

THE 170 NEWS

First Quarter 2011



The Quarterly Publication of The International Cessna 170 Association, Inc.

THE 170 NEWS CONTENTS

www.cessna170.org

First Quarter 2011 Vol. 41 No. 1

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1955 170B
N3568C 26612
Myndy Woodruff #8488 VT
See article page 23.



On the Back Cover:

1956 Cessna 170B
N4384B
Mike Schwartz #7961 MT



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The 170 News is published quarterly as a benefit of membership in The International Cessna 170 Association (TIC170A). The organization was formed in 1969 to *Preserve and Promote a Truly Classic Aircraft*. For membership or advertising information contact:
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Association News



170 Fly-Ins

18th Annual Lebanon, MO Fly In - October 10, 2010

Velvet Fackeldey #8181 Missouri Area Rep



Velvet's great-grandson, JD, in 26D, thinking he might be a pilot some day.

The weather gods were with us this year for a beautiful day to fly. Attending were Bob and Carol Coats from Cabool, with Bob's brother Don from California, in 2626D; Lanny and Sharon Crawford from Jefferson City in 1493D; and Steve Grewing from Kansas City, with friend Dan Dodd, in 4024V. Driving in were Bill Wehner and Mary McClain from New Mexico; from Lebanon were James and Evea Fackeldey, Nichole, Glen and JD Smith; and from Phillipsburg, Jeannette McGuire.

We had a great meal and enjoyed visiting before cleaning up the kitchen and heading out. Thanks to Lebanon Aviation for supplying the kitchen and dining room, and beverages, each year.



Group photo, from left: Mary McClain, Lanny & Sharon Crawford, Bill Wehner, Carol & Bob Coats, Jeannette McGuire, Don Coats, Velvet with JD, Glen & Nichole Smith, Steve Grewing, Evea & James Fackeldey. Dan Dodd Photo

From the Executive Secretary

Finally a very pleasant, warm winter day with snow melting quickly. It certainly has been an unusually cold and stormy year in many parts of the country. Seems everyone has been talking about the weather when they call.

This issue includes memorials to Association founder John D. Benham and long-time Historian and Past President Cleo Bickford. Their contributions and commitment were crucial to the Association's existence and long history.

Thank you sincerely to all the contributors to this issue. I think you'll enjoy the variety of articles and information provided.

Did you get your 170 Calendar for 2011? If not, contact Doug Mowry while he still has some left. See the information below.

If you haven't already checked out the Association's new online store, don't wait any longer! In addition to shirts, cap, jackets, and other apparel, you can order almost any item with the Association's logo on it. There is also the option to personalize them with your name, registration number, or your pet name for your airplane.

I'm sorry to report that on December 11th, Association member Bernie Helgesen AR #610 passed away. Sympathies can be expressed to his wife Pat and family at 697 Airport Dr, Cotter, AR 72626.

Jan Billeb

2011 Cessna 170 Calendars for Sale



This is a personal project of Doug Mowry; however, he donates ALL profits over and above his costs for printing/shipping to TIC170A.

U.S. and Canada - \$13 (USD) per calendar.

Outside the United States and Canada - \$16 (USD) per calendar.

Order/contact info: Email: mowryd@hotmail.com. Call: Doug (508) 476-4058.

To pay by check: Make check out to "Douglas Mowry" and send to:
Douglas Mowry, PO Box 791, Douglas, MA 01516

To pay with Paypal: Pay to paypal @ "mowryd@hotmail.com"

When ordering please include the following:

Name, Shipping address, Quantity requested and a Method of Contact (email, phone, etc.) in case there are any hangups.

In memory - John D. Benham

1923 - 2010

An Affectionate Remembrance

Bill Wehner C2 NM

If we 170ers needed any reminder of how long in the tooth we are getting, we have only to look at the recent passing of several organization old-timers. Key among them are Cleo Bickford and John D. Benham. Both these individuals played pivotal roles in the formation of the 170 Association, but certainly one, John D., was indeed a larger-than-life figure. The International Cessna One-Seventy Association was a continuing source of amazement to John. Almost every year, just before the two of us would stand up to make the Founders Award, John D. would look out over the crowd and say to me: "Bill, can you believe what we started here? Can you believe we have that many friends?"

No one held the 170 Club with more affection than John D. Benham.

John D. was a real individual... someone at the graveside service said, "They broke the mold after they cast John D. Benham." No Argument. Someone else commented that he was not everyone's cup of tea, but when you got to know him it was hard not to like him.

He had a heart as big as all Texas and a very active and quick mind, one that often worked faster than his Texas drawl would allow him to get out. He was not afraid to walk his own path, which he often did; and he was never afraid to accept the consequences if he was proven wrong.

His interests and projects were far-flung. It has been recorded that he rebuilt 20 170s during his long career in aviation. *Think about that for a moment.*

In 2007, I wrote about John D. and Dorothy for *The 170 News*. It is with great affection that I repeat a part of that article here, with a few small changes:

I met John D. (nobody ever calls him just *John*) in the summer of 1969. A bunch of us from all over the country had gone to Wichita, led by John D., to form a club or association devoted to the ownership of the even then venerable Cessna 170. Built from 1949 through 1956, the

170 is a mild mannered four place airplane designed for family transportation, a job it still does admirably today, some 50+ years later. Numerous owners have made any number of modifications over the years but the plane is relatively easy to fly and manage on the ground even though it has the so-called conventional landing gear. Because this arrangement puts two wheels up front and a tail wheel behind instead of today's usual tricycle arrangement, the 170 and others with similar gear are called *tail draggers*. This configuration puts the center of gravity behind the main gear encouraging the tail dragger to weathercock in a crosswind instead of tracking straight ahead as does the tricycle geared plane. Some of us, including this author, have reason to know this is absolute fact.

So, there is a certain cachet attached to the skillful operation of a taildragger, akin perhaps to the ability to drive a stick shift in this automatic tranny world. As any taildragger pilot will be quick to assure you.

Cessna had manufactured some 5000 of these 170s but by the late '60s there were only about 3000 left world wide, parts were becoming expensive and hard to find, and Cessna had pretty much made the once ubiquitous 170 almost an orphan child. We had come to Wichita to organize a mutual benefit society. The result was a monthly newsletter, quarterly slick magazine, regional fly-ins during the year and an annual convention somewhere in the U.S. or Canada.

Even though he declined the



Above: John D. and Dorothy Benham, Branson Convention 2008

Duane Shockey Photo

Right: From Vol. III, #3, post dated Jan 1972, the first picture we could find of John D. This one with his son Dan, and Dorothy and was taken that past August at the Dayton, Ohio Convention.

Dayton was the third convention John D. and Dorothy attended and they, along with Cleo Bickford, never missed a yearly convention in the Association's 42 year history.

The caption, written by then Editor Bill Wehner, praising John D. and Dorothy for their work on behalf of the Association.



Dan, John D. & Dorothy Benham at Dayton. John is now National Membership Chairman. Few people realize that we would probably not exist as a group if it was not for the hard work of John & Dorothy.

spotlight, John D. was the pivotal character from whence (how 'bout that?) rose the Association. He was assembling data on and for 170 owners when he heard that some guy in Iowa was getting started putting together a type-club for pretty much the same purpose. John got in touch with me, and the rest, as they say, is history.

John D. was a career aircraft sheet metal craftsman at Kelly Field in San Antonio, near where he and Dorothy lived. The son of a horse and cattle trader, John D. was the picture of cowboy Texas - long and lean, with a drawl thick enough to cut. John had inherited his daddy's horse trader/wheeler-dealer sensibilities along with a real talent for repairing or modifying light aircraft. Dorothy, tall and slight, has devoted her life to keeping John D. out of trouble and eating right; either task would qualify her for sainthood.

The first time John D. took Dorothy flying- in a Champ or Funk or maybe a 120 or similar old two-place, high wing taildragger- he landed in a meadow that proved to be a hair too short to allow the landing to terminate in what is normally considered a successful fashion. Before the plane could roll to a stop, it ran out of meadow, hit the hedgerow, and slowly, ever so slowly tipped up on its nose, then over onto its back. John D. and Dorothy are inverted, hanging by their seat belts. "Now, Dorothy," John D. intones, "I just re-covered that wing, so you take off your shoes before you step out on it."

A while ago, he and Dorothy moved out to a small airstrip with a big hangar at Pipe Creek, Texas. The hangar had to be big to house the collection aircraft parts, old vehicles, and miscellaneous junk that was the accumulation of years of acquisition from individuals and auctions. It has contained various 170s, an LBJ Cadillac, a Flying Flea, and God only knows what else. John could not resist an auction or a bargain. He once bought a backhoe and transported it to Pipe Creek. He had absolutely no idea what he was going to do with it, but it was a bargain. "Bill," he said to me, "you got a backhoe, you just can't let it sit, you got to dig a hole with it."

The idea for what kind of hole came from a pretty roundabout source. He had seen an ad for a tropical fish auction and was intrigued. "Bill," he said, "I had to go that darn auction just to see how they run them little fish around the auction ring."

The next thing Dorothy knew, she and John D. were the proud owners of several tropical fish, ensconced in a couple of huge fish tanks he had picked up a year or two earlier- you guessed it- at an auction. He had also heard about the extravagant Asian goldfish called koi, and knew that there was a lucrative market for them.

As one thing led to another, he decided to build a fish-pond, hence the use of the backhoe, etc. He had no idea what the dimensions of his pond should be, so he decided that generosity was the better part of valor and so dug a big one. A real big one. Almost 10 feet deep. Then he went out to buy a liner for it.

When he got over the shock of that purchase he decided that maybe instead of koi, a very expensive fish, he should lower his sights a bit and raise plain goldfish for a

while. When I saw the pond some months later he had trained the (by then) thousands of these little carp to respond to his call at feeding time when he would bang on the pool edger with a 2x4. John commented that he should cut his losses by giving the fish away since they seemingly bred faster than he could buy feed.

I noticed that the pond was edged by large, white, oblong, ceramic tile-like blocks that served the purpose of holding the edges of the liner in place. I commented on them to John D. who replied, "Bill, I got a couple of pallets of them things at auction a year or so ago. I got a bunch left over behind the hangar there, you can have as many as you want."

So I walked over behind the hangar and, sure enough, behind a stack of Edsel parts and a stabilizer from a Cub was a half pallet of the strange, large white tiles. I looked at them, and then I looked again as recognition began to dawn. They were toilet tank tops. The ultimate adaptive re-use.

There have never been luxurious times for John D. and Dorothy. Through thick and thin, he remained an optimist even at the worst of times and Dorothy has been there to support him or to jack him up depending on the need. Some



Above:
Association Co-Founders
Bill Wehner and John D.
at the Branson
Convention 2008
Duane Shockey Photo



Right: Cleo Bickford and
John D. Benham, Fort
Worth Convention 1972
Historian Files Photo

time ago, they inherited a hardscrabble piece of ranch in the Texas backcountry, a chunk so sparse that cattle get thin eating. So poor that, according to John D, the local choir had to bring in "a ton of commercial fertilizer before they could raise a tune." There was one little thing, though. There were gas leases. Suddenly, with the latest energy crisis, they have begun to pay off. ...Big.

So John D. and Dorothy could at last be living in hog heaven if they wanted. Instead they made a few changes in their lifestyle, choosing instead to support a number of worthwhile causes, including the 170 Scholarship Fund and several private scholarships; and they became leading supporters of my favorite cause, the First Aero Squadron Foundation.

I only hope that in whatever part of aviation heaven John D. has been assigned, there is an auction just around the corner.

In memory - Cleo M. Bickford

1924 - 2010



*Cleo and Louise Bickford, Branson Convention 2008
Duane Shockey Photo*

My Friend - Cleo Bickford

Steve Grimsley, Historian #3204 TX

It was in the spring of 1984 on a local flight in a Cessna 170 with pilot and work colleague Monte Mabry that I first met Cleo Bickford. We flew over to Dry Creek Airport in Monty's 1952 B model, N2723D. I didn't have a plane or my license at the time but I was interested in 170's and Monty was taking me to see two that were over at Dry Creek.

Cleo was out at the hangar and the 170's were his 53 N4620C and Pete Coffey's 48 rag wing N4019V. Cleo described the differences between the planes and answered what questions I had. A year later, with a private pilot license, a work promotion and bonus for relocating to Tyler, Texas, I was shopping for my own Cessna 170.

