



propwash



August 2005

From the editor— Bruce Dyer

This is my year of discontent! My uneasiness stems from observing the nasty returns that are painting on my government scanning radar screen. I expect that we shall run into more unsavory political turbulence unless we soon make an abrupt course deviation to the right of our present heading. The events and issues in Canada today instills feelings of discontentment and uneasiness in me. The absence of positive and responsible government leadership combined with the ongoing day-to-day antics of our self-serving parliamentarians continues to fuel my dependency. If you consider the many negative issues and circumstances that exist at the present time, the future looks very unsettled.

Consider such things as the sponsorship scandal, the dreaded GST, and being saddled with one the heaviest tax burdens of all of the free industrial nations in the world. Outrageous taxes levied on airline ticket fares is yet another of the many negatives we are forced to endure. And this one is definitely not a keeper—the absence of government common-sense-wisdom in the purchase of four submersible lemons from a British used boat lot. Can anyone honestly agree with the handling and negative outcome of the Homolka affair? And the gun control law, the billion dollar tax-gulping black hole, a boondoggle of the greatest magnitude. Our incomes are being gnawed at by the meteoritic and escalating costs of natural gas, gasoline and electricity. What's even worse is that Canada with its weak immigration and refugee laws has been one of the easiest countries in the world for terrorists to enter. Our own CSIS federal security agency reported there are 50 terrorists and terrorist supporting cells in Canada today including Al Qaida. They are waiting for the order to carry out terrorist attacks against our subways, basset. And now, we are faced with the possible beginning or the end of universal Medicare. Our military needs up to date airlift capabilities but is being denied of this critical requirement by Ottawa. This, at a time when we need to have positive undertakings in respect to the purchase of new transport aircraft. Consider that entertaining events from air shows to street festivals to sporting venues have suffered the wrath of insurers in the form of sharp premium hikes, inflated liability limits and coverage restrictions. The insurance premiums for air shows have skyrocketed in the aftermath of the September 11, 2001 terrorist attacks.

Annual air shows in Canada are falling like flies. This year, the London Ontario, International Airfest is cancelled as is the Quinte International Air show in Trenton, Ontario. The London show, last year drew 100,000 fans and more than 75 aircraft. The organizers cite the loss of some major sponsorship as one of the main causes. The show has run virtually every year since 1930. In post-9/11, insurance premiums nearly quadrupled and forced the show's cancellation in 2002. In Trenton, Colonel Andre Deschamps, Commander, 8 Wing, Canadian Forces Base Trenton confirmed that the 2005 Quinte International Air Show (QIAS) will be postponed as a result of both financial considerations and 8 Wing's high operational commitments. The QIAS has been long-established as one of best air show events in the country, but unfortunately the show historically does not break even.

Not much to sing about these days, EH? But in my state of doominess and gloominess, the words a song comes to mind,, “Silver Lining” “Look for the silver lining, when e'er a cloud appears in the blue, Remember somewhere the sun is shining And try to find the sunny side of life.”

Luckily, I found a silver lining of sorts in June in the form of a most entertaining and revitalizing air show. It was put on by the Russell Group on their property on Sodom Road, at Niagara Falls, Ontario. This site was destined to become another flight training aerodrome during WWII but the war ended and work on the site was terminated. Admission was \$10.00, veterans got in free. It was not the usual vendor saturated grounds and midway/Ferris wheel dominated air show event that have become the norm in most of the bigger air shows of recent years. Only three concessions catered to the spectators needs, a beer tent, a food outlet and a T-Shirt booth. The show was dedicated solely to flying and the aircraft flew on a continuous rotational schedule all afternoon from 1 PM to 5 PM. The aircraft took off and landed on a dirt/grass strip and parked in the field adjacent to the spectator viewing areas. The highlight of the show were the flying demonstrations by a Spitfire Mark IX, a Hawker Hurricane XII and a Messerschmit BF109E-4. The distinct hum-buzzing sounds of the Daimler Benz and Merlin's engines sent shivers up and down my spine as they roared across the field. Each of these three historical aircraft are valued at three million dollars apiece and are owned by The Russell Group. The boys from the Great War Flying Museum of Brampton, Ontario were also present flying their SE-5A, Fokker DVII, Nieuport N-28 C-1, Sopwith Strutter 1-1/2, and a Naval Aircraft Factory N3N biplane. The spectators thrilled at the sights of a Sukoi SU-28M flying aerobatics and the precision flying demonstration by the Canadian Harvard Aircraft Association's three Harvard's . Other aircraft present were; De Havilland DHC-1 Chipmunk, DH-82 Tiger Moth, DH80G Gipsy Moth, Fleet Finch, Stearman PT-17, WACO UPF-7, Fairchild PT-26 Cornell, Antonov AN-2, North American YALE, and many more old and restored airplanes. Interestingly, the Yale that is now owned by the Town of Dunnville, Ontario, was once owned by Murray Kot. **Some of you guys may have known Murray when he was a captain with Wardair. I also had the pleasure of meeting an old captain friend of mine from 747 Wardair days, Gerry Fotheringham. He was flying the Fokker DVII biplane, some of you may have known him also? Gerry stated that the Fokker had a top speed of 85 MPH and stalled at 45 MPH. Last year I also had the opportunity to meet Walter Eichhorn, the ME-109 driver. I met him over a couple of beers at the Halton Navy Club in Burlington. He was formerly a captain with Lufthansa and he presently lives in Germany near Frankfurt. All in all, the air show was a one-of-a-kind-event and for me, a must-see-again-show next year.**

If you are in this area in the beginning of June 2006, I suggest that you make the “Friendly Foes above the Falls Air Show” a Gotta-See -Event — you wont be disappointed!

Check the following website at www.therussellgroupairshow.com for photos and more details!

OF THE VETERANS
2005

Veterans Affairs Canada Anciens Combattants

The Canadian Military Flight Engineers Association web site is up and running again. Try it out at — www.cmfea.ca



Transport Problems in the Canadian Military

Canada must beef up its armed forces.

Canada can punch above its weight on the world

stage, but it must pour money into intelligence gathering, create a rapid reaction task force, and buy heavy lift aircraft to transport it to the world's trouble spots. It needs to purchase strategic airlift capacity so that it does not have to hitch rides with the U.S. air force or rent Ukrainian Antonov cargo planes as the military was forced to do during recent tsunami relief effort. Unlike Canada which could not immediately deploy its Disaster Assistance Response Team (DART) to Sri Lanka because it didn't have heavy airlift, the U.S. forces were quickly on their way to South East Asia to save lives. There is no reason why Canada should not have that capability as well, but to have that capability you have to have lift.

