Starduster

Dedicated to the
ACTIVE Homebuilders

APRIL 1991

Stolp Starduster Corporation
4301 Twining
Flabob Airport
Riverside, California 92509

Dave,

It is with heartfelt warmth that I write this note of thanks and appreciation for your dedication and faith to "Starduster", her builders and fans and last but not least myself.

I am sure you are aware of the added hours needed in a day to build a magazine like this - you've done an excellent job. Please carry on.

I am looking forward to the familiar crowd at our open house, which seems to get better every year.

Dave there is alot of interest in the "Cabin Starduster", so much in fact you may convince "Starduster" to offer plans - We will talk about that in May.

I know I'm rambling incoherently but I've been very busy - you will find drawings for next issue inside - also a new business card with added phone numbers.

Hey has Dan soloed N96576 yet? If yes congrats to him if not I'm sure it will come.

Wish you could be here 1-18-91 for the brain drain or input, you will be missed - I will send you notes for the magazine article. The following people planned to be present : Lou Stolp, Ed Marquart, Glen Beats, Bill Hill, George Rice, [Dave Baxter], Bill Clouse-

Dave gotta go - Talk at you later.

"B.C." Prez

P.S. Its not to soon to notify readers of the: "Starduster Dinner", at AceeDucee, Tuesday July 31, 1991 at 6:15 p.m.

Stolp Starduster Corp.

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APRIL 1991

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We would like to thank all of this issues contributers and respond to one and all for some interesting information and photos.

FRONT COVER - For all you Starduster One owners and builders N875D is owned by Minot Piper 1389 S Pioneer Dr, Abilene, Texas 79605. The other Starduster One N156W is owned by Jim Drace, 1560 Christopher Lane, Redlands, California 92373.

BACK COVER - Is my good friend Scott Smith 8710 106th St Ct SW, Tacoma Washington 98498. N4316 picture taken over the Columbia River north bound by Ranier, Oregon.

SUBSCRIBE TO THE STARDUSTER MAGAZINE. PUBLISHED FOR PEOPLE BUILDING OUR AIRPLANES. TECHNICAL INFORMATION, NEWS AND PICTURES. PUBLISHED FOUR TIMES A YEAR. SUBSCRIPTION RATE IS $10.00 PER YEAR $16.00 PER YEAR FOR OVERSEAS MAILING (EXCLUDING CANADA).

THE EDITOR IS ALWAYS LOOKING FOR TECHNICAL AND EDITORIAL CONTRIBUTIONS TO THIS MAGAZINE, WHICH IS DEDICATED TO THE HOME BUILDER AND SPORT AIRCRAFT ENTHUSIAST. PLEASE INCLUDE YOUR NAME, ADDRESS, TELEPHONE NUMBER AND YOUR "N" NUMBER ALONG WITH ARTICLES SUBMITTED.
NOTE: For information requests regarding Starduster aircraft please include postage

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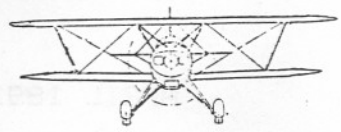

Odds and Ends From Your Editor - David Baxter

Well guys my mailbox has been jammed ever since the article appeared in Sport Aviation, which mentioned that I am the new editor of Starduster Magazine. It has been wonderful receiving letters and pictures from old and new friends. I just hope I will be able to fill all your needs and expectations.

It continues to amaze me the interest that the Starduster Too ... generates, as it is expensive, time consuming and not that easy for most people to build. But of course if you have to build a biplane there is none that is prettier. I must have talked to at least a dozen people during Oshkosh who told me that their Starduster Too was almost ready to fly and at least that many who were planning on building one.

As for the magazine I was also surprised of the response from Starduster One owners & builders, apparently there are still quite a few.

In the recent Sport Aviation under letters to the editor was a sad comment titled "Will It Do Any Good?" by Lance Jensen. I will not reprint his letter as you can read it in its entirety out of Sport Aviation. Essentially what he says is he is quitting flying and selling his airplane. Because of all the rules regulations, equipment requirements, and treatment at the hands of the FAA officials who deem him as an unworthy drug hauler. I can sympathize with his feelings of frustration. I myself have written numerous letters on behalf of general aviation and have felt it has done little good, Example:The recent 88-2 airspace grab, it is my understanding that there were more letters sent to congressman, and FAA officials on this one subject than any other piece of proposed legislation, including gun control and abortion. You would think that with all those letters that there would be some notice in the media. But of course there wasn't. 88-2 although watered down some, still took large chunks of airspace, as well as requiring additional expensive equipment. Much of the airspace taken was not needed, but was taken none the less. Recently there have been amendments made but of course to little to late. The point is no matter how bad it looks we should not give up, because that is what they want, no opposition. Lay down rollover and quit. We can not permit this to happen. As one of the few countries in the world that allows private aviation to exists, much less build our own airplanes. It is, worth fighting for tooth and nail, and let them know they've been in a fight they won't soon forget. So please anytime there are restrictive proposals regarding aviation call or write your congressman and FAA officials in triplicate expressing your extreme displeasure. Who knows it could make a difference.

On a more positive note I would like to encourage all you pilots, builders and enthusiasts to promote aviation in a more positive light. Say and do what ever you have to, take non flying acquaintances for a ride. If you can find interested young people take them. Do you remember your first ride?, when you soloed? Return the favor. Besides where are all the new pilots coming from. Who will continue are aviation heritage. Forget about the lawyers advise and give the kid a ride.

AD Notes, FARS, NPRM and Other Information :

Possible Problems

Stainless Hose Assembly Fails - Engine Trashed

John Fritch suggests that builders considering using stainless steel hose assemblies for oil or fuel lines think twice. And not just because of the expense. John installed these lines in an RV-4 a couple of years ago, after seeing them listed in the Aircraft Spruce catalog. He experienced a failure before his test flight, but replaced the line with another of the same type on the assurance that they were guaranteed for life of the aircraft. After 310 hours of use, and while on his way to Van's Homecoming Fly-in with his partner Sylvia Mechtold at the controls, an oil line failed again. Remembering that airplanes and humans are more valuable than engines, they continued to run the engine for about 7 minutes without oil pressure, until a safe landing was made at Lakeport, CA airport. Actually, it was on a taxiway because the runway was covered by graders and rollers for resurfacing.[Nice flying Slyvia!] An inspection of the engine by mechanics at Lake Aero showed the hoses had been properly installed, an oil cooler line had failed where the corrugated conductor was welded to the end fitting. Unfortunately, the engine was a write off.

We don't want to totally condem Stainless Steel Hose Assemblies based only on John's experience, but do feel his experience should be passed along for the possible benefit of others. The Stainless hose referred here is a braided all-steel hose [no rubber]. We are not referring to the more common Areoquip 601 which is a rubber hose with a light stainless steel protective cover.

We would like to hear from others who have used Stainless Steel Hose assemblies, with good or bad experiences, so that we can pass it along in the next Starduster Magazine.

On the Subject of Lycoming Engines

The FAA has issued a one time AD note on all 4 cylinder Lycoming equipped with a rear mounted prop governor and an external oil line. Failure to reinstall, or improper installation, of oil line support clamps has led to fracture of the line and subsequent engine failure. These engines are original equipment on the Cessna 177RG and the Piper PA-28R. Lycoming Service Bulletin 488 and Lycoming Service Instruction Letter 1435 contain information about corrective action, which includes replacing aluminum line fittings with steel and insuring that the line clamps are properly installed. For further information contact the FAA about AD 90-04-06, with amendment 39-6427.

BUILDER BEWARE

(Reprint from Starduster Magazine)

I recently had a call from Joe Hamilton of Greensboro, S.C. to advise me of a problem he found on his Starduster. Joe is modifying his wings to the "X" foil type. Upon removing the aileron bay fillet they found the ribs were mostly rotted away.

Most Stardusters have this area pretty well sealed up, but if moisture happens to get in there (via rain or washing) it has no place to go.

Joe's spars are fine. But we know that rot progresses and in time the AFT spar would have been affected.

So I advise all owners to inspect and drill small holes in the bottom of the fillet to let any air out and to let air circulate.

Thanks again for the call Joe.

Bill Clouse Prez

NOTE: Many airplanes are now 20 years old, something to check.

January 1991 - Structural Flying Wire Failures

Reports have been received concerning the failure of flying wires during flight. The cause is fatigue cracks from small region of pitting corrosion on the wire leading edge. These wires conform to but are not limited to, AN-674 and AN-676. Fatigue cracks in flying wires can be started by such things as corrosion, nicks, cuts and bends, and any scratch deep enough to catch a fingernail. Once a discountinuity occurs, the strength of the flying wire is degraded and repair is almost impossible. It is very important that flying wires be cleaned and inspected on a regular basis. Inspection on every pre-flight basis is recommended. If any discontinuity is found the flying wires should be replaced before further flight. Coating wires with oil or wax will help prevent corrosion. For further information refer to AC43-4. Corrosion control for aircraft.

January 1991 - Cast Aluminum Steering Arm Failures

It has come to my attention that several aluminum steering arms (at the bottom of rudder to steerable tail wheel) have failed. These arms are portrayed as Scott arms. But are counterfeit. Scott arms are tempered alloy with heat treat numbers with Scott cast on the top of the arm. Apparently someone has taken a Scott arm and has made casting forms from it. The problem is they are not Scott arms and are made from poor quality material, and they have been supplied by a major supplier. Anyone that has recently purchased a new one, should double check to make sure it is an airworthy arm.

Remember you guys - FAR 61.60 : Change of address

The holder of a pilot certificate who has made a change in his permanent mailing address, may not after 30 days from the date he moved, excercise the privileges of his certificate unless he has notified in writting the Federal Aviation Administration Airman Certificate Branch

Avionics Box Starduster Too

This Avonics Box mounts to the rear of the front seat via 4 1032 nut plates. It can be made from 025 6061 or 2024 aluminum sheet the corners are 050 aluminum angle rivited to the flat sheet aluminumn. The unit is made to accept comm, or Nav Com, Loran and transponder. I used the Val 760 Com radio; the 604 Morrow Loran and the KT76A King transponder. Any comparable unit will work. Mounted inside the box are circut breakers that are self reseting. Across those are flashing LED diodes with a 1K ohm resistor this allows them to come on and flash any time the circut breaker is tripped. Also mounted inside the box is an intercomm. Mine is made by Val and is only compatible with their radio. I cannot say enough about this combination, it has worked perfectly. On the top LH corner are 12v and ground removable power cables, so that the entire box can be removed with radios installed. Radios can also be removed individually with unit in place. Also at the top left is avionics switch, on the top RH corner is an HR meter and LED clock. Their is a front access plate and at the lower rear are all the Molex and BNC connectors that unplug antennas, Com, Loran, and Xponder. Molex plugs are used to disconnect intercom, front and rear, and push to talk switchs on control sticks, mounted underneath on the air frame is the transcal encoder. My airplane's covered to the rear cockpit with sheet aluminum. All panels are removable , with a little work the lower panel underneath the radio box can be removed. Allowing access to BNC and Molex connectors for quick disconnect, when entire box needs to be removed. This unit is easy to build, is compact and allows enough room for minimum avoinics. In my opinion if you want to really use your airplane this is the minimum equipment.

The push to talk switches are two position and are available from Val Avoinics. The first position is intercom and the second is radio. Pilot has priority. The other items are available from Radio Shack. 1K OHM resistors, 271-1321 red blinking light emitting diode 276-036C and small chrome holder for same. The circut breakers are available from automotive parts store in appropriate amps for current draw.

Com Radios: I picked the VA1 760 it has worked well, has a good intercom and it is also an Oregon company. The reason for Com radio only is that VORS no longer are a requirment in T.C.A.s and with a good Loran it is not needed. The problem I have found in a few places like military bases they have voice frequencys in the NAV 108 to 117 range, of course it would be nice to cross check Loran against the VOR. However one should consider the weight cost and complexity before a decision is made.

Loran: I picked the II Morrow 604 W/O the data base it also has worked well and also is an Oregon company. The only problem has been during thunder storm activity in the mid contenent cap while changing from Great Lakes to West Coast Chains it does not get good signal reception, but I think this would be true of most Lorans under the same conditions.

Transponder: I picked the King KT.76A with the trans cal encoder, because the radio people, as well as Consumer Aviation said this combination is bullit proof, and I have found this to be true. It requires little adjustment when being checked biannually and has worked flawlessly since installation.

AVIONICS BOX FOR STARDUSTER TOOS.

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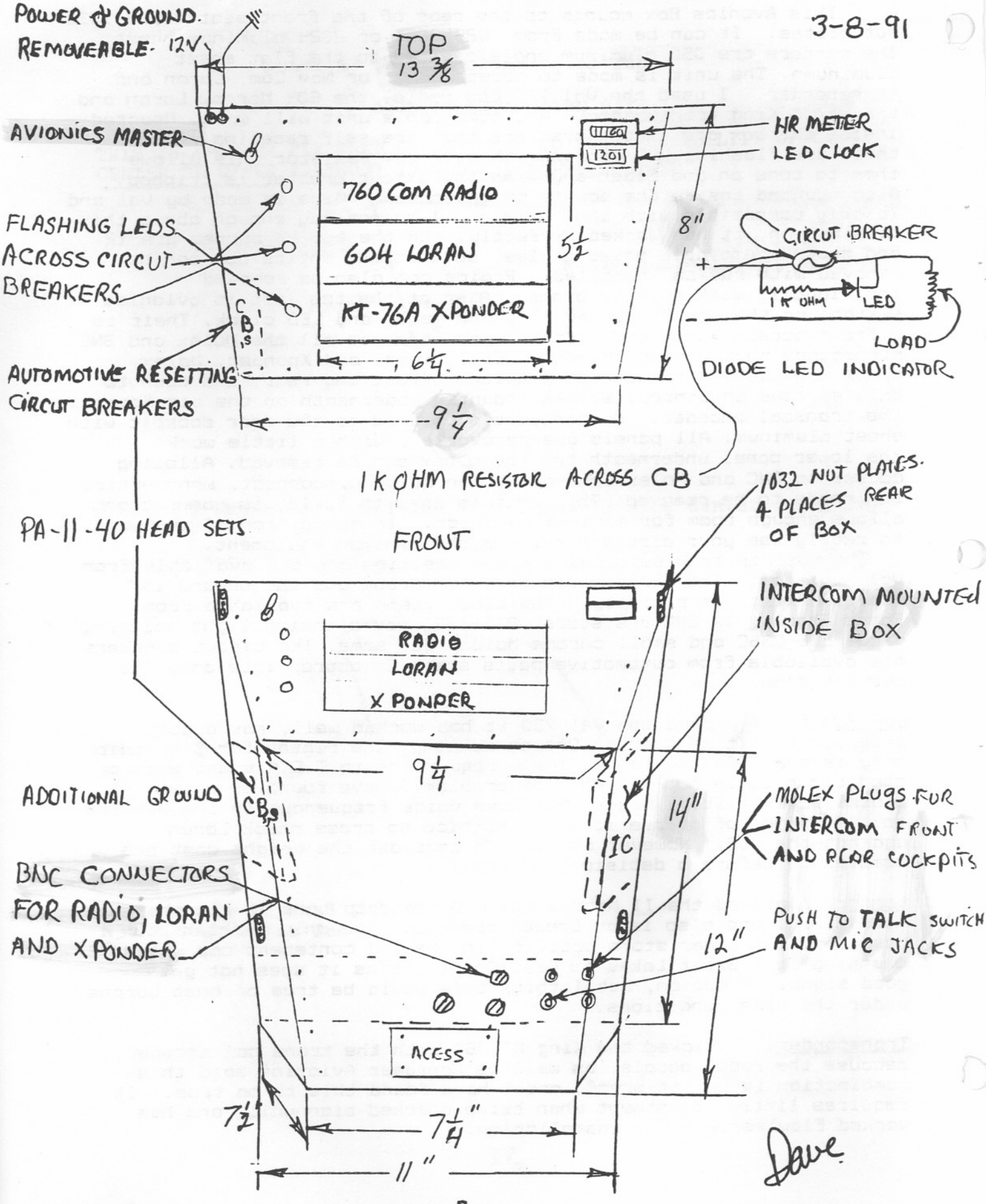


Those of you doing your own wiring should use good wiring practice as well as shielded wire with proper routing using clamps and tie raps. Taking care that wires do not chaffe.