I phoned Cleo and he gave me a checklist of important items to consider in selecting a 170 for purchase. This gave me the confidence I needed to obtain the required information on the plane and negotiate acceptable terms before travelling to see the airplane I ended up buying. Cleo helped me early on in aviation and the advice was quite useful as the plane I obtained, N2717D, was a good airframe and I am still flying it.

I joined the Cessna 170 Association in May, 1985 becoming member #3204. My first 170 fly-in was at Hilltop Lakes on August 8th and Cleo and Louise were there. The following year our family flew to our first convention at Manassas, Virginia. Someone took a photo of Cleo and me, with thick large frame glasses, on the ground outside the Capital building. On the morning of the departure we took off just behind Cleo and Pete Coffey and flew as a group all the way to Knoxville, Tennessee before breaking up. This was my first cross country formation flight, a great experience for a low time pilot like me.

In the twenty seven years that I have known Cleo, I have lived away from Houston in Lafayette, Louisiana,



Louise, Cleo and N4620C, Hilltop Lakes, 1985

Historian Files Photo

Anchorage, Alaska, and Plano, Texas. Our time together was mostly during the annual conventions that Maria and I were able to attend. Especially memorable conventions in that period were Jennings 1991, the flight to Marion, Iowa in 1992, Roswell 1994, and Durango 1999. In 2003

I was transferred back to Houston permanently and my airplane took up residence at Dry Creek Airport. I began seeing Cleo nearly every weekend and, since Cleo's 170 was in major rebuild, he frequently flew in my airplane for local flights and to nearby fly-ins. We discussed and debated just nearly everything under the sun, worked on airplanes (mostly mine), and ate a mountain of hamburgers at the PO's grill.

Memories of Cleo are going to be with me as long as I have a mind that is fit for any service. I appreciated his time, advice, assistance, and the adventures. His war and peacetime military service for our nation is something for which all Americans owe a debt of gratitude.

Cleo's stories of his B-17 combat missions came to life for me, in a very small way, when I was able to take a 40 minute ride in a Flying Fortress in early 2010. I was able to talk to him about it and share some photos while he was in the hospital. Sitting in the radio operator's seat was very special.

Cleo now rests in section T-961 of the VA Memorial Cemetery in Houston. I pass by it every time I go out to my plane at Hooks Airport.

So long good friend, we had a grand time.



Cleo and Steve Grimsley, outside D.C., 1986

Historian Files Photo

Cleo Bickford

- An Appreciation

Bill Wehner C2 NM

Two key players in the founding of the 170 Club and its subsequent success died in the last several months. The first was John D. Benham of Pipe Creek TX, with whom I shared the honor of Club Founder. As John often pointed out, the two of us were the beneficiaries of circumstance, being at the right place at the right time. We were delighted to take whatever credit folks wanted to toss at us, but we both knew that from the beginning, the real credit belonged to those who hammered out what was to be the structure of the International Cessna One-Seventy Association in those unending sessions at Wichita in 1969.

That is not to take any credit from John D. - he was first to conceive the idea of assembling information on the 170 and the owners of that classic airplane; and he readily agreed with whomever it was that first suggested to him that he combine his efforts with my feeble attempts at establishing a co-operative purchasing organization.

The real story coming out of that Wichita meeting is how Cleo Bickford, along with his informal By-Laws and Constitution Committee, worked out the rules by which this organization has since thrived. It has been my observation that every organization I have been close to has had a period following inception where it struggled to find itself. While we had seemingly hairy problems to deal with in the early years, the actual strength and purpose of the Club was never in doubt because of the groundwork done by Cleo and company in 1969.

Parenthetically, no lesser light than Paul Poberezny cast doubt on the future of our fledgling group if we elected to stay outside the protective wing of the EAA. Sorry, Paul.

Cleo M. Bickford allowed himself to be elected third president of the organization and served in 1972 and 73. He served as Historian for more years than even he cared to remember and in 1984 produced almost single-handedly the third edition of The One-Seventy Book, a feat that has not been attempted since. Through the years Cleo's steadying hand has been an important presence on the Board of Directors. He edited the One-Seventy News for several years and he was the Chair of the Editorial Committee until his death. Cleo once told me that his attitude toward that committee was "if it wasn't broke, leave it alone," so he never called a committee meeting. One proud accomplishment was his attendance at 42 consecutive conventions of The International Cessna One-Seventy Association.

The Cleo Bickford we knew was married to the lovely Louise and the two of them had a slew of boys. While he didn't suffer fools gladly, he always was willing to "consider the source." His mind was crammed with technical data on the 170, and over the years he must have regularly despaired when



Bill and Cleo, Branson Convention 2008

Duane Shockey Photo

considering the antics of tire-kickers like me. We will seriously miss him - as both a friend and as a real mainstay of the Association.

Lesser known was Cleo's service as a radio operator onboard B-17s operating from WWII England, or his crucial role in developing the high-performance Aries 250 (later Bellanca) for the Anderson-Greenwood Company, for whom, incidentally, he held several patents. Bickford was responsible for taking the Aries through certification and production. He retired from the Texas Air National Guard with the rank of Major.

One of my treasured possessions is a cartoon by Cleo showing me with a 170 tucked under my arm (see p.18 in the 1984 edition of The 170 Book). That sketch would have been much closer to the facts had it also shown Cleo shouldering, a la Atlas, me and John D. and the 170.



Cleo's art appeared throughout the Association's publications. The sample above was on the back cover of the Association's newsletter, Vol. II, No. 2 dated Nov-Dec, 1970. This drawing depicted Cleo's response to John D.'s airplane's climb performance.

Note the large flaps at 60 degrees, something Cleo, an A model pilot might not have been accustomed to. Or maybe John D. had included an L-19 flap position, we probably will never know.

Cleo also designed the Association logo on the left which we found in an early newsletter. It was not too many years ago he redrew the airplane to be a closer representation of a 170 which is the version we use today.



170 Fly-Ins

Nylstroom, South Africa

Karl Jensen #6461 South Africa



170B 55 ZUVAL 26959

The last weekend of November 2010, in conjunction with the EAA Chapter 322, we held a taildragger fly-in at a little town, Nylstroom, about 100 miles to the north of Johannesburg, South Africa. Nylstroom literally means Nile Stream.

When a breakaway group of pioneers known as the Voortrekkers refused to be governed by the British colonial masters in the Cape of Good Hope about 200 years ago, they departed by ox wagons into the wild interior to put as much real estate as possible between themselves and the British.



Progress of the engine upgrade

It took them several years to reach the Nylstroom area and as you can imagine, with no means of position fixing, they incorrectly determined that they were somewhere near the source of the river Nile which flows through Egypt about 3000 miles to the north. There are also triangular granite hills in the area which are called Pyramids.

About 15 of us flew in to the 1200m tarred strip that Friday afternoon and were accommodated by one of our EAA pals, Richard Nicholson, who lives in the area on his

(Continued on page 27)

Artesia, New Mexico

The New Mexico Cessna 170 Fly-In was held on November 6 at the Artesia, NM airport. The New Mexico Pilots Association and EAA 179 groups were also invited. This fly-in was held at the same time as the monthly Artesia Pilots gathering and coincidentally the Artesia Blue Grass Festival, Hot Air Balloon Rally (with 18 balloons) and Rib cooking contest with wine sampling at the Cottonwood Winery.

Hosts Lyn and Tom Benedict invited Becky and I to fly out to their home on Friday, spend the weekend and attend the festivities. Those of you who have had the good luck to spend any time with the Benedicts know what gracious hosts they are. We have been fortunate to spend many such visits with them over the years.

Lyn prepared the goodies for breakfast and drove them to the Artesia Airport early on Saturday morning. Tom, son Larry, grandson Baxter, Becky and I flew our 3 planes down at first light. Larry's wife Beth drove down also. There were 27 planes, 2 dogs and 9 C-170 members present. Seventy-five plus folks registered for the tasty breakfast, then a paper airplane contest was held. Our own Tom Benedict won the Geezer award (Tom sure has

Frank Stephenson #4076 TX



170B 55 N3582C Larry Benedict #7268 NM

the art perfected for long distance paper airplanes!). 170 member Tom Wadsworth (another lucky "straight tail" 170C owner) won the Top Gun Hot Shot award and attendee Sidney Lowinski won the Fledgling class award.

(Continued on page 26)

The First Time I Met John D. and Cleo

By Bobby Jack Woolley #1262 WA

The summer following the purchase of my 1952 170B, I flew to the Gaston Fly-In as my initial Association event. I met a number of individuals at the two-day event, but I specifically remember only four; John D. Benham, Cleo Bickford, Marvin Nichols and Ovid Bonham. This memory is specific because I encountered the four of them together, and asked a couple of engaging questions. I was seeking their collective advice concerning a circumstance that had occurred the previous November.

I had spent the first winter of ownership in the Chicago area, which was also my first in the mid-west. I knew that I would be making numerous trips between northern Illinois and southeast Texas. I suspected that Marvin and Ovid had ample mid-west winter experience, and I wanted to know more about winter flying considerations that could be pertinent to the memorable experience that I had encountered the previous winter. The main inquiry concerned using HEET as an additive in the 170's fuel tanks. None had used the product in their aircraft, but each thought that the described scenario was intriguing.

Both Marvin and Ovid related their respect for changing

winter conditions, and indicated that most mid-west winter frontal activities were usually forecasted. They encouraged maintaining contact with appropriate FSS to remain aware of conditions for flights through any frontal activity. John D. and Cleo commented on the strong and fast moving thunderstorm activity that could be encountered in Texas.

I remember that collectively, both strongly suggested that it was foolish to race an approaching squall line to a landing at a specific airport. Their advice was that it was a much better choice to land early to secure a good tie-down before the changing weather arrived, and then continue the trip after the weather cleared.

The accompanying article is submitted as a remembrance of the first time I engaged with John D. and Cleo, plus two of their flying friends. The scenario is what was presented verbally to them at the 1976 Gaston Fly-in.

I hope that the caution is appreciated by current members, as much as the cautions that were provided over 35 years ago, by four of the 170 Association's most respected members.

Cold, Cold Departures

By Bobby Jack Woolley #1262 WA

The first winter season, following the purchase of my 170B in 1975, provided a valued lesson learned regarding unexpected circumstances.

I was assigned to Ft Sheridan, IL and based my aircraft at Waukegan, IL with an outdoor tie-down. Anxious to make a long cross-country trip, we planned a flying visit to our families in Southeast Texas. The Thanksgiving holidays provided for one day of travel, three days of visiting, and then return on the fifth day.

The season's first winter snow storm was brewing the weekend prior to our Wednesday departure. The airport had a heated hangar available to those that planned early morning departures, and space was reserved for Tuesday night, and weather permitting, an eight o'clock morning departure was planned. It had snowed Sunday, Monday and much of the day on Tuesday. The 170 was put away out of the snow at noon on Tuesday, with the fixed-based operator indicating that the hangar's heater was not fully operational, but a heating blanket was available for the cowl. Due to gross weight considerations for the flight, the aircraft had been fueled with only 15 gallons in each tank.

Wednesday dawned with a cold clear sky with the wind out of the north at 6 knots and temperature in the low-20s. The weather system had moved southward with conditions dissipating to scattered snow showers forecasted with ceilings at 2000' and visibility at 4-6 miles; and with ground temperatures at or below freezing until south of the Springfield, IL area.

Fuel stops were planned at Carbondale, IL and El Dorado, AR for the eight hour trip prior to a final landing at Beaumont-Port Arthur before dark. The 8:00 departure was delayed until the 9:00 weather reports could be reviewed. The aircraft was moved out of the thawing hangar, and started, in order to warm the engine. While

waiting for the updated weather, I decided to top off the fuel with another five gallons per tank to ensure additional fuel would be available if snow showers had to be skirted at the lower cruise altitudes. I had a yellow bottle of HEET in the aircraft and decided to put half of it in each tank prior to adding the extra fuel.

The later weather was reviewed and conditions were as forecasted, with ground temperatures being at 30-32 degrees until after 10:00 north of a line between Peoria and Indianapolis. We could have waited another hour, but a 9:30 departure was decided to allow us to be on our way to Texas for the first of many times in the 170B.

