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BEND AERO MODELERS

January, 2022

FLIGHT REPORT
OH BABY! LOOK AT THAT NICE, WIDE RUNWAY!

President's Message

As an introduction to me, other than he is 'Joe's Brother, I acquired a deep affection for flying vicariously through my father who was in the Air Force (Army Air Corps pre and during World War II), and Korea. I remember going down to the air base, along Marine Drive in Portland, to drop him off at the gate, and then to go hurriedly over to the river-side to see him take off. Always kind of had an ache wishing I was in that plane flying overhead. I remember him taking my brother Ralph (there are 5 of us) and I to the Airbase to see a Sabre parked on the flight line. I wanted to get in, but of course that was a 'no, no'. When he was home, we would go down and sit in the parking area along Marine Drive to watch the planes come and go. I later did that very thing with my daughter and son who are avid flight enthusiasts. We always went to the latest air shows over at Pearson air park in Vancouver. I tried to touch every plane, and even got to sit in one or two. In later years as a young adult, I got my private license, and the best part of that was getting to take my dad up for a 'hop around the patch'.



Continued, Page 2

He hadn't been in a plane since Korea. Lots of time was spent with him and my cousin Norman, building the latest control line planes, which we flew at Delta Park. It seems like if you really love the idea of flight, it never really leaves you. I drive my wife to frustration when we are out and a plane passes overhead, because, and without failing, I stop and look up to watch it pass.

it never really leaves you. I drive my wife to frustration when we are out and a plane passes overhead, because, and without failing, I stop and look up to watch it pass.

If Covid and its relatives will leave us alone this year, I would like to set a schedule of events for the year. I know that Joe wanted to do the same, but we all know what happened with our plans once Covid came on the scene. I feel it would give us a more accurate way to identify needed resources, human and time related, as well as field scheduling timing. While we did a great job of making things work last year, let's see what we can do with some scheduling around the pertinent factors. Who can be the 'champion' of a certain event, who will be in town, what events do we want to do, perhaps inviting other clubs, invite the public, etc. . . . Of course, we will have to temper everything with the knowledge that the current malady will be with us for the foreseeable future. Dennis and I have been discussing some new proposals for acquiring the yearly dues from all of you, so expect to hear some proposal on that topic as well. So please put on your 'thinking caps' and let's see what we can come up with.

CAVU to you all,

Jack

We received a very nice Christmas card from Lynn Putnam, wife of our deceased member Jon for our help in selling some of Jon's planes and relocating his extensive library from her home out to our Popp's clubhouse. She said "You saved me! I can never thank you enough.

Cheers, Lynn Putnam."



BUILDERDASH !

Balderdash [bawl-der-dash] senseless, stupid, or exaggerated talk or writing; nonsense.

Builderdash [bill-der-dash] senseless, stupid, or exaggerated assembling of model aircraft; nonsense.

The “Funk Jet”

By Dennis McMahon

Where to begin . . .

I think most of us know about Phoenix, a bird who obtains new life by rising from the ashes of its predecessor. Well, I never know an answer on Jeopardy about any of the mythological stuff, since I thought why chase after things that are just that — myths. So, it wasn't any philosophical leaning that made me pursue this project. It's more about being a scrounger and unable to throw some things away. I never met a cardboard box I could discard without harboring it for a few months. Same with a bunch of pieces parts of other assets that have outlived their usefulness. You know, the old “you never know . . .”

I guess the beginning of this thing hearkens back to my first RC plane, a Calypso motorized glider, the descendant of which is hanging not far above my head right now. With a little imagination, you can make out one of its black and chartreuse-striped wing-tips curving upward in this picture among the mishmash of aircraft waiting to endure their first or second or third



or . . . crash in my cruel hands. The Calypso—what could be easier to learn on (with no instruction; I don't need no steenking instruction.) Yes, a glider, let it seek its lofty height and then gently guide it in its docile return to one of the fields on my wife's 80-acre farm where we lived at the time. Alas, I fired it up and threw it up at a sharp angle, through which it screamed upward and with the adroit assistance of my overcontrolling fingers, executed a tight loop and achieved a little compression of it's schnozola. Hmm, guess I need to launch it on a more level arc. So, I did this, and up it soared, screaming past me and landing about 20 feet up in a tree 40 yards behind me. Always good to have a few bamboo poles around; getting harder to find these days. (Last year I took a couple of them out and stored them in our container at Popp's along with some jackstands and rods to pound into the ground to hold our limbo poles, and they worked like a champ, so if you come upon any more of them across this wide world, please grab them.) Duct taping the poles together along and attaching a bent coat hanger,

Continued, p. 4

I was finally able to convince the Calypso to abandon its perch and crash on down with a healthy thud to the ground, upon which I subsequently ordered a new fuselage. Needless to say, history repeats itself, so this was not the last fuselage I had to order, as it conveniently found another tree during its Pre-Spektrum days.

