

Whitby Aero Modellers



Whitby Flyer

www.whitbyaeromodellers.com

June 2007



Let's start this month's newsletter off with a picture of our fine flying field -- taken I do believe by Gerry Scheenaard some time back - Gerry mounted a camera (belonging to Kevin Ward) facing sideways on his LT-40 and hooked the shutter up to a servo and ergo - this is the result. Hats off to Gerry for a great effort! There's more such photos taken by Gerry posted on the website.

There's lots of interesting people around with an aviation background - only last week in Rochester, New York I met an elderly retired Japanese medical doctor who had served with the Japanese Imperial Air Force during the war - when he learned of my interest in airplanes he told me with a twinkle in his eye that he'd been a Safety Officer for a Kamikaze squadron during the war!. He figured his role was largely ceremonial!!

So enough idle chit-chat - let's see what's happening in the club!-

Don't Miss the Club Fun-Fly - Sunday, June 3 at Heber Down Field - 10:30 a.m.!!

It's been a long time since we had a fun fly at the field – mainly because nobody was willing to organize the event – This year we have Howard Smith - our events chairman who has organized the whole event - bought the prizes and the food and will be waiting to see as many of you as possible. These events are a guaranteed good time – and a chance to get together with (hopefully) a relatively large segment of the membership - often it's the only chance you get to meet some of your fellow members. The event is open to all Whitby Club Members - bring an airplane you enjoy flying and come on out – check the website for further details - and be sure to go on the website and register with Howard so he knows what he has to deal with.. – Hope to see yizzall!

Howard Smith's Superb Website

Have you folks been checking the website – what a terrific job Howard is doing – I reckon it's the best website in the country!! Everything you could possibly want is on there - weather, events, pictures and more! I particularly like the chat line - it's a good idea to post your intention to fly so other guys will be inclined to show up knowing that they won't be flying alone.

Great job Howard - very professional!!

Pylon Racing

The pylon racing season got underway with a practice race session on 6 May. The idea was to give the guys a chance to trim out their ships and to get the feel of how the races will be conducted. About 15 guys showed up - roughly half from outside the Whitby club - there was a lot of practice flying and a couple of mock races which gave everyone a good idea of how the whole thing goes down. Unfortunately there was a midair collision between Kevin Ward and Bob Dandridge which resulted in some significant damage.

Racing was planned for Tuesday 15 May but stormy conditions prevailed with high gusty winds from the north so the 9 guys who turned up spent the time practicing - so it was Tuesday 22 May before the season really got underway - 13 guys showed up to race including four visiting participants from the Ajax club -- all terrific guys who got right into the spirit of things. Everybody got a chance to finish their requisite four races, except of course for the few who "bit the dust"!

Sunday, 27th of May looked like rain and only 6 hardy souls turned up - and the races were held as scheduled – the rain held off pretty well but the last race was run in the rain so all present got in their four races -- and if you weren't quick about packing up - you got wet!.

It's interesting to see how individual the various ships have been set up. The servo of choice seems to be standard servos or the Hi-Tek S-81 or S-85 mini-servos with metal gears which are needed on these small servos to stand up to the vibration from the relatively flexible control surfaces - standard servos stand up OK. The ships

seem to need about 7/32" uptrim on the elevons for stable flight. Of course it depends on your CG position but that seems to be about average. The racers are excellent fliers.

The next race will be Tuesday, 5th June at 6:00 p.m.

Also all you racers should be aware that we have been asked by the Long Sault Club to put on a pylon racing demo at the Long Sault Club field on Saturday, June 30th - practice starts at at 10. a.m. and the demonstration races start at 10.30 a.m. demo races. We are looking for any pylon racers available to come out and show them what we do -- a lunch will be served at 11.30 am and then the field is open to regular club flying. Should be a good time -- if you can make it out - please contact Don Mitchell for instructions on how to get there.

