AMERICAN BONANZA SOCIETY

NEWSLETTER

December, 1979 Volume 79, No. 11 Page 929

RAYTHEON/BEECH AIRCRAFT ANNOUNCE MERGER AGREEMENT

Raytheon Company and Beech Aircraft Corporation jointly announced an agreement in principle to merge on a tax free basis.

The transaction is subject, among other things, to the negotiation of a definitive merger agreement, approval of agreement by the respective boards of directors, and by the shareholders of both companies. Consummation of the merger will be sought at the earliest possible date.

It is planned that Beech will continue to be operated as a separate entity under its present management at its present locations. There will be a separate board of directors for Beech including appropriate Raytheon representation. It is also expected that certain Beech executives will join Raytheon's board of directors.

Mrs. O. A. Beech, Chairman, and Mr. Frank E. Hedrick, President of Beech, said, "This merger will provide our company with greater technological depth and product development capability to the benefit of our aircraft customers, our employees, and our stockholders."

ACTOR GEORGE KENNEDY TAKES DELIVERY OF BEECHCRAFT BONANZA A36

Wichita, Kansas -- George Kennedy, star of all four AIRPORT movies, was in Wichita recently to take delivery of a new Beechcraft Bonanza A36 and tour the Beech Aircraft Corporation's production facilities where his airplane was built.

He will use his new Beechcraft both in his frequent business travel necessary to his career and for personal transportation.

Kennedy became a pilot through his association with the Airport movies and the role he plays in them - the tough, cigar-chewing Joe Patroni. It was the real Joe Patroni, the man on whom the Patroni character was based, who convinced Kennedy he should learn to fly 10 years ago. He has flown many hours since, and currently holds a private pilot's license with instrument and multi-engine ratings.

"The real Joe Patroni," he said, "is a fellow named Roy Davis, who is head of maintenance at TWA in Chicago. He's not a big man, but he chews a cigar like Patroni and he actually did what Patroni does in the first Airport movie -- gets a stuck airliner out of the snow. I spent some time with him to get a feel for the character, and one day when we were having lunch I said 'you know, I've always wanted

GEORGE KENNEDY (continued)

to learn to fly. Now that I can afford it, I'm too old.' He said, 'That's no excuse. I've taught people to fly who are over 70.'"

Kennedy took Davis' advice, and soon had his pilot's license.

Discussing his purchase, Kennedy said he chose the Beechcraft Bonanza A36 because "it has an excellent reputation, it's big, it's fast, it has good range, and it's easy to fly."

After his tour of the factory, Kennedy added that "Seeing the way Beech builds the Bonanza from the inside out, and the meticulous attention paid to detail makes me feel extremely secure about the airplane. I think everybody who buys a Beechcraft would benefit from a visit to the factory to see how Beech puts their product together."

Kennedy said the Patroni character is identified with the Airport movies. In the latest one, The Concorde - Airport '79, Patroni finds himself piloting the supersonic transport on a trans-Atlantic crossing and beset by people who don't want the airplane to make it. It does, of course, but only after providing the audience with two hours of excitement.

"The audience knows what's going to happen," Kennedy said. "They come to see it happen. They don't come to see George Kennedy. They come to see Joe Patroni."

Kennedy said he enjoys the Patroni character, and "I'll play Joe Patroni as long as they want to make Airport movies."

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FAA PILOT PROFICIENCY AWARD PROGRAM

AC 61-91 describes this program and outlines the eligibility requirements. The effective date for commencement was July 15, 1979.

Background. In July, 1977, a new pilot safety program was introduced to the public in FAA's Central Region to cope with rising numbers of general aviation aircraft accidents attributable to pilot error. It was designed to encourage general aviation pilots to avail themselves voluntarily of continuing training. A tie tack or lapel pin and a certificate of competence were given to those pilots who completed the program. Public response has been sufficient to justify continuing the program and expanding it on a national basis.

FAA Regulation Part 61.57 requires all pilots to obtain a flight and oral review with an appropriately-rated flight instructor once each two years (biennially) in order to act as pilot in command of an aircraft. The regulation does not prescribe any minimum flight time for the review nor does it specify the maneuvers to be flown. The award program will reinforce the Biennial Flight Review by providing a mini-flight course with minimum instruction times and selected maneuvers prescribed.

The program will be demanding of pilots' time, critical of their performance, and will provide an excellent opportunity for them to reevaluate their flight proficiency and knowledge and, at the same time, earn their wings and certificate.

Who May Participate. All pilots holding a private pilot certificate or higher and a current medical certificate may participate. Requests to participate in the program should be made to your local flight instructor, Accident Prevention Program Safety Counselor, or the Flight Standards or General Aviation District Office.

Training Requirements. Pilots may select the class and category of aircraft in which they desire to receive their operational training. All training requirements must be completed within 120 days after beginning training under the program. Certain training and flight maneuvers have been established for airplanes, helicopters and gliders. For information on these requirements check with your local FAA office or ask for a copy of AC 61-91.

Incentive Awards. Upon completion of each of the three phases of the program, pilots become eligible to wear and will be presented a distinctive lapel or tie pin (wings) and a certificate of completion. There will be no complimentary wings given. All pilots, regardless of type of certificate, ratings, or position must earn the right to wear the Pilot Proficiency Wings.