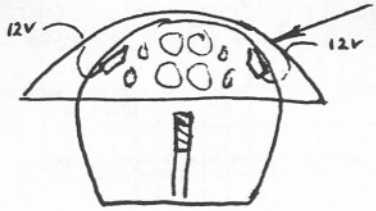
Several Starduster Too owners have asked me about intercoms. I have the Val Intercom and it can be used only with their radio. Mine has worked great out of the box. I have no experience with other intercoms. I do know that most intercoms that are voice activated will not work in open cockpit noise environments. So if any of you know of intercoms that really work well, please write and let us know. I sincerely hope this article will be of help to you builders.

Please contact your editor for additional details.

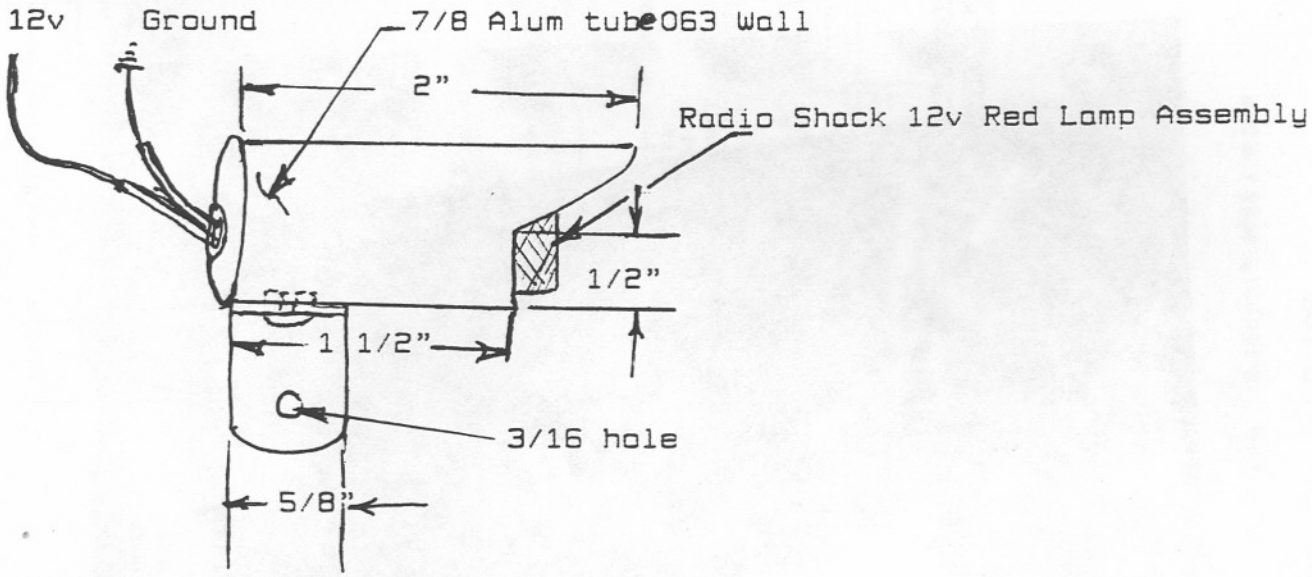
Dave

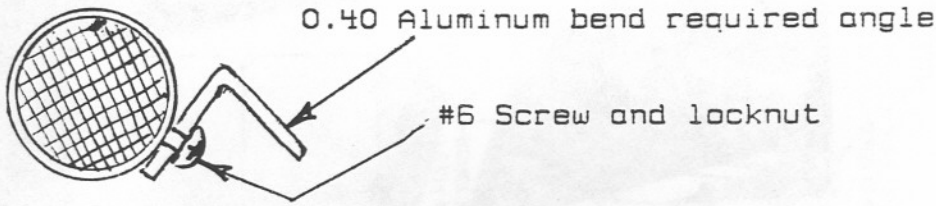
Instrument Cockpit Lights

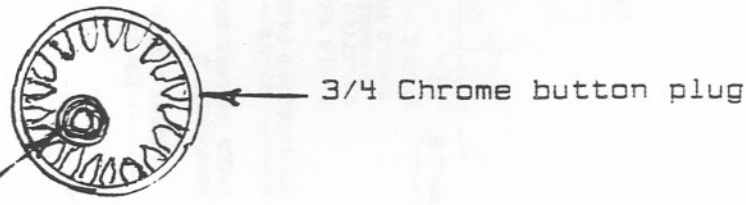
7/8 x 063 aluminum tube bathroom fixture rail
Jumbo 12 volt lamp assembly Radio Shack 272-336 2 each
Chrome button plug - hardware auto parts store
Grommett 3/16 ID x 7/16 OD Drill 5/16 hole



Connect to nav lights

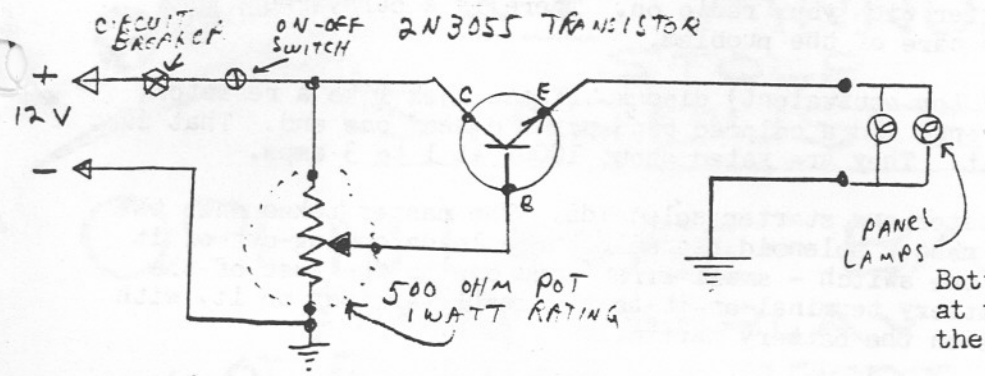






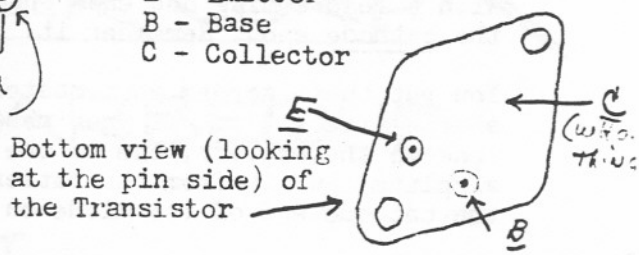
Dave

INSTRAMENT PANEL DIMMER



Transistor Terminology

E - Emitter
B - Base
C - Collector



Bottom view (looking at the pin side) of the Transistor

So you want to dim the panel lights, and "dial" lights in your electronic gadgets aboard your airplane, eh? Well, here's the device to do it, without giving you grief like those in Spam Cans such as Cessnas, etc. And it is cheap, too. It will handle 15 amps of current at any voltage up to 28 Volt aircraft systems.

It will dim, from full brilliance to zero, all the panel lamps you could possibly load into your craft. Also, by putting in a dual "concentric" potentionemeter (called a "POT"), with an off-on switch on the POT, and make up two, one could control red lights, one could control white lights. All that would show would be a dual knob, like the on-off/volume control and tone control on your car radio.

A few precautions--a heat sink is a necessity, on which you mount the transistor. Also, a mica insulator is used between the 2N3055 and the heatsink, with heat-sink grease (Dow-corning #340) on both sides of the mica. All screws must be insulated from the Transistor, or the whole heatsink must be insulated from ground or you have a dead short, as the 2N3055 case is the 'C' connection. On the POT, the center lug is the wiper (shown as the arrow in the diagram). When looking at the shaft end of the POT, with the 3 lugs pointing up, the lug on the right is the one that goes to ground. The other (left one) is the 12V (or 6V or 24V) supply from the switch. If you wire these outside onesin reverse, your lights will dim when turning the knob counterclockwise. To cure it, swap the two outside leads, and you're back in business.

Parts list:
- 1 - 2N3055 Transistor
- 1 - 500 ohm Potentiometer (POT) with switch
- 1 - Mica insulator for Transistor)
- 1 - Heat sink, for a TO-3 Transistor. These are about 2"X1"X$\frac{1}{2}$", finned. Not very big.
- 1 - Mounting kit for TO-3 Transistor. This is insulating sleeves, washers, etc.
- 2 - Screws 6-32, about 1" long is usually long enough.

Heat sink grease. One tube of Dow Corning 340 is enough to do about 150 transistors. If you are in a club, have the club buy the tube, and everyone uses it. Only takes a light coating of the mica insulator.

Remember, keep the transistor insulated from ground. If you don't insulate it from the heatsink, then the heatsink must be insulated from ground. This thing will dim 15 amps of current (would be enough to dim your landing light, but I prefer not to do that). Good luck. Most stuff can be bought at Radio Shack (just take in the list), or if you want, I'LL make up a kit for you, and mail it to you for $20.00 plus postage. Anyone who knows electronics at all can do it, it's simple.

Make sure all connections are soldered well, as vibration, etc, can ruin an otherwise nice clean wiring job, and cause blinking lights, etc.

Claude Preston

SAVE YOUR ELECTRONICS

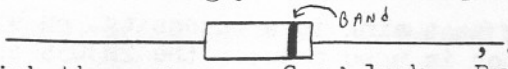
Your solid state equipment in your new vehicle is expensive. You don't need to ruin it by hitting the starter with your radio on. There is a cure, cheap and simple, which will take care of the problem.

Go get yourself 1N4007 (or equivalent) diodes. These look like a resistor, with a lead coming out each end, and a colored band painted near one end. That is the cathode end. Remember it. They are rated about 1000V at 1 to 3 amps.

You put these across your master and starter solenoids. The master takes one, the starter takes . If your master solenoid has only three leads coming out of it (one to the battery, one to the switch - small wire - and one to the rest of the airplane) put it from the battery terminal on it to the small terminal on it, with the cathode end of the diode on the battery terminal.

If your starter solenoid has four posts on it (two big ones and two small ones) one of the small ones is normally wired to the Battery side of the solenoid, the other goes to the starter switch. Just put your diode across between these two small terminals, with the cathode end on the battery side, not the starter side.

What happens is this: When you release the starter switch (or the master switch), the energizing coil of the solenoid creates a huge reverse current spike due to the collapsing field of magnetism. This spike can be very high voltage, and is opposite of normal polarity of the system. If your solid state radio or other gear is in the "on" position, this spike can blow your solid state gear apart. The diodes shown above "short" this spike out, saving your valuable gear.

These diodes look like this 

, and just put some kind of a lug on each end to accomplish the purpose. Good luck. By the way, they don't cost much, and are cheap insurance. The reason you only have three posts on a Master solenoid, is that one side of energizing coil is connected internally to the battery post. You are accomplishing the same thing on your starter solenoid, wiring it as stated above. When you hit the starter, all you are doing is grounding the other side of the solenoid, making it work. Some people like to have it hooked up so you are supplying current to the solenoid when you throw the switch, but I prefer my method, because if you get a short in your switch wire, it doesn't short anything out and get hot, all it does is activate the solenoid. Make sense?

If you hook the diodes up backwards, all that happens is that they will get hot and burn up, almost instantly. Just go buy new ones and put them in the right way and no problem will exist.

Claude Preston

THESE DRAWINGS ARE SUBMITTED BY CLAUDE PRESTON FROM SEATTLE WA AND ARE USED ON HIS STARDUSTER TOO N777CC THEY ARE SUPPLIED IN HOPES THAT THEY WILL BE OF SOME USE TO OTHER BUILDERS.

EDITOR

Starduster History

N70P the first single place Starduster built by Lou Stolp in May of 1957. Much of the look and design of the Starduster Too owes its heritage to the Starduster One.

Lou remembers a challenge race between Frank Smith the designer of the Smith mini plane, and himself, in their original designed biplanes. Lou had changed the 100hp engine for a 125hp Lycoming on his Starduster One. Frank of course did not know about this, Lou got a really big kick out of beating Frank and seeing the puzzled look on his face when they got down. However he didn't have the heart to tell Frank why the Stardusters performance had suddenly increased so radically. Frank Smith is gone today, but the 150 Smith mini planes that have flown are a tribute to their designer Frank Wilson Smith.

The basic performance figures for this airplane are top speed 147mph, cruise speed 132mph, landing speed 50mph, take off distance 300ft, rate of climb 2000fpm, empty weight 780lbs, and gross weight 1080lbs.

A report by Hank Kennedy in(Sport Aviation February 1962)that for its time N70P was fast, manuverable, responsive and quite a joy to fly. Which is probably the reason he went on to build his own single place Starduster named Witchcraft. A year or so later N70P was sold to John Tucker, an airline pilot from SanDiego. John added an electrical system Nav-Com and did some recovering along with a new paint job. Thus readying the airplane for its first trip to Rockford Illinois, then home of the big EAA Fly-in. It was quite a trip for a pilot used to the comforts and equipment of a PSA Electra. His stops were Phoenix, Alburquerque, Tucumcari; with an overnight at Olathe KS then to Kansas City, Ottumwa and Rockford. The airport at Rockford was beautiful. The fly-in by todays standards was small, but the friendships made with Starduster builders and owners made the time for departure come all to soon. The return home was relatively uneventful, with the exception of a broken exhaust stack. But N70P returned John home safely to SanDiego.

Some of the early builders were Gordon Renfroe N163G, Long Beach CA, C.H. Townson N9119R Marble North Carolina, Michael Delay N717MD Los Angles CA, Gene Coppock N2581 Hoffman Estates Illinois, Mike Frey N126F Alvin Texas, Myron Glandt N11MG Valley North Dakota, and George Strboya N15D Sherman Oaks CA. Many Stardusters were raced in Reno during the late 1960's and early 1970's, doing quite well in the Sport biplane class.