Pylon Racing Practice

Whereas pylon racing monopolizes the field site for up to 3 hours during prime flying time on the average of about 3 times per month - which takes away from the rest of the membership's flying time - then it's only fair and reasonable that the non-racing members are entitled to uncompromised access to the field when there's no racing. This means that the pylons should not be erected at any time except for racing sessions. The obvious reason is that the erected pylons are a clear danger to aircraft operating in normal sport or aerobatic flying - that's why they're taken down as soon as racing is completed.

Now having said all that - if you've got your pylon racer out and you're alone (not recommended) or with a buddy of yours who has no problem with the pylons being up - then go ahead and "fill your boots" - but if another guy shows up - then it's time to either get his agreement, or take the pylons down. It's really just a common sense matter of treating your flying buddies with due respect!

New Starting Stands for the Pits

You'll notice the two new starting stands at the pits .The previous three stands were so popular and handy that the need for more stands was self-evident – but these things don't just happen - they take work - and thankfully, Kevin Ward and Tom Mason saw the need and just went ahead and built them!! One of them is longer and has higher restraint bars to accommodate larger aircraft. So a tip of the hat to Tom and Kevin for a job well done!

While on the subject of stands.- they are sometimes to be found all covered in oil & in quite a mess - so please try to remember to clean them off after you're finished using them – makes it a lot more pleasant for the next guy - who will thankyavurymuch!

Gate Problems at the Field

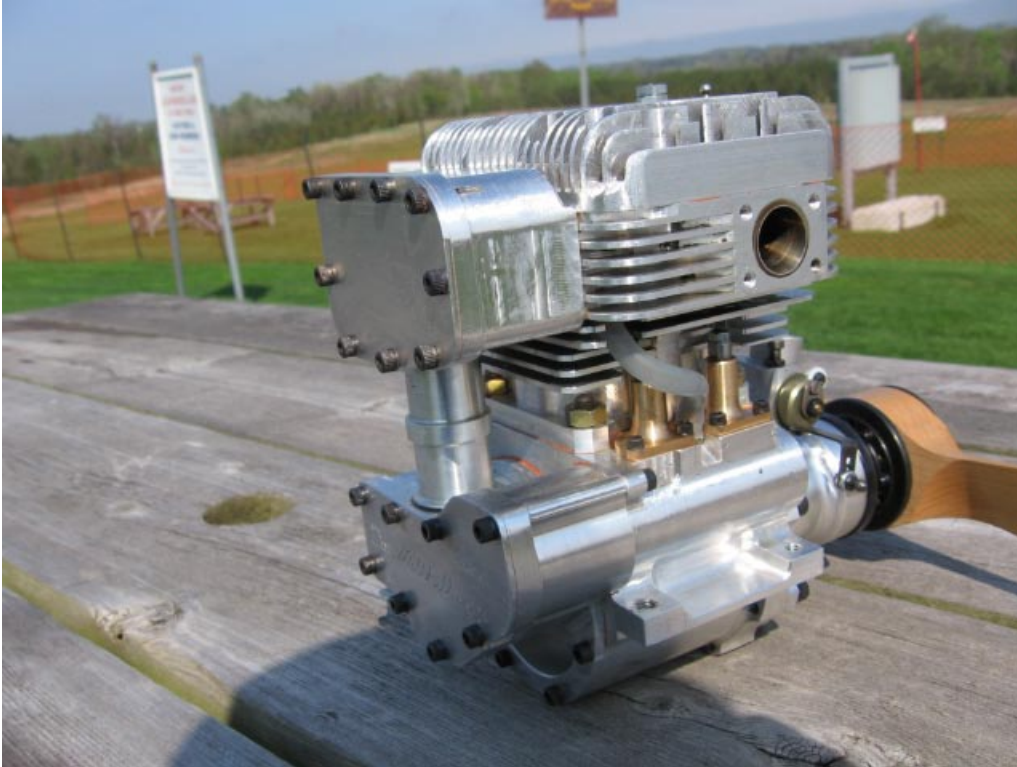
On several occasions the gate has been found open by the first guy to get to the field. It appears as if some members may have forgotten or not realized that it's their responsibility to lock the gate if they are the last one to leave the field. Of course it's also possible that CLOCA didn't bother to lock the gate – they've been in and out a lot lately. Then again - we have been having problems with the locks themselves failing to operate properly or not work at all - so the locks have been changed - still the gate has been found open. Anyhow - just a reminder that if you're the last guy to leave - please lock the gate lock-to-lock with CLOCA's lock. If everybody does that it'll be sooooh nice!!