Intent of the Program. The intent of the Program is to provide the incentive for pilots to establish a personal recurrency training program on a regular basis. Air carriers, the FAA, and the military services require regular recurrent training for their pilots to assure that they maintain a high level of proficiency. Can general aviation afford anything less? SAFE FLIGHT IS NO ACCIDENT!

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GENERAL AVIATION AIRWORTHINESS ALERTS October, 1979

General Propeller Information

Inspection of a propeller before flight may reveal conditions which could result in flight with undesirable endings. Any inspection finding or maintenance must be recorded in the maintenance records required by FAR Part 91.973. Statistical records show that between 1975 and 1977 there were 48 blade separations in 83 propeller failure accidents. During this same period, Malfunction and Defect Reports on 472 instances of propeller failure were received, of which approximately one-half were blade failures.

Some common occurrences which can lead to propeller component failures are rocks, gravel, or debris of any sort striking the propeller during ground operation. This can cause stress to be set up in the impacted area. Any nicks or scratches should be properly repaired by certificated personnel.

Continuous operation in the "Red Arc" critical vibration area on a tachometer or exceeding the maximum RPM can likewise overstress propeller components which may lead to failure.

Any form of ground strike of a propeller may result in internal damage. If a ground strike occurs, the propeller should be completely disassembled, inspected, and repaired as necessary by an approved propeller repair and overhaul facility.

A Directed Safety Investigation (DSI) is being processed on the accuracy of tachometers. An inaccurate tachometer could permit operation of the propeller in critical RPM ranges which should be avoided.

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AMERICAN BONANZA SOCIETY NEWSLETTER

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COLVIN'S CORNER

ABS TECHNICAL CONSULTANT
J. Norman Colvin, world renowned Bonanza maintenance authority,
Answers YOUR questions;
Conducts ABS Service Clinics.
At the time of his retirement in 1976, Norm was Bonanza and Baron Project Service Engineer for Beech Aircraft.

PROPELLER, G35

Dear Mr. Colvin:

Our G Model Bonanza has developed a strange malady in recent months. Despite visits to a propeller overhaul facility and three A&P's we have been unable to get any satisfactory answers.

The symptoms are, during take off roll we develop full manifold pressure, but only 2,100 RPM. The prop seems to cycle properly, it does go into the flat pitch position, and a check of the blade angles with a protractor seems to indicate that everything is A.O.K. with the propeller itself. The problem is constant and occurs regardless of whether the automatic prop control is engaged or not. We have checked compression and mag timing and those appear to be normal. We have searched high and low for leaks or blockages on both the intake and exhaust sides of the engine.

Everything performs beautifully on cruise. Our problem seems to be confined to the fact that we are unable to develop full rated take off horse power.

I guess what bothers us most is that every attempt at finding a solution has met with nothing but educated guesses and no one we have been able to find has been familiar enough with either the engine or the electric prop itself to come up with any real solid answers. Does our problem sound familiar to you?

Fred Huber ABS #5422
Nashua, New Hampshire

Dear Mr. Huber:

There are too many unanswered questions for me to give you an answer, so I would like answers to the following questions:

1. Did low RPM for take off come on gradually?
2. Was there work of any kind done on the engine and propeller?
3. What is the manifold pressure at take off?
4. Is low pitch blade angle 11½ degrees read at the 33 inch station on the blade?
5. Is the carburetor alternate air door spring tension good?
6. Does the throttle have full travel?

Try flying the airplane with the induction air filter removed. One other check: grasp each prop blade tip and move it forward and aft. You should feel some looseness in the blade and hub fit.

If I have answers to the above questions, I may be able to come up with some ideas.

Dear Mr. Huber:

Back in August you wrote Norm Colvin with some questions about your G Model Bonanza. Norm replied with some questions and suggestions.

We wondered if you had a solution to your problem.

Jim Stargel

Dear Jim:

Sorry I have not replied to Norm Colvin's letter. The problem has yet to be fully resolved.

After having checked just about everything we could think of and everything he suggested, we turned the airplane over to a propeller shop who dismantled the original Beech electric prop and reported that it was "beyond repair" They had a conversion kit to a Hartzell hydraulic prop and we decided to bite the bullet and have the change made.

I flew the airplane home and everything seemed to work quite well with the exception of a minor oil leak which was more of a cosmetic problem than anything else. We returned the airplane to have that corrected the following week and then during the fall and winter months proceeded to fly it about 60 hours and got quite satisfactory performance from the conversion. The fine spray of oil collecting on the windshield persisted, and in January we returned it again to the same shop for inspection. We flew the airplane home and during the 45 minute trip there was no evidence of any oil leak, and we were quite pleased with the situation. On a short final at our home airport with power cut back to about 16 or 17 inches, the bloody thing came unglued and blew large quantities of oil all over the windshield. completely obscuring the view from inside the airplane. The landing was made in blind faith (more literal than poetic) and fortunately without incident.

For the past six weeks our airplane has been in repose without propeller, the latter having been confiscated by the propeller shop under the guidance - and very likely endless burden of red tape - of the FAA, and has finally been returned to Hartzell for inspection.