The Canadian Forces transport fleet consists of 19 CC-130E Hercules (several with over 40,000 flying hours—including the world's oldest in-service Hercules aircraft), eight variants of the basic Hercules, five CC-130s which have been converted to air-to-air refuellers, and five Polaris A-310s, with limited cargo capability.

Maintenance crews are kept scrambling as the CF, on the average, flies the Hercules about 50% more than the scores of other air forces around the world that use the same type of aircraft. Some are on their second and third set of wings. Complicating the maintenance problem is the fact that the fleet has at least five different models of Hercules, each with a different power plant or different ancillary equipment.

Their reliability is questionable too, as demonstrated during the deployment to East Timor several years ago when a C-130 Hercules deployed from CFB Trenton had to return to base three times with mechanical problems before it finally got underway. On any given day, barely twelve Hercules are operational. During the ice-storm in 1998, Canada required the assistance of the USAF to carry troops and supplies to the affected areas. The CF simply did not have the lift capacity to move heavy equipment within our own country. The same year, it took two months to deploy 800 troops to the Balkans. Four years later, the PPCLI was airlifted to Afghanistan by civilian charters and American transport aircraft. All of its equipment was staged through Germany in no predictable order.

It would have required 24 separate Hercules lifts to move DART's 200 personnel, 40 vehicles and 976,000 pounds of cargo to Sri Lanka; a daunting task with the number of serviceable aircraft available. Instead, two AN-124 Antonovs were chartered at a cost of \$4 million, or \$1 million a flight. Antonovs were also chartered when the DART was deployed to Turkey in 1999. Since then, the CF has spent approximately \$107 million on strategic airlift charters, or an average of \$18 million a year.

Recently appointed Gen. Rick Hillier, as the new Chief of Defence Staff has already ruffled a few feathers at NDHQ. He suggested that the army get the bulk of any new funding if and when the government's defence and policy review sets the stage for a multimillion dollar deal. Emphasis, it seems, will be placed on a rapid deployment force supported on the supposedly "air-transportable" Stryker Mobile Gun System. In October 2003, Gen Hillier, then commander of the army, announced that 60 Striker's would be acquired to replace the Leopard C2 tank. This, of course, would also require the replacement of the existing fleet of CC-130s, as they are not

capable of carrying the Stryker, Hillier claims to the contrary. The Stryker could only be carried by the CC-130 if its weight was reduced by two tones by detaching its armour panels and transporting them separately. Even then, the Hercules fleet is not sufficiently serviceable to move the Stryker in reasonable quantities or to move them overseas. You can't be globally deployable with two-thirds of your transport fleet on the ground.

In the best of all possible worlds, Canada would have its own strategic air lift capability. However this is a very expensive proposition. The cost of a new Boeing C-17 Globemaster or an Airbus A440M is approximately three times that of the newest Hercules, the C-130J-30, which has increased range and capability. The net cost of acquiring ten C-17s on a lease arrangement (based on 800 flying hours annually per aircraft) would be around \$30 million a year, in addition to \$340 million in crew and maintenance costs.

Charters, at an annual cost of around \$18 million, a fraction of the interest on the cost of our own strategic airlift, let alone the capitol cost, are considerably cheaper. Strategic airlift capability is only required occasionally and chartering is the international norm. Even the U.S., with its large fleet of Globemasters and C-5A Galaxies, regularly charters commercial aircraft to supplement its capabilities. The problem here is that disasters like the tsunami in Southeast Asia placed a strain on the global strategic airlift pool. Interestingly, when the German government recently tried to acquire transport through its usual method of leasing Antonovs, it found to its dismay that there were none available.

The Canadian Forces has not yet encountered this problem, but it soon might. There are not many Antonovs still flying—there are fewer than 25 available for charter—and those that are, are approaching the end of their lifespan. Moreover, they were not designed, manufactured or maintained to Western performance and safety standards. The Antonov is uncomfortably similar to the Yakolev-42 that crashed in Turkey last year, killing 62 Spanish peacekeepers. Spain paid a high price for cheap transport. The sensible thing for the CF to start doing right now is to progressively get rid of its CC-130E Hercules transports and start buying the new C-130Js, in a phased, incremental procurement, with a Globemaster or two for good measure, if and when funds become available.

Air transport is only part of the equation when the CF deploys overseas. The bulk of its equipment must still be sent by sea. It makes no difference to a cargo vessel if the vehicles it is carrying weigh 20 tons or 50. The ship is still going to travel at 15-18 knots. And that ship will be a charter as the CF has no sealift capability.

Interestingly, in the May/June 2005 issue of the Legion magazine, Chief of Defence Staff, General Rick Hillier believes that Canada probably doesn't need to own strategic lift capability. He states, quote, "if there is any way that we can assure ourselves of the lift and responsiveness that we need without owning it, then that's the route I recommend that we take".

For the foreseeable future then, it appears as though our troops will have to deploy to crisis areas in a taxi?

I believe Second World War Major General Chris Vokes summarized it well when he stated in his book, titled "MY Story": "A General learns lessons. I'm not sure that a politician does. Or that a people do. No matter.

I think that ingrained in the average Canadian, if he thinks at all about military affairs, is; "Aw, hell, if we have to go to

war, we'll just raise the forces like in World War I and II and away we'll go."

If true, the philosophy shows several things:

That he does not appreciate the complexity of modern armed forces.

That he thinks war is something one goes away to, that never touches the homeland, that will never scar Canadian soil.

That he thinks he springs from some instant warrior race.

Some of our MP's think a wand can be waved and anything military can then be pulled out of a hat. That is quite impossible.

Yet our elected representatives are merely voicing the ignorance of our people.

Our people are ignorant because we have never, as a people, endured the hardship, the devastation of a direct attack.

No Minister of National Defense whom I have known, I knew several, was a military expert.

George Pearkes V.C. an ex-professional soldier was the exception to the rule.

But all ministers come to consider themselves experts.

They get out a pencil, doodle a while, and tell the Chief of Defense Staff: "You can do all the jobs we have given you with 85,000 all ranks." Foolishness.

And until it's decided that being made defense minister is a Number One appointment, a senior Cabinet job, the armed forces will never get anywhere.

War is not like it was in ancient days, when you could hand a man a musket and send him out."

