



Stetson Flyer

Stetson Flyers Model Airplane Club

January 2000

President's message

The millennium is here! On behalf of Denise and myself, we would like to wish everyone a Happy New Year and hope your Christmas was great.

The hype is over, now we can live this new century with many flights.

This year looks good, with this clubs great '99. Looking back at our events, meetings, the atmosphere of this club, we should be proud of the Stetson Flyers' performance. This club has been in existence for 24 years. It was founded with the wishes of it being a members club and I am proud to say it still is. We had a visit lately from a from a founding member and past president of our club, Jean Blaquiere.

We were going over some our history. Jean lives in Ste. Julie now and he is so happy to have been part of this club's history. He tells me that he is always looking for news and hears good things. We have something very valuable to us with this club and must plan to preserve in the new century. It will require work and lots of fun. Of course many airplanes and many safe flights of course.



Next Meeting

Scratch Building

Tuesday January 25, 7:30 pm

Bring your Show and Tell!

This past year has been a good one for me. More flying, no broken airplanes, more fellowship, made new friends. Works for me! The future looks good, so let us make sure we can keep this up. All, I ask is we good to each other and build and fly good models.

Many look at '99 as the end of the last century, others look at the new one with new hope and vision. The latter looks good to me.

This club is going to grow it seems. The best thing we can do is be consistent, make sure we operate the club the same way and welcome new members and educate them about us in a **positive manner**.

We have events and meetings to enjoy, responsibilities to maintain. If do not forget where we have been, all is possible.

At the last meeting your new executive proposed a new budget. At the end our fiscal year Erich and I did an analysis of the memberships in this club. The surprising part was that again we were not getting the income from memberships as forecasted in the budget approved for last year. If it had not been for the \$1000 raised through donations and draws, we would have been in the red again. So this had to change. Further investigating, we found that out of 118 members, 57 were reduced membership fees.

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Club Officials and Contacts

| | | |
|--------------------------------|----------------------------|----------|
| President | Gerry Nadon | 824-9100 |
| | gerald.nadon@sympatico.ca | |
| Vice-President | Peter Barnes | 824-5352 |
| Secretary | Erich Zappe | 830-7549 |
| Treasurer | Christine Devlin | 830-7533 |
| Events | open | |
| Chief Flying Instructor | Bob Butterworth | 487-2851 |
| Field | open | |
| Newsletter | John Jackson | 445-5728 |
| | john.jackson@netmanage.com | |

Mailing Address:

The Stetson Flyers Model Airplane Club
P.O. Box 456, Orleans, ON, K1C 1S8

Web Page:

<http://www.stetsonflyers.com>

Dues:

\$55.00 per calendar year; \$30.00 for students under 18

Meetings

The Stetson Flyers meet at 7:30 on the last Tuesday of each month, except for December, June, July or August. The meetings are held at the National Aviation Museum in the Bush Theatre.

Receive this newsletter via email!

For those members who have supplied us an email address, we can send you an email notice with the web site address where you can download the newsletter. The file is an Adobe Acrobat PDF file, which means that you need to use a FREE Acrobat Reader software to view or print the document. There is a link to the Adobe site to get the FREE software on our web site.

To send you this notice, we need to have your email address on file. Last month, nearly 12 of the email addresses the notice was sent to were no longer valid! If you would like to get your email address on our list (or make sure we have your current one), send a quick note to john.jackson@netmanage.com and I will update the list.

Please visit our web site at

<http://www.stetsonflyers.com>

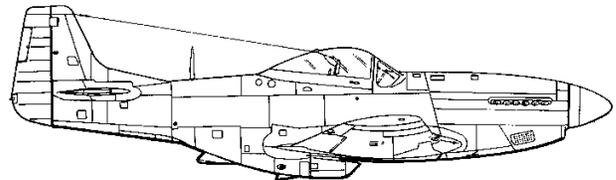
Our web site is hosted as a community service by
Magma Communications
(613) 228-3565

Would you like a member discount on your internet access? Contact club member Rick Ramalho at rick@magma.ca to receive information on discounts for Stetson Flyers members.

Fuel Safety Alert

An AMA member was recently severely burned when a model fuel can exploded as it was being opened. He received very severe burns, requiring extensive grafting, and is facing a long recovery period. The metal can he was trying to open had been in storage for over 20 years. There is no evidence of an external spark or ignition source other than the container itself. Consultation with experts in the field indicates that materials, such as ether, propylene oxide and nitro methane, commonly used in model fuels may become destabilized and shock sensitive over a period of time. As best we can determine, this fuel, whose composition included two of these substances, was in a state of change. It is probable that this change in combination with the heat generated by the friction (metal to metal) in trying to open the container initiated the explosion. AMA advises that it would be unwise to open fuel containing these products that have been stored for some period of time in metal containers. Such fuel should be taken to a Hazardous Waste disposal facility. (Any fuel stored for over 5 years would be suspect).