But, the bright spot in the crashes is that the Calypso comes with a nice long carbon fiber rod to strengthen its elongated fuselage all the way back to its tail feathers. And, in super scrounge mode, I cut those babies out and hung onto them. And, through this painful process, I learned about dual rates. The Calypso came with a Tactic transmitter and receiver, a nice little basic 4-channel, however with no programming capability, which, in the hands of an ever-recovering novice like me, lends itself extremely well to over-controlling. Of course I knew nothing about there being programmable receivers, but I finally broke the code and Spektrum came to my rescue, taming the Calypso marvelously, but eliminating a convenient scapegoat for the cause of crashes, but all to the better for me.



OK, a couple years fly by and I buy a Stratocam. Cool little twin engine with a camera mounted. What fun it would be to zoom around and survey the geography. Unfortunately, I didn't get the thing up and running for over a year, to find that the camera didn't

work, and of course the whole thing had aged beyond its warranty honeymoon. Nevertheless, it was a solid flyer with quite a bit of speed, which when turned inside out, means that strong gravity and rapidly approaching earth can combine to produce destruction, which, since it was me, ensued forthrightly. Super scrounge picks through the wreckage, salvaging the twin brushed motors and landing gear and also grabs the busted off tail section.

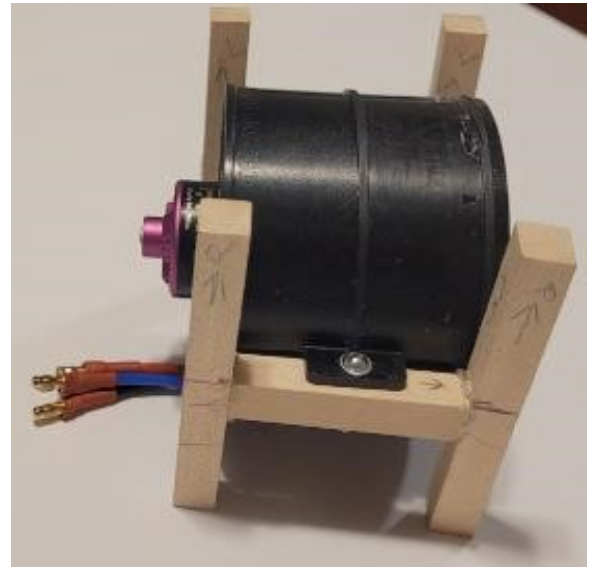
I'm always fooling around with both Flite Test foamboard kits and downloaded plans or my own "designs" created with Dollar Store foamboard. It's so easy to cut and hot glue into a model of a configuration you want to try. Over six years I've also picked up several motors, ESCs, receivers, connectors, cables and about everything they make for the hobby. Some of you are flying impressive EDF jets. I actually traded in and out of one a couple times with Doug Devereaux, our member who lives out in Hines. Flying something that fast would probably lead to massive destruction in my hands, but I figured why not pick up one of those motors and just tinker around with it and see how it works. Soon, a 70mm electric wonder showed up in my mailbox and it sat around for a few months as I fooled around with other planes, traveled, moved my daughter and grandson from California to Colorado etc.

So, about a month ago, I decided to tinker with the motor and see if I could build an airplane around it. I had salvaged the wing from a Flite Test Bloody Baron I had painted black and fluorescent pink, going on what our beloved "Trouble" Tom Schramm had researched as one of the most visible colors. Its destiny was to be a Combat plane. It flew pretty darn well, and the day of our Combat Competition, I was picked to fly against Past President Joe Newman. I jinked around pretty well for awhile, but all of a sudden, the plane realized I was at the controls and panicked and decided to commit suicide. So, the wing went on to live alone without its fuselage or empennage until I got the idea to do something with the EDF motor.