Chris Vokes does not presume to say what size the regular armed forces ought to be, or how composed or organized. But a foreign nation must believe that attacking Canada would be like sticking his finger into a buzz saw.

Above all, he states, "Our peacetime forces must be fast, mobile and air transportable".



Born Again? New Plan for Old *Hercs*

In late 2003, DND announced that it was looking for good used *Hercules* airframes (less the undercarriage and engines). A quarter of the CF fleet of CC-130E and CC-130Hs were found to have wings cracks in April 2003. As a result, the maximum annual flying time for CF *Hercs* was reduced from 21,000 hours to 16,200. Potential suppliers of airframes were asked for 'letters of interest'. DND intended to purchase "three or more" used 'H-model *Hercules*, anticipating costs in the region of \$100M for three airframes. Airframes bought would be delivered to Edmonton (presumably to Spar Aerospace) for a major rebuild involving extensive parts-swapping from the highest time/cycle airframes among the CF's fleet of 19 CC-130E *Hercules*.

Back in 1987, the CF's CC-130Es had been extensively refurbished with new 'H-model parts including engines and undercarriage. Later, the entire CF *Hercules* received an extensive avionics upgrade. Under the planned rebuild, all of those newer parts – the engines, landing gear, and updated cockpit fittings – would be stripped from the old CC-130Es and installed in the used 'H-model airframes. The outcome would be three or more 'new' CC-130Hs for the CF at a lower total cost than the price of more sprightly 'H-models. All this surgery would certainly result in aircraft that were less expensive than the new C-130J and such rebuilds would have maximum commonality with the existing CC-130H fleet. A temporary patch on the aging CF *Herc* problem but a good idea. So, what happened to it?

Patch, Repair, and Rebuild 'Band-Aid Solutions' for CF *Hercs* or Thrift ?

The Opposition attacked the rebuild plan as 'too little, too late' and as 'good money after bad' Then, the CAS muddied the water by lumping the future of the *Herc* in with Air Force plans for strategic airlift. Aside from requesting those 'letters of interest', nothing was done. Individual used 'H model *Hercs* (and L-100s, their civilian equivalent) appeared on the market but slipped by. Air Staff said that no moves had been made on this plan because no suitable "fleet" was offered. But then, they didn't look for individual airframes either. While Air Staff obsessed over C-17s, used *Herc's* suddenly became a rare commodity. In January 2005, an early-model RAF *Hercules* suffered a catastrophic structural failure over Iraq. Within two weeks, 30 USAF C-130Es had been grounded, 60 more were to follow. Air Staff now has its work cut out for it. It's highly unlikely that Gen. Hillier, the new CDS, will allow much more time to be frittered away.

Then-Minister of National Defence, John McCallum, announced the plan along with two others – that a new type would replace *Hercs* (and Buffalo) in the search-and-rescue role (part of a larger plan to reduce the number of roles filled by the *Hercules*) and that DND would contract civilian companies to assist in servicing and overhaul of CC-130s to relieve overworked CF repair personnel (increased demands of OPs *Apollo* and *Athena* having exacerbated an ongoing CC-130 availability crisis). The plan reflected McCallum's management style – and that of his Select Advisory Group– but not that of 'established practice'. NDHQ seems to pick-and-choose which directives it likes.

Viewed more dispassionately, the proposed rebuilt 'H-models could ease the CF *Hercules* serviceability crisis slightly. If anything, the plan didn't go far enough with three *Hercs*. 'Band-Aid solution', perhaps, but only those who are not bleeding complain about bandages.

The USAF estimates that it will cost \$500,000US per C-130E to repair its fleet. These 'Es were meant to serve until 2027 but now the US has some hard choices to make. The only alternative to repair is to increase production of the C-130J. In the midst of this chaos, Britain offered to lease C-130Js to Canada. Astonishingly, DND's response has been lukewarm.

Canadian Defence Policy—September 2003

Canadian Forces make the cover of Jane's Defence Weekly:

Worst-managed Forces in the Western World?

It was the second anniversary of the 11 September attacks and Jane's Defence Weekly featured, as its cover story, the sad state of the Canadian military. Canada, it implied, has the most underfunded, worst-managed armed forces in the Western world.

For readers who have never seen this periodical, Jane's Defence Weekly is a small part of a very large and lucrative publishing empire based in the United Kingdom. Carefully-researched and well-documented techno-political tidbits are eagerly consumed by procurement officers and policy wonks alike.

Jane's Defence Weekly tracks who is buying what from whom, with all the news and gossip from the latest arms shows. The latter is served up mainly for the delectation of the dark lords who control the morally flexible, globe-spanning defense industry.

So, let's keep in mind the kinds of people who are fingering the pages of this posh little magazine. As one measure of its street value, consider that a year's subscription to JDW costs \$1,100US. Few who are not profiting from the arms trade can afford such luxuries. (Fortunately, if one is clever, the contents of the cover story are available online without a subscription.)

Overview – the Problem of Under funding

In the picture presented by the JDW article, the Canadian government neglects its military, has severely cut defense spending, and has deployed too many troops in too many places around the globe. Hardly breaking news, but it's a novelty to have the our severely strained defense situation noticed outside our borders.

Jane's goes on to trot out that most tired of chestnuts, the comparison of defense spending by percentage of national wealth. Canada, we are told, spends a miserly amount (just over one percent) of our wealth. European members of NATO, by comparison, spend a princely sum of their wealth (averaging less than two percent). Such a difference. How do we show our faces in public?

What these all-too-familiar numbers actually suggest is that Europe Unity no longer requires a Canadian contribution to the defence of that continent. Indeed, when the EU Rapid Deployment Force is fully functional, NATO will become utterly redundant – an anachronistic holdover from an era long past.

Canada can take these resources – now unneeded by prosperous Europe – and use them for the defence of our own continent, in cooperation with our more important ally, the United States. Although the US is a difficult ally, at least our two countries share the same continent, and many of the same defence interests. Managing that relationship will probably take up most of our time. Apparently, Europe is well able to fend for itself from here on in.

Cover Story Critique

1. Land Forces

The Jane's article claims that, at present, the CF's land element has too few soldiers to carry out its many missions abroad. Furthermore, the Department of National Defence (DND) can't train whatever new personnel it does recruit, because so many of its instructors are serving overseas.

Here, there is some meat on the bone. Shortage of experienced instructors is a serious problem (and partially explains the CF's current enthusiasm for inexpensive, video-based training programs).