ALWAYS USE FRESH FUEL!



FOR SALE: If you have something you would like to sell, feel free to send me the details and I will add it to our next newsletter!

Minutes of November 30 Meeting

Location: Aviation Museum

Attendance: 40

1.0 The meeting began with Gerry welcoming all in attendance and with introductions to the new executive of the club.

1.1 Gerry entertained a motion to accept the published minutes of the last meeting. Terry Satchell accepted with Tom Saunders seconding.

1.2 Gerry added that there is no events chairman at this time, as events will be run by the committees that take the particular event on.

1.3 The website is now transferred to our new domain, www.stetsonflyers.com, John also asked for club feedback on the newsletter. John could be contacted by email. Gerry thanked John for his work on the newsletter.

1.4 At the field the lock had been cut, probably last Friday, so a new one will be purchased.

1.5 Mike, the Pranged Pig, was awarded to Terry Satchell for his crash in the woods which initially appeared minor but hidden damages later appeared.

1.6 Richard Robichaud of Discount Hobbies has offered a gift certificate for each meeting for Show-N-Tell.

1.7 Snow removal was discussed and this year more snow removal may be done. Last year it was only done once.

Year 2000 Budget

2.0 Erich first showed comparison of '99 Budget versus actual revenue and expenditures. The year ended with a profit primarily due to fund raising and Giant Rally incomes.

2.1 Christine presented the budget for the upcoming season. Changes showed increased revenues from membership with new rates proposed, the deletion of the Hotline and improvements to the field.

2.2 The proposed membership dues fueled a discussion on how to best accommodate next year's end goals. From the participants at the meeting it was decided to go to a new rate format of all paying the same amount, \$55.00, except for Juniors (18 and under) at \$30.00. The new rate includes vintage members as well. There will be no late payment charge this season, though it was stressed that all flyers at the field must have current membership. The half price membership after August 31 is discontinued unless accepted by the executive.

2.3 A motion to accept the new membership was moved by Tom Saunders, seconded by Nigel Fields, and was passed.

2.4 The motion to accept the budget was accepted by Peter Mazzerolle and seconded by Tom Saunders, motion was passed.

2.5 Nigel Fields offered to do some seeding in the pits. Gerry asked if he would consider helping with a field committee.

2.6 Bert Fortier put forth a motion to close the meeting, seconded by John Ekland, and it was passed. Coffee and Show-N-Tell followed, with a film on Barnstorming to conclude the evening.

Important Definitions

Engine Failure - A condition that occurs when the fuel tank becomes filled with air.

Glide Distance - Half the distance from an airplane to the runway.

Tailwind - Results from eating beans in the coffee shop; often causes oxygen deficiency in the immediate vicinity.

(Continued from page 1)

So your executive decided to propose a budget at the November meeting. This also gave us the opportunity to fix our membership income. We proposed an increase across the board. A discussion was opened from the floor of the meeting. A log one at that. A motion was made from the floor that everyone pay the same fee, except students. Using the info in our proposal, the fees were set at \$55 general and \$30 for students. This was democracy at work. Please check the minutes and Christine's article, so it can be understood. I would like thank everyone for participating in this decision, we did need the help.

Membership forms are available from your executive, Discount Hobbies and on our website at www.stetsonflyers.com

Please note we will more careful on controlling paid memberships, the process at the hobby shop has been improved, a proposal on controlled access to the field will be made at the next meeting. Records posted at the field and published in the newsletter. We will need your input on this.

The next meeting will be a night for event proposals, June fun fly, a scale event (fun), pattern event, giant scale event, to be voted by the members. We have members to run all of these. Please note, I will not entertain a suggestion that we hold an event without a few members committed to holding it. A criteria, as to how an event is to be run or represent this club is coming from you executive, in the near future

Our entertainment theme is "**scratch-builders night**". It will be aimed at models of all sizes. We will have workshops, and presentations. So far, we have Chris Burridge on "how to make a fiberglass cow", Ed Whynot "on selecting light wood for your project" and also "on covering with plastic materials" and more.

For show n' tell, bring an item, whether it is an under the Christmas tree item or your latest construction project, bring it. It does not have to relate to the theme of the evening. A gift certificate donated from Discount Hobbies and we may add something else for a draw for participants.

Please note if your MAAC membership is not in the office by the end of the month, you will not receive the February issue of the magazine. Yes if give to us it will be processed immediately. Erich is aware of all this and he and Christine will be keep a close watch.