The engine was still warm, but the other surfaces were cold, cold. I checked the fuel and drained the tanks; over a half-of-a-quart of purple fluid was drained from both fuel tanks; that caused a pause, and then a recheck. The second samples indicated that only fuel drained from the tanks. Two other aircraft had also been fueled, and they were doubled checked for water being in the fuel tanks. None was present.

The conclusion, the 170 had been out in the cold weather and the fuel tanks were not full when the aircraft was put in the hangar on Tuesday. The cold conditions allowed condensation to form and freeze, and the change of conditions inside of the hangar caused more condensation to be formed, which also froze. When the tanks were drained before the first start, some water drained, but frozen condensation remained on the inside surfaces of the metal fuel tanks. The HEET had done its job during the delay by causing the remaining water to be collected as purple fluid that drained during the before-departure check.

A north takeoff with a right downwind departure was

(Continued on page 25)

2011 San Diego Convention

Duane Shockey, San Diego Convention Host

On page two of the September Flypaper is an article explaining a bit about the planning for the upcoming convention. I will have a complete schedule of events and cost for those events displayed on a "registration form" in the March Flypaper. By the time you receive this issue, the information and registration forms will also be available on our website. I have done my best to keep your expenditures for the events as low as I can.

I would very much appreciate early registration payments. To contract for the hotel I have already been required to make a January deposit. Contracting the buses will require deposits also. To get group rates and tickets to the events ahead of time will also require me to expend funds. It is a big help to a convention host to have early head counts for the planned activities.

At this time I have 60 hotel rooms blocked. More rooms can be blocked if our group registers early, as long as rooms are still available.

Please register for your hotel room early, and register with me for the convention as early as you can after receiving the March Flypaper. These ARE separate dealings.

CONVENTION HOTEL: Four Points Hotel (by Sheraton) 8110 Aero Dr., San Diego, CA 92123. Reservations: Call (800) 992-1441, request IN HOUSE reservations and mention The International Cessna 170 Association.

HOST AIRPORT: Montgomery Field (MYF) which is a city airport. The hotel is 1/3 mile from the airplane tiedown area. Vans will shuttle from the planes to the hotel. Aircraft parking will be in different areas of the airport. Those arriving first may want to park at Gibbs Flying Service. Mr. Gibbs is not going to charge for parking as long as you buy fuel there. Please come to that location NEEDING fuel. Others will be able to park at the transient area in front of the Administration/restaurant building. The fee there will be \$5 per night. Sorry, I couldn't get a discount from them. You may be there a



Coronado Bridge connecting San Diego and Coronado, California. Construction on the 2.1 mile bridge began in 1967. The span reaches 200 feet which allows U.S. Navy ships from the nearby San Diego Naval Station to pass underneath it.

day or so and then be able to move over to the Gibbs area. So, don't fuel up at the city pumps causing your plane to be full should you get the chance to park at Gibbs. There may be a couple other areas where I can find tiedowns at a lower rate, out in the dirt, if you have your own tiedowns (hard dirt, rocks, and decomposed granite, typical California).

ROOM RATES: Single or double \$109. Each person additional, age 12 and over will be \$15 additional per day. Taxes to be added.

The cutoff date for accepting reservations at the quoted rate is May 10, 2011 at 5 PM. After that time the prevailing rates will apply based on room availability. Be sure to explain that you are with the Cessna 170 group. We have 60 rooms blocked at this time. If our group books all these rooms early enough, we can block more rooms. Our special room rate is honored 2 days before and 2 days after the convention dates of July 10th through the 15th.

CAMPING: Sorry to say, there is no camping at the airport. For RVs, Campland by The Bay is approximately 5 miles from the airport. They do not accept Saturday arrivals. Phone: (858) 581-4200. Email: lorih@campland.com or Fax (858) 581-4207. I'm sure other RV parks are in your guide books.

ACTIVITIES: I am only mentioning here some of the activities that I am scheduling. There are many other things to do here in San Diego. As you will see, I am trying to have good activities for the children also.

Vans to the beach, vans to shopping areas, tour the USS Midway-plus 5 other vessels, USS Dolphin sub, Russian sub, steam ferry Berkeley, racing yacht "America," Star of India (tall sail ship), Reuben H. Fleet ImaX/Science Center (hands on museum that is fantastic), Balboa Zoo, Air & Space Museum, kids fun center and pizza blast, kids to Chuck E Cheese's. The fun will begin with a welcome party on Sunday evening July 10th and we're planning a fun week of activities.



USS Midway (CV-41) Naval Aircraft Carrier Museum

*See you
July 11-15
in San Diego*

February 2011

Hangar-Ads

Ads are for members only and are free (except for items that are not 170-related there's a \$5 charge per ad).

No business ads are accepted. Ads will be run one time unless notified to place again by the next deadline.

Prices must be included in ads and ads must be in writing. Ads will be edited as space is limited. Mail, fax or email ads to the Executive Secretary. Please put "Flypaper Ad" in the subject and list your member number.

WANTED: Wheel fairing mounting plates for old style wheel pants. In 170A parts catalog the left plate # is 044143-8 and 0441143-9 is the right. Could get by with just right but would like a set. Greg Bach (307) 277-0156 greg.bach@c-a-m.com

WANTED: Looking for a partner in a 170B in the Bozeman, MT area. Aircraft is in excellent shape and partnership is \$35,000. Please contact Jack Hart (805) 276-0285.

FOR SALE: C170 gear legs off of 170B. \$600 FOB Ketchikan, AK. Contact Jeff (907) 321-9800 (evenings/weekends Alaska time) or email at ak.sky-mule@gmail.com

FOR SALE: 1952 170B TTAF 3313 TTE 2349 TSMOH 10 hr., Cont. 0-300-A, new cylinders, new tires, Feb. 2010 annual, King 170 radio, King KT-78 transponder, Scott tailwheel, polished aluminum with red trim. Always hangared, complete logs. Owned since 1968. Price reduced to \$47,000. Selling due to health. Call Phil (308) 287-2413 or email at pncole@atcjet.net. Pictures on web. Will sell with fresh annual.

FOR SALE: 1950 170A N179TP 19609 TTAF 2270. Last annual 9-13-10 Comp # 76, 74, 75, 77, 77, 78. Continental 0-300 145 hp w/Millennium cylinders, 495 SMOH to 00 hrs, McCauley propeller (overhauled 6-99), Alternator w/Jasco voltage controller, oil filter, KMA 24 audio panel, 2-KX 155 Bendix/King NAV/Com, Bendix King head w/slideslope, Bendix/King Head w/VOR, NARKO at 150 Transponder, Astro Tech LC-2 Quartz Chronometer, Sporty's Electric altitude indicator, Electronics International EGT/CHT digital display, Garmin 495 Yoke hook up. Avionics Master Switch, Scott tailwheel, Rosen Sun Visors, PS Engineering PM 1000 II 4 PI Intercom w/music input, Left and right PTT, automatic locking seats, Droop tip wings STOL kit. Complete log books, new paint (2/04), new interior, all pulleys and cables replaced (2/04), brake pads and hoses replaced (2/04), all AD's complied with, meticulously maintained, always hangared, flown regularly, storm damage from flying glass in hangar (7/03). \$55,000. Rudolph Pena (361) 576-5526 or cell (361) 212-6303.

FOR SALE: 1955 170B, TT 4075, Time since restoration 322.13, Lyc 0-360, 941 STOH, 322.13 on new Hartzel prop w Dynamic damper, fresh annual on sale, KX 155 #1 nav w/glide scope, Garmin S Model 330 Transponder, Garmin 496 GPS w TIS, KX 155 # 2 Nav, PS Engineering PMA 6000 audio Pan, ELT AKC E-01, Alt. encoder Narco, Davtron M655, alt. vac sys., pulse lights w lights in right wing, P Ponk gear mod, solid axles, Cleveland brakes, factory wheel pants, BAS Tail pulls, new upholstery, baggage door, Sportsman STOL, Flint Tanks total fuel 61, Rosen Sun Visors, Inst. Lighting Fiber optics, LED panel lighting, All new wiring appvd, flap gap seals, all gap seals. New paint \$12,000 Jet Glow, pitot heat, BAS shoulder harness and seat belts. \$85,000 Call Dick (619) 322-0334 dnjclub@cox.net.

FOR SALE: 1953 170B TTAF 2875. Lycoming 03-360 SMOH 480. Hartzell CS prop, Sky-tec Fly Weight Starter, Custom Panel KX170B#1 NAV, GS KX155#2 NAV/ GS ADF XPDR Mode C Elect T/B, New wiring ECG-CHT, Fuel PG, wing tip strobe lights, Sportsman STOL, Solid axels, 8.00 tires, Cleveland wheels and brakes, Factory fenders, Scott 3200 w/tail pull, One piece windshield, Rosen Sun Visors, 4 way intercom 8 in/out, Owned since 1976. Pictures available. \$68,000. Jim (480) 671-2866 jkindt@telus.net.

WANTED: For 1953 170B S/N 25582, Nose Cap Assembly, Upper Cowl. Part No. 059-5000-3, with clips, etc., if possible. Has to be in like-new condition, aluminum. Please call Ed Cassagneres at (202) 272-2127.

FOR SALE: 1953 170B TTAF 4505 SMOH 275 STOH 160. Reiff engine heater, engine driven vacuum pump, C180 landing gear, 7x6 tires, air oil separator, 0-300 D engine, Spin On oil filter, BAS shoulder/seat belt system, Terra TXN920 NavCom, Terra TRT250 XPDR, Garmin 100 GPS, King KR 86 ADF. Annual February 2011. Hangared at Vance Brand Airport, Longmont, CO. A piece of aviation history yours for only \$39,500. Richard Compton (303) 564-3038.

FOR SALE: 1954 170B N2704C TTAF 2150 SMOH 470 \$42,00 Firm. KT76A transponder and encoder, Cleveland brakes, intercom KX170B with localizer head. KR86ADF. Original wheel pants, late gear legs and solid axles, 35A generator, oil filter, auto fuel STC. Good paint and glass, Airtex interior, shoulder harness, Aeroflash wingtip strobes. Scott 3200 tailwheel, BAS tail pull handles, vacuum pump and brackets, etc., but no crankshaft pulley. Emery (207) 696-4250.

FOR SALE: 1953 170B N4556C SN #25500. Continental 0300A, 78 SMOH DM7656 McCauley Propeller, King KX 170B Nav Com, Narco AT 150 transponder, USSA engine analyzer. AN 501 Intercom. \$32,000. D. Benham (830) 535-4884.

Fly-Ins

March

MARCH 12 TX College Station

Easterwood Field (CLL) N30-35.31; W096-21.83. This fly in will be the first for CLL. Meet at the airport at 11 AM. ATIS is 126.85; Tower, 118.5; Ground, 128.7 and unicom 122.95. We need to beat the lunch crowd so we will need to be at Jose's, 3824 So. Texas Avenue, at 11:30. Spring break is just starting, so there shouldn't be too much competition.

Louise Bickford (281) 373-0700 or clebco1@juno.com

June

June 18 AK 5th Annual Summer Solstice Fly-in at 8 Mile Strip

Low pass inspection of gravel runway recommended prior to landing. CTAF 122.9. Meat and drinks provided. Please bring a side dish or dessert and folding chairs. Will eat a 1:00PM. For more information contact: Russell Smoot (970) 696-0906 or Wally Parks (907) 688-0137. Blue Skies and Fly Safe!

July

July 8 NM Artesia, "A Whoop Tee Do" Stop Over for those on the way to the San Diego Convention!!!!

Blocked 20 rooms for C170 Members at the Best Western Inn (800) 67607481 at \$98.71/night (tax included), 2 queen (1 to 4 people) per room. Free full breakfast. Discount on aviation fuel!!! On Friday night "Whoop Tee Do Feed" at new member Stephen Brinderio's home. Transportation to get to the motel and the feed will be provided. Please RVSP Tom or Lyn Benedict (575) 622-3458 so we will have plenty of food, transportation and rooms.

July 10-15 CA San Diego Convention

Welcome party Sunday evening July 10th with convention activities and meetings July 10-15. See details on page 10 off this issue and check out the association web page, www.cessna170.org, for more information and the registration form.

Just Ask

Question: The FAA said my fuel tank fillers were required to have placards that stated the tank capacity and minimum usable fuel grade. My plane is currently in annual inspection and I mentioned this to my mechanic. He said this placard was not in the Cessna 170 TDCS A-799 rev 54, but it is in the TDCS for the 172. Is there some later FAA regulation that requires these placards on 170 fuel tanks? If so, do we have any specs for the placard, location, size, etc? Can it be on the fuel caps instead of the wing?

