



Society for the Preservation And Restoration of Skyrangers

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Greetings, and a happy new year to you all. I've promised that I'm going to try to get a new issue of SPARS out every three or so months, and that makes the next issue due, ummm, right about now. So here we go!

Quite a few folks have written asking about dues for the newsletter. As far as I'm concerned, there aren't any. I'll send this letter out to anyone interested in being on the list. As far as I'm concerned, the value of the information I'm getting about my Skyraider far outweighs the postage and copying costs. Several of you have also sent in some contributions to help out (thanks Bob, and thanks Brad and Dick - I do promise I'll cash that check this week!); those are much appreciated, if only to help assuage my wife's concern that we're the only two out there who are nutty about Skyrangers. As far as contributing write-ups about your planes, advice, or questions you'd like answered - now *that's* what I'd like to receive. Read on for some news on what other Skyrangers are doing, then let us know what you're up to.

-David

Sightings

A couple of months ago, I got email from a fellow Californian named Eric Rearwin. Ken Rearwin's grandson, though he'd never been in a Skyraider, or even seen one in person. This was an opportunity not to be missed, so we arranged to meet at Hayward (HWD) for a quick flight around the San Francisco Bay area. As we headed west across the bay, we got the chance to talk about how much flying had changed since the Skyraider was built - mode C flashing away, maintaining at or above 1500 to clear the San Carlos class D, while below 2000 to remain clear of the jumbo jets on approach to San Francisco, with the handheld GPS making sure we didn't clip any corners of the class B airspace. Toto, this definitely wasn't Kansas anymore. But it was still fun. Once west of San Francisco's alphabet soup, we hopped the ridge to Half Moon Bay. We'd planned a quick stop for coffee and a doughnut before continuing around the bay, but the low clouds that were forecast for the afternoon came in earlier than expected. We opted to beat a retreat to the south and headed back to Hayward after only a brief tour of the peninsula. Ah well, if the weather couldn't change our plans, it wouldn't be aviation, would it?

I'm actually writing from southern California, where I'm on vacation for a few days with '395 and my family. Flew into Santa Paula airport yesterday afternoon, and as I was tying down, had a fellow amble up to have a look. In these situations, I'm used to pulling out my explanation that this is a Commonwealth Skyraider, and no, I'm not surprised that they've never heard of it, because there aren't many around. Instead what I got was "Hey, my brother owns one of these!" I don't yet have an address for Al Ball and family, but they've promised to send me pictures and information about their Skyraider - stay tuned.



Eric Rearwin and one of Granddad's creations

Email List: skyrangers@ai.mit.edu

These days it's inevitable that any form of communication go electronic in some way or another. Sure enough, we've got enough Skyraider owners/fans on the internet that I've started an electronic mailing list to correspond to this paper newsletter. The idea is that the electronic list can be used for quick turnaround questions or advice. We've currently got about 15 folks on the electronic list,

compared with a total of about 50, so the paper newsletter will remain the main channel for information. If you *do* have a computer account with email access to the internet, here's how the list works:

- 1) To write to all the people on the list, send email to **skyrangers@ai.mit.edu** - this is an alias that's forwarded to everyone.
- 2) To be added to the list, removed from it, or for any administrative questions or requests, send email to **skyrangers-owner@ai.mit.edu** - this just sends email me (the owner of the "skyrangers" list).

We don't have a web site yet, and probably won't for a while - putting a useful one together takes a bit more time than I've got these days. Any volunteers with some spare disk space to set one up? It would be a great place to store digitized copies of 337's and other documents that folks find handy.

Another Bird in the Air: N92971

Shortly after the last newsletter went out, I got a phone call from Bob Tilden in upstate New York. Bob told me that he'd just been "ambushed" by an out-of-annual Skyrainger at an auction, and wanted to know what information I'd been able to dig up on them. We talked for a bit, and I sent him out a copy of SPARS #1. Bob wrote a couple of weeks ago with an update:

January 1, 1998

The plane, nicknamed "the scarlet harlot" by my wife who is not exactly thrilled by my new distraction, is all but complete. It probably would have flown today except that I got ambushed into working on a Beech 1900 commuter until 1 a.m. last night. I stayed away from the airport today, the first such day in almost a month.

