



Winnipeg Area Chapter of RAA Canada

October 2019

Executive

President: Jim Oke – 204 344-5396
Vice President:
Memberships: Steven Sadler – 204 736-3138
Treasurer: Harold Kroeker – 204 296-2598

Directors

Bert Elam – 204 955-2448
Ben Toenders – 204 895-8779
Ken Podaima – 204 257-1275
Jill Oakes – 204 261-1007
Tom Stoyka – 204 444-3838
Bob Stewart – 204 853-7776

RAA Final Assembly Hangar Manager – Harold Kroeker – 204 296-2598

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CALENDAR OF EVENTS

October 17	AGM, Election and Awards
November 2 – 3	Project tour to the US
November 21	General Meeting
December 7	RAAC Pot Luck Dinner

RAA Annual AGM and Regular meeting Thursday October 17, 2019

We're always looking for Officers and Directors to bring energy and new ideas to the Executive. If you are interested in serving on the Executive or have someone you'd like to nominate, please contact Jim Oke at 204 344-5396. Elections will be held at our regular meeting on October 17.

Also at this meeting there will be a discussion on the upcoming project tour to the USA.

President's Message

I hope everyone had a good summer and was able to do some interesting and fun flying over the past year! However, fall has again rolled around and that means its Annual General Meeting time at the Winnipeg Area Chapter of RAAC. Your Executive will, of course, report on our activities and finances and seek the membership's advice and views on Chapter activities and projects. It will also be time for the election of a fresh Chapter Executive for the coming year and I would emphasize that all are certainly welcome and indeed requested to serve on the Executive and provide direction for Chapter activities in the year ahead.

The business part of our AGM has traditionally been rather brief but I would hope this year to see a longer and wider discussion about future directions for the Winnipeg Area Chapter. We are indeed fortunate to have an excellent home at Lyncrest and good positive relations with the Springfield Flying Club and the other aviation organizations based there. Past Chapter initiatives have seen the creation of a valuable resource in the form of the Chapter "Final Assembly Facility", aka hangar 24A, and the gathering of a collection of useful and unique aviation tools available for member's use. We also have a reasonably healthy bank account. Still the question does come to mind of how to maintain these assets and contribute to the Lyncrest recreational aviation community at large.

Do we complement or duplicate other groups at Lyncrest? How do we keep the hangar viable and operating? Is there a better way to assist or fit in at Lyncrest? Have other organizations here evolved or changed over the years and does an RAA Chapter have to update its activities to remain relevant? Where do we really fit in the RAAC National Organization? Are we trying to provide the right activities and facilities that will interest potential members?

Those are just some of the questions that come to my mind and I hope there will be some useful discussion on these and other similar issue at the AGM this year.

Regards, Jim Oke
President,
RAAC Winnipeg Area Chapter

November North Dakota/Minnesota HANGAR TOUR

Bert Elam has arranged a project tour to North Dakota and Minnesota for Friday November 1st through Sunday November 3rd. Partners are encouraged to attend and if they choose not to join us on the project tours are welcome to have a free couple of days in Fargo doing some pre-Holiday shopping. The group will meet up for supper. If you haven't joined us on one of these Cross Border Hangar Tours yet check out <http://raatour2012.blogspot.ca> for a look at how much fun and educational it is...we learn a lot from other builders, looking at projects, and talking aviation with other pilots, builders and inventors. More information will be given at our October 17 meeting. If you can't make the meeting but plan on joining the tour, you can join it Friday or Saturday, please email me and I'll send you the details regarding the agenda, hotels, dining etc. Details are still being finalized but the tentative plans are:

Friday – looking for a possible project tour on the way to Fargo.

Saturday AM – Casselton ND to see Bob Miller's RV project, his full scale styrofoam Messerschmidt Bf109 aircraft

Saturday PM – Fargo Air Museum and see the new wing that has been recently opened.

Sunday AM – Detroit Lakes to view the various projects at the Detroit Lakes airport.

Sunday PM – Depart for home

RAA Final Assembly Workshop

Heated Hangar space – \$200 for small aircraft (\$150 for summer months). Contact Brian Kirk at . Long-Term and Short-Term Rentals welcome. Space available now.

RAA Tools

Available for RAA Members (membership costs \$25/year) in addition to an industrial bending brake, phishing wheel, drill press, engine hoist, wing racks, anvils, digital aircraft weights for weight and balance, etc., check out <http://raatools.blogspot.ca/> for photos of smaller tools such as cylinder head wrenches, compression and magneto synchronization and tach tester...plus plans and builders' books. Contact Ben Toenders (btoenders@shaw.ca) to sign out RAA tools. If there is a tool that one person rarely uses but collectively we'd find useful, that you'd like RAA to purchase, email jill.oakes@umanitoba.ca.