Passing of Rich Howe

We sadly learned of the death of Rich Howe - long-time GM employee (42 yrs) and secretary of the Oshawa Radio Control Club who left us suddenly on May 16th at the age of only 70 years at the Lakeridge Health Center (hospital) in Oshawa. Rich was a long time modeler who had been very active years ago in control line flying - then converting to Radio Control which he has flown actively for many years - so it was only fitting that his Aeromaster formed a centerpiece at his funeral held at Simcoe United Church on 18 May 2006. We extend our sympathy to his family.

Don Mitchell's 61 cc Home-Built Model Aircraft Engine

The April '07 Newsletter featured a short description of Don Mitchell's latest creation - an absolutely immaculately built 61cc four-stroke model airplane engine. Don had the engine on display at that meeting and it is it is obviously an example of model engineering at it's finest - as you can see it in the photo below.



Let's make sure everybody really understands what we're looking at here! - The design of the entire engine comes from Don Mitchell's mind - the integration of years of experience as a model engineer! - When the design sketches were done Don built the engine in his home workshop- everything you see - take a good look at the photo to appreciate the thought and the skill involved in such a project. - typical of the work that Don puts out.

The fuel/air induction is unique although somewhat similar to that used on YS four stroke engines. Air is drawn into the carburetor which is mounted upright on the crankcase in front of the cylinder (- you can see the carb in the photo just behind the propellor). The mixture is then drawn through a hole in the crankshaft as in a normal 2-stroke, - into the crankcase - out the back of the crankcase into the valve drive gear box - up a tube (visible in the photo) into the intake manifold seen just behind the cylinder head, and finally into the cylinder when the intake valve is open.

Also visible in the photo is the brass valve lifter guides. The valve lifters are also partly visible in the photo emerging from the top of the lifter guides. To reduce the drag of the lifters on the camshaft, Don machined tiny steel roller cam followers and pinned them to bottom of the valve lifters. Valve timing is conservative to keep fuel consumption low.

Not visible in the photo are all the internal parts including the crankshaft, connecting rod, piston as well as the camshaft, the camshaft gearbox. Don decided

on a "flat-head" design with the valves beside the cylinder to keep the overall height of the engine to a minimum - the whole design is very compact to present a minimal frontal area to the airstream and to be easy to fit into a cowl.. The engine was designed with a compression ratio of 8.5 to 1 and runs on a glow plug. It weighs only 6 1/4 lbs and develops about 4 ½ horsepower.

The initial running tests on a test stand at the field showed that the engine performed exceedingly well at idle, transitioned well through mid-range throttle settings and ran well enough at higher throttle settings except that there did appear to be some detonation occurring indicating that the compression ratio was a bit high. Don took the engine home and machined some material out of the head - effectively lowering the compression ratio. This improved the "high-end performance but some detonation was still evident so Don decided to decrease the pressure of the mixture entering the combustion chamber by running a tube from the intake manifold back into the crankcase. (This plastic tube can be seen in the photo). This modification, together with some experimentation with glow plugs has substantially eliminated the detonation problems and the engine runs like a dream at all throttle settings. The engine is now ready to be put into an aircraft.