I replaced two jugs and one mag, repaired another mag, replaced all hoses, repaired the carb, replaced the strut-to-axle bushings, rebuilt the brake cylinders, and built a new battery box, among other tasks. The firewall forward took almost all of the work; very little to do on the airframe.

I have a friend Phil, who bought a Tri-pacer 6 years ago. It needed cover, but probably could have flown another season. He and a friend took it down for re-cover and the inevitable repairs. Soon they decided to make it a Pacer, and then to do the instrument panel STC.... It has been 6 years and \$20,000 since the plane was bought, and it still hasn't flown. Soon, he says. It will be nice... everything new, and the workmanship top-notch. I believe that it will become a flying catalog of Pacer STCs.

I have kept Phil in mind as I have worked on 971, and have done only the things that are necessary to do right now. No frills. My 1965 Ford pickup truck has neater wiring, but the plane can be rewired later. None of the flight gages are dependable, but the tach and oil gages work OK. Replacements can come later. More permanent C-85 repairs, or an O-200 can come later, etc., etc. All these things can happen one at a time, with the plane down only for short periods.

-Bob

Note on envelope: p.s.: The plane flew again 1-3-98. Had been out of annual 1 year. A pussycat!

A Skyranger for Tall People: Dennis Katthoefer and "Peaches"

[Dennis Katthoeffer writes:]

Received your most welcome letter.

I found 73802 in South Hill, Virginia and hauled her on a flat bed trailer back to Lebanon, Oregon, pulling into Lebanon State Airport August 24, 1995. Since I'm over 6'4" I removed the boot cowl and windshield, and with the FAA's okay moved the rudder pedals about 5 1/2" forward for my long legs. I also had a new seat sling made up about 1" longer, so I would sit a little lower to keep my head off the head liner which I also had a new one made up. The biggest job was putting in the new two piece windshield. And yes I also have a series of holes in the forward fuselage sheeting where the edge of the cowling rests. I don't know why they are there. I think your friend may be right - My Skyranger still has the old leather engine baffle gaskets which I need to replace with new improved engine baffle gasket material to improve engine cooling.

I can help on your first question about the strut mounted doorstops. I can tell you what I have. Each one is simply a piece of 4130 streamline tubing about 6" or 7" as you said. It is welded to a hose clamp which clamps around the strut on the lower end and piece of flat 4130 welded to the top end which has two holes drilled and tapped for sheet metal screws, etc. with old style cabinet laces screwed in. I have to make up some new ones one of these days. I had to put more washers in on the hinges to lift the door to make it shut. The drawing on the next page is my door stop.

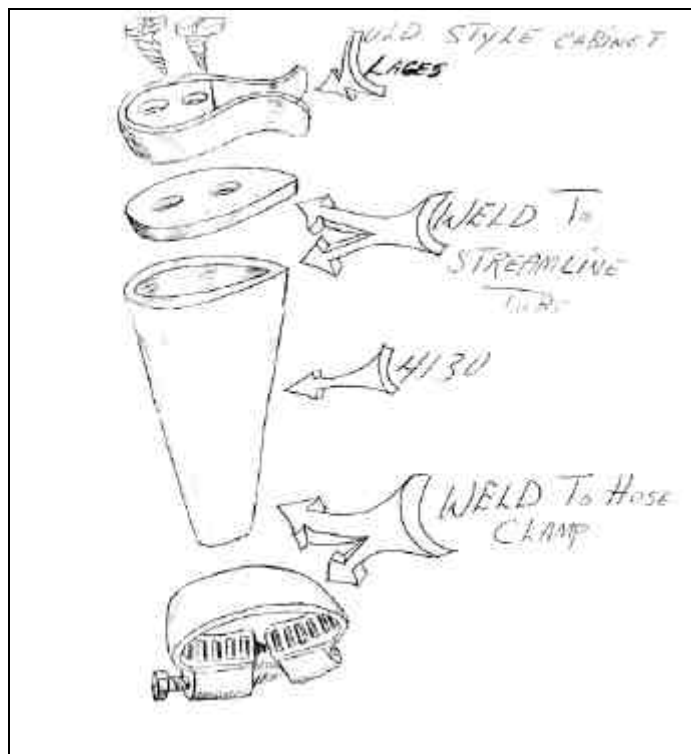
About the night lighting requirements on your Skyranger. I asked an A&P about this a few weeks ago; he told me something about a grandfather clause. He told me before I remove my old-style lights I would be better off just repairing them so I don't have to go through all the work and money to put new ones on. He said once you take the old ones off, then you have to go with the all-new lights if you want to fly at night. Something to find out about.