Hence, the impetus behind the Junk Jet—sure to win some type of Recycler Award for turning a few pieces of junked RC planes into another conglomeration of JUNK!

How to mount a motor onto something without a solid firewall was the first obstacle in its haphazard genesis. Gotta have flow through;

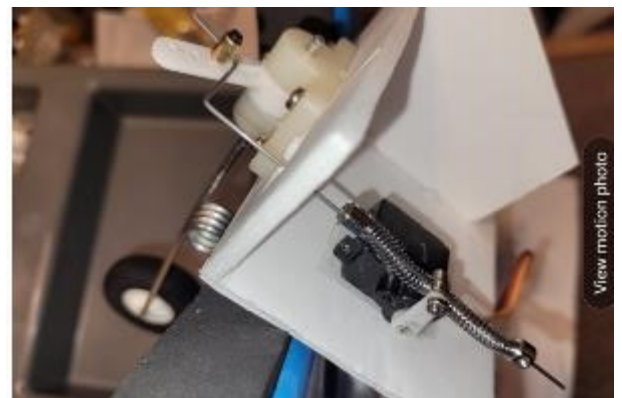


So,



through several iterations (again, how easy and cheap you can build, tweak and rebuild with foamboard), I came up with the ugliest fuselage I could conceive of. It is so putrid I even built it in two layers of foamboard on the outside chance it might be strong enough to hold together once that EDF vacuum cleaner roars to life. It's sort of a two-story contraption. It was going to be too hairy to use one servo for both rudder and nose-

wheel, so on the bottom level is a steerable nose wheel assembly along with the ESC and battery. I'm always leery of subjecting a nosewheel servo to the forces foisted upon it during my type of landing, so I came up with a shock absorbing (hopefully) configuration. I took a piece of music wire and to the rear attached a wheel collar, working forward to a ballpoint pen spring, to a pushrod stopper attached to the servo arm, but without the set screw, thereby allowing flex in the whole assembly, then another pen spring (root around and find two identical pens to equalize the force), then another wheel collar on frontward through the mount to the nosewheel's steerable arm.



Continued, p. 6

I had originally considered putting the receiver down there on the basement level, but it got too hard to work it out, so I opted instead to mount it on the upper level. Behind the motor? In front of the motor? I finally decided, with great foreboding, to mount it in front of the motor and make some attempt to mount it strongly enough and shield it enough to prevent it from disintegrating in the screaming fan blades.

I toyed with putting the carbon fiber rods on the top, bottom, or center, but decided to put them on the inside top of the fuselage and, as the pictures show, serve as mounts for the tail feathers. But, one of the trickiest parts of this whole fiasco was trying to decide how to get the CG right. I had plenty of length in the rods and knew about where on the wing the CG should land, but it took a lot of foamboard build, rebuild, tweak, rebuild to finally come up with what could be correct. I cut the carbon fiber rods to length and pressed on. So, as I write this, I have yet to send the milk carton - wannabe- shaped Junk Jet down the runway, but am anxious to see how it finally handles or at least goes out in a blaze of glory.



But, even after over 1600 words, according to my word processor, in this meandering piece, there are still a couple more things I'd like to highlight. I set up the aileron leads alongside the intake area so I could easily remove the wing if needed, or if I think it needs more wing because it's just a lead sled that has to be kept at 120 mph to land, on the gross assumption that it attains some semblance of flying in the first place. So, I used those servo clips on the connectors and then housed them in protective sleeves with no danger of being sucked

into the fan. You know the retractable pencils with the super skinny leads that came in a neat little rectangular clear plastic container—well, I cut the very tops off the caps of a couple of them and now the aileron connectors are ensconced in their clips inside these sleeves.

If I need to disconnect the aileron servos for any reason, I can just pull the clip-protected connector upwards, disconnect and press on.



Concluded -- FINALLY! p. 7



Also, with the receiver sitting right there on the top deck, it needed some type of protection, which I have attempted to provide by cutting a plastic jar in two and taping it to the top deck. Its shape allows the servo leads atop the receiver to bend over and go down through the opening above the compartment for the nosewheel servo, next to where the battery resides. I added a little foamboard guard down in there to shield the nosewheel steering from the receiver wires. And, the battery, as so often it does, plays heavily into determining the CG. As it was, I added 3 oz. to the nose to get the CG into what I think is the correct range.