I'll let you know how we make out when all is said and done - if ever. One thing is absolutely certain: Few people. if any, know anything about Beech electric propeller assemblies. We have a perfectly fine airplane that's been tied up for eight months and a number of thousands of dollars because of it. We have learned, at considerable expense, that our engine is in very good shape, and we have available for anyone who is interested a very fine Beech propeller and associated hardware including the automatic prop control, and an airplane that won't fly no matter how fast we run the engine. Stay tuned for the next chapter.

We thank the good Lord for the American Bonanza Society. Among a number of other good things, it's a great shoulder to cry on.

Dear Jim:

This is further to my letter of March 7th.

We got our propeller back from Hartzell in May and everything has been running smoothly ever since.

It seems when the original installation was made, the adapter plate for the governor was installed upside down with the result that the pressure relief port was blanked off. I guess it was just a matter of time before the seals blew and we're fortunate that no one was hurt.

We have yet to gain any satisfaction from the company that made the installation but we came across a guy who seems to know the Beech electric propeller inside out. He was delighted to purchase our used unit and declared it to be in very good shape. He is an ABS member who lives here in New Hampshire, name of John Singer. Members with questions about the electric prop might want to contact him at some time in the future.

Thank you for your interest in our ongoing saga. I hope it's been a great year for the American Bonanza Society.

Fred Huber

Editor's Note: The ABS member is Dr. John J. Singer, Jr., Box 215, Hollis, New Hampshire 03049.

The "ongoing saga" started in July, 1978, and ended in May, 1979. We thought our members would be interested Mr. Huber's problems and the solution.

* * * *

TACTAIR PROBLEMS

Dear Mr. Colvin:

I have a two axis Tactair autopilot (suction powered). It sets up a constant series of right and left turns through and around the selected heading. Occasionally it simply releases for a 40° turn before coming back to wobble around the selected heading.

Any inexpensive ideas, or is this another big bill?

E. G. Southworth
Cleveland, Ohio

Dear Mr. Southworth:

I know nothing about autopilots. I would suggest you contact Avionics, Inc., Terminal Building, Lunken Airport, Cincinnati, Ohio 45226. Telephone 513-871-6221. I understand they are the only people who have parts and knowledge to repair the Tactair autopilot.

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News and Views

WING TIP SPARS - A36

Dear Mr. Colvin:

I own a Model 36 for which I need both wing tip spars. The Beech factory has informed us that it would take at least 4 to 6 months for delivery of these items.

Is it common policy for the factory not to stock structural items and for it to take this long for delivery? Do you know of another source for these spars?

Charles E. Jones, M.D. ABS #5941
Fort Stockton, Texas

Dear Dr. Jones:

In order to check with the factory in an effort to speed up part delivery, I would need to know the Beech dealer from whom parts have been ordered, their order number and the part number.

There are two alternatives. One is to order the complete wing tip or the parts separately. Ordering the complete wing tip would not cost a lot more than parts and labor to fix your tip. The tip probably would be in stock and certainly would be shipped in one or two days if ordered AOG by your dealer.

The needed spars also should be ordered AOG (airplane on ground). AOG parts ordering costs more but does speed delivery by taking parts off the production line rather than from factory parts stock.

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LOOSE VERNIER - M35

Gentlemen:

I have an M Model Bonanza and have the following problem: The vernier knob on lean mixture keeps creeping after setting. Fortunately it creeps back to "rich".

I have tried to get information locally on what to do to fix this but I am not able to get an answer. All they say is to replace it.

If this knob cannot be readjusted for friction and the only answer is to replace it (which is not cheap), then that is what I will do, but it seems that the problem should be repairable.

John Grevich ABS #12194
Star Prairie, Wisconsin

Dear Mr. Grevich:

Friction is applied to the mixture control shaft by a leather washer in one of the nuts that secures the control to the instrument panel.

To fix, back off on the back side of the instrument panel and tighten the nut on the front side. If the leather washer is worn out, make a new one by cutting a piece from one of your old belts. Chances are good you won't need a new washer.

Dear Norm:

I did just what you said. It took about five minutes and it worked perfectly without cutting my belt. I don't understand why the big Bonanza dealers don't know this.

Thanks for the $100.00 gift. That's what it would have cost me if I had taken my problem to a Bonanza dealer. This pays my dues for the next six years.

John Grevich

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QUESTIONS ON OIL - F33A

Dear Mr. Colvin:

I enjoy reading your comments regarding the use and maintenance of the Bonanza. I have a 1978 F33A and enjoy it very much. I have a few questions:

1. I notice a difference in oil level between hot and cold engine. Should the level be measured on a hot or cold engine?

2. I change the filter with each oil change (25 hours) and install 12 quarts. I have not added oil until it reaches the 10 quart mark on a hot engine. This takes from 15 to 18 hours. On a cold engine it will read approximately one quart lower. Is this the recommended procedure?

3. I have used an oiled cloth (dripless oil) to wipe down the prop. Would you prefer this to waxing the prop?

Frank Newell ABS #10663
Gresham, Oregon

Dear Mr. Newell:

After the IO-520 engine has been run then shut down, oil is trapped in the rocker box covers which can trap almost a pint of oil per cylinder. The amount trapped varies with engines but oil is there in all IO-520 engines. This oil will gradually leak down to give a higher oil level reading when the engine is cold, so it's best to check cold oil.