Answer: The rules change over the years, but the rule applicable to YOUR aircraft are found in CAR 3, specifically 3.767 copied below for you. Later rules required such limitations to be included in the AFM, but that specific wording did not appear in CAR 3 dated 1950. It was added later, but is applicable to your aircraft because it did not provide any "grandfather" exclusions.

Notice your aircraft does not have to say "AVGAS" because that term did not exist at the time. So your placard would say "Fuel - 21 U.S. Gallons, Min. Octane 80/87" on two lines adjacent to the cap. The B-model IPC shows this on pg. 100, but the A-IPC does not.

Mine is painted in the same RED as my aircraft. (Mine also has the auto gas STC so it supercedes the OEM placard and is so worded according to the EAA (public domain) placard.

George Horn, Parts/Maintenance Advisor

3.767 Fuel, oil, and coolant filler openings. The following information shall be marked on or adjacent to the filler cover in each case:

(a) The word "fuel," the minimum permissible fuel octane number for the engines installed, and the usable fuel tank capacity. (See § 3.437.)

(b) The word "oil" and the oil tank capacity.

(c) The name of the proper coolant fluid and the capacity of the coolant system.

The MODERN rule is:

FAR 23.1557 Miscellaneous markings and placards.

(c) Fuel, oil, and coolant filler openings. The following apply:

(1) Fuel filler openings must be marked at or near the filler cover with-

(i) For reciprocating engine-powered airplanes-

(A) The word "Avgas"; and

(B) The minimum fuel grade.

Obviously, if the aircraft has been approved via STC for any other fuel, the placard should comply with the STC requirements, which may completely alter the placard.



Off Airways

by Bill Wehner #C2 NM

Homeland Security

Mary and I were just about to step out the door the other morning, on our way for more doctoring in El Paso, when the phone rang. For some reason, I am constitutionally incapable of walking away from a ringing phone, so I picked it up. The conversation went something like this.

"Mr. Wehner? This is Refek Fremish (or something like that) of Homeland Security. We have reports of a low flying light plane in the border crossing area. Do you know anything about that?"

"Our buddy Ricardo must be back in town," I thought. "No," I said with as much certainty as I could muster under the circumstances. "Do you have a description of the plane?"

"Yes sir. It is all red and may be a tailwheel type. He has been flying very low over the Customs Station and the border itself."

A red taildragger would mean Ron, but he's not going to buzz anyone, anywhere. "Doesn't sound like anyone I know." If it were tri-gear I would be absolutely sure of who it is.

Then I had a stroke of brilliance - "You know," I said, "there is an airfield just west of the Customs Shed.

Look on the chart; it's not used very much because it is in such awful shape, but he could be shooting approaches..." *Richard*, I thought, *if you are the guy, I swear I'll never make excuses for you again...*

As it turned out, the pilot in question was Richard who was simply taking a couple of young girls for a ride, showing them a close-up of the infamous fence, and doing some low level observation of the Border Patrol at work. The BP dropped by to chat with him as he landed. He introduced the girls (who then had their pictures taken in the cage) and passed the time of day with the officers. I couldn't help but think that had it been I doing the "low level observation" I would be writing this from a Federal Guest House...

Life in the Fast Lane

Although it is not due for publication until March, my entry to the field of fiction has already produced some interesting results. The book, *Tracking Julie Stensvahl* (oh shameless commercialism) is an adventure novel set here on the border, and, frankly, making free use of friends and neighbors as models for a few of the characters. Here's where the Law of Unintended Consequences comes

in to play: already I am being introduced as "a writer" and the other night I heard a neighbor mutter to a friend, "Be careful or he'll put you in his next book..." I like that. I never before realized that particular power of the pen. Hmmm...

I have been asked if it is an aviation novel. No, although there are a few elements of flying involved in it. Most of the novel takes place in a New Mexico Wilderness, of which, I might add, we have a great deal.

The Founders Award

Dorothy Benham and I have been chatting via snail mail (remember that?) and have determined that we will continue with the Founders Award, the means John D. and I used each year to recognize those 170 people who had contributed their efforts to the benefit of the 170 Club behind the scenes. We have asked several members to serve on a committee that will seek out possible recipients and make the awards in memory of John D. We are waiting for answers as I write this (mid-January); if you and/or your spouse would like to be a part of this, give me a holler at wehner@vtc.net.

As Bob and Ray used to say, write if you get work...

Special Airworthiness - Information Bulletin CE 10-33

Due to continued carbon monoxide safety issues in the general aviation fleet, the Federal Aviation Administration asked Wichita State University to do a study on carbon monoxide safety issues as they apply to the fleet. The FAA released SAIB CE10-33 is the result of the study which recommends that you do the following:

1. Replace the mufflers on reciprocating engine-powered airplanes with more than 1,000 hours on the muffler and at each 1,000-hour interval, unless the

manufacturer recommends or FAA regulations require a more frequent replacement schedule.

2. Review and continue to follow the guidance for exhaust system inspections and maintenance in SAIB CE-04-22, dated December 17, 2003, and Aviation Maintenance Alert (AMA), All Powered Models, Carbon Monoxide Poisoning Potential, October 2006 issue of Advisory Circular 43-16A.

3. Use CO detectors while operating your aircraft as recommended by SAIB CE-10-19R1,

dated March 17, 2010.

4. Continue to inspect the complete engine exhaust system during 100-hour/annual inspections and at inspection intervals recommended by the aircraft and engine manufacturers in accordance with their instructions in applicable maintenance manuals.

The full SAIB CE 10-33 as well as all other SAIBs may be found by clicking the appropriate link found online at:

<http://www.faa.gov/aircraft/safety/alerts/saib/>.

Possible Cause: Fuel Selector Valve

George Horn, Parts/Maintenance Advisor

On January 9, 2009, at 0600 central standard time, a Cessna ... was substantially damaged while maneuvering ... The certified private pilot was killed.

So begins the National Transportation Safety Board investigation of a fatal accident that may affect us all... an improperly repaired fuel selector valve.

The "probable cause" has not yet been published...but the report's final paragraphs may give us an important clue that DOES AFFECT US ALL.

From the NTSB report:

"The **illustrated parts manual** (sic) (IPC) incorrectly depicts the o-ring installed ahead of the retainer. To correctly assemble the valve, the retainer should be installed ahead of the o-ring. The o-ring found in the valve body was examined under stereo microscope and no discernible wear was observed. The condition of the valve's internal components and the loose o-ring found within the valve body did not provide adequate information to establish whether or not the valve was functioning properly prior to the accident."

Firstly, the NTSB makes an error...one of many...in referring to the IPC as a "manual". It is not. It is a **CATALOG**...for the purpose of ordering PARTS...not for the purpose of performing repairs or assembly.

What's more ...that is NOT the ONLY ERROR in the **IPC**! And indications are that some of our Owner/Members have, perhaps unwittingly, discovered their valves

(Continued on page 15)

106

Cessna

* MODEL 170B

ILLUSTRATED PARTS CATALOG

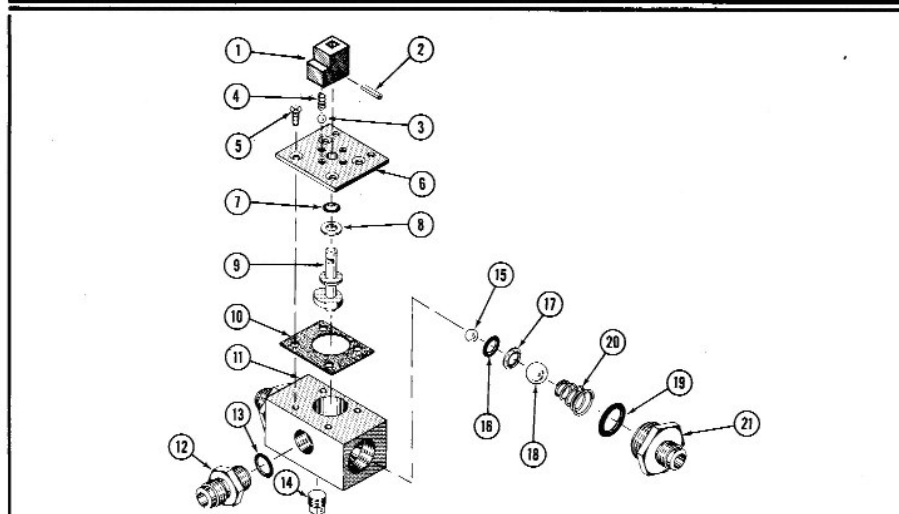


FIGURE 64. FUEL SELECTOR VALVE ASSEMBLY

FIGURE AND INDEX NO.	PARTS NUMBER	DESCRIPTION	UNITS PER ASS'Y
04-	Deleted	Valve Assembly - Fuel tank selector (see figure 63 for NHA)	Ref
-1	Deleted		
-2	0513124-2	Housing - Positioning ball & spring	1
-3	52-028-125-0500	Rollpin - Esna (Elastic Stop Nut Corp)	1
-4	S-272-207	Ball - Fuel valve	1
-5	0513120-1	Spring - Fuel valve	1
-6	AN507-832-6	Screw - (Attach cover)	4
-7	0513122	Cover - Fuel valve	1
-8	AF934-5	O-Ring - Fuel valve	1
-9	AN960C416L	Washer	1
-10	0513123	Cam - Fuel valve	1
-11	0513125	Gasket - Fuel valve cover	1
-12	0513121	Body - Fuel valve	1
-13	0513126	Nipple - Fuel valve	1
-14	AF934-9	O-Ring - Fuel valve	1
-15	AN913-1D	Plug - Fuel valve	1
-16	S-272-209	Ball - Fuel valve	2
-17	AF934-7	O-Ring - Fuel valve	2
-18	0513120-4	Retainer - Fuel valve	2
-19	S-272-215	Ball - Fuel valve	2
-20	AF934-14	O-Ring - Fuel valve	2
-21	0513120-2	Spring - Fuel valve	2
	0513120-3	Nipple - Spring retainer	2

NOTE: When ordering 0513120-5 for serials 20267 thru 25741, check that shaft assembly 0511157-14 (item 28, figure 63) is in airplane, if not this part must also be ordered.

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

(Continued from page 14)

to be improperly assembled...and subsequently re-assembled them...ERRONEOUSLY. I believe there's a good chance that many of these valves in currently-flying airplanes are questionable. This article will explain how/why, and also suggests an ad hoc method of testing which MAY give an indication of the condition of YOUR valve. YOU must decide if such a test is satisfactory for your purposes or not. But at least be informed of the potential problem.

This topic was first brought to my attention at the discussion-forums (<http://www.cessna170.org/forums>) in "The Hangar" by a thread begun by Bruce Fenstermacher, who discovered an error in the **IPC** for the B-model fuel selector valve, Fig. 64, page 106. (See Fig. 64 on page 14)

Note on Applicability: This selector valve is common to all C-170 models subsequent to SN 20267 (most B-models, as well as some earlier models which have been converted from their original brass "Weatherhead" valves.)

CAUTION: If your airplane has the earlier valve (this would be original to all ragwings and A-models and the earliest B-models prior to SN 20267) and if you experience rough or hard operation or leaking of your valve...DO NOT FORCE or continue to operate your valve unnecessarily or it will likely be damaged, perhaps beyond repair. It should be removed, inspected, cleaned, resealed and lubricated, and reinstalled. If you damage your valve, you may find a new replacement from Univair, who was the last known supplier. It is not cheap. The alternative is an expensive Cessna modification kit which changes the valve to the later type. It is even less cheap. Take care of your fuel selector valves. Early removal, inspection, repair is the smart thing to do. Don't wait until this thing fails on you. Do it early and it will likely last ten years or so. Use of auto fuel will accelerate failures of these valves.