Gerry Nadon,
President

The National Aviation Museum's new web site is cleared for take-off! <http://www.aviation.nmstc.ca>

Ottawa--Since the 1996 launch of the National Aviation Museum's web site, Canadian aviation enthusiasts have had a place on the Internet to call their own. Starting the first week of December, there's something new in the air. With a new look and improved navigation, visitors will find it easier to get at the wealth of information available on the Museum's site.

In addition to the detailed descriptions and images of the Museum's 120 aircraft, a new collection of 8,500 archival photographs is now available on-line. Search for your favorite aircraft and view the thumbnails to make your selection. Another first, our photo essay collection in Acrobat PDF (Portable Document File) format offers in-depth insight and rarely seen photographs. Available now on the site are essays on the famed R-100 airship, the ins and out of Camouflage and the history of the Rockcliffe Airport. Three new essays will be added early in the New Year. For those planning a visit to the Museum, look no further than our site for the latest updates! Schools and groups will be interested in our new programs section which now offers the ability to reserve on line. And don't forget our Flightdeck site at exn.ca/flightdeck, the premier multimedia-enhanced web site for Canadian aviation, the result of a partnership between the Museum, the Discovery Channel Canada and exn.ca.

The National Aviation Museum is located at the intersection of the Aviation and Rockcliffe parkways, just 10 minutes from downtown Ottawa. Hours of the Museum and Gallery are 10 a.m. to 5 p.m., Tuesday - Sunday and 10 a.m. until 9 p.m. on Thursdays. The Museum is free from 5 p.m. to 9 p.m. on Thursdays. There is plenty of free parking always available.

For more information: 613 993-2010, 1-800-463-2038
André Mercier, New Media Officer: 613 990-7397
amercier@nmstc.ca



"PERSONALLY, I DON'T BELIEVE ALL THOSE STORIES YOU HEAR ABOUT FANATICISM IN THIS HOBBY!"

STETSON FLYERS MODEL AIRPLANE CLUB

EXPENDITURE REPORT FOR 1999

Submitted November 1999

Expenditure

| Category | BUDGET | ACTUALS | VARIANCE |
|-----------------------------------|-----------------|-----------------|-----------------|
| Field: | | | |
| Field lease | 1,400.00 | 1,284.00 | 116.00 |
| Grass Cutting | 700.00 | 800.00 | -100.00 |
| Field Maintenance (Work party) | 1,500.00 | 1,949.49 | -449.49 |
| Field Improvement | 0.00 | 0.00 | 0.00 |
| Fun Flys (Breakfast) | 350.00 - | 558.68 | 908.68 |
| Newsletter Publication | 1,500.00 | 976.25 | 523.75 |
| MAAC Field Registration | 11.00 | 10.70 | 0.30 |
| Club Hot Line | 325.00 | 366.98 | -41.98 |
| May Dinner | 200.00 | 17.70 | 182.30 |
| Post Office Box | 75.00 | 77.04 | -2.04 |
| Chief Flying Instructor | 100.00 | 37.71 | 62.29 |
| General Office Supplies | 0.00 | 23.03 | -23.03 |
| Web Page | 0.00 | 45.00 | -45.00 |
| Bank Charges | 0.00 | 6.79 | -6.79 |
| Total Expenses | 6,161.00 | 5,036.01 | 1,124.99 |

Revenue

| Category | BUDGET | ACTUALS | VARIANCE |
|-----------------------|-----------------|-----------------|---------------|
| Memberships | 5,900.00 | 5,215.47 | 684.53 |
| Fund Raising | 500.00 | 1,032.13 | -532.13 |
| Total Revenues | 6,400.00 | 6,247.60 | 152.40 |

PROPOSED BUDGET FOR 2000

Submitted November 1999

Expenditures:

| | | |
|-----------------------------------|----------|-------------------|
| Field: | | |
| Field lease | 1,400.00 | |
| Grass Cutting | 800.00 | |
| Field Maintenance (Work party) | 1,200.00 | |
| Field Improvement | 2,200.00 | |
| Newsletter Publication | 1,200.00 | |
| MAAC Field Registration | 11.00 | |
| Post Office Box | 75.00 | |
| Chief Flying Instructor | 50.00 | |
| General Office Supplies | 200.00 | |
| Web Page | 50.00 | |
| Total Expenses | | \$7,186.00 |

Revenues:

| | | |
|-------------------------|----------|-------------------|
| Carry Forward from 1999 | 2,302.00 | |
| Memberships | 6,000.00 | |
| Fund Raising | 300.00 | |
| Total Revenues | | \$8,602.00 |
| NET AMOUNT | | \$1,416.00 |

Note: Executive Advance of \$500 will be available for FunFlies.