Of course, the root of the problem is the failure to recruit new people. It is trivial, however, to suggest that under funding alone is responsible for DND's on-going inability to recruit new members. Canada's young people are facing astronomical tuition fees for a post-secondary education. And, the alternative is struggling to get a 'toe-hold' in a highly competitive job economy. Why would they turn away from a chance to join the Canadian Forces?

This is a question which deserves serious examination. Perhaps there are more meaningful incentives we could be offering young recruits besides cheap beer and donuts. What about opportunities for substantive training and education that will be useful to them when they are no longer serving their country (and often putting their lives on the line for our sake)?

There is another way to relieve the stress on our Land Forces. Withdraw our troops from all 'peacekeeping' missions in Europe. With their hefty defence spending, European countries are clearly in a much better position to keep the peace than soldiers from another country

2. What to Do About the Navy?

The JDW article points out that, over the last two years, the Canadian navy has been repeatedly rotated through the Persian Gulf, acting in concert with the US. These "Persian Excursions" are the obvious downside of our fleet's much-vaunted 'interoperability' with the US Navy. The primary function of the Canadian navy seems to have become the on-going projection of American force overseas. One major problem: as a result, the Canadian navy doesn't have the equipment, the personnel, or the will to defend our own coastline.

The primary mandate of the Canadian Forces – and this applies

to the navy above all others – is the defence of our country. Canada is outlined by coasts. Where is the 'littoral' patrol that we need to defend these coasts? The answer is that the navy doesn't have any money left after spending it all defending US aircraft carriers as large as many of our cities.

Missions to the Persian Gulf, in aid of the US, involved fifteen of Canada's eighteen warships, and over ninety per cent of our sailors. According to Jane's, the Canadian navy is completely exhausted. Well quite. And with what benefit to Canada's sovereignty assurance? It's no wonder that the US wants to tighten its border controls – Canada refuses to patrol our own coasts, or monitor our substantial (and vulnerable) international seaports.

3. Neglect of Our Air Force

Aging airframes, according to the Jane's article, is the number one issue for Canada's air force. "In 1991, the air force had 725 aircraft; today it has 350 and the numbers will fall to approximately 290 by 2006."

There is indeed cause for concern over the state of Canada's air force. But, even more important than the quantity of airframes in service, is the quality of decisions being made about those airframes. Money is not a cure-all.

CF Hercules transport aircraft have undergone modernization but much of the fleet is now thirty years old. A replacement is necessary and the most logical candidate is obvious. Yet DND has spent all its time and energy fantasizing about buying strategic airlifters instead.

Aging CF-18 Hornet fighters also require updating on a very restricted budget. The number of intended roles for the CF-18 has continued to mushroom but, rather than restricting mission types, the CF has followed its long-established pattern of reducing the total number of airframes in an elusive quest to gain short-term cost-savings. It's never worked before but, 'try and try again'.

Most disturbingly for a country with such a long and difficult coastline, the number of maritime patrols being flown by the Auroras are being drastically curtailed. As with the fighters, additional roles have been heaped upon the Auroras at the expense of their primary mission – sovereignty patrol. As a result, these "strategic assets" are being worn out before their time.

Responsibility for Our Defence Spending

It is the citizenry of Canada who will decide how much of our wealth we intend to direct towards our military. There are numerous claims on these limited resources. The decision will certainly not be based on how we measure up against the military budgets that regularly bob up and down in Europe, the nations of which were forged by the most savage wars the world has ever had the misfortune to witness. Canada sent contingents to two 'World' wars in Europe, but it's been a very long time since there was a war on our territory.

It is understandable that NATO wants us to spend our money to defend Europe's interests, but would any of them fight to defend Canada's interests? Canadian troops have been based in Europe for over sixty years but clearly the relationship is non-reciprocal.

European NATO nations would consider helping to defend the United States, but that would almost certainly stem from economic considerations, rather than from any deep sense of *Bruderbund*. Besides, the leaders of many of the NATO countries can barely stand being in the same room together, so in what sense is this still an alliance? This much the Jane's article makes abundantly clear: They don't need us – we don't need them.

Responsibility for Our Troops

According to the JDW article, Canada has sent too many contingents to too many places. Our troops are exhausted. Jane's has a

good point here. And it gets worse. Because of our many misnamed peacekeeping missions, we are now embroiled in a ghastly legal battle: Who is going to pay for the ongoing treatment required by those Canadian soldiers who had to hold back while witnessing unspeakable acts of genocide. Why? Because their 'rules of engagement' said that they could not legally intervene.

Where our troops are sent is a decision made solely by the Canadian Prime Minister in consultation with his Cabinet. If our Prime Minister has overtaxed the Canadian Forces simply to score political points abroad, then it is the responsibility of the Canadian citizenry to say: Slow down and have a care.

Worst-Managed Armed Forces in the Western World?

The last and most damning criticism put forward by JDW is that Canada has the worst-managed military in the Western world. Here we are definitely on solid ground. The evidence for this claim can be found in the Reports of the Auditors-General stretching back over the last decade and a half, at least.

Perhaps, the impulsive, lurching policy style typified by the Mulroney/Chrétien era is at last coming to an end.

In the near term, however, our hope must rest on Paul Martin. Mr. Martin is first and foremost a manager. He will recognize a dysfunctional management team when he takes a hard look at one. Martin and McCallum are cut from the same cloth. They will have the same priorities. Cut the dead wood.

If, as Jane's suggests, the solution lies in spending more money, such funds may be well-invested in some early retirement packages doled out at NDHQ.

Defence Policy Statement

A New Vision for the Canadian Forces

This document articulates a vision for Canada's global engagement. Our first comprehensive, integrated international policy framework, the Statement delivers on the Government's commitment to invest in our international role.

Transformation Initiatives

The Canadian Forces—including their national assets (such as headquarters, surveillance, and command and control), as well as maritime, air, land and special operations forces—will proceed with specific measures to support the transformation concepts described above.

With respect to *aerospace capabilities*, the Canadian Forces will: Complete the modernization of the CF-18 through the acquisition of a satellite-guided air-to-ground weapons capability to reflect the increased focus on close support to ground forces, while retaining its air-to-air capability at existing levels.

Complete the acquisition of new maritime helicopters.

Acquire medium- to heavy-lift helicopters, as announced in Budget 2005, to support land and special operations missions, including transporting large numbers of personnel and heavy equipment from forward deployed bases or from a maritime platform.

Replace the Buffalo and Hercules aircraft used for fixed-wing search and rescue.