As for Commonwealth Skyrangers around here: I know of four Skyrangers within 20 miles of my home. I learned to fly a Skyranger for my taildragger endorsement. That was the only one I ever saw until I saw N73802 in Virginia. Now they're popping up all over. In the past four years I've heard of around 14 or 15 offhand. But that's all the way around the country. Oh yes, one went to Alaska.

I was thinking of flying 73802 to Alaska. For the past three months I've been trying to get the FAA to okay 850x6" tires for my Skyranger. I fly in and out of a lot of grass fields. Everyone thinks I'm crazy, but a Skyranger bush plane - can you think of a stronger light plane?

Well, I better get this letter off to you before it becomes a book.

Dennis and N73802 (which I call "Peaches")



From the email list: lots of Skyranger information from Brett Lovett

Apologies for taking so long to forward this out to the paper gang, but Brett sent the following bevy of info out to me just days after the previous letter went out - I hope he's not lost his enthusiasm in the ensuing couple of months!

Subject: Excited about Skyrangers
Date: Tue, 4 Nov 97 11:20:03 -0600
From: <blovett@swbell.net>
To: "David Cohn" <cohn>

David,

Congratulations on a fine job with the first newsletter. Well done!

I have a few things I want to mention here, in relation to the newsletter.

First, I will, and I hope everyone else will, respond to all questions brought up by fellow owners and enthusiasts in the newsletter back to you, so that the answers can be published in upcoming issues of the newsletter. I believe when questions of sources for parts, info, etc., come up, the answers would be of interest to all of us.

At some future time, I will try to put together a history of my aircraft, what I know about it, and what I'd like to find out.

INSTRUMENT PANEL: The earliest Commonwealth Skyrangers had a very differently built panel than all the later ones. The appearance was similar, but it's put together differently. My info shows that the change was made on S/N 1611. I have found that the noted S/N for changes are not always accurate though, and I would suggest that to be sure you check the fuselage tubing at the wing roots of your airplane. If there is any evidence of there ever being a bracket there for a fuel gauge (look for cut welds on the small tubing if the brackets are not present), your aircraft came from the factory with the early panel. These had a separate ammeter in the panel, and mechanical fuel gauges (Model A Ford I believe), same ones as the Rearwin Skyrangers. They had the 3 in one SW tach. Counter-clock tach on top, with oil pressure and temp on the bottom. Fortunately these were used in a few different types of aircraft around that time, and although difficult, they can be found.

I not been able to find any evidence that the 5 in 1 Stewart-Warner Tach was used in any other aircraft than the Commonwealth Skyranger 185. And even the first few 185's didn't have them. No wonder they are so hard to come by. I would think though that there were certainly more of these built than there were airplanes. The question is what happened to that stockpile?

There were also some small changes in the instrument panel throughout the production run. I believe the most major of these was between s/n 1700 and 1750. Placement of the master switch, the primer, fuel shutoff handle, etc. changed. So if you are planning on using parts of the panel off of 1752, be aware, some of the holes will be in the wrong location. Also some of the placards changed, such as the fuel shutoff.

I also have a list of what were used as original instruments at one time in the production run if anyone is interested. I also believe I know which ones were used when mine was built.

LANDING LIGHTS: Well here is a whole new barrel of monkeys. Along with radios, tailwheels, etc. I know what the type certificate data sheet shows. Grimes ST-250. That is correct for up to somewhere near s/n 1700. After that some changes were made. Here is a quote from the assembly manual for the 185.

The items listed below are now considered standard equipment with each Skyranger, but the airplane specification (A-729-3) has not yet been revised to include this equipment in the list of items accepted by the CAA as permissible for installation on this model Airplane. This equipment has been assigned Item No. 200 as a temporary measure until the specification is revised; and will be found listed on the Weight Report as follows:

<i>Item No.</i>	<i>Item</i>
200	<i>Parking Brake</i>
200	<i>6 x 2.00 Tail Wheel Steerable and Castering & 6 x 2.00 solid tire (Scott 2000-3-24B)</i>
200	<i>Battery & box 12 Volt (Reading 24L)</i>
200	<i>Landing Light 2 (General Electric 4509)</i>

200 *Radio Installation (Motorola AR-96-23) Headphones*
200 *Roof Antenna*

Evidently the CAA and the FAA never got around to updating the airplane specification (now the type certificate data sheet). However us with the later airplanes did have this equipment on them from the factory.