You have an exceptionally good engine if it only uses two quarts of oil in 15 to 18 hours. Normally for local flights it is well to carry oil level at ten quarts. For cross country flight, it is best to start out with twelve quarts cold measurement.

Wiping the prop with the oiled cloth is good but I would prefer that the blades be waxed. Wax will not only protect the metal from corrosion but will make the blades slicker aerodynamically.

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HIGH OIL TEMPERATURE, E225-8

Dear Norm:

I have a C35 with the E225-8 engine. It had an electric prop and I had a new Hartzell prop and governor kit installed about a year ago. After the new prop was installed, I have had trouble with the oil temperature going over the red line in a climb (cowl flaps open).

Is it possible to put a 225 engine out of a 1964 Debonair in my C35? If so, what would I have to do to get an STC for it?

William P. Kern ABS #10621
Mishawaka, Indiana

Dear Bill:

Changing the propeller should have nothing to do with oil temp unless residue in the engine was loosened, which might clog the oil cooler. I would suggest the oil tank cooler be removed and cleaned in accordance with the Beech Service Manual. While the tank is off, inspect the baffle inside the tank to be sure that it is secure, and that there is no hole worn in the baffle by the oil dip stick.

If this work does not correct the trouble, then the next place to look is the sump pump in the engine. If the sump pump is not working properly it won't return oil to the cooler, so high oil temp will occur.

The 1964 Debonair used an IO-470K engine. It will fit in your Bonanza with engine mount and other modifications. The hardest job and expense is obtaining STC approval. I would suggest you write or call Lou Stallings, Box 15213, Tulsa, OK 74112 or phone him at 918-835-7462. He may hold an STC on such an installation. If not, he may know who does. If Lou does not know, your local FAA office should have a listing.

My personal opinion is that you would not gain much by the change.

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BARON SEATS - MODEL C

Dear Norman:

I have a 1951 Model C Bonanza and have over the last three years been updating it. I am now in the process of designing the interior. I want to add the Baron seats to the front. I intend to keep my rear seat.

I have tried to locate a 337 to install the front seats. I cannot locate one. I contacted Cliff Kraemer at Arlington, Texas, and he said the 337 was not available in the Southwest. In addition, the FAA will not appove the drilling of holes in the main spar unless Beech approves. Beech will not approve because of product liability.

Can you help in getting my 337? I understand that the only difference between my main spar and the later models is the holes for the seat track.

Joe H. Beadles ABS #7849
Dallas, Texas

Dear Mr. Beadles:

I am unable to help you with the STC approval, but I note in the ABS Newsletter that Aircraft Paint and Upholstery, Hangar 3, Lunken Airport, Cincinnati, OH 45226 (telephone 513-321-5576), does do seating changes so most likely has STC approval or can get it.

STARTER LUBRICATION PROBLEM, V35B

Dear Norm:

This will review for you the unfortunate history that I experienced recently with the starter assembly on my V35B.

One rainy Saturday afternoon in October, when it came time to leave the Harlingen Confederate Air Force show, we were not able to start the plane. As a matter of fact, we couldn't even pull the propeller through by hand.

We left it with the people at Air Central on the Harlingen airport. On Monday they called to tell me that they found the starter adapter assembly frozen from lack of proper lubrication and the starter burned out. They said it would be necessary to replace both items. These parts don't come cheap and the total repair cost approximately $900.00.

Since this was the first significant maintenance problem I had encountered in six years of Bonanza flying, I wasn't too disturbed. However, I got very disturbed when exactly the same problem occurred less than six hours of flying time later. Fortunately, this time it occurred at my home base and I was able to become involved with the repair. With your help and advice, a mechanic found that the lubrication hole was indeed blocked by carbon deposits. He cleaned the hole out, put on another new starter housing adapter assembly, and everything has been working fine.

It is my opinion that the people at Air Central were negligent in not identifying the problem when they had the airplane apart, but I have about decided that my legal fees would cost me more than the $900.00 I might get back if I proved them liable, so at the moment I am just accepting it as a bad break.

In any event, your help was invaluable as always and I appreciate your personal interest.

Lawrence W. Hill ABS #4732
Houston, Texas

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FAA ADVISORY CIRCULAR AC 61-19A

Subject: Safety Hazard Associated with Simulated Instrument Flights and the Use of View-Limiting Devices on Aircraft, AC 61-19A

Purpose: This advisory circular emphasizes that a hazard may exist by the use of any device which unduly restricts or limits the visibility of the safety pilot while simulated instrument flight is being conducted.

Cancellation: AC 61-19, Safety Hazard Associated with Simulated Instrument Flights, dated 12-4-64, and AC 91-17, The Use of View Limiting Devices on Aircraft, dated 2-20-68, are cancelled.

Background: Federal Aviation Regulations Section 91.21(b) Flight Instruction, simulated instrument flight and certain flight tests, states in part, "No person may operate a civil aircraft in simulated instrument flight unless (1) an appropriately rated pilot occupies the other control seat as safety pilot; (2) the safety pilot has adequate vision forward and to each side of the aircraft, or a competent observer in the aircraft adequately supplements the vision of the safety pilot; and (3) except in the case of a lighter-than-air aircraft, that aircraft is equipped with functioning dual controls."

