Beaubien who keeps his M20C at a grass strip just 14 miles from Madison, acted as our local host and provided very useful transportation service. Dave Piehler and his son Stephen had the line crew from Wisconsin Aviation park all planes in the same direction and at this early point it looked very orderly.

All of the pilots and crew stayed at a very nice local hotel, the East Towne Suites, just a few miles from the airport. After a shower we all felt much better and joined together for a dinner at a restaurant next door to the hotel. Altogether, we were about twenty five people at that time. After dinner, many of the Caravan members gathered to watch the video made by the Northwest Caravan of their flight over the Cascades and the Rockies and across the Northern tier to Madison. We all agreed that Larry Crawford, Henry Hochberg's co-pilot and chief camera man, showed promise, but needed further cinematic training.

My Co-Pilot

When I started planning the group fly-in, and particularly when I volunteered myself to be the lead aircraft, I could see that there was a daunting amount of things to do both before and during the flight. So in April, I started a campaign to induce my daughter, Victoria (Tory), to join me at Oshkosh this year. She is no stranger to Oshkosh, having joined me at five or six earlier conventions. She is an elementary school teacher in Los Angeles and was moving to Sonoma County California during the summer. She had a new job to prepare for, a new house to find, and a move to oversee. Thus she was expecting to be busy during the summer. But I persevered and finally she agreed. "Just to keep you out of trouble," she added. I believe that the lead aircraft should have two knowledgeable persons on board. With communications and navigation tasks, the pilot is really busy. Victoria was another set of eyes, and my heading, airspeed, and altitude cross-checker. Finally, she helped me with the radio call script and recorded the "check in" status of each aircraft. And Victoria was somebody who appreciated the wonder of what we were doing. I also got her to volunteer to be the official registrar for the arrival of the aircraft at Madison, a job she adopted with relish.

The Big Day, July 27th

The weather had been a concern. The long-term forecast had shown a strong Canadian cold front sagging down from Saskatchewan to Ontario and lingering over Wisconsin on Caravan day. But in the early morning the front blew through with very little moisture. The morning saw a 4,000 foot broken ceiling that dissipated by noon and thereafter it was an absolutely beautiful Mid-West summer day. The widely scattered clouds at four and five thousand feet just managed to remind us that our prayers were being answered.

The core of the over-nighters headed for the airport early to act as a welcoming committee. Even before we reached the airport, new arrivals were streaming in. By two o'clock the last arrival, Ron Apfelbaum and his son arrived from Salt Lake City and we had forty two Mooneys on the ramp. We learned later that several VFR Mooneys had gotten stuck in a massive and ugly Missouri-Nebraska stationary front, several aircraft had last minute mechanical complications, and one pilot was getting a divorce and his wife got the airplane. So there were seven "no-shows," which was about what we were expecting.

The composition of the Caravan was diverse. Thirty-eight planes came from twenty different states and four Canadian planes came from two different provinces. California, Washington, and Texas tied with four planes each, Ohio and Ontario were next with three planes each. It must be mentioned that Adam Fineberg's California 201 flew in from New Jersey, which put the Golden State at an unaccustomed disadvantage. The Caravan had a preponderance of pre-201 Mooneys with a total of 25: B(1), C(11), E(6), F(5), G(1). There were twelve Js, three Ks, one M, and one Ovation. The only modified Mooney was a Tornado (formerly an F) owned by Jean-Pierre Held of Knoxville TN.

Registration

Victoria set up a formal registration desk where each pilot checked in and received the briefing package, a thick brown envelope filled with all the procedures, a copy of the briefing to follow, the FAA Letter-of-Agreement, a Caravan Prop Card, and an EAA "Camping" sign. A one-page summary of all procedures proved to be a big help. At the registration, most participants picked up their custom "First Mooney Caravan to Oshkosh" T-shirt, which is sure to become a collector's item. James Oliphant of Wichita, KS had the shirts produced. They featured a beautiful picture of a 201 (his of course). Finally, the registration crew was pushing Mooney Barbecue Tickets (more about that later). In short, the Registration area was the focus of both official and social activity.