So, the CG is sitting in the area where we usually have it, somewhere about 1/4 to 1/3 of the cord or so and commonly set to be a little nose heavy on non-3D planes. Nice! What? Even with the battery installed, the Junk Jet wants to rock back on its tail? Haven't run into that one yet. What to do? Don't want more nose weight; battery area is filled up with a 3S (though this 70mm would be happier with a 4S, a 3S will probably be too much power for me anyway), so can't easily use a larger battery. The only thing left is to set the main landing gear back a bit, so I glued on some more foam and relocated the plywood pieces where the mains were bolted in place and we're back in business again. One thing I really love about this hobby is the problem solving aspect; the things that make you think about a solution, possibly get away from it for awhile, incorporate some new revelation, pick through your trove of other stuff, re-modify your original approach and give something different a try. This project has certainly held some learning opportunities for me. To say nothing of the potentially rude awakening when I actually point this turkey down the runway and shove the left stick forward--Spoiler Alert: Potential teachable moment looming large on the horizon! As you look at the result of my madness, do you get the feeling that this creature will exhibit some truly miscreant behavior? One of my thoughts in making the aileron connectors readily removeable is that I predict the need for a larger wing if it survives long enough. I do have a gyro receiver installed, but whether it can keep these stubby wings level remains to be seen.



So, that's about it at this point for the Junk Jet. I hope to provide an account of a hopefully reasonable maiden flight in a future issue. But for now, it can live on in the legacy of the Phoenix, somewhat akin to one of those kitchen trash compactors that turns 20 pounds of garbage into 20 pounds of garbage!

But wait! There's more! Call now and we'll double the offer! (Actually, if you can stand it, turn to page 16 to partake in the historic account of the Junk Jet's Maiden Voyage!)



The Safety Corner

Jim Stuart
BAM Safety Officer

Tricycle Touch- down



Jim, just a few years ago . . .

Those nose gear retracts: My new T-28 and a lot of other airplanes with retractable nose gears get a lot of comments and failures when landings are made with the nose gear touching down first. Even in full scale aircraft this can be a problem. I use a technique for landing that works well for me and I currently fly an Avanti and the Bronco that use these retracts. It can always happen but I haven't broken any yet so I decided to pass this along as a technique that you may or may not want to try if you are breaking your retracts.



I use a descending final approach for a landing rather than a flatter one. At about 50 feet on a short final, I nose the airplane over into a shallow dive and pull the power all the way off to idle or whatever it takes to let the airplane descend without picking up excess airspeed. A few feet above the touchdown I ease the nose up and add just a bump in power. The airplane will settle nicely onto the mains and the nose wheel will then touch the ground.



The problem with using a flatter approach is that you are flying the airplane at a speed that is close to stall speed and the nose is being held up by power. This is great for tail draggers but not so good for airplanes with nose wheels. When you pull off the power the wing stalls, the nose drops and there goes the nose gear, bent to the rear.

Something to try. Fly safe!

Jim, The Safety Officer



Here's a little Safety P.S. from the Editor: With my penchant for Dollar Store foam creations, I always have some pieces of it hanging around.

To dispose of used Xacto blades, I take a little chunk of

foamboard and make a little sheath for the spent blade before trashing it, to eliminate accidental cuts.





Ok Racers, Are we Ready?

By Andy Niedzwiecke

Hopefully, everyone is looking forward to this event this year. This communication is just to set forward some guidelines for the races and in particular the modifications that are allowed on the planes. To keep this fun and even, the changes to the planes will be limited to the following:

1. The stock motor will be the only one allowed.
2. The propeller will be changed to a 7x6E (modifications need to be made to the propeller and I will distribute a couple of methods to accomplish the desired outcome) in a separate mailing to the racers only. As you need props, Dennis McMahon has laid in a good stock of them, so contact him for a discount price.

3. The battery is limited to a 2S lipo, you choose the mAh, the folks that are helping us from a San Diego club state that they use anywhere from a 850mAh battery to a 1300mAh battery and that a 1000mAh battery after 10 laps used only about 600mAh

4. The plane can be decorated as you wish, change color, use multi-colors, if you are going to use a number, please coordinate with other racers to make sure we don't get duplicate numbers.

