

A 16-ship formation flight over Lake Texoma on the last day of the Grayson County Clinic (May 28, Sherman, Texas, airport) took off in elements of four, formed "Diamonds in Trail" first, then "Diamond of Diamonds."

he first Bonanzas to Oshkosh flight took place in 1990. It was no big thing, especially to me and the other pilots of the nine Bonanzas in the formation. We were seasoned aviators with a little loose formation flying experience. None of us expressed any need for formal formation training.

Our preparation mostly involved talking it over to decide positions and the actual flight planning. We did call and fax Oshkosh to alert them that nine airplanes would be arriving as a formation flight. We received no reply.

We took off on our first Bonanzas to Oshkosh formation flight, unheralded but happy to be on our way. The flight was uneventful and we had a great time camping together after our arrival. With details of that flight still warm and wonderful in my mind, I reported on it in the *ABS Magazine*.

1991 — The next year we had 34 airplanes flying together to Oshkosh! We again notified Oshkosh but had no reply. So after much discussion the night before taking off from Rockford, we departed in a loose formation of 34 arriving over Fisk and Ripon and were given a right downwind to 27, for which we had planned.

That was the moment Oshkosh Tower

realized there were 34 planes and diverted us to right downwind 36. Suddenly, we were no longer a formation, but a "gaggle" of 34 individual airplanes.

Somehow we all landed safely and managed to park together. After that flight we decided that more—or even *some*—discipline would make our formation flying an even more joyful thing. So we started looking for some formal training for Bonanza pilots and were met with no success.

Interest in our Bonanzas to Oshkosh idea continued to grow. To make the flight with us, we required a pilot to locate another Bonanza pilot and practice taking off, flying and landing as a two-ship formation.

Information on formation flying was made available to all who signed up and extensive briefing was given at Rockford prior to the flight. By that time, our group had become known as "B2Osh," a handle coined by Liz Campbell.

1995 — B2Osh set a world record for a civilian formation flight of 134 airplanes! That flight was accomplished without mishap, but two decisions were made: Subsequent flights would be limited to 100; and a way to train Bonanza pilots in formation flying must be found.

1998 — We learned about Vernon Ricks Formation Flying School in Greenwood, Mississippi, in the spring of 1998. This school was for Warbirds, but Vernon agreed to allow Bob Siegfried and me to attend. Our safety pilots were all ex-military and had come to fly Warbirds. At Vernon's insistence, they agreed to work with us. So at last we had a place to receive formation training.

1999-2001 — Twenty Bonanza pilots signed up for the training in 1999. In addition, Bonanza pilots would be allowed to receive formation training in Greenwood in 2000 and 2001. Even so, it became obvious that if formation training were to be available to the Bonanza community, we would have to institute our own program.

2002 — We started with a four-day Formation Clinic at Grayson County, Sherman, Texas. Mini one- and two-day clinics were held in California, Massachusetts, North Carolina and Illinois with pilots who had been trained at Greenwood acting as safety pilots.

The Grayson Clinic gave pilots fourship training while the mini-clinics introduced pilots who were new to formation flying to basic formation training preparing them for B2Osh.

We adopted the T-34 Formation Manual as our guide and developed our own Bonanza-specific Addendum to it. When we started our training at Greenwood, the only recognized ratings were FAST (Formation and Safety Training) wingman and lead ratings, and were only for Warbird-type aircraft with a canopy.

Stuart McCurdy, working with the FAA and EAA, developed the Formation Flying Inc. (FFI) program, which is basically the same as FAST. But it is for all aircraft that pilots can fly to the standards required to pass an evaluation flight by a certified FFI check pilot.

Our first Grayson County Clinic in 2002 had used the FFI standards as our goal to achieve formation-flying proficiency. Although weather shortened the first clinic to two and one half days, it produced the first Bonanza pilots to be evaluated for FFI cards in June 2002: Mike Babler, Dick Keyt, John Parks and me.

## Where we are today

It has taken us more than 10 years, but we now have FFI lead and wing pilots in most sections of the country, with FFI check pilots in Texas and California. Any Bonanza/Baron pilot who is a member of ABS now has an opportunity to obtain formation training at no charge except for personal expenses.

Finding a location for a clinic is the first step. We need a centrally located airport with good facilities—but not too busy for this training. It must be convenient with reasonable costs for lodging, food, etc., and a community that desires our presence.