The Briefing

At 2:00 p.m. we began the flight briefing, which was scheduled to last for one hour. Wisconsin Aviation had moved a couple of business jets out of a big hangar next to the registration area. They had an overhead projector for the briefing and Don Winkler brought a screen from home. From the beginning, we felt that any large collection of airplanes in the air together had the potential to be hazardous unless everybody knew

what was expected of them and what they could expect of others. Only pilots who attended the briefing were permitted to join the Caravan. Although the Oshkosh Caravan flight plan was as simple as you can get, there was an obvious need for a detailed briefing. Even after the briefing, our performance was ragged. We hope that experience and revised procedures will smooth things out in future years.

I conducted a major portion of the briefing covering the procedures for radio communication, takeoff, the flight path and profile, emergency procedures (thank goodness), and the Oshkosh approach and landing procedures. Dave Piehler briefed the weather and NOTAMS and covered the parking and taxi plan. Frank Whitezal from Madison ATC discussed the concerns of the Madison Tower and answered questions. By 3:10 the gathering was understandably fidgety and we finished the last item of business and adjourned, returning to the ramp with lawn chairs in tow.



Before departure we had a one hour briefing of procedures. Here Jonathan Paul presents some detail to the attentive crowd.

Photo Op

After the briefing, everybody assembled on the ramp in front of the first row of Mooneys for a group picture. Mark Napier arrayed his numerous cameras for a panoramic shot of the seventy people (1.66 people per plane) who were the pilots and crew of the caravan. A wide collection of Caravan pictures have since been displayed on the web. See the Mooney Junction Web page (<http://reality.sgi.com/mooney>) for links to all these pictures and narratives. Don Winkler set up his camcorder on a movable tower to film the Caravan's departure. In future years, it will be fun to have more video coverage of all phases of the caravan, including the in-flight phase.

Engine Start

The engine start was scheduled for 4:05pm. It turned out that Akmal, in the number 2 position, needed to boot up his large array of on-board computers, so he started his engine before 4pm and many in the flight followed suit. It was an amazing sight to look back and see all those Mooneys idling. At 4:05 I started my own engine and called Madison Clearance for our VFR Class C departure clearance. It was simple, "Mooney Flight, climb to 3,500 feet on course, Departure frequency 120.1. Mooney Lead squawk 0714". Only Dave (Mooney Tail) and I were given discreet squawk codes. All other transponders were supposed to be turned off.

After getting the clearance, we all tuned to Madison ground and started our taxi at a walking pace to the active runway. As the lead aircraft, I made an enormous U, first heading west and then doubling back east to the approach end of runway 31, our assigned departure runway.

The Takeoff

After I reached the departure runway, I could see all the other planes lined up in an orderly line more or less behind me. I performed my own run up and waited for a reasonable time to elapse before beginning the pre-takeoff check in. This was a radio check to determine if all the aircraft were ready to go, needed more time, or were aborting. It proceeded like staccato gun shots on the radio: "Mooney Lead OK, Mooney Two OK, Mooney Three OK..." and so on until Dave said "Mooney Tail OK." Three aircraft didn't respond on the first go around, but we picked them up on the follow up. I declared that the flight was ready to go. I can tell you that the adrenaline was in ample supply.

We switched to tower frequency, and I announced "Mooney Flight, Ready For Takeoff Runway Three One, VFR to Oshkosh." The answer was quick and clear, "Mooney Flight Cleared for Takeoff, have a good flight."

I taxied out onto the runway giving time for Akmal to take position behind me. We had briefed that there should be three aircraft on the runway at all times: rolling, waiting, and moving into position. I looked over to my left. The ramp to my left was a sea of Mooneys. I added power and accelerated, lifting off at 80 mph (67 knots). I swung the Johnson bar up and locked the gear in place. I turned to Victoria as if to say something like , "Well, here we go." She was crying. I wisely said nothing. It was a profound moment.

The Flight

From my position in the front, I saw no other aircraft in the flight until after we landed at Oshkosh. I made a gentle right turn to intercept the 044 degree radial of MSN VORTAC and settled in for the 35 minute flight. I made a real attempt at holding altitude, course and airspeed handicapped, as I was, by not having an autopilot to do it for me. Akmal,

behind in his 252, was chomping at the bit and twice reminded me to keep my speed up (yes, Akmal, at one point the speed seemed to have decayed a bit below 125 knots). But, in general it was a Sunday drive in magnificent 50 mile visibility weather. Shortly after takeoff, I was switched to Madison Departure Control, and listened to the occasional transmission. At one point, Madison commented "Mooney Flight, your formation looks good. Much better than the Bonanzas." Our hearts swelled up with pride. But there were a few problems yet to come.