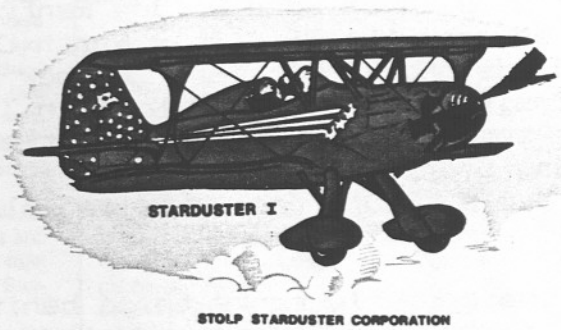
The Starduster One probably ranks third behind the Pitts and Smith mini plane as a favorite of the single place biplanes. It was a very popular design in the sixties, over a hundred sets of plans were sold. Around sixty airplanes were completed, with at least that many on current FAA registry.

I had a chance to buy a Starduster One at a Sherrifs sale several years ago but the owner satisfied the lean at the last minute. It is a real shame as the airplane is still outside slowly deteriorating.

The current fate and disposition of N70P is unknown, it was last registered to Mike Hatcher 8348 103rd Street Jacksonville FL 32210. Perhaps some of our readers could supply its current status. EDITOR

N70P SA-100 Single Place

What has happened to all the single place Stardusters at Carrollton Texas Airpark North of Dallas Builders are: Charles Grant,Par McClung,John Snyder,and Don Brookshier.



The Purchase
by Gary Tragesser

For obvious reasons, I found myself grinning like the proverbial cat as I placed the phone receiver back on its cradle. The grin turned a little sheepish as I glanced up and see my English teaching mate looking at me over a pile of 8th grade book reports. She has that uncanny ability shared by most good teachers, to make you feel a need to confess even when you did nothing wrong. They are able to intimidate and accuse with a smile . "That was our friend and family dentist," I confessed. Arched eyebrows caused me to ramble on. "He's found a really nice aerobatic bi-wing and thought that I might be interested in a partnership. I sort of thought that it might be a good investment ." Her eyebrows arch even higher, she just doesn't buy that good investment idea any more."We really do need an airplane so I thought that we could make an offer on it." Her silent smile told me that she didn't quite agree that we NEEDED an airplane. But we or maybe simply I wanted an airplane. In a rare (thank-God) attack of practicality, I had sold my Cessna L-19 about eight months prior. I had not regretted the sale until the new owner started to taxi away . The pride a pilot feels for his or her aircraft is almost unequaled.

It wasn't as if I didn't have other aircraft to fly. The company that I fly for has a King Air, a Bonanza and a Bell Jet Ranger, so my flying needs should be met , thus the sale was the practical thing to do. But I immediately missed the owning , rubbing and pride. Now I had a chance to to own half of a beautiful Stolp Acroduster. My mate with one last questioning glance returned to grading her book reports as I quickly found some reason to exit the room. I was committed and quite pleased with the decision.

All was beautiful for five days--until our offer was refused because of the acceptance of an earlier offer. My friend, the dentist gave the the news that our dream was gone and added that since our offer was rejected, he thought that he would put the money that he had programmed for his half of the Acroduster into new avionics for his very nice" V "tailed Bonanza. As I stood there staring at my friend the dentist who I was no longer sure was my friend, I decided never to have another cavity.

The dream was gone for I had not only lost the Acroduster but I had also lost the partner to help find another. I wanted to pout, but I couldn't find anyone to pout to who would give me the sympathy that I felt appropriate. For three weeks, I felt that I was captive to practicality. I was going to be stuck in simply renewing the CD that once was a plane every six months. But then one mourning, I heard from my repenting dentist, now a partial friend, that he had heard of a Stolp Starduster Too at a nearby airfield. He felt that he was already committed to the new avionics, so he

would not be interested in a partnership. I didn't care for I had hope and direction. I could always find a partner later.....

A telephone call confirmed the Starduster's existence and the fact that it might be for sale. The next day found me on short final at the Starduster's current home. One look was all it took.However, I did refrain from offering him more than his asking price which was remarkable for my state of mind. I had rid myself with only a few words of that cold, flat certificate of deposit and acquired a warm, beautiful 260 HP white and green object of joy and art.

A week later after the usual paper work and a new annual, I was sitting behind the whirling propeller wearing borrowed goggles watching the oil temperature rise into the green. The taxi out was one long smile. I had never had the opportunity to fly an open cockpit before and felt that this must be how the early barnstormers experienced flight. During the short flight home, I refought and out flew every ace of WWI and I shared the sky with those incredibly brave aviators who first delivered the mail. I left practicality on the ground and told it to walk home, that should keep it away from.my door for years. My appreciation of my new toy changed to adoration in spite of the unusually brisk Idaho March winds swirling around the open cockpit.

After a less than smooth first time ground arrival back at her new airport, I found myself pleased with the chilly temperature which resulted in few other pilots witnessing the dribble landing. My pleasure in 27CG was not damaged by my poor landing skills for I knew that many hour of enjoyment lay ahead in improving our understanding of each other's abilities, which would result in more satisfactory landings.

I spent the next hour wiping down my new incredible toy while I waited to show its beauty to my best friend, the earlier mentioned English teacher. Upon hearing a car door close in front of the hanger, I crawled out from under our newest investment wanting to share THE moment. She didn't let me down. While I'm certain that she didn't accept my arguments nor has she experienced the unbelievable joy of flight, she does try to share and understand what I feel. She followed me slowly around this new wonder never uttering a word of disapproval or doubt in the sanity of my decision. I felt at peace with the universe. The drive home gave me time to expound on the attributes of our new treasure. We pulled into our driveway, she patted my hand and quietly commented that even she agreed that a bi-wing is certainly prettier that a CD. I was happy.

GARY TRAGESSER
802 S HATHAWAY
MOSCO IDAHO 83843
N27CG STARDUSTER TOO

N4316 On Back Cover

Dave Baxter
5725 S.W. McEWAN Rd.
Lake Oswego, Oregon, 97034

Dear Dave:

Thanks for the letter and the info on you being the editor of the Starduster Newsletter. They couldn't have picked a better person to represent us.

Yes, I would be happy to help you and write an article or two when you need "fill". Just let me know when and what you need and like if I haven't come up with something and presented it to you by the time you need it next.

Your first Magazine was a very good one. The pictures are pretty good. I need to have some more made of the refurbed version of mine (4316) as well as copies of the way I received it to share with you.

I am still enjoying my love affair with Starduster Too N 4316. I am flying it year around as you know although I put a canopy on the rear cockpit during the super cold weather.

I moved back down to Mark Hoskins' strip- Aero Plaza -in Olympia from Spanaway. Unfortunately my hanger was broken into twice last year and I decided I better move before 4316 was damaged other than a loss of tools and equipment.

I am very happy at Aero Plaza as this is where most of my flying friends hangout. We all go to breakfast every Saturday morning if we don't cook in one of the hangers on the strip. All are welcome to join us at any time. This way I can keep the front cockpit filled with deserving, interested aviation buffs at it should be. (One of my pet peeves is to see empty front cockpits on BiPlanes).

I like the idea of the NW Starduster get together. Just say when.

I don't know about Oshkosh yet but I will be attending all the usual flyins here in Washigton and Abbotsford. Let me know which ones you will be attending as well as what you may recommend down your way. I too enjoyed the flyins we attended and look forward to same.

I am doing a lot of aerobatics as of late. Even got a new chute. I may try my hand at some amature competition over at Ephrata, Wa.

Yes, go for it! Any help you need reviving the Stardusters International Club, just say the word. By the way the

Russians sure were interested in 4316 at the Boeing flyin this summer as well as the year before at Abbotsford where the were photographed in it.

Your friend and fellow
Starduster owner.

Scotty Smith

P.S. Where can I obtain a couple more Starduster (Stolp) fabrick patches.

N96576 & N4316 At Pearson Airpark Vancouver Washington During Aviation Museueum Open House November 1989

Febuary 17, 1991

David C. Baxter
5725 S.W. McEwan Rd.
Lake Oswego, OR. 97035

Dear David:

Sir I just reveived the copy of the Starduster TOO magazine and I really enjoyed it. I think that your idea of a Starduster International as a club is great, put me down for a menbership.

I just had a long telephone conversation with John Hargrove this eveing about our project and enjoyed talking to him, if I can I plan a vist to see his project some time in the near future.

Well I wrote to the FAA and applied for my N number and applied for N245JC. The next thing is to register it as soon I recived the N number.

I have been very busy on my cowling and found it to be a real challenge, but I will prevail. IF anybody would like help or information on building this type of cowling I would be glad to help and sh are what information I can.

I took a few photos of my project and as soon as I get them develop I will send you some, not much to look at now.

Is there a jacket patch for the Starduster owner/builder and if not could we get some made.

Enclosed is a new drawing of what I hope my Starduster will look like, also there is some information about it.

Sincerely

John T. Clark
1908 E 19th W 67
Lawrence Kansas 66046

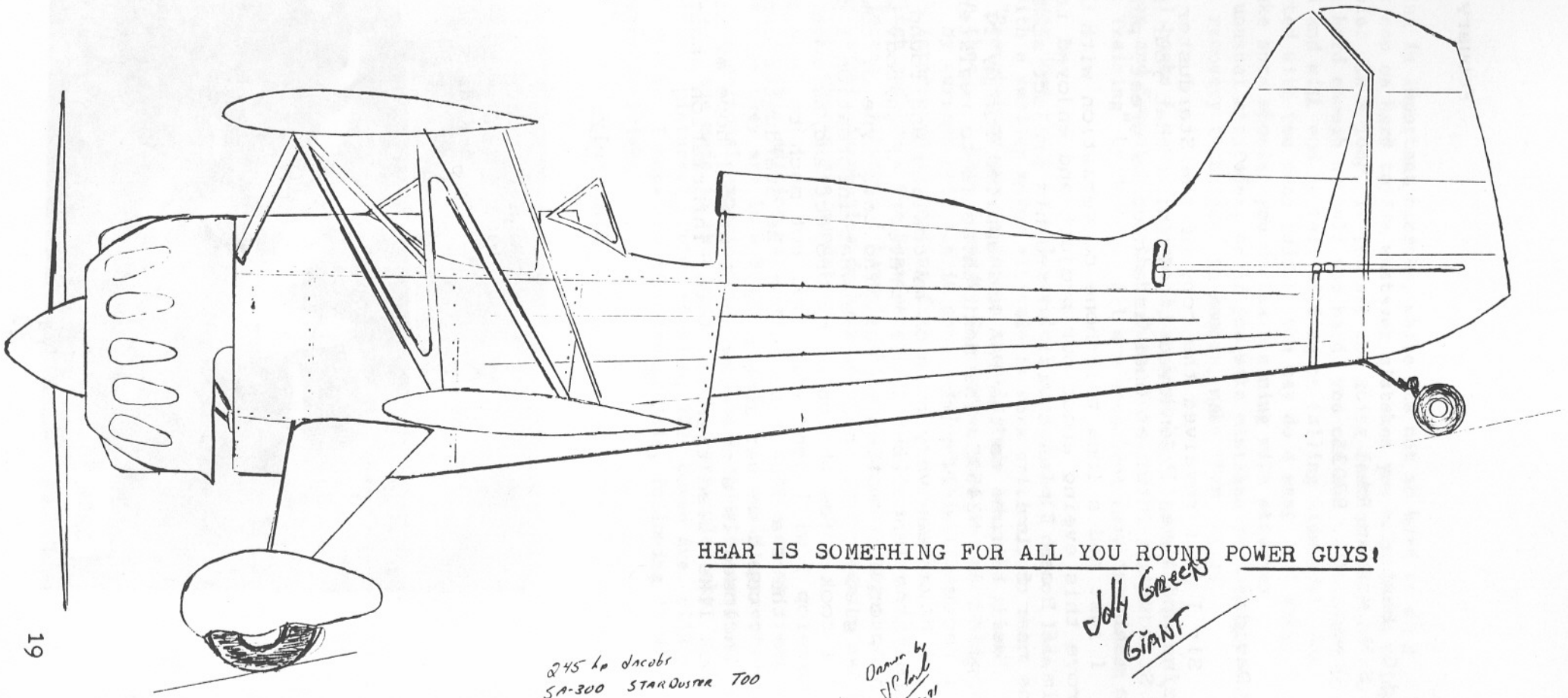
Serial Number JC -574-R

Make & Model Starduster TOO JSA-300-755-9

Engine JACOBS R-755-9 245 H.P.

By John Clark

STARDUSTER TOO

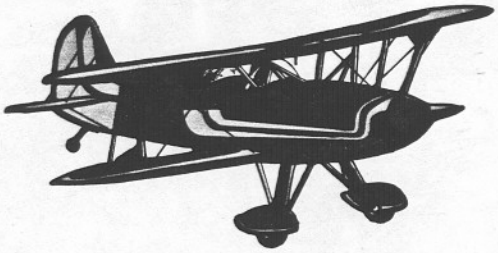


HEAR IS SOMETHING FOR ALL YOU ROUND POWER GUYS!

Jolly Greens Giant

245 hp Jacobs
SA-300 STARDUSTER TOO

Owner
1-91



ACRODUSTER TOO

STOLP STARDUSTER CORPORATION

Dear Dave, January 29th 1991

I received your Starduster Magazine, your picture and your letter the other day. I was very surprised to see my Acroduster Too in the magazine and enjoyed lookin at the pictures. It was very thoughtful of you to think of me. I really enjoyed your visit to Salt Lake and meeting your wife and her family.

Congratualtion on your job as editor of the magazine. I know you will do a great job. The only thing that I have that I can Suggest in painting over fabric on airplanes is that you put a flex additive in your paint, as in Duponts Imrom Poly Urethane. It will make it very pliable. Make sure that you sand the surface really good around the rib stitching with Scotch Brite before you put your sealer on. Use one thin coat of sealer only. The best sealer before you put your top coat on is Sherwin Williams "Jet Seal" #E2A-28. Use acrylic enamel reducer to reduce it. Plan on putting your top coat of paint on within an hour after you have sealed it. Jet Seal will bond exceptionally well to dope surfaces and any Poly Urethane and Acrylic Urethane top coats. The automotive flex agent of any brand that is compatible with Urethane paint will work.

I haven't had any problems with my airplane so I can't give you any suggestions on how to make things any better. As of today I have started making my jig for my one piece canopy. I have a company in Salt Lake who is going to blow the bubble for me if I make the jig. I will keep you informed on how things turn out. My plans are to go to the Starduster Fly-in, in Riverside in May. You were thinking about some kind of open house some where in the Northwest. I would really enjoy going to one. As far as the place, somewhere in Idaho or Oregon would sound great to me.

There is also another man who is building an Acroduster II here in Salt Lake. His name is Weldon Glines: 1835 East Dimple Dell Road, Sandy Utah, 84092 telephone # (801) 571-5796. I will be enclosing his money for the Starduster Magazine. I also would like to subscribe to it.

I know it isn't much information I'm giving you, but I hope it can be of some use to somebody.