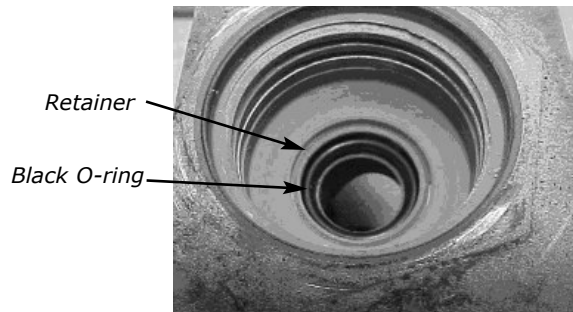
FIRST PROBLEM: In this illustration (Fig. 64, page 106 of the B model IPC), an error exists in that the O-ring (item 16) is shown on the WRONG SIDE of the Retainer (item 17). This is the error noted in the NTSB report, and frankly, it would be difficult to assemble the valve in this sequence/order due to the fact that the Retainer (a fragile metal-ring which SHOULD NOT normally BE REMOVED during valve-repair) provides a residence for the O-ring which is replaceable and serves to provide a seal against which the check-ball (item 18) rests when that side of the valve is selected to be OFF.

If someone were able to incorrectly assemble the valve as erroneously depicted, the valve would doubtless have a nasty leak and fuel could not be completely shut-off.

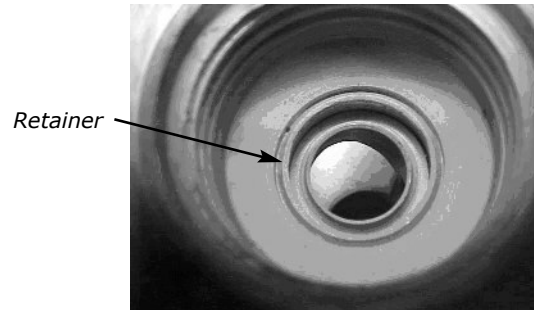
CORRECTIVE ACTION: Make a notation in your IPC that the O-ring (item 16) should be BETWEEN the Retainer (item 17) and the "check ball" (item 18).

When repairing your valve be very careful **not to disturb the Retainer** (item 17) while removing the O-ring (item 16). Using a dental pick or other tool, PLUCK the O-ring from its seat within the Retainer. **Do NOT remove the retainer.**

When installing the NEW O-ring, use a drop of clean engine oil or Dow Corning DC-4 on your fingers to insert



O-ring within Retainer



Retainer with O-ring removed

the O-ring into the valve-body, then it will "expand" to fill its new home within the retainer's groove, where it lives.

SECOND PROBLEM: The IPC makes another error which may also have existed in the accident airplane - and WHICH I KNOW TO HAVE EXISTED in my fuel valve and several others. Compare the previous illustration Fig.64 with the "Cessna 100 Series Service Manual, 1962 and Prior" illustration Fig 13-9, Page 13-7 (and reprinted in this issue on page 16), of the same valve. The valve in the upper-left corner of this illustration, labeled "C-172 and C-175" is the same valve in question.

NOTICE ITEM 22 "BUSHING" which is completely missing in the B model IPC Fig. 64.

I strongly suspect that Bushing is the second "washer" the NTSB found ABOVE the "Cam", between the Cam and the "Cover" (item 7).

The NTSB found actuation-balls loose within the valve body. This would prevent the flow of fuel. But they made their statement with errors.

Here's the pertinent text from the NTSB investigation:

Disassembly of the valve revealed that the actuating balls were riding high on the cam, ...which prevented the valve from opening.

UNFORTUNATELY... the NTSB next makes a blatant mis-statement or outright error, when they write:

"The upper portion of the valve prevents the actuation balls from riding up on the cam."

THIS STATEMENT IS IN-CORRECT!

The upper portion of the valve (mainly the "cover") does not prevent the balls from riding up. It prevents the CAM from riding up and releasing the actuating (operation) balls from coming loose and dropping into the valve body. In fact, if the NTSB statement were believed...that might encourage an assembler to install more washers on TOP of

(Continued on page 17)

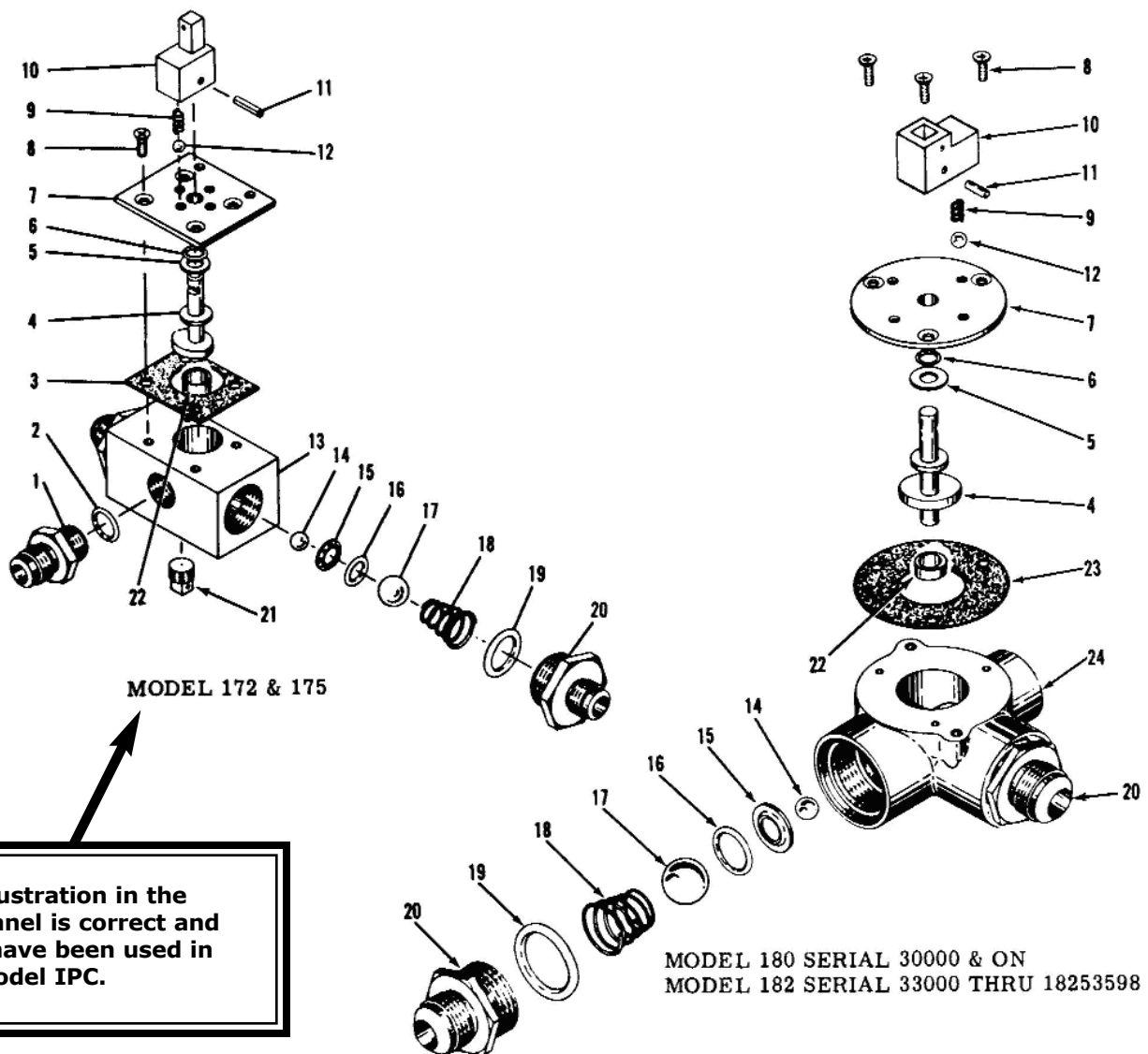


Figure 13-9. Fuel Selector Valve Details (Sheet 1)

Fuel Selector Valve

(Continued from page 15)

the Cam leading to the serious matter I describe next.

In fact, it is the bushing, which if properly placed **BELOW** the Cam that will prevent the balls from riding up on the Cam.

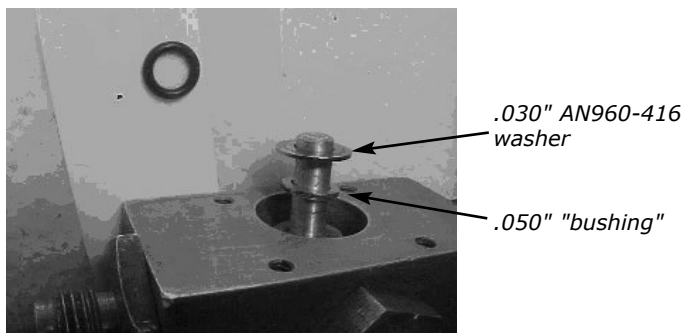
IMPORTANT: The PURPOSE of that Cam is to operate the small "operation balls" (item 14 in this illustration, but item 15 in the IPC) by pressing a Cam-lobe against the operation-ball, which in-turn un-seats the larger check-ball (item 17 in this illustration, but item 18 in the IPC) thereby allowing fuel to flow from the tank into the valve-body.

If that bushing is **improperly** placed on TOP of the Cam (as several valves have been found) then the Cam may not fully engage the operation-balls. In fact, the Cam, not supported by the bushing, may be too LOW in the valve-body and allow the operation-balls to FALL INTO the valve-body cavity...SHUTTING OFF THE FUEL when the check-balls close! The NTSB report indicates such to be the case in the accident aircraft...**but they missed how common this may be out here in the field!**

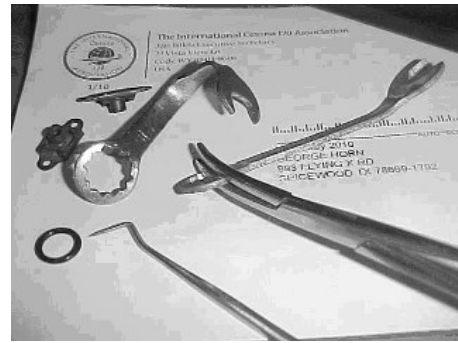
This may be a common error due to the IPC illustration errors which may mislead fuel selector valve repairs. (When the valve is re-assembled, an appearance of excessive clearance between the cover-plate and the top of the Cam will lead the assembly-person to believe the top O-ring (item 6 in the Service Manual, but item 7 in the IPC) may fall too low into the body and subsequently fail to seal. This mistaken belief is likely reinforced by the most common failure of these valves....a leak at that top O-ring!) Such a mistaken belief may lead the assembler to place the two "washers" he/she found within the body on top of the Cam....not realizing that one of the "washers" is actually a BUSHING and belongs **BENEATH** the Cam, as shown in the Service Manual illustration Fig. 13-9.

Here's how I found my valve - with two "washers" beneath the cover. I believe this common error is made in a mistaken effort to prevent the camshaft's downwardly-available movement (due to failure to install bushing beneath Cam) from allowing the top O-ring to slip below its proper location. This would give an erroneous impression of the cause of a leak at that top O-ring.

In the picture below, the item on top is the .030" AN960-416 washer, and the .050" "bushing" is the lower item, which should have been placed **BENEATH** the Cam.



The item on top is the .030" AN960-416 washer, and the .050" "bushing" is the lower item, which should have been placed **BENEATH** the Cam.



Cheap customizable tools can be a big help reinstalling the valve

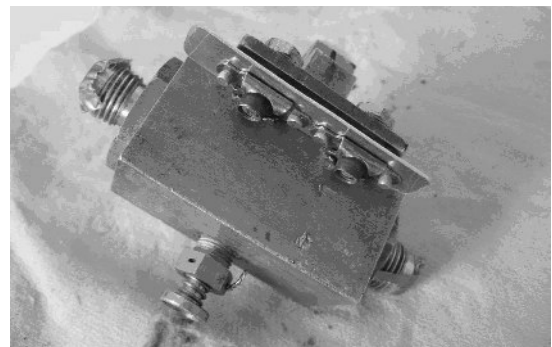
CORRECTIVE ACTION: Make a notation in your IPC that a "Bushing" exists beneath the Cam, as shown in the Service Manual Fig 13-9. When re-assembling your valve, carefully ascertain that the cam-lobes "ride" at the median circumference of the operation-balls and that the Cam cannot be depressed to allow the operation-balls to fall into the cavity of the valve-body.

The common AN960 washer at the top of the camshaft measures a nominal .030". The bushing measures a nominal .050". If your bushing appears totally missing, two AN960-416L washers may be good substitutes as they measure a nominal .025-.027 each. Using "corrosion resistant" washers if possible is a good idea. (AN960C416 and AN960C416L....note the "C".)