Acquire, or ensure access to, the right mix of capabilities to meet the increasing requirements for domestic, global and in-theatre air-lift.

Complete the modernization of the Aurora maritime patrol aircraft. Complete the conversion of two Airbus aircraft into air-to-air refuellers.

Acquire unmanned aerial vehicles to support domestic and international operations, and,

Pursue the use of satellites to support domestic and international operations. *And the Beat goes ON and ON and ON.*

NEWS & Letters

FE Association—Ottawa

Just a short note to tell you that our local F/Es Assoc. here in the Ottawa area had a get-together on Apr 21st. . . We do this once a year to keep our lines of communications open to our local members . We include members from Montreal & Trenton in our dinner get-togethers , Our new National President Geof Brogden and his Secretary Ray MacIntosh , were in attendance and Paul Leclair & Martin Gauthier came from Montreal to join us for a very enjoyable evening. We wished John Trethowan a happy 85th and thanked him for all his efforts and dedication to our Association. We had a total of 36 people for the evening and a good time was had by all . We missed a good friend that evening , Ed Grose (Assoc. Member) who passed away earlier in the month. Ed was always at our local dinners and we are hoping to see Gwen in attendance next year. For the last 5 years, we have been holding our annual dinners at Robbies Italian Rest on St, Laurent Blvd in Ottawa where they reserve a special area for the F/Es to open the Hangar doors, have a few laughs and tell a couple of whoppers (if they can remember them) . Our ladies also enjoyed them selves and got a chance to talk about the old days and discuss the Old Fella that brought them to dinner. Anyway, I would like to hear from any other Members that have Annual get-togethers and receive news from their local areas . Keep up the good work Bruce , we enjoy our Prop Wash and the informative articles in the publication ..

Per Ardua Ad Astra

Rudy Levecque

'Gaetz Sinclair Award'

Cpl Jen Taylor Recipient

The "Gaetz Sinclair Award" is named after the last two FE's to lose their lives in the last century.

This is awarded to the FE Basic Course graduate of the previous fiscal year, who is consid-

ered by the basic course instructors, with input from the "on type" instructors, to be the best to fulfill the role of what they feel an FE should be. It is presented when reaching wings standard. The award winner for 2004 was Cpl Jen Taylor, who graduated from the Griffon Helicopter course to wings standard at Cold Lake in the fall of 2004, and is presently attached to 417 Combat Support Squadron . The award, sponsored by the CMFEA is presented by 426 Squadron, and will have the recipient, Cpl Taylor's name attached on a plaque. It will be left in the school and Cpl Taylor receives a certificate representing her award for her to keep. On May 02, 2005, a 426 Squadron "Trainer" touched down at Cold Lake with Sgt Mac MacGregor on board. It was on the ground barely long enough for him to make the presentation to Jen who is the fourth recipient to receive this award since its inception at the turn of the century. The first award in 2001 went to Cpl. Dwayne Capstick, 427 Sqn., then to





Cpl. Clarence Smith of 430 Sqn. in 2002, and finally to Clp. John Freeman of 440 Sqn. in 2003.

Congratulations to all of you.

Carl "Pappy" Theiss, President of the RCAF Association Alberta Group was also on hand for the presentation representing the CMFEA. He presented Cpl Taylor with a "Life Membership" in the CMFEA. We congratulate you Jen on your achievement and welcome you to the Canadian Military Flight Engineers Association.

Geoff Brogden

Profile Of Flight Engineer Carl "Pappy" Theiss

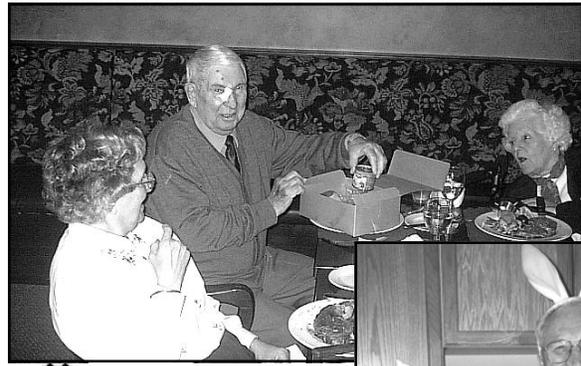
Born in Vancouver in 1934, he joined the RCAF in 1951 and spent the next 33 years in the air element of the military. Although he joined as a fitter, he had flying experience on a number of aircraft. He started first on the Dakota and then went on the C-119 Boxcar at Rivers from 1953-56. His tour of duty included Downsview from 57-60, and Edmonton from 61-65. He spent a year on Caribou aircraft from 60-61 in El Arish, Egypt. He attended the boat school on the Albatross in Comox in the Fall of 65 and stayed with it through to 66. He accumulated a total of over 8800 flying hours. Then in order to have some semblance of a normal life, he reverted back to a fitter in 1966. He was introduced to the Herc in 1966 and worked in a maintenance capacity on that aircraft in Edmonton. "Pappy" retired in 1984 after doing a tour in Winnipeg and one in Cold Lake.

The Cold Lake Royal Canadian Air Force Association Wing received its Charter in 1984 and Carl and his wife joined two years later. Cold Lake is presently the second largest Wing in Canada with 340 members. Over the years, Carl has served as its President as well as Alberta Group Vice President. Then in April 2005, he was made "President of the RCAF Association, Alberta Group". Later this year he received "Member of The Year Award" for Alberta.

We congratulate you Carl on these most noteworthy accomplishments, on both the "Provincial Presidency" and the "Man Of The Year Award". May you have continued success with the Association, and in your personal life.



If flying is so safe,
why do they call the airport the terminal?



P.E.I. Flight Engineers Dinner

On a recent trip to PEI, I had the good fortune to have coffee with almost half the retired FE's on the Island: Gord Beaman, George Doucette, Bernie Hardwick and Orv Miller.. They gather at the Summerside Waterfront Mall coffee shop at 1100 AM on the second and fourth Wednesdays of each month, and invite anyone who happens to be passing through to drop in. Last September the Island FE's decided to have a get-together, and 11 couples assembled at the "Pilot House" in Charlottetown, for a steak dinner (why not lobster?). All present appeared to be receiving their steak meals with the exception of Murray Bennett who was beginning to feel left out. Then a tray arrived with what all maritime FE's look forward to, the traditional, scrumptious and delicious long range patrol Box Lunch. Although Murray cherished this gem from the past, they did manage to find a "left over" steak for him later.