Sincerely Yours,

Glen Olsen N34LG Acroduster Too

Les Homan
149 Ruby Ct.
Livermore, California 94550

Phone 415-447-6263

Enclosed are pictures of the Super Starduster I am in the process of constructing. A brief history of my aircraft building and flying experience includes the construction of a Starduster Too 4226Y, Completed and flown in 1981 with a total of approximately 1100 hours since then. I am a tinker and have make several changes such as windshield, propellor and baffling which has resulted in improved flight specifications. Metal working and welding is something I enjoy and have had some experience with over the years. The first aircraft I worked with fabric with was the Starduster Too.

Reasons Behind the building of the Super Starduster are Numerous but begin with a long time desire to own a single hole Pitts only something better, at least a little differant. I remember reading a article several years ago where the Acroduster One was compared favorably to the Pitts and as I understand the Super Starduster is Based on the Acroduster One. Reason Number two is that I did not have anything to do from 8 to 10 in the evenings. Reason three was the thought of what my Starduster Too is doing with 200 horsepower and 1140 Pounds and then comparing that to 200 horsepower and 740 Pounds.

The plans were procured from Bill Clouse at Stolp Starduster. As I understand part of what I am doing is debugging the plans. They are put together in such a way a present that having previous construction experience is essential. Hopefully we can make corrections and help improve them to a point equal to or better than the Starduster Too Plans.

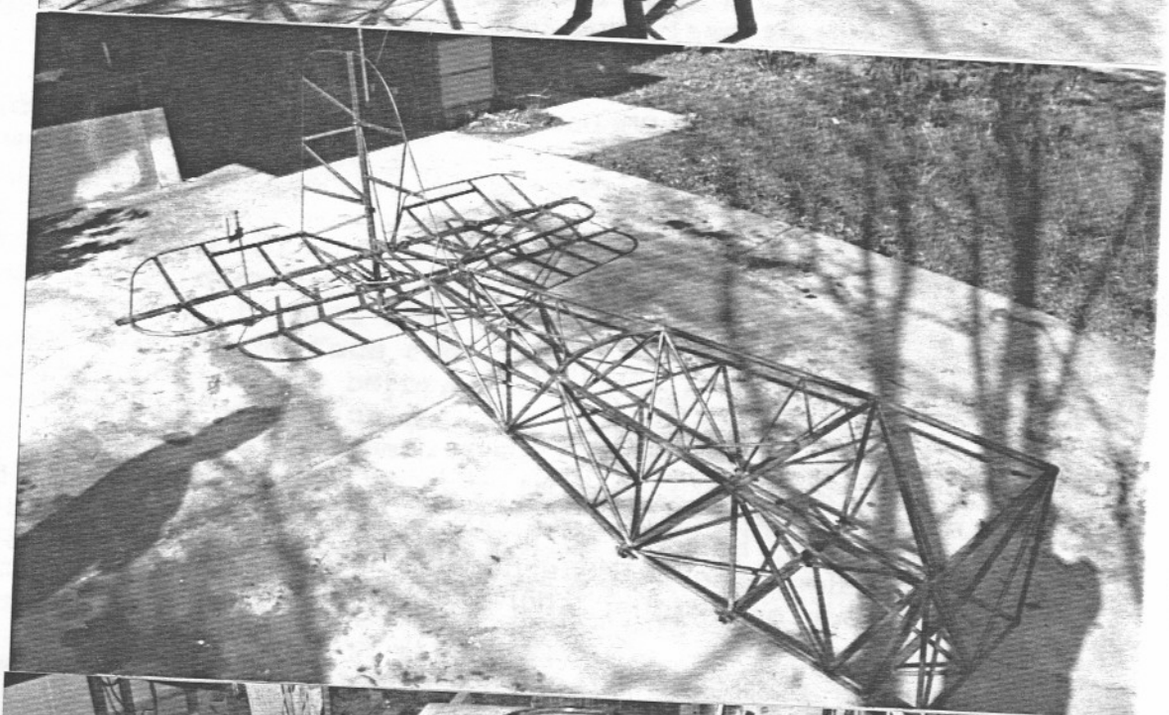
I am interested in hearing from anyone That has been involved in the Super Stardusters completed and flying, under construction and anyone thinking about building one. Also anyone who has had flying experience in on I would be very happy to hear from.

As progress continues I will make comments and updates.

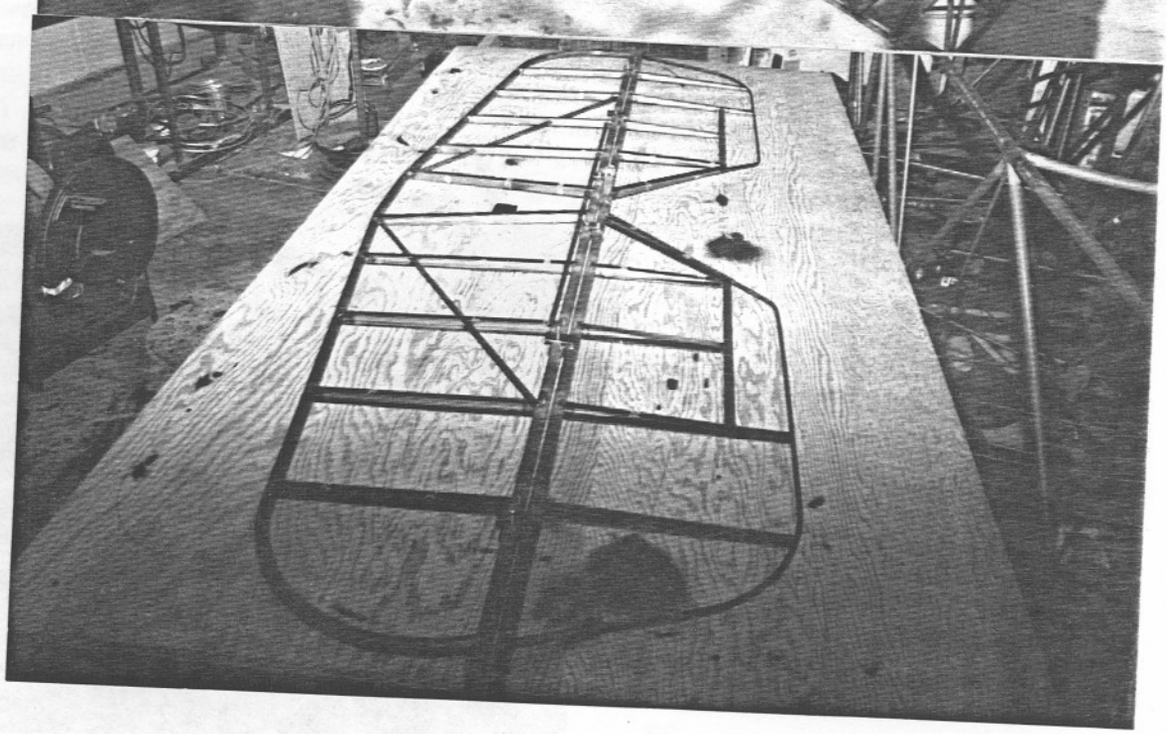
Sincerely

Les Homan

Les Homan's Super Starduster One in early Stages of construction



Fuselage



Horizonal Stabilizer and Elevator

January 26, 1990

Dave Baxter
5725 SW McEwan R.
Lake Oswego, OR 97035

Dear Dave,

Here is some of the data on the Super Starduster as I understand them.

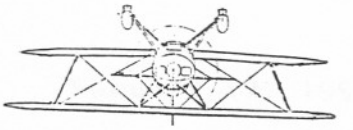
SUPER STARDUSTER

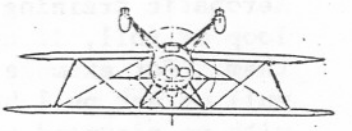
Engine	4 Cylinder Lyc. with as much Horse Power as possible, 180 to 200 or more
Gross Weight	1200 Pounds
Empty Weight	740 Pounds
Wing Area	98 Square Feet
Ultimate Load	+/-10.5 g
Limit Load	+/- 7.0 g
Stall Speed	60 MPH
Top Speed	155 MPH
Vne	195 MPH

It needs to be noted that these are the best written figures I have found, however my understanding is that due to wooden leading edges the g loads do get raised. I have also heard that speeds are higher than published.

'N191DG SUPER STARDUSTER
ONE Built by Tom&Dick
Green and Bill Clouse

Now owned by Ormand
Lavoie of Corvallis
Montana





STARDUSTER AEROBATICS

When I originally started to fly I often wondered what would happen if I held the control yoke off to one side longer than necessary to make that turn or pulled back longer than necessary to start to climb. Being the cautious sort, (read totally scared), I quelled my desire for a year or two. Then one day I found myself at an FBO with a decathlon looking for some aerobatic training, a few lessons, some heavy nausea, and I was hooked! Hint: Never look backwards during snap rolls!

Lou St olp never intended (and will tell you) for the Starduster to be an aerobatic airplane, although he did have the foresight to build it stressed for the +6 -6 G's at its design weight. Aerobatics can be done in the Starduster and people do them mostly safely, but that is up the the individual pilot. The articles I will be writing are about my personal experiences in my particular airplane, as Starduster's are home builts, they all have slightly different characteristics depending on how they were built. What you do is up to you!

N2HC was built by Herb Cooper in Arizona, finished in 1973 and re-engined and re-covered in 1982. I am the 4th owner. My Starduster too has a Lycoming IO 540 C4B5 250 HP engine with an 84" c/s Hartzell prop, standard M6 airfoils and old style gear with transverse rods installed per the new spec for strengths. Current empty weight is 1397 lbs. heavy! I have set my current max g load at +5 -5 at the heavier weight, if your plane is above 1150 lbs or so, you probably should consider lowering your g limits from the +6 -6.

In my opinion, the 250 hp motor really helps in any serious aerobatics, but the 180 or 200 would do fine especially in a light plane.

For the past 2 years I have been flying at sportsman level at IAC competitions in the west, and I intend to move up to intermediate in 1991. My particular Starduster could not go any higher than intermediate due to the flat wings and the fact that advance category has too many outside flyers. M6 airfoils and big heavy Starduster Too's don't belong in advanced.

"HOW TO DO AEROBATICS"

The first rule is "Do not teach yourself aerobatics!" While it certainly can be done, your chances of living longer will be increased if you get some training; Besides, if you die while teaching yourself aerobatics, you won't be able to fly anymore(in a plane) and you will miss out on the most fun anyone could have, not to mention the pleasure of kicking my butt in your plane at the next acro contest!

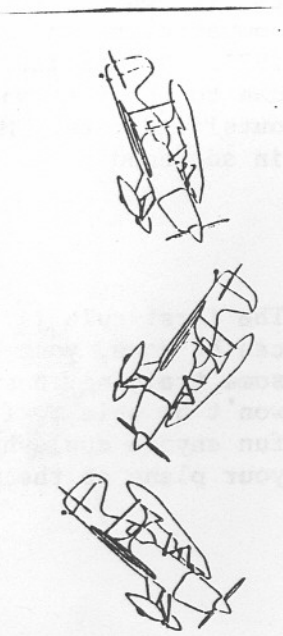
Aerobatic training is important because, while its not so hard to do a loop or roll, it can be hard to fix whatever mistakes you make while doing them. For example: In a loop, if you are not going fast enough when you pull or not pull hard enough or pull too hard, you can end up straight up with no airspeed and will end up tail sliding or falling sideways! Get slow while inverted with too much rudder, you may do a snap roll entry into a spin! Make sure whoever you do the training with stresses recovering from unusual attitudes, so if you make mistakes you can get out of them. Commit recovery techniques to memory, make them reflex.

There are several books I would recommend, such as "Roll Around A Point", "Conquest of Lines and Symmetry", both by Duane Cole and "Primary Aerobatic Flight Training" by Medore. All are excellent reading between training lessons.

N2HC with its power does great on all vertical maneuvers (I do not lose altitude), but with a smaller motor altitude is more critical, so start and stay high. "Remember my son, maintain the altitude lest the ground RUSH up and smite thee". I have found My Starduster good in everything except rollrate. My current rollrate is about 100°sec which is very slow. I would be interested in hearing from any of you about how to improve this! Pitch and Yaw i the Starduster are excellent with light stick and pedal forces. Although I haven't put my Starduster together, I sure take it apart alot! Aerobatics do help keep your plane wearing out, so thorough preflight checks are mandatory.

My articles following this edition will deal with specifics on my views on different maneuvers as they are in a Starduster Two. I would appreciate any feedback on your personal experiences regarding Starduster aerobatics or modifications you have made in that area on your particular sky machine. Any letters, pictures? Peter Cavallo, 2021 Ocean Ave. #217, Santa Monica, CA 90405. I hope you like the article, following is my checklist for aerobatic flight.

Peter Cavallo



AEROBATIC CHECKLIST

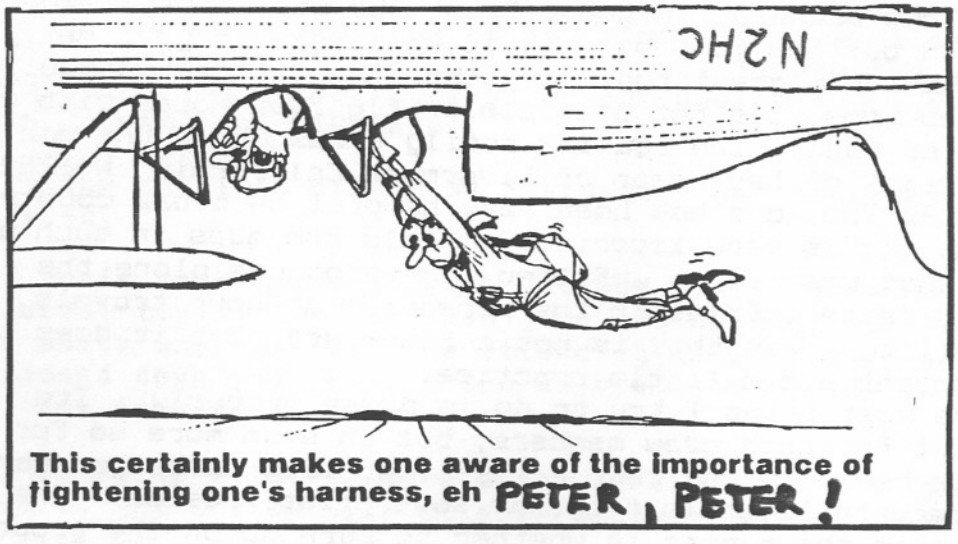
1. Parachutes: Required for pilot and passenger, they should fit well and be packed every 120 days by a master rigger to remain current. Parachutes provide you an out should something occur you cannot recover from. Practice egress from your airplane. I use the ABC method.

   A = All gear off your head (goggles, headphones)
   B = Belts, remove all belts (but not the one's on the parachute)
   C = Clear the aircraft, jump away from the spinning motion, keep your feet together with knees bent and roll after hitting the ground. All the books mentioned have info on jumping. Better yet, go do a jump, it will be fun!

2. Altitude: Have it! by far we need a minimum of 1500 ft. agl for any aerobatic maneuver, but 3000 ft. is better and if you are able, go higher.