Hall Rental

Lyncrest Flight Centre Community Club is available for rent for your family/business event. Modern wheel chair accessible facility, electric central heating, full kitchen, two large clean, modern washrooms, cathedral ceiling, fireplace, awesome view of the grounds. Seats about 80 people with new chairs and tables. Cutlery and Cornel flatware available on request (otherwise paper ware). \$150 for an evening or afternoon. Contact Bert Elam, bert767@gmail.com to book the hall.

Springfield Flying Club and RAA Fall Clean-up

Saturday October 19 is the date set for the fall clean up at the Springfield Flying Club, (rain/snow date Sunday). Lunch will be provided for those helping with the cleanup. The main jobs will be filling in the culverts and splitting wood, storing the summer equipment and pulling out the winter equipment. We also plan a cleanup in and around the RAA Final Assembly Building. The work will begin at 9am.

Chili Bash

Sunday October 27th, 2019, Chili Bash – Come join us at Lyncrest Airport for a Chili Bash and enjoy some of Jim Gould's famous chili. Starts at noon. This is a fund raiser for the club and everyone is welcome.

Pilot Decision Making Course

Peter Moodie and his team are planning another PDM course this fall. The date has now been confirmed on 30 November, 9:00 am at the Lyncrest Flight Centre. More information will follow as the details of the course become finalized. You can pre-register at: lyncrestpdm@gmail.com

Narco MK12D digital display fix



Recently the plasma display on my Narco MK12D started to fade and it was difficult to read exactly what frequency I was on. The Nav and Com features on the radio worked perfectly so I was reluctant to start looking for a new radio. I did a Google search and found an individual who had bought a replacement digital display from DigiKey in the United States. I had contacted him and he indicated that after a couple of years of service, the replacement digital display in his aircraft was still working perfectly. I ordered the digital display from DigiKey (www.digikey.com/products/en?keywords=541-1413-ND%20) and with Tom Stoyka's help, removed the old one and installed the new digital display in my radio. When installing the new

display, care had to be taken to avoid subjecting the display or radio to ESD (Electro Static Discharge) as well as bending any of the nearly 50 pins in the display unit. It is a repair that is fairly easy to do. The toughest part of the approximately half hour operation was finding a small enough

hex key to remove the knobs on the front panel of the radio. The new display is working perfectly, so if this happens to you, this is a fairly simple repair and you don't have to start looking for a new radio.

Bob

Did You Hear That Bang? By James Slade

Perhaps nothing in life comes close to the excitement your first test flight... even babies are born after only 9 months of gestation, and I have never met anyone who did their test flight nine months after they rolled out the plans for the first time. My first test flight wasn't even in my plane, but I'm sure the bang was heard all the way back at the hangar!

The plane was a Cavalier built from Stan McLeod plans (SA 102.5 version) in Sherwood Park, Alberta. I met the builder, Darrel Imbrey, via a mutual friend when Darrel was making a final effort to finish his project. At that point, his motivation was to "get it out of the garage and make room for the wife's car!" This was the first homebuilt aircraft I had encountered and I could see that the detail in construction was superb. This is an all wood project, box spar, plywood leading edge and ash longerons. I was introduced as a current pilot with experience in low wing aircraft and probably more youthful enthusiasm than I needed. Darrel had spent the last 10 years on his project and lacked currency, so he was eager to have someone else do the test flying.

Over the course of about 6 months, he finished the fabric covering, finished and mounted the tip tanks, finished the entry door, and painting so then we mounted the parts onto a trailer for his final assembly in Camrose where we did the testing. Neither of us had any experience with flight testing, but we knew enough to take baby steps. Darrel rechecked everything he could a dozen times, we had a beautiful Saturday morning with clear skies so we felt we were as ready as we could be.



The Cavalier is fairly conventional with tricycle gear, low wings, two seats and a baggage cubby. Darrel had acquired a Lycoming O290, and my Grumman had a Lyc O320, different engines, but not by much. The similarity in the two planes stopped there, and I fully expected the Cavalier to behave differently due to the outboard tip tanks. Any time mass is placed far from the CG, you create a large moment of inertia. This bird was going to be sluggish in roll, so I was going to have to keep that in mind. The

designer, Stan McLeod, based his plane on the French designs of the 1950's and 60's such as the Minicab and he wanted to keep the fuel as far as possible from the passenger compartment. There's a certain amount of good sense in that, from a safety perspective, but every design decision is a compromise. At any rate, we had a plan and as long as we stuck to it, we felt we were minimizing the risks as much as possible.