I was also fortunate to have my picture taken with Blanch Bennett, one of the Island Bunnies - "Hugh Heffner eat your heart out". Murray and Blanche Bennett celebrated their 60th wedding anniversary on June 07, 2005. Congratulations again.



Bill Reid has sent this bit of interesting information regarding the C119 used in the movie "Flight of the Phoenix".

It is believed that the aircraft used in the movie, "The Flight of the Phoenix" is an X-RCAF C-119, #22130. The aircraft was struck off strength in Sept 65 and went to Crown Disposal Corp. Along with others, it was then sold to Hawkins & Powers Aircraft Corp. in Greybull Wyoming. Aircraft #22130 was changed to #15501 and this aircraft is the one that did all the flying scenes in the movie. It was restored to near new condition incorporating the standard nose section and installed with three-bladed propellers. It was then flown to Namibia Africa for the movie. That would have been an adventure in itself. Some C-119's were converted to water bombers which were modified by adding a jet engine on the top of the fuselage. Others were used for spare parts while eight went to different museums in the U.S.A and painted in U.S. colors. #22101 went to D.F. Pratt Museum in Kentucky, #22134 went to Travis A.F.B. in California, and #22118 went to Dover A.F.B in Delaware. #22118 was in a movie called "Always". Hawkins & Powers still have a couple of C-119's in good condition that are repainted in RCAF colour schemes. Its too bad we don't have any 119's in Canadian museums. A good website for the C-119 is :

www.ruudleeuw.com/c119-gate.htm

Bill Reid

Note; I have changed my email address to:

billreid@rogers.com or reidwilliam@rogers.com

Mr. Thomas Kerwin sent me a complimentary copy of his book this Spring, the book is titled "The Pan Am Journey". In the April 2004 issue of Propwash, you may recall my mention of Tom in my article titled, "Who Was the First Flight Engineer". In it, I made reference to some of Tom's experiences in his career as a Flight Engineer with Pan American Airways. Tom Kerwin started his aviation journey on March 11, 1943 when Pan American Airways hired him as an apprentice Flight Engineer. From the China Clipper to the Jumbo 747 he had a wonderful forty-year trip. The stories in his book are most interesting and very enlightening.



I would encourage all of you to read this charming book that can be purchased for a nominal cost over the internet at; www.Xlibris.com. When the site comes up, click on 'bookstore', then click on 'search'. Type in 1-4134-8602-9 in the 'Search by ISBN' box'. Click on 'The Pan Am Journey' and follow the instructions from there to order the book. The paper back version sells for \$17.84 u.s. It is certainly a must-read-book. You might consider encouraging your local or base library to acquire the book?

In gratitude for Tom's help and the receipt of his book, I sent him a number of back-issues of Propwash. He is also been welcomed as a new member of The Canadian Military Flight Engineers Association. Welcome on board Tom!

Tom wrote me the following— "Got that big envelope a couple of days ago, and I am working my way through it. I am delighted to be put on your list and look forward to the newsletters. You guys are certainly well organized. In the SFO bay area we have an annual get-together of the old Engineers every fall. We call it "The Engineers Piknik". Years ago someone took a picture of a Chimpanzee sitting on the desk of the Flight Engineers station on a Stratocruiser and holding a pencil in his hand. The caption said; "Last week I couldn't spell Engineer, and today I am one". So the spelling has survived. If I can find a copy of that picture I will send it.

We get a turnout of around 130 people, but that includes a few pilots who sneak in. It is distressing to see the number of guys who show up in wheelchairs, on crutches, or sucking on an oxygen bottle. Similar reunions are held in New York and Miami". **Bruce**

The CMFEA would like to acknowledge with thanks, the letter of encouragement and the substantial donation to the association by **Ian James McPherson**, in Memory of Earl Dack, who had an unscheduled early departure January 20, 1997.



PROPWASH mail-out address coding!

When you receive your Propwash newsletter, you will notice a number or letter after your name on the envelope. This will indicate what date your dues are paid. Example; if there is a number 06, it will mean that your dues are paid till Dec 31, 2006, a 08 would mean to December 2008 and so on. An "L" indicates paid for life and a "C" indicates Courtesy. It is a reminder to you for when your membership expires.



***I went to the butchers the other day
and I bet him \$50 that he couldn't
reach the meat off the top shelf.***

He said, 'no, the steaks are too high.'

Means of Propulsion . . . conclusion.

The following section has a brief description of some ideas that have been suggested over the years for interstellar travel, ideas based on the sciences that do exist today.

Project Orion: The first example is from the 1950's-60's, Project Orion - which offered to use nuclear bombs for a constructive purpose -- space travel. About 5 bombs per second are dropped out the back and detonated to propel the craft along. A huge shock plate with shock absorbers make up the base of the craft. Experiments using conventional explosives were conducted to demonstrate the viability of this scheme. Although this vehicle was conceived to take a crew to Mars, it can also be considered for sending smaller probes to the stars.



This project ended with the nuclear test ban treaty in the 60's.

Daedalus: the Daedalus spacecraft had to use current or near-future technology, be able to reach its destination within a human lifetime, and be flexible enough in its design that it could be sent to any of a number of target stars. These guidelines ensured that the spacecraft would be practical, that those who worked on the project might live to see it achieve its goals, and that several stars could be investigated using the same type of vehicle. The design they chose was a form of nuclear-pulse rocket, a propulsion system that had already been investigated during Project Orion. However, whereas Orion would have employed nuclear fission, the Daedalus engineers opted to power their starship by nuclear fusion—in particular, by a highly-efficient technique known as internal confinement fusion. Small pellets, containing a mixture of deuterium and helium-3, would be bombarded, one at a time, in the spacecraft's combustion chamber by electron beams and thereby caused to explode like miniature thermonuclear bombs. A powerful magnetic field would both confine the explosions and channel the resulting high-speed plasma out of the rear of the spacecraft to provide thrust. By detonating 250 pellets a second, and utilizing a two-stage approach, the desired cruising speed could be reached during an acceleration phase lasting four years.

Bussard Interstellar Ramjet: Rather than bring your fuel along, why not get it as you go. This Bussard Interstellar Ramjet concept, from the 1960's, relies on scooping up the lonely protons that drift in interstellar space, and then somehow getting them to fuse to make a nuclear rocket. There are a variety of limitations to this concept, such as how many protons can be scooped up, the drag created from scooping them, and, not to mention, the feat of getting these protons to engage in nuclear fusion for a rocket.