3. Preflight: Remember you are asking your airplane to do much more than usual, so check everything carefully before each flight, especially weight and balance, structural attach points, engine mounts, and if you have c/s prop, the required 25hr inspections for hub cracks, stuff in the plane (nothing except people) and remember no fuel in the top tank!

4. Read the FAR's: Make sure where you are doing aerobatics is legal, items like distance from victor airways, non-congested areas etc. are important, read them (Part 91).



Cross Country Flight Planning For Open Cockpit Biplane

By Dave Baxter

Believe me, I do not claim to be an expert on this type of flying but here are some of the basic things I've found to be of value.

Flying in an open airplane requires flight planning just like any other airplane and in some respects maybe even more so. The [FAR's] state that a pilot should secure all of the necessary information pertaining to the proposed flight, which includes a call to the local flight service station, many times the forecast is considerably different than the actual conditions one should always make the decision to go based on experience, conditions, and equipment. I have had briefers do everything but fly the plane, and have had others simply state VFR not recomended when conditions were otherwise. There is nothing wrong with taking a look, no matter what the forecast. But remember this, it is so much better to be on the ground wishing you were in the air, than in the air wishing you were on the ground.

Another thing so simple such as laying your map, flight guide and pertinent data on the seat next to you in a 172 cannot easily be done, much less folding and unfolding maps as there is very little room, and if you get your map up to high the wind will pull it right out of the cockpit. I have found that having two maps for each leg of the trip is good practice. One set does not have to be current and can be in front with your passenger this allows them to help with the navigation and be a useful member of the crew. While laying out your course on the sectional maps I try to use red ink when ever possible and mark off the course every 10 nautical miles, if you are Loran equipped this really helps the front seat passenger with pilotage and navigation as you can determine your current location, by, how many nautical miles you are out bound or in bound from your way points. You can also read out how many minutes it will take to your next way point and its a great tool for strong headwinds and fuel burn, you know, its not possible to fly four hours with only 3.5 hrs of fuel. The red ink really shows up on the map and is the trick of Les Homan of Livermore,California N42264 Starduster Too, and has been very helpful on cross country flights. It is very important to fold the maps in such a manner that when it is unfolded your progress along the intended route unfolds in the direction of your travels. Your ability to do this is not a black art, but it does take some thought and a little practice.

The next thing I try to do is dress properly. Its important for both crew members, but is even more so for the pilot as he is in the rear. The front seat passenger can be very comfortable while the rear seat pilot freezes. The big question in the summer is whether to burn up on the ground or freeze to death in the air. On my airplane I have Mooney exhaust system with a good heat muff. I have also ducted the hot air back to the rear cockpit, it comes out by my toes and hands on each side of the cockpit. This is very helpful during cold weather and at high altitude.

The next thing is not to drink to much or avoid any type of liquids and visit the restroom prior to long

flights. A sever headwind can put you in the airplane well over Three hours and can be very uncomfortable if this rule is not adhered to.

Another thing regarding flight planning is a Nee board, with all the airport frequencys runway lengths, TPAs and other purtinent data for the intended flight. It is also a good idea to include some enroute frequencys such as center and flight watch, by doing this it saves rummaging around in the flight guide or on the map for this information that you need when you should be flying. Such as in the traffic pattern or while working approach control. Your passenger can help you with some of this but cannot always be counted on.

What I also do is figure my enroute altitudes and headings so that you can comply with the east/west rule, so that you can cross check your headings with your compass and Loran, because sometime your new wiz bang gizmos quit working and to have quick reference to your heading makes for much more comfortable flying.

One other thing to consider is to plan your fuel stops at around 200 nautical miles and if at all possible to determine whether or not fuel is available. With the current fuel crunch you could find yourself at an airport that has no fuel. Another thing I've found is that many of the smaller airports close up at 5:00 p.m. local time and some even earlier so it is not good practice to run your tanks down to the last few gallons.

There is also one item that is not talked about very much, and that is emergency landings. Most peolple feel that it will never happen to them. So if you maintain your airplane properly and fly responsibly it probably won't. But just in case hears a few good ideas to pass along. Make sure your E.L.T. works, turn your radio on 121.5, take your E.L.T. out of your plane make sure its armed and bang it on the edge of a table. It shouldn't take more than 2G's to set it off. This is of course without an antenna. But believe me you will hear it on your A/C radio. Then contact your local C.A.P. or whoever does A/C search and rescue, ask them to check the range and signal strength of your E.L.T., at appropriate times of course. In most cases they will be happy to do this for you. It will make you feel better and besides, having an operable E.L.T. is an F.A.R.

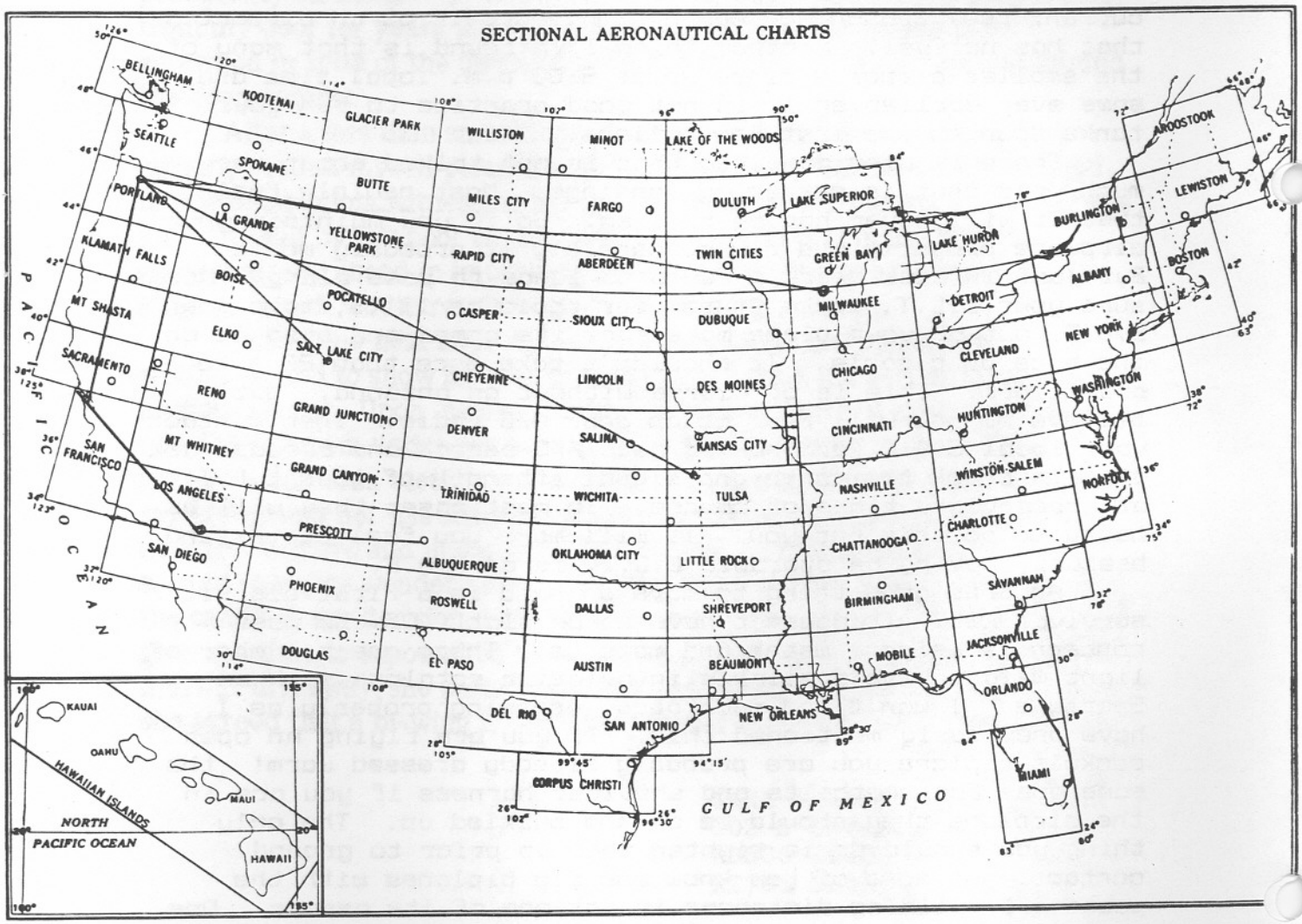
Another good thing to have on hand is a first aid kit / survival kit. It doesn't have to be alot. Of the most concern is weight, water and matches. There are a number of light weight kits available in aviation catalogs such as Sporty's. I won't say much about dressing properly as I have previously mentioned this. If you are flying an open cockpit biplane you are probably already dressed warm! the same goes for seatbelts and shoulder harness if you are in the airplane they should be on and buckled up. The only thing you should do is tighten them up prior to ground contact. As most of you know who fly biplanes with the power off, gliding distances is not one of its assets. One must be there to fully understand the glide angle and high sink rate biplanes are capable of with no power. I think there is some good from this in that you must make decisions because your landing spot will be close to where your engine quit, this keeps you from spending a lot of time picking out a spot and if you arrive over your intended touch down point

with to much altitude a minor slip will quickly kill off unwanted altitude allowing you to put it down where you want it. It has never happened to me, because I'm not the other guy! But it could.

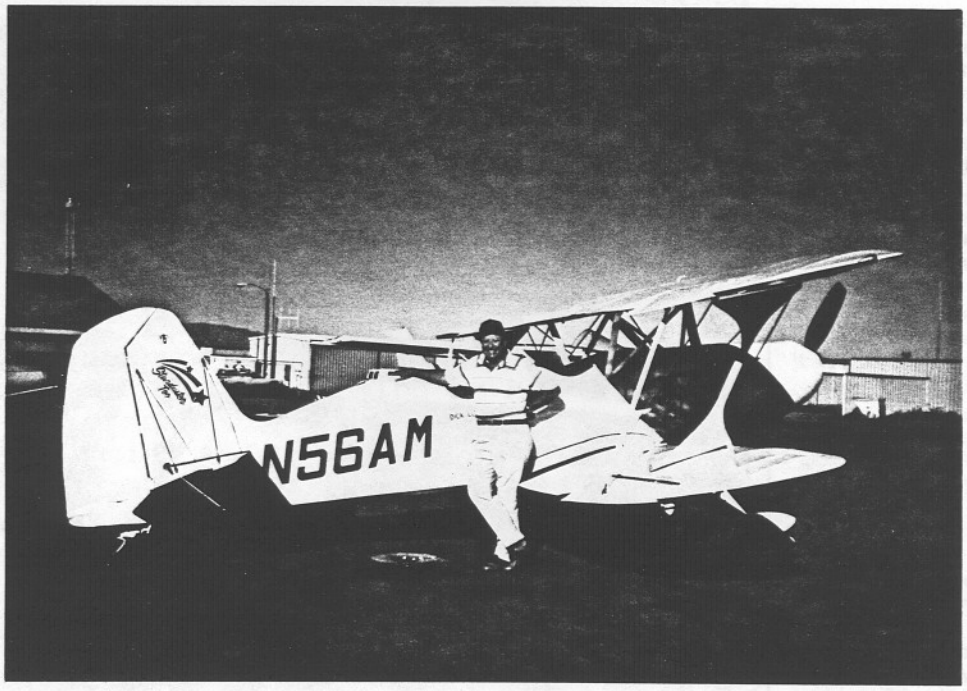
It is also important to get your front seat passenger to the point where they can fly the airplane, IE Hold an Altitude and heading this can be of tremendous help in a busy traffic area or when entering Loran information and of course it is important to brief your passenger on were to look for traffic as well as intercom use, and how to hook up and release their seatbelts, controls, throttle and mixture. You never know it could save your butt. Last but not least one should file a flight plan, if flying over ground that you wouldn't want to be down walking in. But if you file one please close it. These are some of the things I've found to be very useful and I hope they will be of use to you.

Editor

WHATS WRONG WITH THIS PICTURE



ANSWER ON PAGE 42



DICK LUCAS'

STARDUSTER TOO

People become sportsman pilots in an almost infinite variety of ways. For some it's a matter as simple and direct as being born into the brotherhood - the son or daughter of a pilot. For others the path can be long and convoluted, often appearing to be headed in an entirely different direction until, at some propitious, often fateful moment, something happens to alter one's course. Dick Lucas is one of the latter. Had it not been for a sudden engine stoppage on take-off . . . in a densely populated area . . . with no place to go . . . he likely would not be smiling at you from across this page in **Sportsman Pilot.** How he **did** get there is our story, so, let's start in the beginning . . .

Dick grew up in Springfield, Massachusetts and began his lifelong aviation odyssey by raising his right hand to be sworn in as an Aviation Cadet in the old Army Air Force. Graduating from pilot training with the class of 44G, he went on to check out in B-24 Liberators but saw World War II come to an end before his unit was ready to head overseas.

Dick continued flying in the Air Force Reserve after World War II, while attending the Universities of Vermont and Massachusetts. In the early 1950s he transferred to the Massachusetts Air National Guard. He entered the jet age in 1955, checking out in the T-33 . . . and started a civilian career in the elevator industry, working as a sales representative in the eastern U.S. for one of the major elevator manufacturing suppliers.

Continuing to fly for the Guard on weekends, Dick progressed through the F-94B, F-94C and in the late 1950s his squadron switched to the F-86H. In 1961 they were activated and sent to Europe during the crisis in which the Russians built the Berlin Wall. Dick flew F-86Hs around the continent and as far south as North Africa for a year before being returned home to resume weekend flying with the Air Guard.

As the 1960s eased into history, Dick's Guard unit switched to the F-84F and he enjoyed flying that aircraft for about five years . . . until 1970 when he came to one of the major crossroads in his life. The president of the company he worked for had died and his widow had asked him and his wife to move to California and run the firm . . . which he did. He retired from the ANG as a Lieutenant Colonel, as the 104th Tactical Fighter Group's Operations Officer . . . based at Barnes Municipal Airport in Westfield, Massachusetts.

Once in Los Angeles, Dick bought a 250 Comanche and began a decade of weekend wanderlust, flying "about everywhere the airplane would go." In 1971 he and his wife discovered the fabulous red rock formations and mesa top airport at Sedona, Arizona and fell in love with the area. In 1975 they bought a second home there and began commuting on weekends from the Hollywood-Burbank Airport. Dick's logs show an average of nearly 35 such flights a year for much of the late '70s and early '80s. It was a happy time and the Comanche was a magic carpet that allowed the Lucases to live two lives - that of a business executive in one of the world's busiest urban environments . . . and on weekends, a communion with nature in one of its most spectacular and beautiful manifestations.

1981 found Dick at another crossroads. He ended up leaving the company he had worked for for 27 years and moved to San Diego to become the Executive Vice President of the United States Elevator Corporation. Upon the retirement of the president, Dick ran the firm until his retirement in 1984.