The first few runs were simply up and down the runway mostly to get a feel for the pitch sensitivity. The Cavalier is fairly short for its span, but the tail area was much smaller than that on my Grumman. I supposed the reduced area would reduce the sensitivity and after a few runs, I felt I knew where I wanted the nose to be for landings. So far, so good. I taxied back to the hangar and Darrel thought we should take it up for a first flight before the air became more turbulent in the afternoon. I had done all the taxi tests and crow hops I felt I needed so we agreed to do a circuit and come back down.

With Darrel on the right, I taxied back to the active runway and held short for a run-up. We checked the mags, fuel pumps, controls, all the way through the checklist. Darrel looked at me and I took a good look around and nodded: we were off! I gradually applied power and at full power, I was

about to rotate when a loud BANG caught our attention. What was that? I immediately cut the power, but everything seemed perfectly fine. No smoke, engine was running perfectly, tires were rolling normally, it sounded like I ran over some debris on the runway that bounced up and hit the fuselage, but I was paying attention and I didn't see anything, and neither did Darrel. We turned around, taxied slowly and Darrel pointed out something on the runway. He instantly knew what it was, his exhaust stacks came out nearly flush with his cowling and he thought he should bolt on extenders, one on each side. Sure enough, one had worked loose and was blown off at full throttle. It must have bounced off the runway and hit the fuselage. I had done run-ups, but not to full throttle, and the crow hops were likewise at partial throttle only. Mental note...bolt on extenders do not belong on aircraft, and at least one full power run-up would have been a good idea.

The actual first flight took place a couple minutes later after Darrel removed the extender on the other side. It was completely uneventful other than the incredible experience of flying a homebuilt for the first time! The Cavalier is really sluggish in roll, just as I thought but it turned out to be a little worse than I thought. With the roll being very slow, it felt like the pitch and rudder were far more sensitive in comparison. The overall effect was that there is no balance to the controls. This design will always have that lack of balanced controls, but nothing one couldn't get used to.

Lessons learned: keep a cool head and expect something to go wrong. I didn't know if the prop had struck something or if a tire had blown. Thankfully, I still have never experienced either one of those, but I have to admit I had visions of some poor bunny with bad timing and having to wash the airplane. All I knew was that everything sounded normal other than the loud bang. Gauges were all normal as well, so I was confident in the engine and airframe, there was no problem steering/ tracking so I knew the tires were still good. Luckily, we found the source of the problem. All the best with your first flight, and call me when you are ready, I'd love to watch!

James

Christavia project for Sale

All structural components completed, wings ready for covering.

Seats covered c/w custom embroidery "Christavia"

406 elt

Transponder

Radio

Rebuilt Continental 90

Needs covering, paint and a minimum of other work and ready to fly.

Call Steve at 204 736-3138

Plane Fun



Congratulations to Derrick Gulewich with James Slade a very close second. Derrick was the first to correctly identify the Caproni Transaero Ca 60.

The Transaereo was a large flying boat, whose main hull, which contained the cabin, hung below three sets of wings each composed of three superimposed aerodynamic surfaces: one set was located fore of the hull, one aft and one in the center (a little lower than the other two). The wingspan of each of the nine wings was

30 m (98 ft 5 in), and the total wing area was 750.00 m² (8073 ft²); the fuselage was 23.45 m (77 ft) long and the whole structure, from the bottom of the hull to the top of the wings, was 9.15 m

(30 ft) high.[11] The empty weight was 14,000 kg (30,865 lb) and the maximum takeoff weight was 26,000 kg (57,320 lb).

One of the eight Liberty L-12 engines of the Transaereo (the only surviving one) is on display at the Gianni Caproni Museum of Aeronautics in Trento, Italy. Each set of three wings was obtained by the direct reuse of the lifting surfaces of the triplane bomber Caproni Ca.4; after the end of the war several aircraft of this type were cannibalized in order to build the Transaereo.