Tightness at Top Dead Center (TDC) (Cross-Over Click on New Engines)

One of the most common complaints from new modelers is regarding their new engine. Most ABC or ABN engines are fairly tight at TDC. This is where the piston rises to its highest point in the cylinder. When the engine is cold, there is a very noticeable click at this point when turned by hand. Is there something wrong? Most probably not.

By design, the cylinder sleeve of an ABC engine expands as temperatures rise. The temperature is greatest in the combustion area near the top of the sleeve. To allow for this, and to insure a good piston-sleeve fit at operating temperature, the cylinder sleeve is tapered during manufacture. The diameter of the top of the sleeve is made less than that of the bottom. When the engine reaches its operating temperature, the sides of the sleeve are parallel to each other. When it is cold, they are not. When turning a cold engine by hand, the piston becomes pinched by this taper near TDC. This is normal for a properly designed ABC type engine.

But what causes the cross-over click? The various parts of the engine slide over each other while in movement. Lubricants must be able to get in between these parts to prevent damage. There must be a tiny gap between the connecting rod bearing surface and the wrist pin to allow the lubricant to get in. This gap is most noticeable when the engine is cold. When you force the piston past TDC, the gap between the conrod and the wrist pin switches from one side to the other. This creates an audible click. This is absolutely normal. When the engine is running there is a film of lubricant between these engine parts and the click goes away.

As an engine is broken-in the amount of this click and the tightness at TDC will diminish. It may disappear completely in time. Note that a click or grinding sound at any point other than TDC may be cause for concern.

Ringed Engines vs. ABC Engines

Many R/C Engines come in both ABC and Ringed versions. The ABC type engine has an Aluminum piston, a Bronze cylinder sleeve, and Chrome plating on the cylinder sleeve or a variation where Nickel plating is substituted for the Chrome plating. These engines have a tapered cylinder which changes to a non-taper when at operating temperature.

The other type of engine is the ringed engine. This engine has a piston ring. The cylinder is not tapered. It is the ring which prevents gas from passing by the piston (blow-by). The ring has spring tension which forces it against the cylinder wall at all times. This is why it is not necessary to taper the cylinder walls during construction. There is one other important difference. The cylinder walls are not plated bronze. Instead, they are constructed

of a porous metal. This means that it has many tiny holes in the metal structure. During engine operation, carbon from the burnt gases will begin to fill these holes on the surface of the cylinder. This carbon makes an excellent lubricant. The piston ring is not porous.

What does this mean to the user? The ABC type engines can typically withstand more heat before they are damaged. More horse power is available from these engines if the fuel mixture and prop sizes are changed to push the engine harder. However, because the cylinder walls are tapered at low temperatures, they can be harder to start.

The ringed engines start easily since the ring prevents blow-by even when the engine is cold. However, all of the friction in a ringed engine takes place at the ring itself, a relatively small area. Also the porous cylinder material does not dissipate heat as fast as the bronze cylinder in the ABC type engine. This means that the engine is more easily damaged by too much heat.

Because of these characteristics, you can expect that the safe operating temperature range of the ringed engine to be shifted lower than the ABC type engine. This means that the ringed engine will require good lubrication at high r.p.m. Since castor oil has a much higher flash-point than synthetic oil, your fuel should contain at least some castor oil. You should also avoid running your engine too lean.

The Finish Under the Finish

One of the biggest reasons covering comes out looking less than satisfactory is because of what's underneath it. All that balsa and plywood that makes up your airplane! In order to allow your covering job to be the best it can be, you must start by making sure the airframe is sanded as smooth as possible. First start by sanding with 220 grit sandpaper, with a sanding block, and take off all of the high spots and excess glue. It is very important that you use a sanding block because it will keep everything straight and even. Second, fill in all of the voids, gaps, holes, imperfections, etc. using your favorite filler material. When this is completely dry, sand the filler smooth with 220 grit sandpaper and sanding block. This next step is very important. Sand everything again using 400 grit sandpaper and sanding block. This will completely smooth out any imperfections, getting rid of all the sanding marks left behind by the 220 grit paper.

When completed the surface should be very smooth to the touch. It's also a good idea to not only look at your work closely, but to also feel it with your fingers. Run your hands over the surface of the wing or fuse and feel for any irregularities. This will point out anything your eyes missed. The last step before covering is to get rid of all that sanding dust. Use a vacuum or air compressor to blow off the worst of the dust. Right before covering, use a tack cloth to remove the rest. Also make sure the area your covering in is dust free. If not, all the balsa dust lying on your workbench will somehow manage to migrate under your covering just before its applied!