The weekend flights to Sedona continued after the move to San Diego . . . until one bright day when with four aboard and departing from Gillespie Field in El Cajon, the engine quit cold at about 300 feet. Dick did the only thing he had time, altitude and airspeed to do - bellied it in straight ahead in the nearest thing to an open area that was available to him. The airplane was badly damaged and there were injuries aboard, but all survived. Later, after getting the wreckage back in his hangar, Dick and his A&P discovered that the Comanche's 22 year old fuel cells had deep ridges in their lower surfaces that trapped water like small dams . . . until enough had accumulated to shut down the Lycoming once a slug of it had been sucked into the fuel line on take-off.

Unfortunately, the trauma of the accident was such that Dick's wife would decide that her lightplane flying days were over. He, predictably, had no intention of quitting, however, so when he began thinking about a replacement for the Comanche, the em-

phasis was on recreation rather than transportation. His next airplane would be an end in itself - one in which he flew for the sheer fun of it rather than one in which he would merely fly to some other place to have fun.

Although he had not been a participant to that point, Dick was aware of the world of sport aviation. Southern California is the most intense hotbed of homebuilt, antique - indeed **any** type of recreational aviation activity - to be found anywhere, so it would have been impossible for him not to have noticed all the little aerial hotrods and stately vintage aircraft that populate the airports there. He was, in fact, particularly attracted to the biplanes he saw. Like anyone who grew up in the 1930s, biplanes were a special part of his life. They were the fascination of his impressionable years . . . their pilots had been his heroes, his role models in his young days . . . and they were the original inspiration for the aviation career he had pursued throughout his adult life. Little wonder then that ultimately he would decide that the sportplane of his retirement years would be a biplane.

With retirement just around the corner, Dick was not looking for a years long project. He wanted back into the cockpit, back into the air . . . **now.** Consequently, he took the most direct route to ownership he could - he placed a "wanted" ad in a local aviation paper and waited for the phone to ring.

When the call came, it was from the president of one company to that of another. Alvin McGihon of McGihon Sheet Metal in Long Beach, CA had withheld no effort or resource in building a Starduster Too during the mid '70s, but after 75 hours of time in it, just couldn't get away from the demands of his business often enough to justify keeping it any longer. He was willing to sell it to someone who would cherish it as he had . . . and he found that person in Dick Lucas.

Before buying the Starduster, Dick had examined it thoroughly and quickly realized what a lucky break the phone call answering his ad had been.

"The airplane had been done right," he recalls. "All the welding was certified and, of course, with the facilities of his sheet metal shop available, all the fittings and sheet metal were just beautiful. It had been built as a show plane rather than a competition aerobatics machine (although it had been equipped with a Christen inverted oil system), so it had such custom touches as leather upholstery in both cockpits, a gyro panel, good avionics, etc."

McGihon had installed a 180 hp Lycoming O-360 A1A and a Hartzell constant speed propeller out of . . . ironically enough for Dick . . . a 180 Comanche, had used stainless steel hardware throughout and had not spared the Imron in attaining the slickest finish possible, so the sparkling white bird had come out a little heavy at 1420 pounds. It was, however, a price he . . . and, later, Dick . . . was willing to pay for the very deluxe sportplane that resulted.

As related earlier, Dick retired in 1984. He and his wife sold their place in California and made their second home in Sedona their permanent residence. Naturally, the Starduster Too went with them.

Since moving to Sedona and basing the Starduster at the airport there, Dick has become a director of the Sedona/Oak Creek Airport Authority and spends a lot of his time at the facility in both an official capacity and as an airplane owner enjoying the camaraderie of fellow pilots . . . more of the latter than the former, he admits.

Of the Sedona Airport Dick says, "It is up on a mesa and I liken it to landing at Catalina Island, for anyone who has ever done that. There are no overruns - so you don't undershoot. The runway is 5,000 ft. long and the elevation is 4,000 ft. If the wind is blowing, you have to be extra cautious on approach."

Currently, there are about 100 airplanes based at Sedona, including an increasing number of sportplanes. "We have airplanes that don't fly as much as they used to because of increasing operating costs," Dick says, "so there is more and more interest in purely recreational flying . . . as opposed to strictly transportational flying." Sportplanes at Sedona include a T-18, a Long-EZ and three Waco UPF-7s (a couple of which were also at Casa Grande where we met Dick). Sportplanes under construction in the area include a Lancair 200, a Dragonfly and a Glasair. A classic Navion is currently undergoing restoration.

Dick joined EAA when he bought his Starduster Too and after moving to Sedona, joined the nearest EAA Chapter, which is 25 miles away in Flagstaff. "If I can get enough warm clothing on, I may fly to Oshkosh one of these days," he says with a chuckle.

Since buying the Starduster three years ago, Dick has flown it about 150 hours . . . 150 very pleasurable hours. He does some fun-type aerobatics whenever he feels feisty and enjoys participating in local fly-ins and air shows - "wherever aviation people congregate," he says.

"I just like it for sheer, pure fun . . . that's exactly what it is."

LOOK! 11TH ANNUAL LOOK!

STOLP STARDUSTER CORP

OPEN HOUSE - BARBEQUE & AIR DISPLAY

AT FLABOB AIRPORT

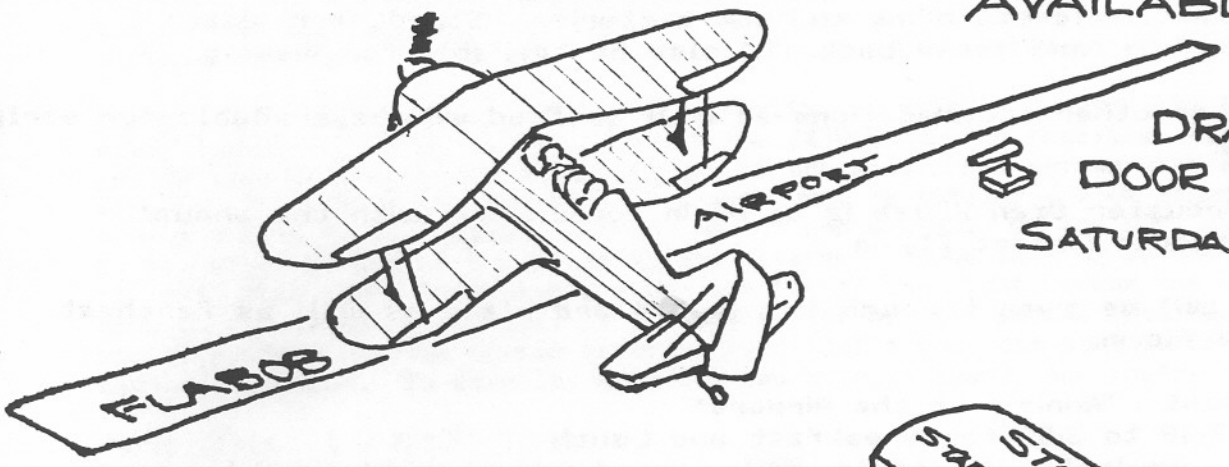
MAY 4TH & 5TH 1991

SAT. SUN.

FLY IN THE 3RD & 4TH

FRI SAT

MOTEL ACCOMMODATIONS AVAILABLE



DRAWING FOR DOOR PRIZES SATURDAY NIGHT

SATURDAY NITE FESTIVITIES

OLD FASHIONED B-B-Q & CHILI FEED

- REFRESHMENTS - ENTERTAINMENT -
- AWARDS PRESENTED - DRAWINGS -

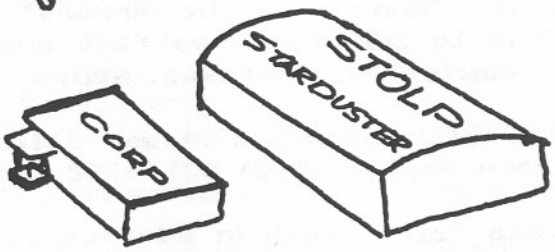
TICKETS FOR SAT. NITE DINNER & FESTIVITIES $7.50 EA

EVERYTHING ELSE IS FREE

COME ONE, COME ALL

"LOOKEE LOUS WELCOME"

A FUN TIME GUARANTEED



NOTE!!

ALL AIRCRAFT DESIGNS WELCOME & ELIGIBLE FOR JUDGING IN THEIR RESPECTIVE CATEGORIES

TROPHIES TO BE AWARDED THE WINNERS

★ - ANTIQUE - ★

★ - SPECIALTY - ★

★ - STARDUSTER DESIGNS - ★

CALL OR WRITE FOR INFO:

STOLP STARDUSTER CORP.
4301 TWINING
RIVERSIDE, CA 92509

(714) 686 7943

NORTHWEST STARDUSTER OPEN-HOUSE

WHO : Starduster Owners and Builders

WHAT : Open House Fly-in

WHEN : June 29, 30, 1991

WHERE : Independance Airport, 10 nautical miles south west of the Salem Oregon Airport. UNICOM 122.8

WHY : To eat drink and share stories. Starduster videos and scrap book will also be available for viewing.

Camping or other accomadations as well as food will be available for early arrivals.

The Starduster Open House is to be in conjunction with the annual Indedpendance Airport Fly-in.

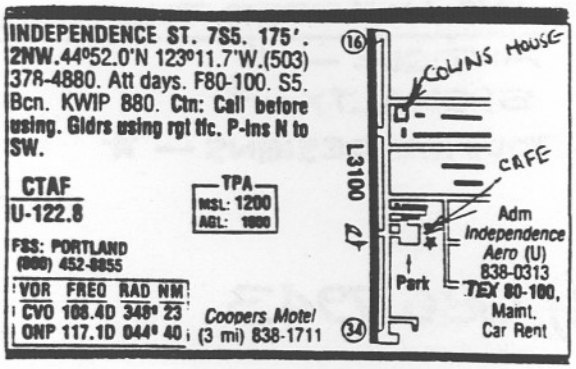
Awards will be given through 1st, 2nd, & 3rd place as well as farthest distance flown.

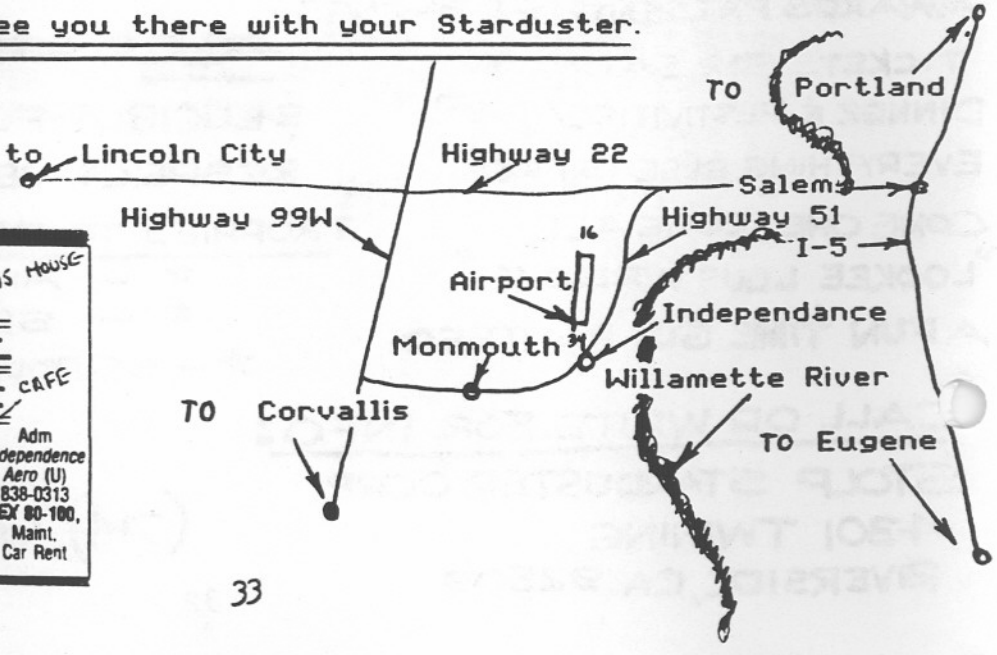
Resturaunt : "Annie's at the Airport"
OPEN - 7:00 to 3:00 for Breakfast and Lunch
Serving : Omelettes, pancakes, soups, sandwiches, salads, and burgers.

For Additional information please call either:
Dave Baxter (503) 639-8792 or Colin Powers (503) 838-0329

Also please call a week in advance so that enough food will be available for the Saturday Night Dinner.

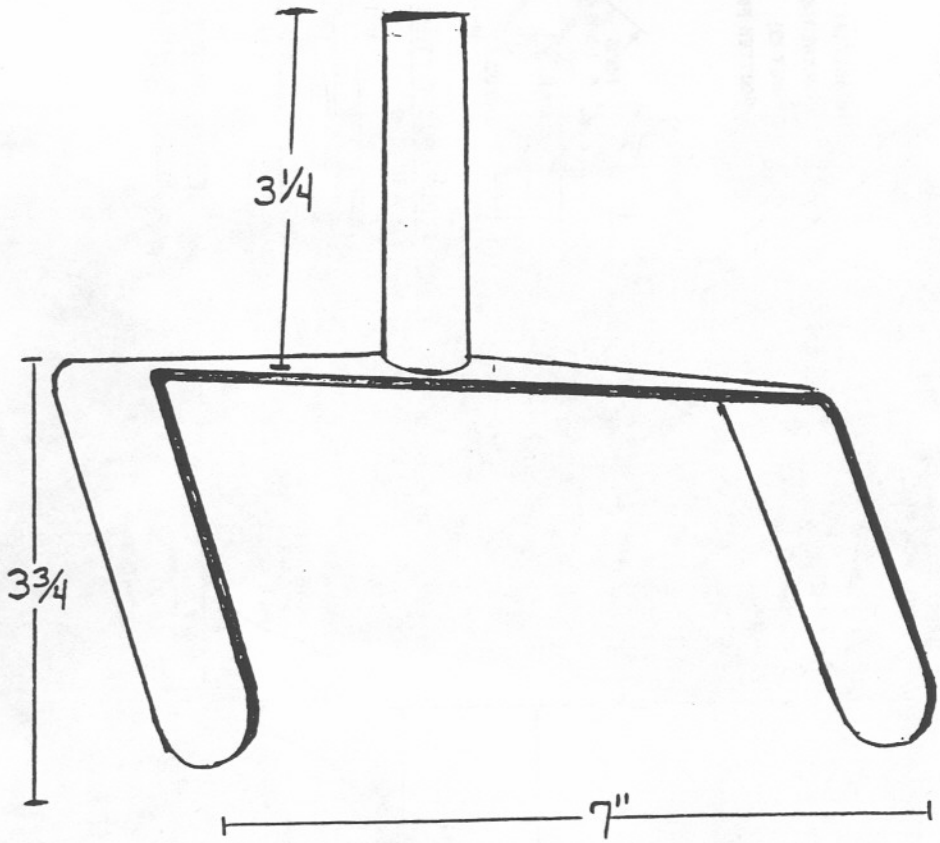
We certainly hope to see you there with your Starduster.