DOORSTOPS: The only ones I have seen that are original are clamped to the wing strut with the "male" part on the door. I suspect that there was something different for the optional aluminum wing struts. They are quite a bit larger than the steel ones. [*Yup, these match the ones in Dennis' drawing. Different from the photos Wayne Forshey sent me, though -- puzzling!*]

LEATHER LACING: The assembly manual refers to 2 pieces of "Rawhide Lacing" 54" each, for the attachment of the Nose Cowl, to the nose cowl ring. I have dimensions on the other pieces, but those drawings are in Kansas City right now, so I'll have to check on that later.

V-SPEEDS: The determination of V_x and V_y were not required by the certification regulations that our airplanes were built under. Neither was best glide. Publishing of V_a was not required as long as it was greater than V_I (as in Lima) (max speed in level flight) 115 mph in the 185 Skyranger. How did you determine V_a ? Pull til the wings came off? Hehe. [*Actually, I estimated the 3.8g limit airspeed from the observed 1g stall speed - seems about right, and it helped impress the guy who gave me my commercial checkride last summer - DAC*]

The only one I do know is that landing speed is supposed to be 48 for the 185 and (I think) 38 for the earlier models. From what I've read I think this is supposed to be the power off stall speed, or speed at touchdown. I don't know if its supposed to be indicated or true.

I'm not convinced that the book you have is even an official Commonwealth document. It may be a fake. The numbers in it are correct for the most part, matching those available in Commonwealth and Rearwin's sales literature. The required document to have on board the aircraft was called "Operating Limitations". It simply stated the airspeed, weight and balance, and engine limits, that are available on a Type Certificate Data Sheet. No recommended airspeeds or power settings.

If you want something to look at, get a Cessna 120/140 manual from Wag Aero. Same engine, same airfoil, nearly the same wing area. (I wonder how many Cessna engineers hung out at Fairfax Airport?) Not exactly the same, but close.

PROP: (Erich Bauer) Factory original prop was Sensenich 74FC46 for a tapered shaft engine, 74FK46 for a flanged shaft.

OWNERS MANUAL: (Jon Brosseau) ????? Is it the photocopied one from Air Service Caravan, or something different?

O-235 STC: (Christopher Brown) Very historic airplane. I can get copies of several original pictures of it, including the instrument panel. Chris may have already gotten copies of some of the information I sent to Mac McGuire (its former owner). The O-235 will not fit in the original cowling. It requires a Piper Pacer cowl, which just doesn't look quite right on the front of a Skyranger, especially the number one ship. I would suggest the original C-85, but an O-200 can be put in under the original cowling, to keep the original look.

PAINT SCHEMES AND COLORS: (Larry Farmer) Mine was Maroon and Cream. I have also heard of Blue, Green, and Red with Cream. The fuselage and vertical surfaces were the base color, and the wings and horizontal surfaces were cream. I also have one document that says brown and buff was available. Factory assembled ships had a trim stripe down the side of the fuselage. From pictures I've seen I think David's is pretty close to being correct [*Mine's done up in Stits Aerothane: Boston Maroon and Sun Valley Ivory - DAC*].

SPARS NEWSLETTERS: (Thomas Morris) David, while you are making him a copy, make me one too! Maybe Zot has copies he could copy for us too.

TRADE FOR 4 PLACE: (M Lee Thompson) How about a 3 Place? A Rearwin Cloudster? If not, maybe a Stinson 108. Sucks a lot of gas, but its a real sweetheart to fly.

WHAT I HAVE: I have a McCauley 1A90 CF7051. Would like to sell. It would require a field approval to use on a Skyranger, and its a bit high pitched, unless you have a long runway, and want to go real fast. Might work well with a C90, not sure. (It was illegally installed on my plane in 1956.)

WHAT I WANT: A Sensenich 74FK46 Prop.

A Motorola Airboy (AR-96-23) and the headphones that came with it.
A Kollsman Scout 0-160 Airspeed indicator.
A Kollsman Scout Standard Altimeter. (6 o'clock barometric pressure window, and single hand.)
Any original instrument panel parts from s/n 1700 or later.
Original outside door handles for s/n 1700 or later.
Source for original upholstery.