In some instances, nontransparent materials have been placed over portions of windshields and windows to reduce the possibility of outside visual reference. In certain instances, these materials may restrict the safety pilot's view and thus introduce a safety hazard that could be unacceptable. Use of such materials may alter the original aircraft configuration to the extent that the aircraft could be considered unairworthy. In instances where an individual has modified the aircraft and is not sure of its airworthiness, they should contact the local FAA District Office for assistance in determining the airworthiness status.

Recommendation: It is recommended that no material be placed in the windshields or windows of an aircraft which will in any way reduce the field of vision of the safety pilot below what it would be without the presence of such material.

In addition, sun visors, aircraft curtains, instrument simulation slats or other view-limiting devices should be removed or placed in the retracted position when not actually needed and being used to limit the pilot's outside reference.

J. A. Ferrarese, Acting Director
Flight Standards Service

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BRAKES AND BRAKE RESERVOIRS

The "tin can" brake reservoir in old Bonanzas is vented in a way that can promote water ingestion. The vent hole is located on the side of the threaded filler neck so that the reservoir cap partially covers the hole. I suspect that the designer intended the cap to act as a roof to protect the vent hole from rain. In my straight 35, this vent arrangement was causing large amounts of water to be drawn into the system. The raised rim of the reservoir would allow approximately a teaspoon of rain water to puddle on the top. Operating the brakes would suck water through the vent hole into the reservoir.

I have found that the geometry of these "tin cans" varies from aircraft to aircraft. In most, the can's top piece is conical so that the vent hole is well above the rim height and the problem does not exist. A simple check is to form a puddle of hydraulic fluid on the top of the can. If the puddle comes up to the bottom of the lid, you will notice that the puddle can be sucked into the reservoir by operating the brakes. By tugging on the reservoir neck, I was able to form the light steel top piece to a convex shape, correcting the problem.

I discovered the moisture problem too late to prevent corrosion of the magnesium alloy Goodyear wheel cylinders. The left wheel cylinder inboard seal started leaking fluid on the brake pucks greatly reducing braking effectiveness. On disassembly, I discovered extensive corrosion pitting in the bottoms of both cylinders. I was amazed that the right wheel was not yet leaking.

As I recall, new Goodyear castings list at around $80, so I opted for the STC'd Cleveland conversion at about $500 for the large 700x8 wheels (650x8 tires). The smaller 600x6 Cleveland system is also approved and is what Beech installs on new aircraft today.

CLEVELAND BRAKE PERFORMANCE

The braking action of the big Clevelands is supurb with no noticeable fade or sensitivity to moisture. The brakes are more sensitive than the Goodyears by perhaps a factor of 2 or 3. At first this is awkward, but one gets used to it like power brakes in a car.

The other major advantage of the Clevelands is the long pad and disc life compared to the Goodyear. Changing pucks and broken disc clips every 150 hours gets to be a nuisance. I understand the Cleveland pads last about 1,000 hours.

The only fault I could find with the Clevelands is that they tend to drag a little, making it more difficult to push the aircraft into the hangar. By pushing on each outboard caliper with my foot, the drag goes away. The drag is so slight that I forego this procedure if I have assistance pushing.

CLEVELAND INSTALLATION

Installation of the Clevelands is straightforward with the exception of the following caution: The flexible hoses connect to the caliper cylinders in a slightly different location than the Goodyears.

It appeared that the hose would dress outside of the gear door periphery with the strut fully extended. I jacked the aircraft and slowly raised the gear. The hoses were indeed too long and got caught in the door jamb. It is not a big deal to shorten the hoses.

News and Views

CLEVELAND INSTALLATION (Continued)

If you have recently installed Clevelands, I recommend the following inspection: Have an assistant shoulder lift (at the spar cap) one wing at a time to fully extend the gear strut. Then examine the hose dress to assure that it lies well inside of the door periphery.

BRAKE SYSTEM FLUSHING

After discovering my moisture problem, I got in the habit of draining the brake system at each annual and replenishing with fresh "dry" hydraulic fluid. Unfortunately, I would drain the system at the bleed fittings on the wheel cylinders and these are not at the lowest point of the cylinder, so I was probably leaving a puddle of water in the bottoms of the cylinders. There is a 10/32 screw in the cylinder cap plate that may have been intended to drain water from the system.

However, if you are interested in saving your Goodyear brakes from corrosion, I would recommend removing the "C" ring retained cylinder caps and wiping the cylinders clean. I would not be alarmed if you find a small amount of corrosion as the "O" ring seal seems very tolerant of surface roughness and the brakes may function just fine. Refill the system by upbleeding with freshly purchased hydraulic fluid. This fluid is designed to absorb moisture. A can that has been sitting around the hanger with the lid off is probably already saturated with water.

R. C. Keiter ABS #5686
Airborne Electronics, Inc.
Healdsburg, California

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ABS GROUP INSURANCE: HOW IS IT PERFORMING?

San Antonio, another outstanding ABS meeting. Weather beautiful - attractive city with fine facilities - excellent program and arrangements - many old and new friends - many questions about the program.