Robert Forward's interstellar laser sail: Light sails are another possibility. Rather than use rockets, why not use light. When light strikes an object, it pushes on it ever so slightly. Use lots of light over a very large area, and the forces get noticeable. That is the idea here. Robert Forward proposed using a 10-million-gigawatt laser to shine through a thousand kilometer Fresnel lens onto a thousand kilometer sail. With these numbers, it is claimed that one could send a thousand-ton vehicle with crew to our nearest star in 10 years!

What's the catch? That 10-million-gigawatt laser. That power level is ten thousand times more than the power used on all the Earth today. So, Forward revised the concept to more reasonable power levels. This time it only has a 10-gigawatt microwave laser (still a feat unto itself), and this time the vehicle is a frail 16 grams of fine

wires spread over just one kilometer. The sail has all its sensors and stuff built right into its array of wires. This and similar concepts are still under investigation. Significant advances are still required, however, before we can create such systems and before we have a sufficiently robust space program that could put them in space.

The following is a partial list of some ideas based on what the scientists would like to achieve. Exotic ideas that have been suggested over the years for interstellar travel.

Worm Hole transportation, Alcubierre's "Warp Drive, Negative mass propulsion, Millis's hypothetical "Space Drives", Hypothetical Differential Sail, Hypothetical Diode Sail, Hypothetical Induction Sail, Hypothetical Diametric Drive, Hypothetical Pitch Drive, Hypothetical Bias Drive, and Hypothetical Disjunction Drive.

Special Relativity: Here is a snap shot of the theory that sums it up: "Special Relativity". Actually Special Relativity is pretty simple in its construction... Just start with 2 simple rules:

Rule Number 1: The distance you'll travel depends on how fast you move, for how long you're moving. If you drive 55 mph for one hour, you'll have covered 55 miles. - simple.

Rule Number 2: -- This is the mind boggling one -- No matter how fast you're moving, you'll always see the speed of light as being the same. When you combine these together and compare what one traveler "sees" relative to another traveler at a different speed, that's when the problems come into play. Let me give you another way to picture this. Close your eyes. Imagine that the only sense that you had was the sense of hearing. All that you know is sounds. You identify things by how they sound. So when a train goes by, did its horn really change? We know that the horn was always tooting the same tone, but it was the train's motion that made it appear to change because of something called the Doppler shift. Its a similar situation with light. Everything we know around us we know by light, or more generally electromagnetism. What we see, what we feel (the air molecules bouncing off our skin), what we hear (air molecules bouncing off each other in waves of pressure), even the propagation of time, are all governed by electromagnetic forces. So when we start moving at speeds approaching the speed by which we are getting all our information, our information gets distorted. In principle it's that simple. Understanding it well enough to do something about it, well that's a different matter.

The ideal interstellar propulsion system would be one that could get you to other stars as quickly and comfortably as envisioned in science fiction. Before this can become a reality, three scientific breakthroughs are needed: discovery of a means to exceed light speed, discovery of a means to propel a vehicle without propellant, and discovery of a means to power such devices. Why? - Because space is big, really, really, really big

Interstellar distances are so astronomical (pun intended) that it is difficult to convey this expanse. Consider the following analogy: If the sun were the size of a typical, 1/2 inch diameter marble, the distance from the sun to the Earth, called an "Astronomical Unit (AU)" would be about 4 feet, the Earth would be barely thicker than a sheet of paper, and the orbit of the Moon would be about a 1/4 inch in diameter. On this scale, the closest neighboring star is about 210 miles away. That's about the distance from Cleveland to Cincinnati.

To help put this in perspective, consider that it takes light over 8 minutes to cover that 4 ft "Astronomical Unit" mentioned before. Light is the fastest thing that we know to exist! Just imagine...How long will take you to travel 210 miles if it takes you over 8 minutes to travel just 4 feet? Actually, the answer is 4.2 years. Our nearest neighboring star, Proxima Centauri, is 4.2 Light Years away. The Voyager spacecraft left the solar system at 37,000 miles per hour. At that speed, it would take Voyager 80,000 years to reach

Proxima Centauri. Getting there in a reasonable time is an obvious challenge

The most obvious challenge to practical interstellar travel is speed. Our nearest neighboring star is 4.2 light years away. Trip times to reach our nearest neighboring star at conventional speeds would be prohibitively long. At 55 miles-per-hour for example, it would take over 50 million years to get there! I don't think even the Twinkies in the glove box would survive that long. At a more typical spacecraft speed, for example the 3-day trip time that it took the Apollo spacecraft to reach the moon, it would still take over 900 thousand years. I still don't think the Twinkies will make it. And even if we consider the staggering speed of 37-thousand miles-per-hour, which was the speed of the NASA Voyager spacecraft as it left our solar system years ago, the trip would still take 80,000 years. Maybe the Twinkies would make it, but there would be nothing left on board to eat them. In conclusion, if we want to cruise to other stars within comfortable and fundable time spans (say, less than a term in Congress), we have to figure out a way to go faster than light

One of the consequences of this Special Relativity is the light speed barrier. Here's another way to look at it. To move faster, you add energy. But when you get going near the speed of light, the amount of energy you need to go faster balloons to infinity! To move a mass at the speed of light would take infinite energy. It appears that there is a distinct barrier here. (the speed of light represents an insurmountable barrier to any object that has real mass No ordinary material thing can be accelerated from sub-light speeds up to the speed of light or beyond, the theory says. Pumping more kinetic energy into an object that is already moving at high speed has the main effect of causing a relativistic mass increase rather than a substantial increase in speed. This strange phenomenon becomes so pronounced that at speeds sufficiently close to the speed of light, an object's relativistic mass would become so great that for it to approach still nearer to the speed of light would take more energy than is available in the entire universe.

If you are interested in reading more about the concepts of space flight, check out the following website:

http://www.daviddarling.info/encyclopedia/A/advanced_propulsion_concepts.html

Nostalgia

JURASSIC PARK

An Argus MK-1 Escapes!

**Arguses in the bone yard
My dream come-true!**

Aurora & Argus

Fallen Eagles

Eternal rest grant them O Lord, and let perpetual light shine upon them.

❁ Pierre Cauchon— September 27, 2004.

❁ Ed Grose—April 07, 2005.

❁ A.E. (Tony) Martin— March 26, 2005.

We extend our sincere condolences to the families and friends of these comrades who recently passed away.