The flight control system was composed of ailerons (fitted on each single wing) and rudders, even if the aircraft didn't have a tail assembly in the traditional sense and, in particular, didn't have a horizontal stabilizer. Roll (the aircraft's rotation about the longitudinal axis) was controlled in a completely conventional way by the differential action of port and starboard ailerons; pitch (the aircraft's rotation about the transverse axis) was controlled by the differential action of fore and aft ailerons, since the aircraft didn't have elevators; four articulated vertical surfaces located between the wings of the aftmost wing set acted as vertical stabilizers and rudders controlling the yaw (the aircraft's rotation about the vertical axis). Wings had a positive dihedral angle, which contributed to stabilizing the aircraft on the roll axis; Caproni also expected the Transaereo to be very stable on the pitch axis because of the tandem-triplane configuration, for the aft wing set was supposed to act as a very big and efficient stabilizer; he said that the huge aircraft could "be flown with just one hand on the controls." Caproni had patented this particular control system on September 25, 1918.

The engine control panel of the Transaereo, on display at the Gianni Caproni Museum of Aeronautics. The switches and lights were used by the pilots to communicate orders to the flight engineers who, sitting or standing in the nacelles close to the engines, directly controlled their power output.

The aircraft was powered by eight Liberty L-12 V12 engines built in the United States. Capable of producing 400 hp (294 kW) each, they were the most powerful engines produced during the First World War. They were arranged in two sets of four: one close to the foremost wing set (two engines were pulling and had a two-blade propeller, while the other two were located in a push-pull nacelle and had four-blade propellers) and one close to the aftmost wing set (two engines were pushing and had a two-blade propeller, while the other two were located in a push-pull nacelle and had four-blade propellers). All four side engines and both nacelles were surmounted by radiators for the cooling liquid. The two nacelles also housed a cockpit for one flight engineer each, who controlled the power output of the engines in response to the orders given by the pilots by means of a complex system of lights and indicators located on electrical panels. Each of the two fore side engines was connected to the central wing set and to the corresponding aft engine thanks to a truss boom with a triangular section.

The fuel tanks were located in the cabin roof, close to the central wing set. Fuel reached the engines thanks to wind-driven fuel pumps.

Besides the main hull, the aircraft was fitted with two side floats located under the central wing set, acting as outriggers which stabilized the aircraft during static floating, takeoff and landing. Caproni had Alessandro Guidoni, one of the most important seaplane designers of the time, create the hull and floats, the hydrodynamic surfaces that connected them and the two small hydrofoils located close to the nose of the aircraft: Guidoni designed new and innovative floats for the Transaereo to reduce dimensions and weight.

This scale model of the Transaereo, on display at the Volandia aviation museum, shows in a relatively clear way the complex arrangement of the engines and propellers. The open cockpits for pilots (on the top of the fuselage) and for the flight engineers (in the nacelles) are also visible.

The passenger cabin was enclosed, and featured wide panoramic windows. Travelers were meant to sit in pairs on wooden benches that faced each other—two facing forward and two backwards. The open-air cockpit accommodated a pilot in command and a co-pilot side-by-side. Its floor was raised above the passenger cabin floor, so that the shoulders and heads of the pilots protruded through the roof. The flight deck could be reached from inside the fuselage by a ladder.

The Transaereo featured a lavatory at the rear end of the fuselage. (Source: Wikipedia)



Be the first to identify the mystery aircraft and be recognized in the next edition of the Winnsock. Send your entry to Bob Stewart at stewart@mynetset.ca. If you have an aircraft that you would like to challenge our readership, please send it to me.

Bob

**2020 Membership Form
Winnipeg Area Chapter RAA**

Full \$25

Required Information

Name		OFFICE USE ONLY
Mailing Address		Renewal Date
Phone(s)		Chq. Cash Other
E-mail		Initials
Are you an RAA national member? ⁽¹⁾	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Do you give permission for your information to be made available to other Winnipeg RAA members?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Optional Information

Do you own an aircraft?	<input type="checkbox"/> Yes <input type="checkbox"/> No Make/model: Registration:	Are you a member of other aviation groups?	EAA: <input type="checkbox"/> COPA: <input type="checkbox"/> Others:
Are you building or restoring an aircraft?	<input type="checkbox"/> Yes <input type="checkbox"/> No Make and model of project(s):	What Pilots licences and ratings do you hold?	

RAA Winnipeg contributes \$15 per member towards the insurance program maintained by RAA national. This program provides liability insurance to cover local chapter events.

Please make cheque payable to: RAA - Winnipeg Chapter
Mailing Address: RAA Winnipeg Chapter c/o Harold Kroeker
217 Niagara St. Winnipeg Mb.
R3N 0V1

Note: Your membership fee to the RAA - Winnipeg Chapter does not provide membership in National RAAC.

IF YOUR MEMBERSHIP HAS LAPSED let me encourage you to re-engage! We miss you and your involvement in our Chapter!

If you do not wish to receive the RAA Newsletter and other RAA communications, please email me.