2006 — The thrust of the Grayson County Clinic this year was to have all pilots be able to enhance their formation skills, and not spend most of their time in the right seat as a safety pilot. To accomplish this, everyone was required to have basic four-ship formation flying skills; to have successfully completed a comprehensive ground school on the basics; and have a thorough knowledge of the T-34 manual, including the Bonanza-specific Addendum and FFI requirements.

On Thursday, May 25, we were greeted with typical Texas summer weather—hot, humid, blue skies and moderate winds. Keith Rutherford had the pleasure of introducing Enid Kasper, FAA Southwest Region Safety Program Manager, to the group. Along with welcoming the pilots to Texas, Enid announced that completion of the Grayson County Formation Clinic is qualified as a Wings program and she offered to give free checkrides for all CFI pilots in attendance needing a renewal.

Following that great news, Keith gave an overview of the area to be flown, a description of area assignments, outbound and inbound altitudes to be flown and pattern entries. To make flight assignments, he worked from a magnetic board with each pilot's name and tail number on a magnetic strip. He would place the lead with wingmen for a flight of four in an assigned segment with in-flight frequency for that segment and engine start-time for the flight.

Safety pilots were placed on the board by the pilot with whom they were to fly. Two flights were scheduled for each pilot prior to lunch and two in the afternoon. Briefing and debriefings were done between each flight.

Debriefing for the overall day was held before dinner, which was served in the hangar, and assignments for the next morning's flights were posted prior to leaving the hangar.

The next morning we started with briefings for the first flight. Thorough briefings were always the order of the day, but since we flew a similar routine each flight, long briefings were not necessary.

Every flight is a learning experience, so debriefings were very thorough and covered all aspects for each pilot in the flight. Evaluations and check flights for FFI ratings started Friday afternoon and continued through Saturday.

## Standardizing procedures

Radio discipline and standard procedures are a must. We found different terminology and practices from different areas. Some called briefed frequencies "Channels," "Buttons" or "Frequencies," and to change a frequency, some said "Push," "Go to" and "Change to."

Hand signals for formation changes were standard for all as defined in the T-34 manual. But some gave a hand signal only to planes that would be making a change. In a canopy aircraft, a hand signal given in the center of the cockpit can be seen by all. But in a Bonanza, one given in the left window cannot be seen by pilots on the right side.

At Grayson, we standardized things: The term to change a frequency as given by lead is simply "Go Channel \_\_" giving the number of the channel. Hand signals are given first by lead to the pilot not changing position, and then to the pilot changing position. This way, everyone understands the formation change that is signaled by lead.

Lead always looks to the wingman for a head nod showing the signal has been understood. The echelon turn and the rejoin after a break were the maneuvers pilots had the most difficulty with.

2006 was the first year the Grayson Clinic did not accept any pilots for initial formation training because of the Mini Formation Clinics and the maturing of

formation training. After ten years of clinics at Grayson County, Greenwood and numerous mini clinics around the US, we have trained Bonanza formation pilots in most parts of the US. I am very proud of all the Bonanza pilots who freely gave of their time, talent and assets in these efforts.

The training, arrangements, planning and logistics for our Bonanza Formation Clinics is free. Safety pilots pay for their hotel rooms and other expenses, the same as pilots learning the skills of formation flying. Registration fees are only for food and beverages consumed. There are few bargains in the world to equal a Bonanza Formation Clinic.

From this year's Grayson County Clinic, 25 Bonanza pilots honed their formation skills. Standards were set for Bonanza Formation Training: Four pilots renewed FFI wingman cards; eight pilots renewed FFI lead cards; Bill Whitefield and Bill VonGunten qualified for FFI wingman; Wayne Mudge and Bruce Poulton qualified for FFI lead; and special congratulations go to Mark Merrill who was designated as an FFI check pilot.

We now have Mike Babler in Texas and Mark in California as FFI check pilots. With proper recommendation by an FFI lead pilot, a Bonanza pilot can now be checked by Mark or Mike anytime at any location for an FFI wingman card.

In my opinion, the pilots trying for an FFI card are held to a higher standard than most checkrides for the FAST card. The FFI card is only issued when the pilots perform to Air Show Standards.

Watch for the Texas V-tails, the California Beech Boys and others to perform formation demonstrations at the ABS Convention in Colorado Springs just before the Thursday Beechcraft Hangar Party.



The pilots who participated in the 16-ship diamond formations pose for a group shot.

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