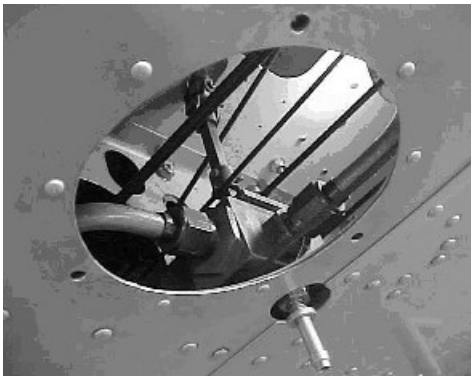
HELPFUL WORDS: This valve is not too difficult to remove from the aircraft. The re-installation, however, is a "bear". This is due to the confines of the work area, the lack of convenient inspection holes, and the conflicting structures and cables nearby. One of the most frustrating aspects are the **mounting nuts** which are beneath the top cover and hold the assembled valve in position to/beneath the aircraft's mount-bracket. Those nuts are extremely difficult to hold while turning the attaching bolts. (I adapted a cheap ignition wrench into a "special tool" to assist me.)

Another possible solution when re-installing the valve is to replace those nuts with "nut-plates" which are intended to be riveted to structure, in order to accept screws or bolts. It is **NOT NECESSARY** to actually rivet the nut-plates. The purpose of using nut-plates is to take advantage of their rivet "ears"...those elongated portions nor-

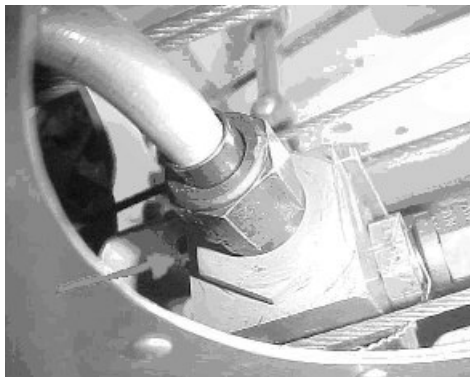
(Continued on page 18)



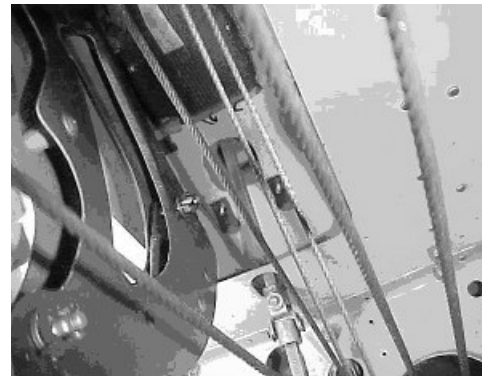
Replacing the nuts with "nut-plates" on the valve could also make assembly easier. One Member's solution was riveted them to a short plate as seen above.



Consider replacing it with a SAF-AIR drain, PN CAV-110 or CAV-110-H which is longer and pictured above



Looking UP at the tunnel, View of selector shaft. Removing the tunnel-cover beneath the flap handle may provide some additional access for you.



The "hard to hold" nuts, behind/beneath the mount cover. Note that the entire valve and valve cover is mounted BENEATH the airplane's mount bracket.

Fuel Selector Valve

(Continued from page 17)

mally used to accept rivets. Those ears will prevent the nut from rotating and thereby make it unnecessary to prevent them from turning while re-installing the attach-bolts. One Member's solution, in which he riveted them to a short plate...but I do not believe that is necessary, as I've already mentioned. The valve-body will engage the ears and prevent them from turning without the necessity of riveting.

MORE HELPFUL WORDS AND PICTURES:

1: Be certain to DRAIN your tanks prior to beginning this task.

2: Have a friend with a fire extinguisher handy when draining the fuel. Open the hangar doors. Remember, gasoline vapors are heavier-than-air and SETTLE to the place you will be lying beneath your airplane.

3: Drain the gascolator.

4: Remove the 1/8" NPT plug from the bottom of your valve and drain the valve. (Consider replacing it with a SAF-AIR drain, PN CAV-110 or CAV-110-H (the long version). This is truly the lowest point of the fuel system and should be drained regularly, especially in freezing weather to remove the possibility of ice. Do not lubricate any threads with Teflon tape, as Teflon will shred and release particles into your system and carburetor. Do not over-tighten the plug or drain valve, as the NPT (pipe threads) will crack your expensive valve body. If you really feel compelled to put something on the threads, use Permatex No. 2 on the middle two threads ONLY. Be certain to safety the new plug/drain-valve. The best time to do this replacement is on the bench...not after you've re-installed the valve.) (wink)

If you wish to make this drain installation "in situ," do not worry about draining your airplane, as your fuel valve will not allow fuel to drain if it's in the OFF position. The only fuel to escape will be the one-ounce or so inside the valve.

Note: While I believe this is a simple, minor alteration requiring only a logbook entry. If you lay awake at night about such things you can go get the FULL MONTY if you buy the \$50 kit from C-mods <http://www.c-mods.com/> PH: 919-471-9492, and have your A&P/IA install it, fill out the STC paperwork, and submit a Form 337, which shouldn't total much more than a C-note, to install that

\$12 drain valve. They did donate a kit to TIC170A at the Tehachapi Convention, so they are a supporter.

5: Now remove the valve from the airplane.

6: Beg/Borrow/Steal a "small dab" of fuel-lube/EZ-Turn from your mechanic's toolbox and apply that "dab" to the top O-ring when re-assembling. (That O-ring receives the most wear during operation of this valve.) No other lubrication is necessary other than clean engine oil on the other new O-rings.

7: Do not become frustrated during re-installation. Use a good "creeper" and lay back and take your time.

The best price and most convenient source for fuel selector valve replacement parts I found was McFarlane's, <http://www.mcfarlane-aviation.com>, PN FSS-KT-2 for about \$28 plus postage. All necessary O-rings and Gasket are included for a re-build.

FINAL GOOD WORDS:

If your valve is not leaking and you think this article is not applicable to your situation... then consider this. Several valves have been found improperly assembled and at least one fatal accident has occurred with a suspect valve that no one previously questioned.

If you look at the "Housing" which accepts the Selector-Handle drive-shaft, you will note that beneath that "housing" is a small SPRING and DETENT-BALL. Those items quite naturally, as a function of their design, impart an UPWARD PRESSURE on the housing which, because it is PINNED to the CAM...will place a constant UPWARD / LIFTING pull on the cam.

WHAT THIS MEANS is that if your valve is improperly assembled (like so many apparently are) with the bushing either missing or improperly placed on top of the cam... this lifting action of the Housing spring/detent-ball will MASK the potential for your valve to release its operation balls and SHUT OFF YOUR FUEL unexpectedly. This may be what happened to the accident airplane, in my opinion.

POSSIBLY IMPORTANT SAFETY-CHECK: Even if your fuel selector valve is not offering you any symptoms of defects or leaks. CHECK it by vigorously PRESSING DOWN on the cockpit selector-handle in an effort to push the cam downward, below its normal position within the valve. You are deliberately trying to induce the type of failure that may have cost the accident pilot his life.

(Continued on page 19)

Fuel Selector Valve

(Continued from page 18)

If the cam bushing is missing then, by performing this test, the cam may be allowed to descend beneath the operation-balls and release them into the valve body. In such a situation, the check-balls will slam SHUT and turn the fuel OFF from that tank.

Deliberately attempting to induce this failure while in the hangar/on-the-ground may not appeal to you...but the action MAY SAVE YOUR LIFE AND/OR YOUR AIRPLANE if it reveals a missing cam bushing that can cause your valve to shut off your fuel.

How could an error of this magnitude pass by Cessna and get published in the IPC? And why is the Service Manual a better illustration? I have an opinion that when the IPC was published, there was no requirement for FAA approval of that document. It was intended only as an AID to ordering replacement parts...**not as a guide for maintenance or assembly.**

The Service Manual, while not originally an approved document became so-approved in later years, and as such is subject to revisions...something not considered worthwhile or economical for aircraft models no-longer in production.

As always, my words are offered in encouragement and intended to be helpful. If you are not a certificated repairman (A&P) then get yours to do this work or to supervise your work and properly document it. I hope you find this helpful.



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What is your Crosswind Number?

As an active tailwheel instructor, I fly with a lot of experienced aviators that seek to broaden their horizons by flying tailwheel aircraft. It might be a Flight Review or just someone that is looking to do something different and exciting like getting a Tailwheel Endorsement. These pilots have often flown the latest and greatest Cessna 172 rental aircraft with their fancy Garmin 1000 flight displays. I do not advertise that I do flight instruction. My students come to me through word of mouth.

When my students set out to fly the Cessna 170B they get an information packet that gives them the training syllabus and all the information to get them started in getting their tailwheel endorsement. They often study very diligently and are very keen on absorbing the information of the Operating Manual (OM)¹ that is provided to them. Generally the OM will generate numerous ques-



A dry lake bed is used to practice on. By varying the landing direction you can get different degrees of crosswind velocity.

tions. One of the common questions I hear is: What is the Demonstrated Crosswind Component of the Cessna 170B? Well that usually is answered this way.

Before an airplane is type certified by the Federal Aviation Administration (FAA), it must be flight tested to meet certain requirements. Among these is the demonstration of being satisfactorily controllable with no exceptional degree of skill or alertness on the part of the pilot in 90 degree crosswinds up to a velocity equal to $0.2V_{SO}$. This means a windspeed of two-tenths of the airplane's stalling speed with power off and landing gear/flaps down. Regulations require that the demonstrated crosswind velocity be included on a placard in airplanes certified after May 3, 1962.²

Most pilots have learned that most aircraft have a Demonstrated Crosswind Component published in the OM, The Pilot Operating Handbook (POH), or placarded in the aircraft. Some pilots are even under the impression that it is an aircraft limitation because it is published in the POH or it is placarded. The truth is, it is not a limitation at all. It is just the 90 degree crosswind component that the test pilots demonstrated during the certification flight testing to meet the rule above. An aircraft can generally exceed those crosswind components safely and still maintain control. The limitation is generally the pilot at the controls. With pilots having varying skill levels, everyone will have a different ability. The demonstrated crosswind component means nothing more to a prospective

Doug Mueller #8563 NV, CFII, Cessna 170 Instructor pilot than another pilot, with unknown skill level, safely and successfully controlled the aircraft to landing.

The Cessna 172 has a 15 knot demonstrated crosswind component published in the POH. Now interesting enough, the Cessna 170 was certified by the Civil Aeronautics Administration (CAA) before May, 1962 and not the FAA. This aircraft did not require the placarding or even a POH for that matter. This creates a great topic for discussion. There is no demonstrated crosswind component published for the Cessna 170. So "What is your crosswind limitation? What is your number?" It is a valid question. There is an old saying in aviation. **"A pilot's ability should never exceed the aircraft's capability!"** A pilot may not necessarily know their own limits of the maximum crosswind that they are able to land an aircraft safely. They may not know what the maximum limit of the aircraft is with respect to maintaining directional control. Every aircraft is different. Finding these limitations should be discovered slowly.

If you were to follow the certification requirements of the aircraft certified after 1962, you would find that $0.2V_{SO}$ would be 0.2×52 Miles Per Hour (MPH) or 10.4 MPH in the Cessna 170B. That would be the required demonstrated crosswind component for the C-170B in MPH.

Since wind is reported in knots you would have to convert MPH to Knots (KTS). The conversion for MPH to KTS is $1\text{MPH} = 0.87\text{KTS}$ (rounded to two decimal places). So taking $10.4\text{MPH} \times 0.87 = 9\text{KTS}$ crosswind component.

It is always windy operating in the Mohave Desert. In the valley where I do most of my flying, the winds prevail from 210 degrees with an average velocity of 15 knots and the primary runway at my airport is runway 27. It is 60 degrees off from the prevailing wind. Part of that tailwheel endorsement training is to land in a crosswind. Gingerly the student works up to those crosswinds but it is not done on asphalt. A large dry lake bed is used to practice on. By varying the landing direction you can get different degrees of crosswind velocity. It is a great tool and the students excel rapidly. Once they have mastered the crosswinds on the dry lake bed, they are brought back to the asphalt. On unimproved surfaces crosswind components can be higher as well but when you get to asphalt it is a little less forgiving due to the friction coefficient of the tires on the asphalt. I generally train to a 10 knot crosswind component maximum in my syllabus.