The reason for a group insurance program is to combine a sizeable group, which year after year has losses lower than average. This allows the company to pass along premium savings to the members. The ABS loss record is excellent and getting better. You know how much more all repairs cost today but there has been no increase in ABS rates for three years.

What can group insurance do for you if you qualify for the group? First, I believe it gives you the broadest policy currently written on aircraft in this category, including:

1. Valued Form - in event of total loss, you collect the face amount of the policy.
2. Premium Insurance - if the loss should occur the 10th day, in addition to full settlement, 355 days' premium is returned to you.
3. There is zero deductible for either in motion or not in motion losses.
4. Your company, Republic of Dallas, carries the highest rating, A+, for financial strength and claim handling.
5. Prompt courteous service. Start with a toll free call and we are here to assist in any detail. Remember, you are now part of a valuable group of customers, not one swimming alone.

The ABS program has been building for nine years. Ask any participating members what their experience has been. It"s the best way to test any program.

You may not have been eligible for the program or for lowest rates on first inquiry, but now with more Bonanaa time, try again. Now, or not later than your next renewal date, ring 1-800-835-2677. Say you are an ABS member and compare for yourself. Don't miss the boat.

Don Flower ABS #2852

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ABS ANNUAL CONVENTIONS	
NASHVILLE, TENNESSEE	July 16-20, 1980
LAS VEGAS, NEVADA	August 31-September 3, 1981

AFC - MODEL 35

Dear Bill:

I would like to thank you and the others who have contributed so much to the ABS Newsletter. The information is always useful and enjoyable reading.

I would also like to express my thanks to Norman Colvin for his encouragement when I was trying to make up my mind on the spar replacement in our 35. He was certainly right. It is a worthwhile modification and I would not hesitate to do it again.

My wife and I own D703, a straight 35, at least it started that way. It has had its fair share of modifications. Spar, M air tips, new panel, and many more.

When we bought 3256V it had a little ignition noise in the radios. An Alpha 200 and a MkII made up the radio stack. Locally the noise wasn't too bad, but in the country it was something else. The mags were overhauled, the harness replaced, and all the details taken care of. The result was barely acceptable. Later the radios were replaced with a pair of KX160's and things were much improved.

During all these happenings another strange thing would occur. The prop controller would blow an occasional fuse. Always during start up, or at least prior to run up. After replacement the control would work fine. Several bench checks were made and always showed the same results: nothing wrong with the controller.

Last year the controller got erratic and was again pulled, and same as before, worked great on the bench, but now it was bad in the plane. After a few in and out cycles I was determined to find the problem. After much testing without any results, I gave up the test equipment and went after every failure mode that could occur in the power loops. Eventually what should have been obvious was discovered: the rotating pole piece was arcing to the photocell. The indications are clear now. A sagging fuse, a blown fuse when the engine stopped at exactly the right place, and the slight black soot on the edge of the rotating pole pieces.

The correction was easy now. Just slide the photocell back in its location and tighten the safety wire so it will stay put. I did, and it did, and it works great again. Best of all, the ignition noise is all gone, not even a trace.

Dalton A. Davis ABS #7984
Bellflower, California

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FLIGHT STANDARDS SERVICE DIFFICULTY REPORTS BE95C55

Found torque tube attach bracket separating from left elevator. Suspect trim tab flutter.
Part Name: Bracket Part Condition: Separated

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BE-G33 - Aircraft took off from rough gravel strip. Nose landing gear would not retract after takeoff. Investigation disclosed that rod end, P/N HML6, had split in two.

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GENERAL AVIATION AIRWORTHINESS ALERTS

Continental Model IO-520-C? Cylinder Studs

The pilot reported the engine running rough soon after takeoff and returned to the airport and landed. An inspection disclosed the mounting studs on top of the cylinder were broken and the case was cracked at No. 4 cylinder. The exhaust pipe and the fuel injection line were also broken at the No. 4 cylinder. Total engine time since overhaul - 550 hours.

Teledyne Continental Oil-Filter, P/N 641581

During an engine run, following an oil and filter change, the engine was shutdown after two minutes of operation to determine the source of an oil leak. The filter base plate was found split at the ridge just outside of the gasket ring. It was reported that the crack was formed by the manufacturing process when the base plate was stamped prior to filter assembly.

E-225 OVERHAUL

Dear Bill:

Here is the letter I promised to write re my recent experience with exchanging my E-225 engine in our G-35 Bonanza.

After talking to you last fall, I elected to get an exchange engine from Lou Stallings Aircraft, Tulsa, OK, with installation by Dee Larsen (local A & P). My phone conversations with Lou Stallings were both friendly and helpful, and I look forward to meeting Lou in person when I have the opportunity of going through Tulsa.

An EGT was installed, strobe installed, electric prop serviced, and seals between the engine and cowl were refurbished during installation.

The engine and oil temperatures ran above normal for the first 40 minutes at 75% power, at 7,000 feet MSL with the cowl flaps open, during initial flight test. The temperatures then began to drop and after a total of 90 minutes the temperatures were near normal with the cowl flaps closed.