5. This plane comes with a gyro, you can use it or not, if you choose not to, just remove it from your airplane.

I will be sending out pictures of propeller mods to the racers email to make the recommended propellers work. The reason for the change is that most times the 3-bladed props provided are not in stock.

To the right is an example of how one person made their plane sitck out to them.

That's if for now. If you want to jump in, this plane is on Amazon for \$139.99 and is the FMS 800mm T28



MORE BUILDERDASH !



So, with such a convoluted experience as the Junk Jet, I decided I needed to attack my next build with some structure, so I bought a “box of sticks,” or kit as they are known to normal human beings. I saw an ad for a 39” Tiger Moth by Dancing Wings. I had a pretty pleasant experience putting together their Aero Master, and Bill Broich was pretty pleased with his DW Fokker Triplane kit, so I picked up the Tiger Moth on Amazon. It was slow boat from China, but when it showed up, I was

pleased with its appearance. They’ve gone to some pretty good color pic instructions, still steeped in Chinglish. They leave a bit to be desired, but I also found a build video for the plane on YouTube which helped fill in the blanks.

Now, back to my experience level, I figured I better get some guidance on how best to go about building a more detailed balsa model, so I turned to the beloved “Trouble” for a few tips. My question was: “When you build a plane out of a box of sticks, do you pin pieces down on top of the plans, maybe with wax paper over the plans? Do you use CA glue on balsa?” My last real build was back in the 70s and we were double-gluing Elmer’s Carpenter’s Glue and CA wasn’t around. I didn’t know if they did it much more different nowadays, so might as well ask an expert.

His answer was so concise and thorough that I asked him if I could share it with you. Maybe old hat to several of you, but again, with all the beautiful ARFs and foamies around these days, there probably aren’t a whole lot of builders in our midst. He distilled and condensed down a ton of experience that can help us avoid some pitfalls, and some reliable info might nudge some toward building.

So, here’s what Tom shared:

“Yes, I use waxed paper over the plans and pin the pieces in place. On balsa stringers or spars (1/16" to 3/16" sq.) I cross (angle) pins to hold these in place. Normally I use TITEBOND wood glue or GORILLA wood glue on balsa and plywood. Be sure to clamp (apply pressure to) these joints. At times I resort to CA Medium on non-high stress joints with small pieces or in a hurry. CA thin can be used on TIGHT fitting joints. CA medium would be a good choice. It’s your choice to add a fillet of glue to a joint. NOTE: Have some accelerator on hand, use the spray tube to apply a drop to the joint (not the spray). Also, if using thin CA, attach applicator (capillary) tips to the bottle nozzle to control the CA. Epoxy is used in high stress areas. NOTE: try to keep CA from external surfaces as it is very difficult to sand/file and have the joint not show when covered. And, CA will stick to waxed paper. So, be careful when applying CA.” *(Editor’s note: I learned from the Flite Test gang something I didn’t know -- wax paper is waxed on only one side; check the feel of both sides and have the wax side up . . . And, another thing I learned with using Titebond--When gluing two flat surfaces together, I sometimes use weights to keep the surfaces together as they dry. Be careful here to not use excessive glue, and make certain that the pieces don’t “float” and become misaligned as they dry. Learning this the hard way caused a lot of consternation! Now I know everything!)*

So, there you have it. I especially appreciate his caution on avoiding CA on external surfaces; it can create a hard area that makes it tough to avoid over-sanding the surrounding areas. By the way, Tom checked out my Tiger Moth kit and went ahead and ordered the DW 63” Fieseler Storch. It’ll probably take a month across the Pacific to arrive from Banggood. Incidentally, I’ve had good prices and good results with ordering things from them; you just to have to be patient until they arrive.



AND, ELECTRIC PLANE PILOTS ANOTHER OF *TROUBLE’S TIMELY TIPS*:

<https://www.rcgroups.com/forums/showthread.php?952523-too-long-battery-wires-will-kill-ESC-over-time-precautions-solutions-workarounds&highlight=kill>



More Jim
Young pix
from Schaub
Lake, about 4
1/2 miles
southeast of
Fort Rock as
the Radio
Control crowd
flies.

Schaub Lake



FROM HERO TO ZERO . . . AND BACK?