So what is your Crosswind Number?

I welcome any comments. If you have a question or would like a flight instruction topic covered, please contact me (canav8) on the forum³ or through my contact information in the members' directory.

¹ The Cessna 170 series does not have a POH it has an Airplane Flight Manual (AFM). Cessna published an Owners Manual (OM) which is often confused with a POH. The difference being a POH and AFM is approved by the FAA and an OM is not.

² AC FAA-H-8083-3A Airplane Flying Handbook Chapter 8 page 8-16

³ <http://www.cessna170.org/forums/>

Yes, It Can Still Be Done!

Bobby Jack Woolley #1262 WA

Editors Note: Feeder-Feeder is the name of Bobby Jack's 170B and he is the writer and publisher of The Bird Dogs' Tail.

After flying Feeder-Feeder to KDTG, KBEH, and KOSH in July and August, I must not have had enough cross-country time (33 hours). Since The Bird Dogs' Tale was released by the publisher on 30 August, a book selling trip was planned for KCOS, multiple points in Texas and return. I decided to press Feeder-Feeder into cargo hauling status for another long trip during September 2010.

With 300 lbs of books on-board, a 12-day trip began with flying to KCOS to attend the 183rd RAC Reunion; then on to the KDFW area, KCLL and the Texas A&M campus, along with additional Texas stops, including the IBDA Roundup at Fredericksburg. The return legs to the Northwest were made without the book cargo (replaced by full aux tank with a total of 55 usable ga.) with overnight stops planned for KDMN, KLAS & KCVO before returning to the KSEA area.

Feeder-Feeder performed very well until transiting (in turbulence) the El Paso area. Abeam Las Cruces, enroute to Deming, it was noted that the generator had dropped off-line. Landing was made at KDMN after a 5.6 hour flight from the Austin area, however, no aircraft maintenance capability (note) was available at KDMN. So the next morning, after checking the main 35 amp fuse (it appeared OK), I made a battery start and took off for the Flagstaff area without the electrical charging system being operational. Thirty NM southeast of KFLG, radio capability was lost due to low battery power; therefore, I decided to divert to Sedona, due to no radio requirement and a lower ASL altitude.

While on the ground at KSEZ, trouble shooting the electrical system indicated the voltage regulator may be the problem. It would take three days to obtain a replacement, so I decided to give the battery a full bench charge. Knowing that little electrical equipment would be available because battery power would be limited, departure was made for points to the northwest. Yes, it can be done, because engine operation does not depend on the electrical system being operational.

Good weather allowed VFR flight, and full fuel allowed four hours of flying time before night fall. Crossing the Grand Canyon at its widest section and then on to the KLAS area, flight levels were limited to 1500' to 2000' AGL due to density altitude. Navigation was to be made without radio or GPS aid; i.e., good piloting and map reading was required to avoid the extensive restricted areas to the northwest of the KLAS area. Yes, it could be done!

Navigating from peak to peak, ridgeline to ridgeline (saddle to saddle), utilizing roads, dry streambeds and other geography as guidance, the flight skirted the edges of the adjacent restricted areas. Following a 4.2 hour flight, a landing was made at Austin, NV, ten minutes after sunset. So after a good night's sleep and local assistance (transportation, auto fuel transfer and general goodwill), a battery start was made with a departure for KCVO, and a repeat of the previous afternoon navigation

(Continued on page 22)

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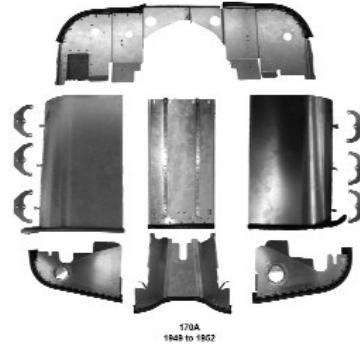


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Two nice "52's"

Cam Jordheim #7647 AB shared this photo of his 1952 178B C-GECU alongside his 1952 Ford Victoria hardtop.



Yes, It Can Still Be Done!

(Continued from page 21)

process. Yes, it can still be done; just like it was learned, way back when?

After more ridgelines, high desert navigation, limited ASL altitudes and the Cascades, arrival was made at Corvallis, OR after a 4.1 hour flight. Another battery charge was required prior to departure for landing at S50 by sunset. An hour prior to landing at Auburn, I realized that the Garmin 296 had an internal battery that was good for 4-5 hours. With recharging at stops along the way, I could have used it as a navigation aid on the legs between KDMN and KSEA.

The resulting check of Feeder-Feeder's entire electrical system revealed that the main fuse was indeed the culprit. The fuse appeared to be good because the element was intact; however, it did have a crack at the edge of one of the metal ends, and it was not allowing consistent continuity within the fuse holder. Cleaning the holder and a new fuse corrected the charging system problem.

Lessons learned: replace a suspect fuse, even if it appears to be OK; do not forget that most GPS equipment does have an internal power capability that can be used, if it has been charged. And, 111 books can be sold on a successful multi-stop cross-country trip (40 hours) via Feeder-Feeder!

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170s in the Air

The Second Time Around

Myndy Woodruff #8488 VT

It wasn't until I was married with a hard working wife, Kate, that I was able to pursue my flying habit. I soloed in 1966 and we bought a low time 1952 Cessna 170B, N8048A, that week for \$5,700. I was well coached! I got my private, commercial and instrument ratings in 48A. Meanwhile, Kate got her private and checked out in the 170. We used the Cessna to commute from the Boston area to Sugarbush, Vermont. When John Macone, operator of Sugarbush Soaring, found that I could fly 170 tail draggers, he moved me right into his L-19 tow plane. This was a fix and fly operation, so I got a lot of happy hands-on stick-and-wrench time. As time went on, I acquired a flock of L-19 tugs and got my AP ticket to support them. It was easier to hire tow pilots than mechanics! Vietnam grew some fine L-19 FAC pilots and they quickly found my L-19s when they got back stateside. Cessna L-19s have a lot of off the shelf 170B parts, so the design must be imbedded somewhere in the gray matter between my ears.

The need for speed prompted us to trade 48A in toward our first Bonanza. We flew Bonanzas for thirty five years for business and pleasure. In the later years we were not using the Bonanza enough, so we sold it. The plan was that we would use the airlines and explore beyond the Bonanza's North America cruising grounds. The airline service was so frustrating that we soon gave up. Hence, the second home in the Adirondacks was a great option for us.

Now we needed a plane to commute from Warren Sugarbush to Lake Placid, New York. The one hundred mile drive to our Adirondack home on the Saranac chain of lakes takes three hours, but the straight line fifty mile flight in the 170 takes only thirty minutes. The choice of the 170B was easy. I have always had a soft spot for 170s. When Cessna came out with the square tail 180 I thought it was a travesty! I remember as a teenager trying to figure out how they could justify the boxy 180 over the gorgeous streamlined 170/195 series...

N3568C found its way to our hangar three years ago. I have known this plane since the 48A days. I actually took its photo at Basin Harbor when we were investigating paint schemes for 48A in 1967. N3568C, s/n 26612 is a 1955 C170B with a history of good owners and maintenance. It has been mostly hangared here in cool, corrosion free Vermont. The plane had a lot of the right stuff: early 180 gear legs with a Ponk kit, new Cleveland's, BAS pull handles, good IFR avionics in a 172 panel, modern gyros, nice interior, STOL kit, Flint wing tips, new seat tracks, Door Stewards, and a strong six cylinder engine.

The landing gear is always bolted down, the prop is always set correctly, there are no AD notes on the venturi, and it burns 8 gph. You get the idea... this could be a good plane to grow old with! I joke that we bought the plane as a "beater" so that we would not mind leaving it out on the ramp at Lake Placid. Fat chance. I have a worm in me that likes to get things right. I like to focus on certain aspects



of a plane for improvement and then move on as that phase is completed. I am not a good multi-tasker.

The first year (2008) I focused on getting to know the plane and enjoyed being back in a 170. The squawk list consisted of things that bothered me, but probably did not bother the former owners:

1. Moisture kept finding its way into the airspeed indicator and the encoder from being on the ramp in damp mountain weather. The static system held pressure OK and I put a higher vertical loop in the static line, but the moisture problem persisted. I am a closet 170 Association FORUM aficionado and right there was the cure: I bought a \$10 Cessna "air bottle" and installed it at the static port elbow. Problem solved.

2. The plane was squirrely on the ground roll. My size eleven peddle pushers could barely keep 68C going the right way. Time for a front end alignment. I used a ten foot aluminum step ladder for the front straight edge, greased two steel plates, found a square and a level and aligned the wheels in accordance with the Cessna pre 1962 Service Manual. Well, it wasn't quite that easy. No combination of locally available wedges would give the required toe-in and camber, so two of the thickest wedges were re-machined to give the proper settings. This dramatically improved the ground handling characteristics (i.e. made the pilot look like he was somewhat in control.)

3. Once the plane was put away for the winter, most of the instruments were sent out for overhaul and fresh dials. The KX155 and KI 209 went to the avionics shop.

By 2009 we had decided that 68C was definitely a keeper and that spending some serious money on the exterior would be a good long term investment. Do you believe that? The 2009 focus project was to detail the air-frame for paint:

1. New Hartwell latches were installed on the cowl doors.

2. New upper and lower nose caps were bought from Cessna. These parts were expensive, but they are significantly improved over the original parts. The new parts have a subtle lip around the inside of the intakes making them considerably stronger. So far they still look good with no cracks. There were no rivet pilot holes in the new caps, so it took a lot of time to get things properly aligned with the old cowls. It came out great, if I say so myself.

3. The patches at the bottom rear cowl corners were

(Continued on page 24)



New upper and lower front cowl parts were purchased from Cessa. Not cheap but well worth it.

The Second Time Around

(Continued from page 23)

replaced with flush patches.

4. The turtle deck skin aft of the baggage bulkhead was replaced because it was full of holes and patches from the removal of the old ADF pod.

5. The two venturis were replaced with a new single "super venturi".

6. The airframe was stripped and painted by Prestige Aircraft, Swanton, Vermont. We selected a retro 1956 paint scheme in light cream with deep red and insignia red. Prestige specializes in aircraft painting and their work was excellent. They took seven weeks and delivered it on time as promised. There were three more 170s on their winter schedule after 68C.

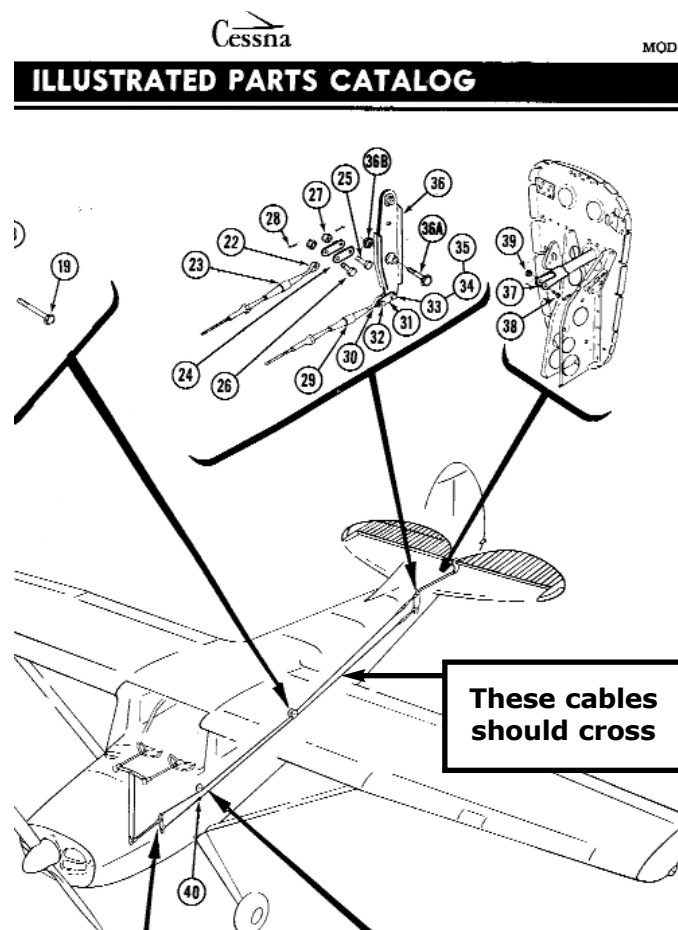
By 2010 our 170B looked way too good to leave out on the Lake Placid ramp. We got lucky. Our name had worked its way to the top of the wait list for a LKP hangar, so now 68C is out of the elements. LKP is a municipal airport and they do a fine job of plowing (after the town roads are plowed). On the other hand, Sugarbush morphs into a winter ski touring center and does not plow. Now we have a useable winter base!