I now have about 100 hours on the engine and enjoy the increased performance. The oil consumption rate is about one quart per six hours, compared to the old engine which was using one quart per hour.

We had several problems to correct during installation and checkout. First, the fuel pump was assembled backwards so the engine would start but then immediately quit. Reassembling the pump corrected this problem. Second, there was an oil leak in the seal between the sump and intake manifold after about 20 hours. This was resealed. Also the oil pressure was reading at the low edge of the green arc, so the pump was adjusted to increase pressure by about 5 psi.

It seems to me I have to pull out the mixture control a long way to achieve proper leaning. Using 75% power at 7,000 feet MSL I have to pull out the mixture control to about 1/4 inch of fuel cut-off before I get any significant rise in EGT. Also, to get maximum EGT, the mixture control must be pulled out to the fuel cut-off point. I would appreciate your comments on this. Editor's Note: Not unusual, believe your EGT.

New door and window seals have been recently installed which reduced the cabin noise over 5 dB. As a result my radios sound much clearer and ATC doesn't complain about poor transmissions. I use the Telex 5x5 headset that I won at the Phoenix ABS Convention.

Rollin O. Boe ABS #8385
Ogden, Utah

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FAA DROPS AIRSPACE PROPOSALS

FAA Administrator Langhorne Bond announced that he has withdrawn proposed rules for expanding the band of airspace subject to air traffic control and placing more requirements on non-instrument pilots using that airspace.

Bond said the withdrawal of the en route proposals does not change agency plans to propose new or revised terminal control areas (TCA), which FAA announced at the time it issued the en route proposals.

Bond said his decision to withdraw the en route proposals came after FAA's review of extensive public comment on the proposals and analysis of other related data and information indicated there may be more effective alternatives for achieving the agency's safety objective.

FAA received more than 43,000 comments on its proposed "Controlled Visual Flight" rules to help reduce the threat of midair collisions. Bond said he was impressed by the quality and thoroughness of the recommendations received from the public and he said they will provide a valuable data source for future analysis.

Specifically, FAA has dropped its proposal to lower the floor of positive control airspace from 18,000 feet to 12,500 or 10,000 feet (depending on location). The proposal also would have required pilots operating under visual flight rules (VFR) to file flight plans, maintain communications with air traffic control, and adhere to air traffic control clearances and instructions when operating between 12,500 feet (or 10,000 feet) and 18,000 feet. Currently, only instrument flight rule (IFR) operations are required to be subject to air traffic control in the airspace between 10,000 feet and 18,000 feet.

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ABS FLIGHT INSTRUCTOR REFERRAL

Dear Bill:

Thanks for sending me the addresses and phone numbers of the instructors who took the Long Beach Seminar. My biennial was due for renewal. I also wanted to do some instrument refresher work.

I chose to call one of the instructors living in my area, James R. Grooms. I explained to him that I had received his phone number from ABS, and that I needed to do some instrument refresher work and take a BFR. He asked me my hours, rating, and model of aircraft. We met at the Long Beach Airport the following Sunday.

After checking my logbook, license and medical, he told me he had been flying since 1937. I flew with him 7 hours. Jim is a very thorough instructor and he knows Bonanzas. I intend to use more of his flying knowhow in the future.

I enjoyed the San Antonio Convention very much.

Bud Lambeth ABS #250
Downey, California

A NOTE FROM DON BIGLER

Mr. James E. Stargel
Associate Director

Dear Jim:

We are in the process of putting things back together at TCM, but it will be a while before everything is normal again.

Jim, I am sorry that circumstances prevented me from attending the meeting, and while I know you were inconvenienced in having to obtain another speaker, I trust all went well for you.

Thank you for your concern and thoughts.

Sincerely,
Don Bigler, President
Teledyne Continental Motors

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GENERAL AVIATION AIRWORTHINESS ALERTS October, 1979

Beech 95-A55 Drag Link Attach Fitting

An investigation to determine why the nose gear doors were not closing disclosed the right drag line fitting had severely eroded. The battery drain hose was not positioned properly which allowed venting of the battery onto the fitting. The fitting was replaced and the battery vent hose was secured in the proper position. Total aircraft time - 2,740 hours.

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Vacuum Pump Precautions

A potentially hazardous condition exists on all light aircraft using dry air pumps manufactured by Airborne Manufacturing Company.

Tests conducted indicate a deficiency in the shaft seal design, and that engine cleaning procedures, normally associated with routine annual and/or 100-hour inspections, may cause harmful agents such as Stoddard solvent to be ingested and cause premature failure. Because solvents of this type rapidly attack the carbon bearing, vanes and rotor used in this type of pump, the failure can take place quickly and with little or no warning. To prevent such occurrences, the following protective actions are recommended when cleaning aircraft engines:

1. Carefully cover the coupling area between the pump and the engine drive shaft so that no cleaning solvent can reach the coupling or seal.

2. Replace the vacuum relief valve filter after cleaning the equipment in the engine compartment BEFORE starting the engine.

These precautions are particularly applicable to single engine aircraft where no backup vacuum supply is available.