Behind me the takeoff was proceeding smoothly, but much slower than expected. We had estimated to have all aircraft in the air in seven minutes at 10 seconds each. It actually took over twelve minutes for the flight to become airborne. It appeared that each plane was reluctant to add power before the plane ahead was clearly in the air, and between a gradual addition of power and general caution, it was taking closer to 18 seconds between planes. This is something we will have to work on, particularly if the Caravan gets bigger in coming years.

Mooney Frequency

While all of the planes were monitoring the ATC frequency in use, we used another frequency for plane to plane communication. This was the so called Mooney Frequency and for 1998, we continued to use Madison's Unicom frequency of 122.95 even after we were airborne. This ruffled some feathers of the folks at Madison who wished we would talk on some other frequency. In the briefing, radio discipline and restraint was mentioned, and at first all pilots in the Caravan were somewhat shy about talking on the designated Mooney Frequency. But as the flight progressed, the individual pilots increasingly used this frequency to coordinate their positions and to give instructions to each other. This was very helpful, in fact necessary. In future years we will ensure that the Caravan will have a dedicated clear frequency on which to talk.

Henry Aborts

It was about fifteen minutes into the flight when we heard the transmission "Mooney Fifteen aborting" on the Mooney Frequency. A moment later we heard on the Madison Approach Frequency, "Mooney 201XG..... Declaring an emergency.... Request direct heading to Madison", Then later more information, "...Vacuum Pump Failure ... Rough Engine...". This was Henry Hochberg's Paine Field, Washington, based 201. The previous evening we had watched the video of Henry climbing out over the Cascade Mountains. Better now than yesterday over the mountains, I thought. Madison Approach handled the situation calmly. By this time all our Caravan aircraft had already departed, which is fortunate, since they closed the field until Henry was on the ground. When Henry went to tower frequency, we lost contact with the situation. It turned out he landed safely. We have a video of N201XG taxiing in followed by a brace of fire trucks. The problem was serious, two cylinders damaged by apparent detonation, a cracked crankcase, as well as the vacuum failure.

Problems in the Formation

Meanwhile, back in the formation, problems were developing. In part, because of Henry's gyro problem, Mooney 15 had for some time been heading to the right (south) of course. In accordance with the briefed procedures, Mooney 16 (and all the planes behind) followed and found themselves seriously off course. Many pilots recognized the problem but were unwilling to break formation to start a correction. After the abort, Mooney 16 lost sight of Mooney 14 and Mooney 17 actually overtook and swapped places with Mooney 16. From our position at the head of the formation, we heard an increasing number of radio calls between the aircraft advising each other of the course deviations and suggesting corrections.

Because of the greater than expected spacing between the aircraft, several aircraft lost sight of the aircraft ahead. It was agreed that in subsequent years, we need to tighten up the spacing between aircraft.

Dave Piehler (as Mooney Tail) later reported, that at the back of the pack there was a decided oscillation of heading and course as each aircraft followed the aircraft in front in a formation. This oscillation became more pronounced the further back in the formation one was.

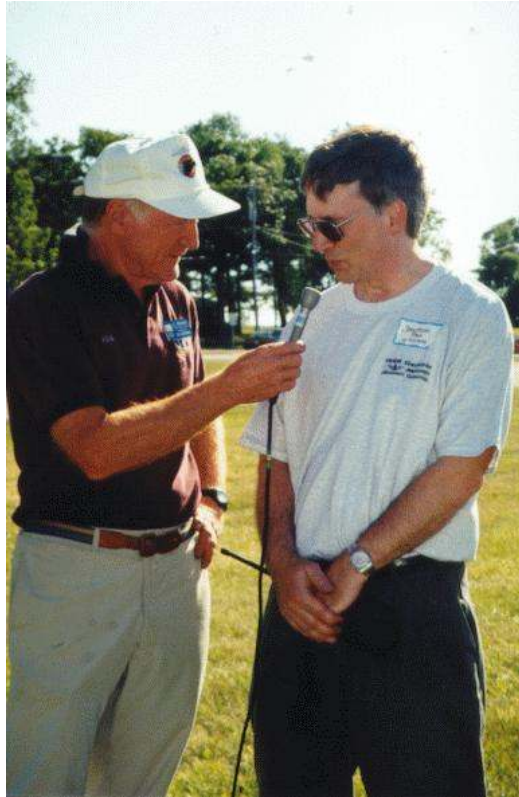
John Kallend, from his position as Mooney 35, commented later on our performance