At this point 68C looked great on the outside, but the beauty was only skin deep. The control pulleys dragged and inspection revealed tired cables. I found it interesting that the bad/draggy pulleys were mounted vertically (lube oil ran off) while the good pulleys were horizontal (lube oil puddled on top). High time L-19s frequently show cable chafing/wear at the three small pulleys in the top center of the cabin, at the two elevator cables where they come through the bulkhead at the rear of the luggage compartment, and anywhere cables make a ninety degree bend over a pulley. 68C showed cable wear in all these areas. There were no frayed cables, but some cable diameters were reduced from internal wear and the cable texture was worn smooth. There was a rusty section of trim cable inside the horizontal stabilizer near the actuator, an area that never sees an oil can. A FAA guy told me that control cables get as many as one thousand inputs per hour. 68C has 4,000 hours and 55 years, so I had no qualms about ordering complete McFarlane pulley (PULL-

KT-16 \$1,000) and cable/chain (CCKT-170-04G \$1,725) kits. Each component was bagged and had a name and number label that corresponded to the 170B parts book. The lubricated galvanized cables were works of art. The cable lengths were all perfect! Every time I got grumbling about a missing part, I dug deeper into the kit and there it would be. These kits were excellent, but I wish they also had a bolt kit. I made up a bolt list and ordered it from Aircraft Spruce so I could log "replaced all cables, pulleys and bolts."

The complete replacement of four dozen pulleys and two dozen cables was a daunting task that took about eighty hours including some pop up items for attention. I planned to change one cable at a time, but this usually grew into changing one section or side at a time. I cannot stress enough the importance of making careful notes and drawings of cable/pulley routing and details before disassembly. The Illustrated Parts Catalogs are only guides. The IPC has a glaring error in the routing of the elevator cables; they should cross and NOT be parallel as shown in the manual and parts book X@#? (If you insist on following the manual, remember to push forward on the yoke when you want to climb...) A Dremel fiberglass cut off wheel was handy for cutting cables and removing the forks from old cables. By removing the forks, I was able to use the old cables to pull through the new ones. The bulkhead between the rear door posts was particularly challenging. Cessna installed the pulleys into the

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The Illustrated Parts Catalogs are only guides. The IPC has a glaring error in the routing of the elevator cables; they should cross and NOT be parallel as shown in the parts book.



Painted by Prestige Aircraft, Swanton, Vermont, we selected a retro 1956 paint scheme in light cream with deep red and insignia red for N3568C.

The Second Time Around

(Continued from page 24)

bulkhead before installing the floor skins, so I drilled two holes in the floor skin to remove the upper pulley bolts. A small strong magnet placed on bolt heads helped hold nuts and washers to get them started. Fine tooth gear wrenches (available from Ace or Sears) made quick work of otherwise tedious turning of pulley, rudder, and elevator bolts. I used the parts manual to confirm every pulley assembly for correct bolts, nuts, cable guards, cotter pins, etc. I also made a pretty good dent in the shop's Band-Aid box.

At this point, the plane was completely opened up including the removal of all tail components. This was a good time for close inspection and service of areas that may not see daylight again for another decade. The original 1954 rubber brake lines from the master cylinders to the elbows were replaced. The parking brake contraption was removed. The elevator trim actuator and bell cranks were inspected and lubricated. Cessna service bulletin SAB-090326 (weld flap lever latch) was complied with. Cables were tensioned and rigged in accordance with the 1955 170B owner's manual.

So what is the next focus project? Well, somehow the fuses have survived, but I think circuit breakers are in the future. More fun...

Cold, Cold Departures

(Continued from page 9)

made from Waukegan for a 1500' AGL flight along the shoreline until passing Meigs Field, and then heading south-southwest toward Kankakee.

Snow had covered the ground in the Chicago area, and as we approached the Champaign area, the ground had lost its snow cover, but snow showers had been present southward from the South Chicago area. The air temperature at 1500' over Champaign was 28-30 degrees, and 50 miles south, it had risen to 32-34 degrees. Ceilings had been at 2000' and went to broken conditions as we passed abeam Springfield, with the visibility at 6 miles, and improving. The transition from cold, cold conditions to warmer weather had been successful, and the hour flight had been enjoyable, but made with heightened caution.

However, had a cold, cold departure been made as planned at 8:00, what could have happened in the fuel system as the aircraft passed through the freezing zone for points further south and into warmer temperatures? Would the engine, at cruise RPM, have been able to digest the collecting water that remained in the fuel system? If not, while flying at 1500' due to weather with an engine that could not maintain RPM, would there have been sufficient altitude to allow for corrective action and/or an emergency landing? It should be noted that most engines would not have continued to run with a quart of water in the fuel system.

Had the HEET not been added to the fuel, answers to the above questions could very well have been realized. I was glad that the HEET treatment was utilized prior to the cold, cold departure. Had it not been applied, but retained in the cabin, how much additional heat could it have provided in the event that the engine loss power due to water contaminated fuel? As a result, when iced condensation have been possible, on occasion, I have continued to use HEET as an additive to be drained prior to making cold, cold departures. I have done so, without having received concurrence to do so from several "old timers" in 1976 while at the Gaston Fly-in.

A valued lesson learned: A cold, cold departure can be as dangerous as a hot, hot departure; and the realization of the danger could be delayed until least suspected!

"Beware of cold, cold departures."

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170 on Display at Dobbins ARB Open House

Scott Barland #2042 GA



We were invited to display our 1953 Cessna 170B, N3184B, at the Dobbins Air Reserve Base open house and airshow in Marietta, GA, on the weekend of October 16th and 17th. We were one of only six privately-owned, non-military airplanes out of approximately 140 airplanes on static display.

As expected, paperwork required for permission to land at a military base was large and bulky, including proof of required amounts of insurance, and arrival had to be within +/- five minutes of our assigned arrival time. We were treated well, and got a lot of attention from base personnel assigned to static display duties.

The first photo shows 84B which was parked alongside a 1950 DeHavilland Chipmunk (British version) in the next photo. Nearby was a 1936 Lockheed Model 12 Electra Jr., shown below that photo, and a trio of Van's experimental taildraggers in the photo below.

All photos were taken prior to opening of the show, in order to avoid congestion from expected large crowds. That advice was well taken, as crowds were HUGE!

Estimated totals for both days ranged from "over 300,000" to "nearly 400,000", and we were all kept busy answering questions from spectators. Most could not believe the 170 was 58 years old.

Airshow performances by the Blue Angels, the Canadian Snowbirds, USAF Academy jump team, Sean B. Tucker, F-16, F-18, and others kept the audience well entertained. Military static display birds ranged from Navy N-3N & N-2S up through C-5 and F-22, plus helicopters, WWII restorations, etc. We had a good time.



Artesia, New Mexico

(Continued from page 8)

Fortunately there were a number of youngsters (possible future pilots?) there too. The American Aviation Pioneer Award went to 86 year old Lloyd Solman who was a corporate pilot for a local oilman for many years. Attendees came from Albuquerque, Alto, Artesia, Carlsbad, Dexter, Hagerman, Hobbs, Paitas, Roswell and

Ruidoso, NM as well as from Crowley, Lubbock, Monahans, and Plains, TX.

The weather was classic Chamber of Commerce--PERFECT! After a bit of "tire kicking," lie-telling some of us ventured into downtown Artesia to take in the festivities, then returned to the airport for a scrumious hamburger lunch. A good time was had by all! Thanks Lyn and Tom for a unforgettable weekend!



Seven Week Trip Filling the Bucket List

by Harley Pickett #3523 FL

On 11 July 2010, we left Lake City, FL in our motor home for Benton Harbor, MI for our annual Cessna 170 Association Convention. On our way we stopped and saw my mother in Athens, OH. We spent a wonderful week at the Convention with our very dear friends, seeing the local sights such as the Waco Factory, the Studebaker Museum, and sailing on a tall ship.

When we left Michigan, we went through the Motor Home Museum in Elkhart, IN and it was very impressive! On our way into New York State we stopped at the Salamanca Casino where we both did pretty well, and got free parking overnight for our RV.

From there we stopped for a couple of days and saw our good friends who have a really beautiful set up on a gorgeous lake! They were perfect hosts (Great Scotch Too).

Jon told me not to miss the Glenn Curtiss Museum just down the road east of them. Boy, he was right and we really enjoyed stopping there!

Next we toured through Vermont and New Hampshire, stopping and seeing Ben & Jerry's Ice Cream and Cabot Cheese factory which Norm and Helen Taylor said we must see, and they were right! Had some great samples at both places!

Then we went to Bangor, ME where we checked out the local casino where Barb did very well, and I paid my taxes!

Our trip continued on to Acadia National Park where we spent five days. Had a delightful time in Bar Harbor where we went up to the top of Cadillac Mountain, saw Thunder Hole, and took a lobster boat trip where they showed you how they trap the lobsters. We sure did our share eating lobster rolls, seafood and wild blueberries.

Our next stop was Plymouth, MA where we saw the famous rock and the reproduction ship of the Mayflower. Then we went on down to Mystic, CT (Barb's old stomping ground), where we ate pizza at that famous place where they made the movie "Mystic Pizza." We stayed

five days there, toured a light house, other local tourist attractions and, yes, another casino, plus eating more delicious seafood!

From there we went up to Windsor Locks, CT and saw another very good aviation museum. Pat Bartone had told me about a "must see" called New England Air Museum, which has the only Sikorsky SV-44 seaplane still in existence. Also they had a WWII US Navy Blimp ZNPK (K-28) under carriage assembly under restoration which I found very interesting!

We then drove down to Barb's sister's home in Virginia Beach and spent the week with them celebrating their birthdays!

I wanted see the Civil War Ironclad ship "Monitor" that they brought up back in 2002. It is in the Mariners' Museum in Newport News. You can see it through the open top tanks that were being chemically treated for corrosion.

Leaving there we headed north up toward Delaware and over to Washington, DC., to fill another square on my "Bucket List." We toured all the National monuments, then out to Arlington, and took in the Holocaust Museum which is quite moving. We stayed in a RV Park out in College Park, MD, and commuted by Metro every day.

Friends of ours from the airport met us there, and we had a great time with them going down to the Glenn Beck "Restoring Honor" rally on the mall. There had to be at least 500,000 people there! We had a good location about halfway down the reflection pond and to the left.

There was a large Meg-a tron close by so we could see and hear everything. They even provided free water! It was a thrill of a lifetime, and it sure was worth it despite the large crowds!

Of the 24 items on my "Bucket List," my goal was to drive all 48 contiguous states in five years in our motor home! Well, we did it. Plus we put 4,500 miles on our RV in 7 weeks.

Got home on the 31st of August. Poor Barb was worn out when we got home, but I know she really enjoyed all the places we went and the people we saw!

Nylstroom, South Africa

(Continued from page 8)

beautiful game farm about 10 km from the field. Great camaraderie, libations and food was eagerly thrust upon us. We also enjoyed a game drive in the bush on quad bikes. The game on Richard's farm are not the biting kind, so it was quite safe from that perspective.

The weather at this time of the year is great with night time temperatures of about 18C to about 30C in daytime. The area is rather arid with occasional afternoon thunder showers being the main source of precipitation.

The recreational flying community in South Africa is miniscule compared to the U.S.A. and Canada even though there are more than 12,000 aircraft registered in

the country. There are only 9 Cessna 170s in the country and mine was the only one at Nylstroom. Unfortunately, I had to depart early on Saturday morning and a friend of mine, Willie Bodenstein took the pretty picture from a Globe Swift of my 1955 Cessna 170B over the airfield. My airplane's Continental 0-300 is almost run out and I have bought a brand new Lycoming 0-360 that I will start fitting in January 2011. I have the STC supplied by Dellair (CA) and a McCauley constant speed propeller that will be fitted.

Let me tell you folk in America that to acquire all these items is very costly considering the shipping and customs duties that are a price to pay for living in this part of the world where we have such fantastic flying weather.

Check out the New Association Store at www.cessna170.org



1/11

The International Cessna 170 Association

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