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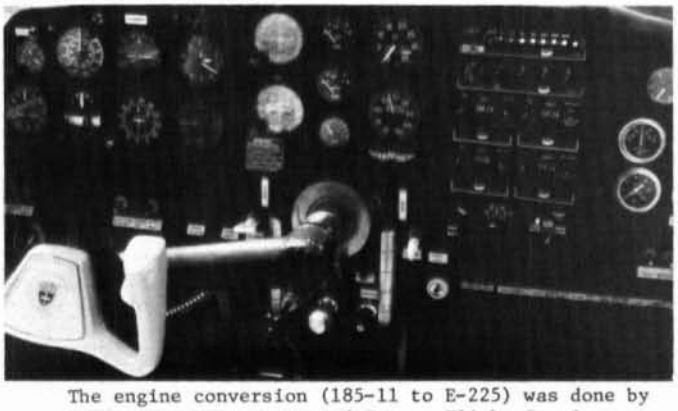
BONANZA OF THE MONTH

I have been meaning to write and submit my Bonanza as a candidate for "Bonanza of the Month" for some time. I never seemed to get my act together, but finally, here it is. The extensive modifications to N1990D, 1952 C Model D3230 include:

Cleveland Baron brakes, Beryl oil separator, single piece windshield, Hartzell propeller, custom interior, imron paint, E-225 engine, oxygen system, stereo casette system, late style overhead vent system and control wheel, new extended nose wheel doors, and high speed gear kit.

Perhaps the most significant mods are concerned with the custom instrument panel with Bendix avionics (see the photo).

Other modifications include the complete rewire of the panel, all new reset type CB's (easily accessible under the radio stock), throttle, prop, mixture control, Bendix key starter, 3" non tumble gyros, Beech panel kit, Beech flap and gear switches, dual strobes, 3 fuel gages, voltmeter, EGT, pitot heater, built in push to talk/Plantronics headset, late style heater, carb heat, knobs. All indicator lights are "iris" type - push to test. All engine gages are individual 2¼" gages.



The engine conversion (185-11 to E-225) was done by Pete Wolf, now the co-owner of Fresno Flight Services at Fresno, CA. The major sheetmetal work on the extensive panel mods was done by Jim Schmidt, now the shop manager at Fresno Flight Services. These two gentlemen are real craftsmen and I can heartily recommend their work.

I have owned 90D for 12 years and have flown it approximately 3,000 hours. It is a fantastic aircraft and is a real member of the family. A lot of blood, sweat and tears have gone into the aircraft, and we are very proud of it.

Keep up the good work.

Michael R. Wash ABS #4683
San Jose, California

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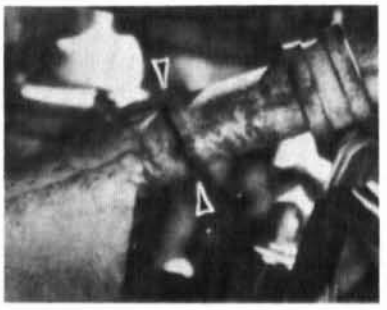
GENERAL AVIATION AIRWORTHINESS ALERT Engine Mount
Models 95, B95, B95A, D95A and E95



Numerous reports of cracks found in the tubular engine mounts of these aircraft have been received. Beech recommends the engine mounts be inspected with at least a 4-power magnifying glass every 100 hours time in service This inspection is specified in Beech Class II Service Instructions No. 0816-241.

A broken mount was found when a clamp was removed for relocation during a 100-hour inspection. The break was covered by the clamp.

These engine mounts are not heat treated; therefore, if cracks are found during this inspection, repairs can be made using the guidelines contained in the welding section of FAA Advisory Circular 43.13-1A.

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ANOTHER SUCCESSFUL FLIGHT INSTRUCTOR SEMINAR

The Oak Brook Hyatt House in Chicago was the scene of the third Bonanza Oriented Advanced Flight Instructor Refresher Seminar, October 26-28.

Those attending ranged from members bringing their flight instructors to 747 captains. Comments from the attendees were most gratifying. Many instructors commented "best ever".

Members desiring a list of graduates may contact ABS headquarters.

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BONANZA ORIENTED FLIGHT INSTRUCTOR
RECERTIFICATION SEMINARS
1980

Wichita, Kansas	January 18-20
Atlantic City, New Jersey	February 15-17
Fort Lauderdale, Florida	March 14-16
Long Beach, California	May 16-18
Palo Alto, California	May 23-25
Denver, Colorado	September 12-14
Chicago, Illinois	October 17-19

BONANZA SERVICE CLINICS

The 1980 Service Clinic schedule will be printed when completed.

C A L E N D A R

February 2-16, 1980	SOUTHWEST CHAPTER
Contact Harry Hadler	Winter Holiday
405-223-1465	Innisbrook, Florida and Treasure Cay, Abaco, Bahamas
April 4-6	SOUTHWEST CHAPTER FLY-IN
Contact Harry Hadler	Natchez-Vicksburg, MS
April 3-6	SOUTHEAST CHAPTER FLY-IN
Contact Bill Norwood	Charleston, SC
704-225-0013	
May 16-18	NORTHEAST CHAPTER FLY-IN
Contact Richard Kull	New Jersey Shore
609-983-6060	
July 12-16	SOUTHWEST CHAPTER PRE-CONVENTION TOUR - Dayton, OH and Washington, DC
Contact Harry Hadler	