Would like to find what happened to the original factory documents. The Cloudster stuff ended up with AAA, because Commonwealth sold off the Cloudster before it went out of business. I have talked with a gentleman in Arizona, Mr. C. Biemond, that has obtained the rights to the Commonwealth Trimmer. At one time he owned the last surviving Trimmer. Unfortunately I haven't been able to find out exactly what he has as far as factory remains, documents, tools, stock, etc., or if he knows what happened to it. He is primarily interested in selling the rights for the Trimmer, (he has named it Teal CB1 now) for a large six digit figure. The original factory documents would give all of the info of how our airplanes were originally equipped, and what the paint schemes were on each plane. It would be a gold mine if it could ever be found.

Well, that's a long letter. I guess its evident that you have gotten me all excited about this. I hope everyone else is too.

Thanks,

Brett

Metalwork and More - Patrick Groover's Project

Just as I was getting ready to print this newsletter out and drop it in the mail, I got a call from Patrick Groover. He's a mechanic with Delta Airlines and with quite a project on his hands. He brought Rearwin Skyranger NC34742 home on the back of two trucks, and is in the middle of a ground-up restoration. 34742 may have the unique distinction of having been an actual warbird Skyranger - Patrick has records of it serving active duty with the Texas CAP during the war. He's trying for a completely authentic restoration - now this will be one to watch for!

Patrick also has quite a lot of metalworking expertise and equipment. He tells me he's planning to eventually go into business for himself, and would be happy to bend/build metal for us Skyranger folk. He's rebuilding all the aluminum on 34742 from the firewall forward, as well as a lot of metal in other places. Its nosebowl was badly hacked up by a previous owner, so he's looking for a Rearwin 180F nosebowl he can borrow to make a model from (perhaps Brett, Chris or one of the other well-informed folks on the list can let him know which other Skyranger nosebowls are compatible). He's also looking for the metal strip running back from under the nosebowl, again to make a copy. He'll then be able to pound out duplicates of both fairly easily. He's already got molds for the later 185 cowling pieces, he'll also be able to make duplicates of those for us Commonwealth folk.

Some other parts that he's duplicating (and would be happy to make spares of) are the hinge assemblies for the ailerons, elevator trim tabs, and some bracing pieces for the vertical stabilizer. Give him a call if you're interested. He's already built an approximation of the original instrument panel (I think he said from photos provided by Al Barbuto). Tells me that a company near him does a good job with replica placards - they made him a copy of the Skyranger trim indicator, and should be able to make more easily: Moody Aerographics, at 1-800-749-2462.

There are some other things he's looking for too. Since he's going for an authentic restoration, he's trying to track down interior photos to get the fabric and upholstery right (colors, materials). Any original Rearwin instruments would be greatly appreciated as well. His wings will need to be completely rebuilt, which he'll need some help/info on. He has model for the Commonwealth ribs, but would love to find a jig or model for the Rearwin ribs. Finally, his engine isn't quite a Franklin 80. Bits and pieces have been replaced, and some other pieces are missing - turns out he's got the case from a 90, and cylinders off a 113! But he's missing the dipstick and filler tube, and would like pointers to where he could get a replacement.

So, if you can offer the loan of a nosebowl and belly section, some photos/info on Rearwin interiors, etc., or are in need of some Skyranger metalwork, give Patrick a call in Florida at **813-757-6754**.

Corrections, etc.

Al Barbuto's *correct* address is **Al Barbuto, 620 Old Windsor Rd, Dalton MA 01226-1359**

new members:

Leon Orton, 2008 N 600 W, Logan, UT 84321, 435-752-0481, 1940 Rearwin 175 N32399

Jay Parker, 7404 Crosswicks Cir, Fort Worth, TX 76137, 817-847-5427

Bob Riffle, 3527 Shorecliff Dr, Tacoma WA 98422 253-927-4218, NC90699, N80680 - has molds for Commonwealth windshield

Eric Rearwin, 705 Canonbury Way #386, Hayward, CA 94544

I'll try to get the next issue out in another 2-3 months, and am planning on including some stuff from old SPARS issues. As I said before - send me your questions, send me your answers, send me your stories. And keep 'em flying!

-David

David Cohn
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Commonwealth/Rearwin Skyranger