The caravan was a long line of aircraft separated by some 1/2 mile. The problem was missed navigation waypoints. The caravan was supposed to intercept and then track the 044 radial off MSN VOR, but someone around the middle of the line blew right through this by several miles. This was supposed to take us on a direct course to FDL, but this bit got messed up for the reason stated above. We were supposed to turn inbound to OSH when 3.6 miles from FDL, on intercepting the 179 radial from OSH. Many planes blew right through this too, flying into the temporary class D airspace over FDL airport. Others turned inbound at the correct point, leading to two converging streams of aircraft. Because of this the later aircraft had to wing it when selecting a landing runway (we were supposed to land odd numbers on 36L, even on 36R). We were all supposed to climb out at 105kts, 500fpm. The plane ahead of me was climbing about 1000fpm at around 90 kts. We were supposed to start our descent 8 nm out from OSH. The plane ahead of me began his descent around 13 miles out. We were supposed to land "long" on the 9000 foot runway 36L at OSH. Several planes landed on the numbers!

Landing at Oshkosh

Being at the front of the pack I was spared some of the problems of the planes to the rear. Even at the leisurely speed of 125 knots, the 72 mile flight seemed to be happening in fast forward. I switched from Madison Departure to Oshkosh Tower frequency. My DME was tuned to Oshkosh VORTAC and as the distance unwound, I reported to Oshkosh Tower my position at twenty miles out and at fifteen miles out. Before I knew it, we were

approaching the turn point. I looked at my ten thirty position, and there was Wittman Field, laid out like an approach plate fourteen miles away. The air was wonderfully clear. There wasn't a cloud in the sky. Lake Winnebago sparkled like a diamond. I felt like we were entering Valhalla, and in a sense we were.



Shortly after we landed, Jonathan Paul was interviewed by the local radio station.

As I turned inbound, I reduced power to 15 inches and slowed (much to Akmal's distress) to the briefed 105 knots. At eight miles, I swung the Johnson bar and dropped the gear and started my descent. I was lined up OK on Runway 36 Left but there was a noticeable cross wind from the west (left). The rate of descent was perfect as we approached the runway. Full flaps. I caught sight of Akmal landing to my right on RWY 36R (normally a taxiway). The tower droned, "Touch down after the third taxiway," and I added power and flew down the runway at eighty mph and fifty feet. The crosswind made me drift to the right. My speed bled off, I added power, left wing down, right rudder. More right rudder. Damn, no more rudder. OK put it down. And there in full view of thousands of people, the sacred Oshkosh tower, and Coty Smith behind me, I made perhaps the worst landing of my life. I dropped it in from ten feet up, bounced and skidded around the runway until the powers above had decided that I had suffered enough. Victoria, who is a stern critic of my flying, looked particularly tight-lipped. But we had arrived!



Part of the Caravan taxis in after landing.

OSH Rows 39 through 42, The Mooney Corral

The EAA parking volunteers in their day-glow vests directed us onto the taxiway and after a short stretch on concrete directed us to the grass and dirt taxi corridor to our designated parking place. It was quite rough and I couldn't help but think that we were still over gross weight (having foolishly filled up the tanks at Madison). We bounced and lurched for about five minutes and finally were directed into one of the parking/camping rows. As it turned out we were the first plane in Row 39 and the caravan quickly filled up rows 39 through 42. A few rows away we could see the Bonanza crew. We kept the radio on for the next 10 minutes as the rest of the Mooney Caravan landed. Within twenty minutes, we were all safely parked. Mission completed! It was a sublime moment. People were wandering around, taking a deep breath, visiting, chatting quietly, and discussing the good and bad points of our formation. It was not too long before the hammering of tent stakes signaled the erection of Mooney City, our home for the next few days.