So add this engine to Don Mitchell's list of accomplishments - it's a long list - which I believe includes developing the retractable gears for several of Yellow Aircraft's scale jet fighters. He designed the club racers - and the list goes on! The numbers of people who have the capability to do what Don has done are few and far between.

Barry Fletcher, himself a talented machinist and model engineer, was highly impressed with the engine and has recommended that Don enter this unique achievement as a feature article in the Model Engine Builders Magazine published stateside. We hope they do publish the design because such recognition would be richly deserved. Hats off to Don Mitchell for an outstanding effort!!

Final Thoughts

Don't worry about senility - when it hits you - you won't know it!!----- Bill Cosby

CANADIAN AVIATION HISTORY -- LLOYD CHADBURN -- SPITFIRE ACE



Lloyd Vernun Chadburn was born in Montreal, Quebec on August 21st, 1919. His father, Thomas Alonzo (T.A.) Chadburn was an automobile salesman by profession with the McLaughlin Carriage Company. He was an American who had come from Richford Vermont up to the Quebec eastern townships to the area around Lac Brome in the early part of the twentieth century. He married a Quebec Girl, Florence, and together they had one son, Lloyd. When he was still an infant the Chadburn family packed up and moved here to Oshawa.

I have tried to find out just where he lived or went to school here but have unfortunately come up empty. However, about 1920, T.A. established a Ford car dealership in downtown Oshawa named The "Chadburn Motor Company" - the family business. It was located on the northeast corner of King and Prince streets. (The building has subsequently been torn down and an office building belonging to Canada Permanent Trust Co has been erected on the site - if you drive by that corner today you'll find the "Great Canadian Bagel" shop occupying much of the ground floor). Lloyd spend his early school years in Oshawa - even after his father "T.A." died in 1925. Florence later married Frank Allen and they all moved to Aurora in 1930 when Lloyd was about eleven years old. He attended school in Aurora for four years more before graduating from Aurora High School in 1934. Lloyd decided to pursue a career in the business world, and enrolled in the Northern Vocational School on Mount Pleasant Road in North Toronto. He studied business-related subjects such as accounting and typing and graduated from Northern Vocational with a Commercial Diploma in 1939.

The clouds of war were building - so Lloyd applied to join the RCAF, but was turned down. His application to the Royal Canadian Navy fared no better. Lloyd then

joined the Bank of Toronto in Creemore, as a junior clerk but quickly rose to ledger keeper. Then war broke out in Europe and Lloyd left the bank of Toronto and again applied to the RCAF, hoping that the obvious increase in the need for pilots would lead to his acceptance. However the recruiting system was overloaded and there was no acceptance. -- he waited another two months and in late 1939 again reapplied to join the RCAF - but was told to wait. He waited for several months and having been unemployed for several months, took a job as a salesman for the Red Rose Tea Company in March of 1940. He was with Red Rose only three months when he was called up by the RCAF for active duty as an aircrew trainee. He reported to the recruitment center and was sent to No 1 Manning Depot at the Canadian National Exhibition Grounds in Toronto where he was told he would be trained as an Air Gunner, but was shortly re-mustered as a Pilot. He trained in Windsor and at Uplands in Ottawa and graduated from the Number 2 Flight Training School in Ottawa on October 9th, 1940 as a Pilot Officer.

Lloyd went overseas near the end of 1940 to join No. 112 (Army Cooperation) Squadron which in June had mustered a meager four Westland Lysanders. It was serving as a non-operational, composite squadron providing reinforcements to either No. 1 Squadron flying fighters or 110 (AC) Squadron flying Lysanders. In December 1940, No. 112 (AC) Squadron was redesignated as No. 2 (Fighter) Squadron and re-equipped with the Hawker Hurricane Mk Is. In March 1941, it was renumbered to No. 402 (RCAF) Squadron when the Canadian squadrons were given the block of numbers 400 - 449 to avoid confusion with RAF squadrons. They were also provided with Hurricane Mk. IIs. He made his first operational flight in a Hurricane that March. On April 15 he took part, with 11 other pilots, in the first offensive operation carried out by an RCAF unit over enemy-held territory. They flew an offensive patrol over the Boulogne sector of the French coast. He transferred to the newly formed No. 412 (RCAF) Squadron in June 1941 flying Spitfire IIs and Vs. He then moved to No. 19 (RAF) Squadron flying the Supermarine Spitfire VB as a flight commander in September. While in that squadron he made a rare attack on a German E-boat near Holland. It was badly damaged but was mistakenly reported to be the first E-boat sunk by a pilot flying a Spitfire.