NEW FIBERGLASS PARTS FROM STARDUSTER:

STARDUSTER IS NOW MAKING ALL OUR FIBERGLASS PARTS WITH EPOXY. WE NO LONGER USE GEL COAT.
THE NEW PARTS ARE STRONGER, LIGHTER, MORE FLEXIBLE AND WILL NOT CRACK, CRAZE OR FLAKE LIKE POLYESTER. THEY ALSO WILL NOT SHRINK, WARP OR SHOW THE WEAVE THROUGH THE FINISH.
TO PRIME AND PAINT:
1. CLEAN PARTS WITH SIMPLE GREEN OR LIKE PRODUCT [CLEANS OFF PARTING AGENT].
2. LIGHTLY SAND AND WIPE WITH ACETONE.
3. WITH A GOOD SANDABLE PRIMER [KDB EPOXY PRIMER WITH MICRO BALLOONS ADDED IS BEST]. WIPE ON WITH CLOTH OR SQUEEGEE TO FILL PINHOLES - LET CURE AND SAND OFF PRIMER, WHICH WILL JUST LEAVE PIN HOLES FILLED.
4. SPRAY ON A COAT OF PRIMER SAND AND FINISH WITH COLOR.



NEW ITEM!

RUDDER HORN FOR STARDUSTERS AND ACRODUSTER TOO'S.

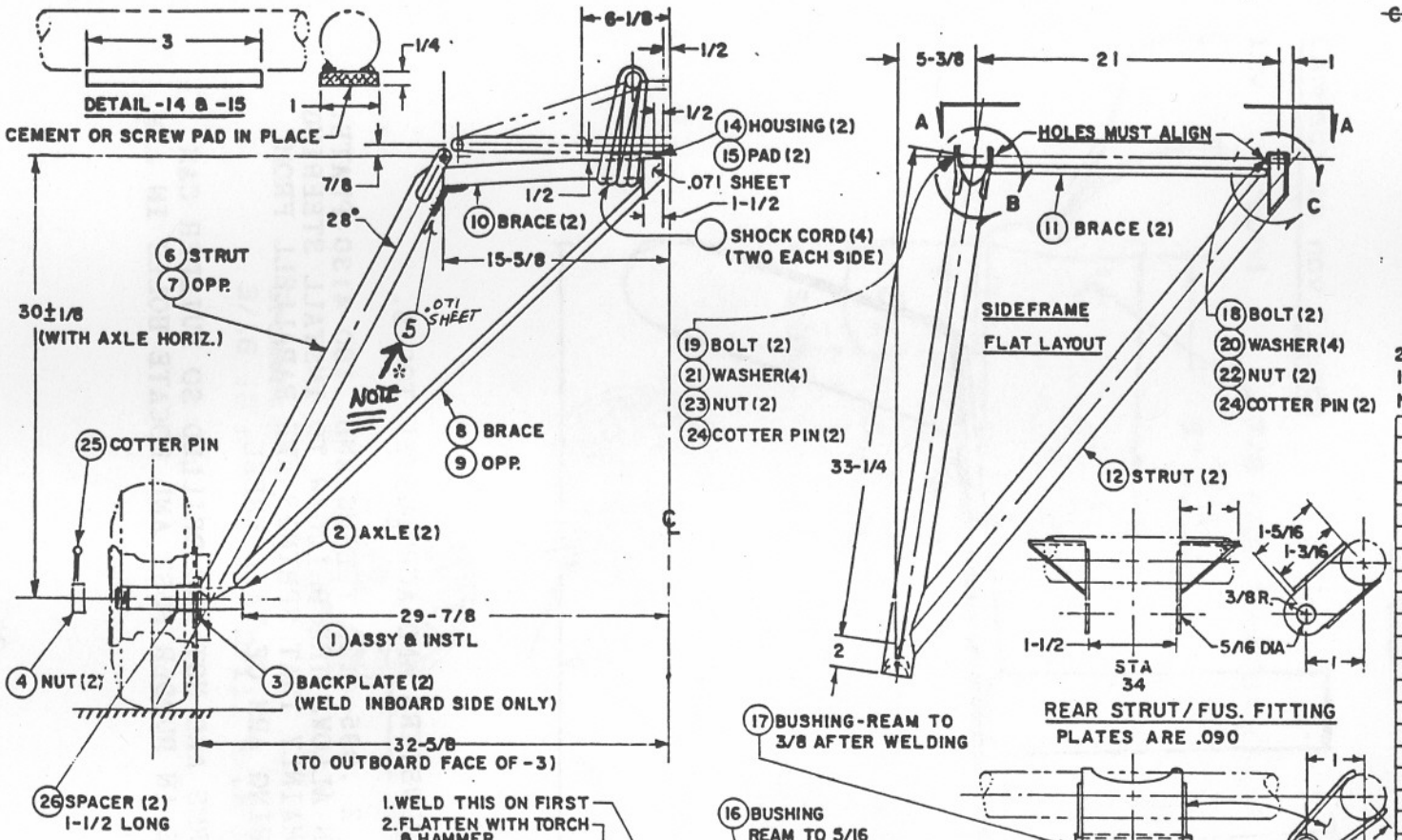
FABRICATED FROM 3/4 X .095-4130 TUBING AND .160-4130 PLATE. THIS NEW RUDDER HORN ALLOWS THE BUILDER TO INSTALL STEERING SPRINGS PROPERLY - MAINLY THAT SPRINGS ARE PARALLELL FROM HORN ATTACH TO STEERING ARM OF TAIL WHEEL.

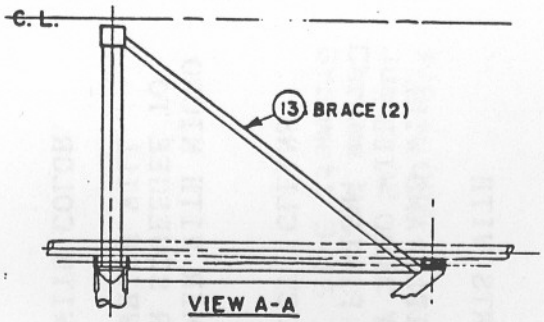
THE POST AND HORN ARMS ARE NOT PRE DRILLED SO BUILDER CAN MATCH EXISTING HOLES IN RUDDER POST AND LOCATE HOLES IN ARM AT DESIRED POSITION.

"B.C." PREZ

NEW MODS ON LANDING GEAR

*-DENOTES CHANGE- CAUTION SAFTEY CABLE MUST ALLOW 4" OF GEAR TRAVEL





2-USE AIRCRAFT CERTIFIED STEEL.
1-ALL STEEL IS 4130, COND. N
NOTE: COPYRIGHT 1975

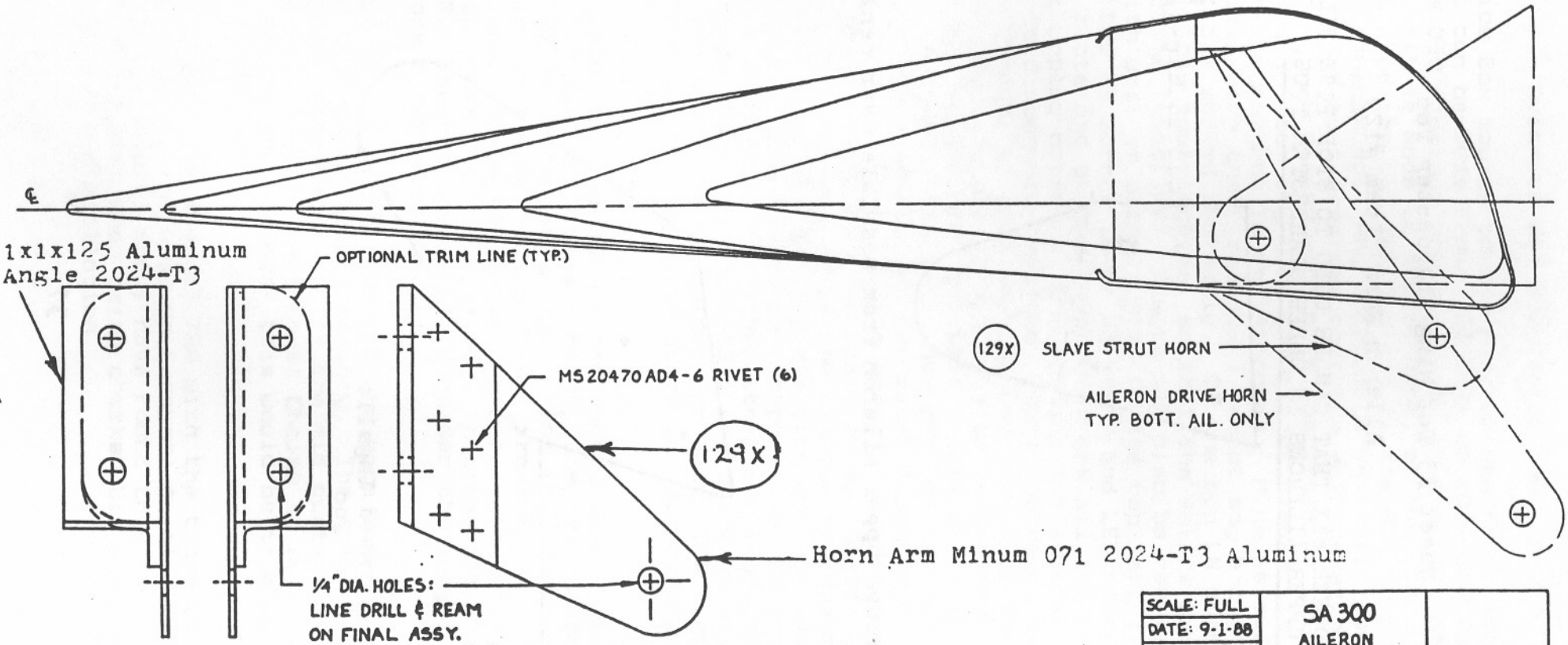
ITEM	REQ'D	NAME	MAT'L	NUMBER
	1 PC	4130 SHEET	.090x3x36	
	1 PC	4130 SHEET	.071x9x9	
26	2	SPACER	1-5/8x.058x2	-26
25	2	COTTER PIN	AN380-4-8	-25
24	4	COTTER PIN	AN380-2-3	-24
23	2	NUT	AN310-6	-23
22	2	NUT	AN310-5	-22
21	4	WASHER	AN960-616	-21
20	4	WASHER	AN960-516	-20
19	2	BOLT	AN6-30	-19
18	2	BOLT	AN5-22	-18
17	2	BUSHING	1/2 x .065	-17
16	2	BUSHING	7/16 x .065	-16
15	2	PAD	BELTING, 1/4	-15
14	2	HOUSING	.071 SHT.	-14
13	2	BRACE, RD	1/2x.035x26	-13
12	2	STRUT, S.L.	2.360x.049x43	-12
11	2	BRACE, RD.	3/4x.049x20	-11
10	2	BRACE, RD	1-1/8x.065x16	-10
9	1	BRACE, S.L.	1.685x.049x48	-9
8	1	BRACE, S.L.	1.685x.049x48	-8
7	1	STRUT	2x.065x36	-7
6	1	STRUT	2x.065x36	-6
5	2	STRAP	1½x3x.071	-5
4	2	NUT	STARDUSTER	-4
3	2	BACKPLATE	STARDUSTER	-3
2	2	AXLE	STARDUSTER	-2
1	1	ASSY & INSTL		SA300-14-1

LIST OF MATERIALS

SCALE:	ASSEMBLY - LANDING GEAR MODEL SA300	STARDUSTER "TOO"
DATE:		
DRAWN: J. Alonne		
STRESS: J.O.	STOLP STARDUSTER CORPORATION	
CHECKED: B.C.		SHEET NO. 14

NOTE: SLAVE STRUT HORNS MUST BE PLACED . ON AILERON SPARS SO THAT SLAVE STRUT IS VERTICAL.

NEW DRAWING FOR FORWARD MOUNTED SLAVE STRUTS
IF YOU ARE BUILDING, THIS IS THE WAY TO GO



SLAVE STRUT HORN DETAIL

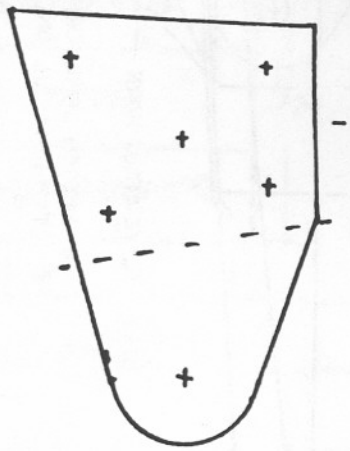
NOTE: CUT OUT & USE FOR TEMPLATES
SMOOTH ALL EDGES
REPLACES ITEM (129) SHEET #3

SCALE: FULL	SA 300 AILERON FITTINGS	
DATE: 9-1-88		
DRAWN: RS		
CHECKED: "B.C."	STOLP STARDUSTER CORPORATION	SHEET: 7A

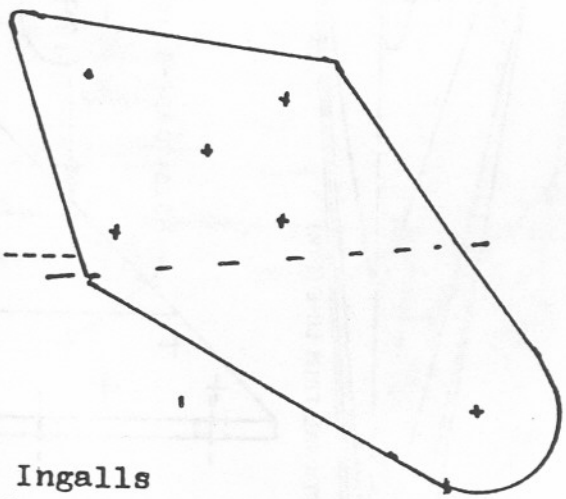
Sheet #3 Top Wing Starduster Too

Aileron Horn Item #129

THIS IS ANOTHER FIX THAT CAN BE USED TO STOP POSSIBILITY OF OVER CENTER OF UPPER AILERONS IN OLDER STARDUSTER TOOS.

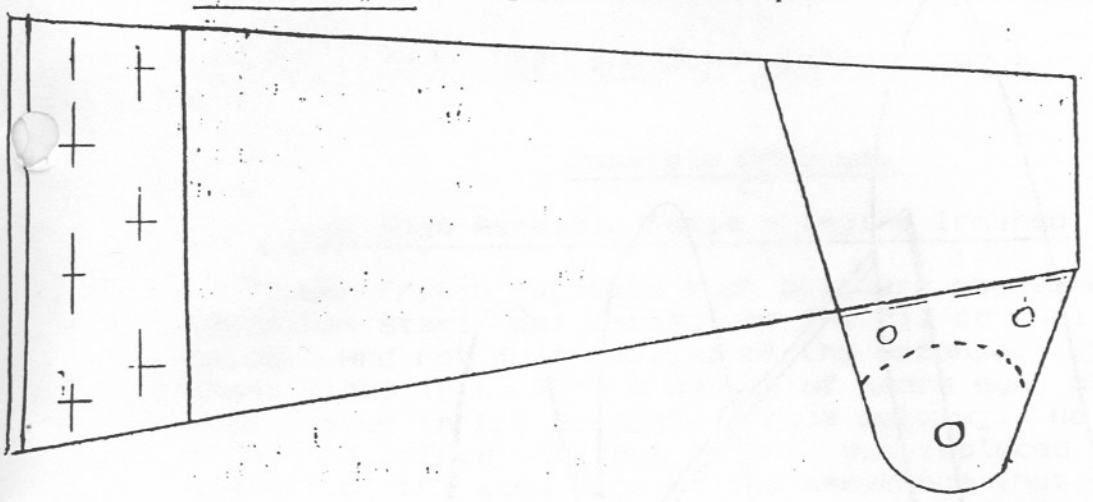


New part keeps upper aileron from possible over center condition.