Pix Provided by Tom "Trouble" Schramm

Here we have Tom Rainwater with his beautiful model (wife Sue) and his Yellow Aircraft Japanese Zero on maiden "Fright". The Fright was beautiful up to landing.



After a beautiful fright, Tom set up for landing, and.....



Repairs were completed and Tom flew it again at Castle AFB, Merced, CA without mishap.

BEAUTY IN FLIGHT

More Pix Provided by Trouble"

Here are a few pics of the quarter scale Zirolu Ercoupe I built for Jim Young back in 2011. Powered by a O.S. 91 two stroke with guidance by Futaba 72 MHz. Wingspan 6-7 feet. Covering is Ultracote. Lapine member Bernie Brader did the maiden fright for Jim and it flew beautifully, unfortunately it was stolen at a later date.



Below are a couple of pics of the SIMLA I built for Jim Young in 2012. This plane was modeled after the infamous Kazmirski TAURUS from the 80's. Wingspan 8 feet, covering is Ultracote, power is O.S. 120 two stroke and guidance is Futaba 72 MHz. This was a lazer cut kit no longer produced. Bernie Brader, Lapine RC Club, did the maiden for Jim. If you're not familiar with Kazmirski, go to:

<https://classicpattern.com/ed-kazmirski/?lang=en>



NOSTALGIA

MORE PICS FROM OUR HISTORIC REPOSITORY MASTER, CPO JIM YOUNG

The Installation of our Sign at Popp's Field, December 18, 2004



Gary Popplewell & Darrell Loveland



Gary
Popplewell, for
whom our
airfield is
named.



Kim Waterhouse



Andy Niedzwiecke
drives a screw into the
beautiful sign his son
built and donated to
Bend Aero Modelers



Looks good,
Andy! Kudos to
you and your
generous,
talented son!

. . . Just when you thought it was safe to do something else with your life . . .

**Here's the long-awaited, historic account of the
Junk Jet's**

Marvelously Meandering Maidening!

Alright! I got to do the Junk Jet's maiden on Jan 11! About 43 degrees at Popp's; wind was pretty light for the most part. It's been a fun project to wrestle and learn with, and I was especially happy with the uniqueness of my design, resembling a skillfully smashed shoebox. The part that really pleased me is that it shot down the runway straight as a string and my shock absorber nose gear handled magnificently. In it, I used a servo that, of course, came from another wrecked plane; I think an FMS P51 Red Tail, and for whatever reason, was configured for only 51 degrees rotation. I figured limited rotation would be good for a nosewheel. Its amazing just how little rotation it takes to facilitate some pretty tight turns, and the limited throw really worked well for me in this application.

So, with just a slight crosswind, I taxied down to the east end of the runway and marveled at how nimble it turned to prepare to seek its destiny. Advancing the throttle slowly, it picked up speed nicely on its westward journey and I gradually firewalled it. Man, she was MOVING and tracking like on rails! Once she pegged out, I pulled back to achieve rotation; an exciting moment, watching it begin to put some distance between it and the runway, in total, an exhilarating 3.5 inches, darn close to 9 centimeters, I choose to believe, and holding as I kept pouring the coal to her until: It became intuitively obvious that one of those 4 inch high rocks still holding onto the fabric on the northwest end of the runway summarily reinforced my gut feelings that this thing would never really fly. I picked my steps carefully as I descended into the runway's deepening shoulders. Yup, there she lay. But, Eureka! Without



the bother of a broken prop in the way, I was able to put her back on the west end of the runway and charge on eastward at breakneck speed. My delight was short-lived, since even though there were no rocks along the sidelines cheering me on, the rock solid design kept the beloved Junk Jet essentially tied to Mother Earth. With its reliable ground handling, I had thoughts of maybe putting it up against Andy with one of his RC dragsters, but figured there are enough conflicts in the world of sports as to the configuration of one contestant vs. the other, so we don't need to promulgate that type of conflict here in our RC world. Cars are cars, and planes are planes, (unless they don't fly, leaving me in a bit of a quandary). Nevertheless, I do predict that the Dreaded and Wondrous Junk Jet will never again terrorize the hallowed, pristine surfaces of Popp's Field—but, don't rule out one of the ingredients mentioned at the start of this veritably vaunted vocabularial virtuously verbal visionless vicissitude (Did I leave out vomit?)—*The Phoenix!*

Finally, THE END! (In more ways than one)