In February, 1942, Chadburn was posted to another newly formed Canadian squadron, No. 416 (RCAF) Squadron based in Peterhead (yes - that's really the name), Scotland as a Flight Lieutenant. They were also equipped with Spitfire IS and would fly them until early 1943. He had very nearly been posted to North Africa, but under a plan to Canadianize all of the RCAF fighter squadrons he took over command of the Squadron from a British officer, thus becoming the first graduate of the British Commonwealth Air Training Plan to lead a Fighter Command Squadron. He was also the youngest Squadron Leader in the Air Force at age 22. The photo above was taken during this period. The distinctive Lynx on the aircraft was the mascot emblem of 416 (Lynx) Sqdn.

Squadron Leader Chadburn and 416 Squadron was moved to the south of England to the front lines of the air war. They flew cover missions over Dieppe on August 19th, 1942, saving many Canadian and allied lives. Chadburn was leading his squadron of Spitfire IS over the convoy heading for the beach when a large formation of 15 Focke-Wulf 190s dove on them from the rear. He pulled his Spitfire into a tight turn and the rest of the squadron followed. This brought them onto the German's tail. Three FW 190s fell to their guns and the others made off. Shortly after, seven Junkers JU88 bombers were spotted heading for the convoy. Chadburn led them into a head-on attack. The squadron hit six of the bombers and forced all of them to drop their bombs into the Channel in order to escape. Now another flight of FW 190s was approaching several thousand feet above them while a group of Messerschmitt Me110s flew past at their height. Chadburn split his squadron, with one section attacking the Me110s while he and the rest went after the fighters. Eleven more German aircraft were hit and chased off, while none of 416 Squadron's aircraft were damaged. This is especially note-worthy as the Spitfire II was too slow to compete with the FW190. Three FW190s were destroyed and Chadburn got a "probable" on a Ju88. His skill and leadership of the Squadron that day earned him the Distinguished Flying Cross and made the pilots of 416 Squadron the most successful RCAF fighter squadron of the day.

In late 1942 Chadburn was returned to Canada for a bond sales drive and some R&R. He returned briefly to Oshawa where he met with then Mayor Dr. W.H. Gilford who had agreed to have the city of Oshawa adopt the 416 squadron. When he returned to duty overseas, he painted The City of Oshawa on his Spitfire -- as you can see from the attached photo.



By January, 1943 he had shot down 12 German aircraft and had attacked and damaged a heavily-armed German E-boat. After a thirty day leave in Canada, Chad was posted back to 402 Squadron and then to 403 Squadron prior to his promotion to Wing Commander in June, 1943. He commanded both 402 (flying Spitfire IXs) and 416 Squadrons (flying VBs) as well as 118 (RAF) Squadron flying from Digby, Sussex. Thus they were known as the Digby Wing.

Their prime mission, called Ramrods, was to escort Martin B26 Marauder medium bombers of the USAAF. The Spitfire was useful only on the short-hauls made by medium bombers, like the Marauder, over France and a small piece of Belgium as they had relatively short "legs" (they couldn't fly for long, especially in combat conditions). The bomber crew's hazardous job was to attack coastal installations and enemy airfields to reduce the ability of the Luftwaffe to fight from forward bases and to weaken coastal defenses. The Americans called him "The Angel" for his escort would almost assure them a safe voyage to and from the target. In 60 sorties escorting the American bombers, only one was lost to enemy fighters. During the period Chadburn's pilots shot down 44 enemy aircraft without losing any of theirs.