Row 39

At about 10pm, a car moved slowly down the rows of parked aircraft seeming looking for something. At our row it stopped and out jumped Henry and Larry in their rental car. Somehow they had talked their way out onto the flight line. We were full of questions and got the full story of the abort and return to Madison. Henry and Larry set up housekeeping in an empty spot in row 42. For two days we insisted that the car was an experimental Mooney, but by Thursday the car was banished to the parking lot.

The Barbecue

There was one more organizational item on the agenda, the Mooney Caravan "Barbecue." In the months leading up to the Caravan, many people had suggested that the presence of a large contingent of Mooney owners (the Caravan and many others) at Oshkosh would be a fine opportunity for a group dinner. I personally approached Tom Canavera in April, hoping he would sponsor such an affair. He was interested and suggested \$20 per person for a Wisconsin Fish Fry that could be catered at the Pavilion on the convention grounds. It required, he warned, a confirmed minimum attendance of 150 people. Both he and I were skeptical that we could get that many people to sign up months in advance. In the next issue of the MAPA Log, Tom announced the Oshkosh Fish Fry. Sadly, he told me shortly thereafter, that only three people had responded, so he could not commit MAPA funds to an affair that had no membership interest. So the idea went into a holding pattern.

The issue did not die on the "List", however. Several Caravan participants continued to explore what we could do, probably on a much smaller scale. Several people volunteered to help, and Jim Ryan, of Beaverton Oregon, agreed to lead the organization. Jim suggested his concept for a simplified menu, consisting of "the two basic food groups", bratwurst and beer. The Texans and Georgians among our group were quick to point out that unless there was ample amounts of barbecue sauce, it could not rightfully be called a barbecue. Nonetheless the name stuck.

At an organizational meeting on Tuesday morning, it was decided that we would limit our sales to 100 tickets. We had already sold fifty tickets at Madison, so we turned over fifty tickets to Tom at the MAPA tent, who graciously agreed to act as out ticket agent. Victoria and I went around and taped Mooney Caravan Barbecue flyers to every bulletin board we could find. On Wednesday afternoon, Sherry Loewen sent over an urgent request for more tickets. Apparently, some members of the Mooney community were quite upset with the idea of an elitist barbecue. So we released another 50 tickets to MAPA and sold another 20 at the camp site.

In summary, the barbecue, held at dusk on Thursday evening, was a big success. 172 tickets were sold at \$6.00 each, collecting over one thousand dollars. Jim Ryan managed to sneak through the back gate with the provisions. Tracy Smith organized the "Brat Brigade", which cooked bratwurst on every available camp stove in the Mooney compound. Within an hour after the appointed start time, ten cases of beer, all the soft drinks, and all the salads were gone. It turned we all had bratwurst for breakfast for the next few days.



By 8pm the beer was gone!

The barbecue was a truly nice affair with lots of conversation and fellowship. Due to a lack of furniture, it was basically a stand up affair, but that kept people moving around

and meeting others. The major problem was deciding what to do with the leftover money. After paying for the Mooney Caravan Banner, we donated \$351 dollars to the MAPA Safety Foundation. An appreciative Don Bymaster, treasurer, accepted the donation the next day at the MAPA tent.

Thoughts for Future Caravan

The Mooney Caravan will definitely be repeated in 1999 and, we hope, for many years to come. The idea has proven to be of significant interest to a quite a large number of Mooney pilots and owners. As the time of this writing (late August 1998) we already have over forty members signed up for the '99 Caravan. We have formed committees to deal with many of the major tasks and many eager volunteers have signed up to help

Our goals for '99 are to increase the size of the caravan and to rectify the procedural problems that turned up in the '98 Caravan. We did a good job on our first try, but there is much room for improvement. At the same time, Waldo Born, Lloyd Sterns, and Ken Curell, all experienced military flyers, are investigating the issues of formation flying (as do the Bonanzas) for possible incorporation into later Caravans or as a stand-alone educational and proficiency activity.

To keep abreast of developments, check out the Mooney Junction web site: <http://reality.sgi.com/mooney>. There you can subscribe to the Mooney Mailing list. Not connected to the Internet? Contact: Jonathan Paul, 56 Calara Canyon, Salinas, CA 93908