Designed By Maynard Ingalls
N38PM Starduster Too

DIAGRAM #1 Starduster Corporation Quick Fix



Aluminum Block Machined to fit Available Space above Rod End Bearing to act as Stop!! Held in place with Two 832 Machine Screws Limit Travel to prevent Overcenter Action of Top Ailerons.

Reprinted Courtesy Starduster Magazine

When it comes to ailerons, I confess we like to have stops not one, but two places. We favor a stick stop similar to the one on the STARDUSTER TOO plans, as shown below

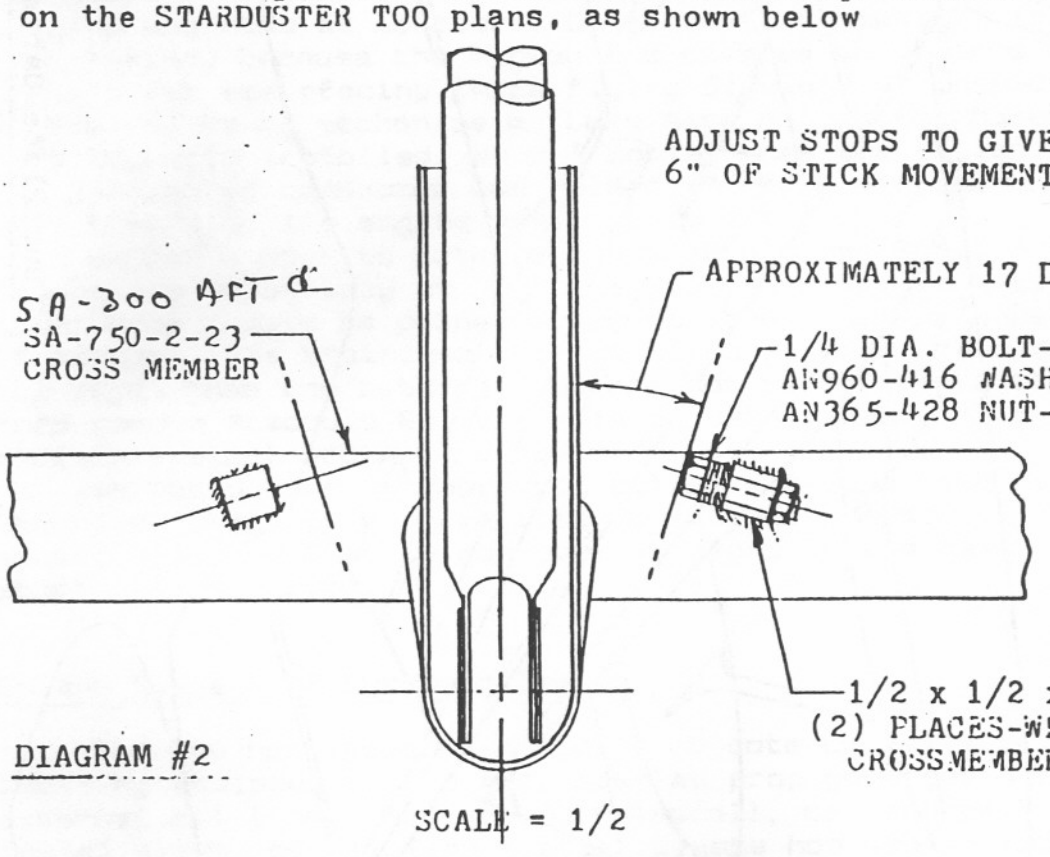


DIAGRAM #2

SCALE = 1/2

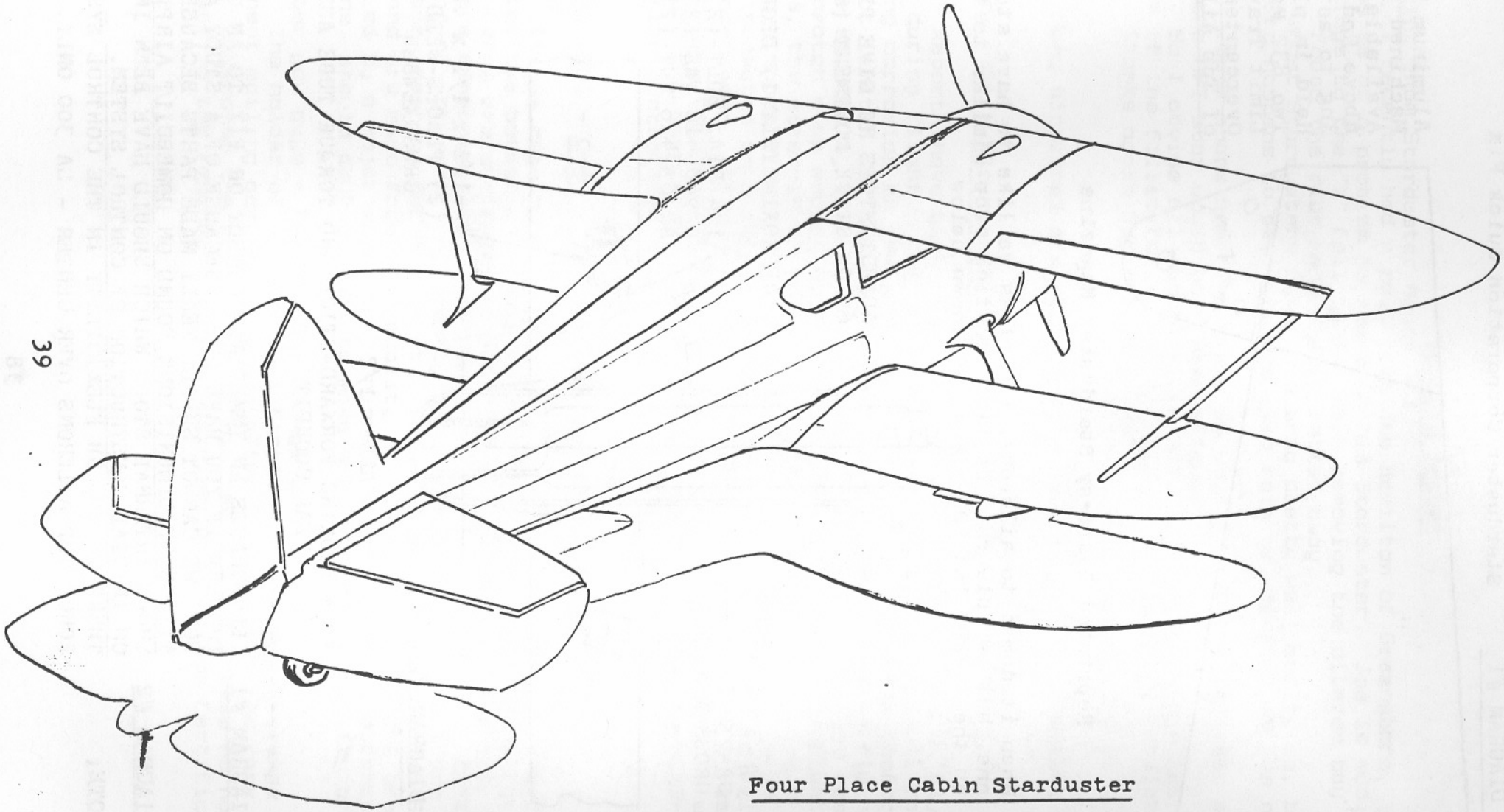
VIEW LOOKING FORWARD-STICK AND TORQUE TUBE ASSY REAR COCKPIT

DIAGRAM #1 ILLUSTRATES AN IMMEDIATE REMEDY OR FIX TO AN OVERCENTER PROBLEM IF YOU HAVE ONE - BECAUSE OF A STUDY ALLREADY DONE WE CANNOT SUPPLY READY MADE PARTS BECAUSE OF MULTITUDE OF DIMENISIONS FOUND ON HOMEBUILT AIRPLANES.

DIAGRAM #2 SHOWS INTERNAL STOPS WHICH SHOULD HAVE BEEN INSTALLED ON INITIAL CONSTRUCTION OF CONTROL SYSTEM.

NOTE: THERE IS ENOUGH FLEXIBILITY IN THE CONTROL SYSTEM TO FORCE TOP AILERONS OVER CENTER - SA 300 ONLY.

STARDUSTER EXECUTIVE SA-400



Four Place Cabin Starduster

LETTERS

BAN NIGHTTIME VFR?

A petition to the FAA by University of Idaho senior Ken McKay to ban nighttime VFR caused an uproar in the aviation community that GANews & Flyer has not seen in some time. As reported on Page A-1 of this issue, McKay withdrew his proposal, but not before a flurry of protests were received in our offices and by the FAA. We have no figures from correspondence the FAA received, but at GANews & Flyer, opinions ran approximately 30-1 against the proposed ban. The following are some of the comments sent to us.

Anyone who has been in aviation the past 10 years knows full well that it is in serious trouble. Airline deregulation, the controllers str[ike], unreasonable liability insurance, airspace restrictions, and now the recent excessive fuel costs have certainly all contributed to few aircraft being owned and flown.

As an aircraft owner, I choose to incur the expenses of flying, of which night flying is one of its most intriguing wonders. As for Mr. McKay's total flight time, it hardly puts him in a position to author such a major change in the way night VFR flying is conducted.

It doesn't take a rocket scientist to determine that flying at night has risks, and for those who don't pay any attention to weather or fail to determine safe cruising altitudes, they will surely become the 30% he is talking about.

But to arbitrarily restrict responsible pilots is being very naive on his part. So far all the regulations written have failed to regulate common sense.

I would rather spend my time flying as most pilots do, but it seems that more and more of these ill-conceived restrictive proposals and from one of our own requires just one more letter to be written on behalf of general aviation.

David C. Baxter
Lake Oswego, Oregon

◆◆◆

Here we go again.

Expanding TCAs, requiring ann[ual] reviews for less than 400-hour pi[lots] now, in response to a self-serving college senior Ken McKay (an I[FR] pilot), the FAA suggests rescind[ing] night flight.

In all fairness, I have not read t[he] McKay's paper, simply the excer[pts] your article; what I did read was di[s]. I use my plane on business trips pleasure; however, many of my flights would become impractical if t[hey] not be completed at night. I have lon[g] ered obtaining an IRF rating, but th[e] impracticality of maintaining curre[ncy] prevented this investment.

The greatest danger I perceive co[mes] the possibility of loss of engine p[ower] having to land in the dark. No ratin[g] get could protect me from this dange[r]. flying at night has increased my pr[o]. and safety as a VFR pilot and ability use my instruments in an emergenc[y].

Elimination of night VFR woul[d]

experimental aircraft association

EAA AVIATION CENTER, P.O. BOX 3086, OSHKOSH, WI 54903-3086 • PHONE 414/426-4800 • FAX 414/426-4828

November 26, 1990

Mr. David Baxter
5725 SW McEwan Road
Lake Oswego, OR 97035

Dear David:

Thank you very much for your letter. If you wouldn't mind, we will include your name and address in the Starduster mailouts that we send out regarding articles in SPORT AVIATION so that interested parties can contact you.

I would like to thank you very kindly for the photographs of the aircraft. I have forwarded these photos onto Jack Cox for his consideration. Norm will receive any remaining photos.

We have sent on the accident reports on the Starduster series at your request. David, you certainly have a beautiful aircraft! That's a very attractive paint job.

Best personal regards,

EXPERIMENTAL AIRCRAFT ASSOCIATION

Ben Owen
Executive Director
Information Services

BO:rjm

11

REMEMBER

11

OSHKOSH BOUND PILOTS and BUILDERS Please remember the Starduster Dinner it will be held at the ACEE DUCEE BAR & GRILL in downtown Oshkosh WI Tuesday July 31 1991 at 6:15 PM Please try to Attend.

Dave

CLASSIFIEDS

ADVERTISING CLOSING DATES : DECEMBER 1, MARCH 1, JUNE 1, & SEPTEMBER 1.
CLASSIFIED ADVERTISING RATE : $3.00 PER COLUMN INCH-MINIMUM CHARGE $3.00
MAKE CHECKS PAYABLE TO STOLP STARDUSTER CORPORATION. THANK YOU.

ACRODUSTER II (SA-750)
Flying wires and stream - line tubing, $600.00. Call (206) 487-2687

STITS HAS NEW FABRIC developed and woven for high horsepower and high wing loading aircraft 2.8oz is recommended for all aircraft with wing loadings of 11 lbs per sq ft. and over 145hp. Contact Starduster Corporation or Stits poly fiber aircraft coatings.

BUILDING THE GOLD DUSTER
A picture book with many color pages about building the Acroduster Too by Jim Mckeen. Available thru Starduster Corp. for $19.95

WANTED : Ranger Prop hub and spline, for replica Great Lakes project, contact Minot Piper 1389 S Pioneer Dr. Abilene, Texas 79605 or call (915) 692-0538.

STARDUSTER TOO 1978
415 SMOH, excellent condition, new paint and Hoffman Prop, divorce horces sale. Call (916) 726-9332.

BUY YOUR AIRPLANE NEEDS
From Stolp Starduster Corp. Owner Bill Clouse a good guy to deal with, we now accept Visa.

STARDUSTER ONE, 175hrs
TTA Lyc 0320 inverted oil and fuel canopy chute July annual $15,000 call (314) 434 7836, for details & pictures

---

BIG SKY SITKA SPRUCE
spar blanks, 1"x6"x14", up $100.00 ea (503)631-3206 or Box 203, Oregon City Oregon 97045

1973 STARDUSTER TOO
350 TT 225 CONT $20,000 or trade, call (803) 877-1154 or (803)877-2804

1974 STARDUSTER TOO
780 TT 200hp Lyc., C/S prop inverted oil fuel, Gyros, King Navcom, xponders, canopy, wing lockers, aux fuel tank. Ask for John, (303)444-1017 or (303) 447-0135.

STARDUSTER TOO PROJECT
signed off for cover Lycoming O-0360 much work done. $12,500 call (619) 245-2538

WANTED: For Starduster,Too,origanal landing gear or material to build same. Contact Dave Baxter (503) 639-8792.

Much information regarding Starduster aircraft. For your Needs please contact Editor of Starduster Magazine. Please include postage with requests. (503) 639-8792

ANSWER FROM PG 29: 1970 SECTIONAL 20 YEARS OLD, BACK IN THE GOOD OLD DAYS.

****

AS ALWAYS YOUR ORDERS WILL RECEIVE OUR PROMPT ATTENTION, QUALIY PRODUCTS AND WORKMANSHIP AT A COMPETITIVE PRICE.