On August 12, 1943 he was awarded the second highest award for service in the field, the Distinguished Service Order. On Sept. 4 elements of the Digby Wing were escorting B26s in a typical Ramrod mission to attack the railway yards at Lille, Roubaix and St. Pol. Out of the ground haze came 15 Messerschmitt Me109s climbing for superior altitude. Not wanting them to gain an advantage Chadburn and his

Spitfires dove on them. The haze was so thick that aircraft appeared and disappeared in the gloom. Tracer bullets cut across at crazy angles. The danger of collision was high. At one point Chadburn realized that he and three other Spitfire pilots were closing in on the same Me109. The tracers all met at the same point and the German exploded. Frantically the four RCAF pilots pulled in different directions to avoid the same fate. Soon the dogfight was over and Chadburn collected as many of these pilots as he could. Six of them formed up and headed back to England. Over the coast they were bounced by 10 FW190s. One Spitfire pilot baled out, but Chadburn knocked down one German plane in flames.

In the month of September the Digby Wing destroyed 21 German aircraft. In his 10 aerial combats Chadburn destroyed two, probably destroyed another one and damaged two. As well, he shared in two destroyed, a probable and two damaged. On Nov. 3, 1943 his two Squadrons gained more fame by downing nine German aircraft. Under Chadburn's leadership the Digby Wing was the top scoring wing in RAF Fighter Command and by the time he left them in December he had received the bar to the DSO. He was the first RCAF officer to be so decorated and was one of only four who were.

In early 1944, Wing Commander Chadburn was appointed as Wing Commander of Fighter Operations at the RCAF Overseas Headquarters. He was supposed to be planning, writing and doing the boring desk stuff, all of which were essential, and required an experienced senior officer. However, at every opportunity he escaped the desk and flew a Spitfire into battle. He was sent back to Canada for a War Bond drive in the spring, and upon his return was made Wing Commander of Number 127 RCAF Wing, which included 403, 421 and 416 Squadrons.

On June 13, 1944 operations following D-Day found Chad patrolling with his wing between the front lines and the sea near Caen, France when tragedy struck in the form of a mid-air collision with another Spitfire flown by Frank Clarke, another Canadian. Clarke was killed instantly but Chadburn somehow survived - however his injuries were severe and he died about an hour after being pulled from his wrecked Spitfire. Lloyd Chadburn was only 24 years of age. Canadian and British fighter pilots as well as American bomber crews openly wept at the news of the death of "The Angel". He is buried in the British Ranville Cemetery in Benouville France (near Caen.)

Wing Commander Chadburn's record includes 14 enemy airplanes destroyed (4 shared), 6 aircraft probably destroyed (1 shared), 6 aircraft damaged (2 shared), two E-boats destroyed, and another 2 damaged, as well as a destroyer damaged. He was awarded the Distinguished Flying Cross, the Distinguished Service Order and Bar, the French Croix De Guerre avec Palme and was made a Chevalier (knight) in the French Legion d'Honneur. Only three RCAF officers received the Legion d'Honneur, and

Chadburn was the only one to receive the Croix de Guerre avec Palme, equivalent to receiving the medal twice.

Postscript – Much thanks for a lot of the material for the above narrative goes to LCol. R.E. (Ted) Gilbank (Retired) who lives here in Oshawa generously gave me a book "Gone Is The Angel" , written by Robert Forbes about Lloyd Chadburn's life - Ted is the former C.O. at the Air Cadet Training Center located in Oshawa on Center Street South (by the swimming pool) and he was kind enough to squire me through that facility which is the home of 151 Chadburn Squadron/ Royal Canadian Air Cadets. I consider the book to be Club property, so if anyone would like to borrow it just let me know - interesting reading.

The Whitby Flyer is written by:



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