A Tribute To Ed Grose

Squadron Leader Ed Grose began his career in the RCAF in 1946 as an ATA (Air Traffic Assistant), by the 60's he would be known in this trade as Trans Tech (Transportation Technician), and by the 70's, Loadmaster. On Thursday, July 27, 1950 he was on the crew of a 426 Sqn North Star, 17507 departing from McChord AFB on the Korean airlift and destined for Haneda Airport in Tokyo. It was the second of 599 more flights that were to be carried out on the Airlift. Ed would fly on many more of these missions to Tokyo.

ATA's were generally thought of as stevedores in those early days, "the guys that hefted the freight". Ed was one of the first in his trade to realize and take advantage of the fact that there was an Engineering Officer associated with his trade. He was a keen hard worker and rose quickly in rank relative to his peers. As a flight sergeant he was one of the first of two who were commissioned in his trade. This turn of events began to distance him from his trade and associate him more with the "supply world". He did however attain the rank of Squadron Leader (Major) prior to retiring.

In retirement he became involved with the "426 Squadron Association" and was secretary of the organization for many years. He traveled to the Orient as a 426 Squadron representative on a recent commemorative event. He also took part in the Korean war veterans parade that recently took place in Ottawa. He was an avid golfer as well as a raconteur of bad jokes, (most loadmasters are good at that). He could hold his own with the best and carried this trait right through to the end. It was very evident that he thoroughly enjoyed a good story.

After the CMFEA was formed, Ed became the first honorary member of the association. He always supported any FE function within a reasonable distance from his home. From dinners in the Ottawa area or to reunions at Trenton, Ed was there.

You will be missed Ed - and have a good story for me when I get there.
Geoff

A Tribute to Tony Martin

Tony joined the Air force in 1940 and proudly served until 1970. He then joined Air Canada for a second career as a flight simulator instructor serving there until 1985.

I first met Tony when he took the North Star FE course in the late 50's. He was a very keen and conscientious individual, with a unique sense of humour. He flew a few years on the North Star and then converted onto the Yukon aircraft. He remained with the Yukon until around 1970 when he suddenly disappeared, at least that's the way it appeared to me. There was no talk of him going anywhere - he just disappeared. He had joined Air Canada.

He always sported a friendly smile, and had a serious manner when needed. To listen to him relate a story was hilarious to say the least. These stories were usually about himself and based on

fact. The one that springs to my mind was the first ride he had in an airplane when he was little more than a raw recruit. This took place in Summerside early in the war. He had gone up on a test flight, and because of terminal problems developing with the aircraft, he had to resort to a parachute jump to save himself. He landed in a field near Miscouche, and lost his wedge cap during the jump. The problems he encountered afterwards by not having a hat, namely his struggle with paper work, his explanations how he lost it and then trying to obtain another one was a story worthy of a Pulitzer prize award.

Another story that comes to mind was "Piza Revisited". During supply missions to the Congo on the North Stars in the late 50's, he staged many times through Piza, Italy. He decided to take his wife a number of years later and show her Piza. Expecting to see new faces, Tony was greeted by a great number of people he had known and forgotten about - but they hadn't forgotten him. Now that would have been worth a few pictures.

Tony, your stories are precious memories and you are missed by a lot more people than you can imagine. I can see you there now, sitting on a cloud with your head on one side, a half smile on your lips and a glint in your eye with another story ready to be heard. The world would be a better place today if there were more Tony's around like Tony Martin.

We will all expect one of your rib ticklers when we arrive Tony,
so be prepared.
Geoff.



Do pediatricians play miniature golf on Wednesdays?

The Mating of Nickie

In the heat of the desert campaign in 1943 as Montgomery's troops were knocking the hell out of Rommel's heroes the army came upon a dead German whose body was being protected by a large golden coloured female dog. The dog would not allow anyone near enough to bury him and in that heat it was absolutely necessary.



After a few days of coaxing with water and food she was won over by one of the troops and eventually ended up with a pilot on our squadron as the army and the air force advanced to Tunisia and north into Italy. The dog was named "V" for victory and also for the horrible "V" cigarettes that were government issue. The cigarettes were that bad that even the natives wouldn't trade eggs for them. We all swore they were made from dried camel dung!

"V" the dog, was a one man dog that would only be friendly to one master at a time and was vicious to all others. As her present master was either killed, wounded or transferred, the next one would have to work like hell to gain her confidence.

In Italy she became the pet of our squadron doctor and she was transferred along with him, from airstrip to airstrip, in the ambulance.

She was a very clean dog and when she went to Anzio by landing craft she held on until her kidneys were ready to burst. When the craft hit the beachhead and opened up she was the first off. Doc swore that when she did 'let go' the level of the Mediterranean waters rose two inches.

Although "V" was a one man dog she wasn't adverse to sharing her love life with every other male dog who showed an interest. She produced several litters of all shapes and sizes. One litter produced a large black dog (the 57 varieties type) and became the pet of the C.O. He named him Nickie.

As soon as Nickie grew up, the C.O. was determined that he should shack up with a female dog and begin his adult love life.

When the weather was bad and we couldn't fly we go around gathering up females which we put in a fenced pen and let Nickie loose but he showed no interest. We came to the conclusion that Nickie was celibate or was completely uninterested in sex.

Getting Nickie to mate became an obsession of the whole squadron. We were concentrating on Nickie's mating so intensively that it took priority over our flying and trying to win the war.

He was a friend to all, the opposite of his mother. It was rumoured but not proven, that he was the only dog who flew in a combat area, sitting on the lap of a Spitfire pilot.

Nickie was right at home on the Anzio beachhead, completely unimpressed by the war going on around him. His only interest was his affection for the C.O.

When Rome fell the squadron was transferred to Litorio air-drome on the Tiber River in Rome.

Nickie moved up with the advance party to set up camp. We had bombed Litorio so often that that the whole airdrome was pock marked with bomb craters. The engineers had marked a landing strip with white-washed bricks but the guys who marked it must have been into the Vino as the bricks were lined up in such a manner that upon the final approach to land the pilot was confronted by lines of the runway that led into a bomb crater, by the time he realized it, it was to late to go around and try again.

The C.O. who was the first to land went right into a hole, wheels, wings and tail of his Spitfire broke away and shattered to pieces, the noise and confusion was unbelievable. The ground crew ran out save him but other than covered with dust and dirt, he was okay. He stood up in what was left of the cockpit and stood pointing and speechless as he stared over their heads. They all thought he was knocked speechless in the crash.

Everyone turned to see what he was staring at. There, in midst of the ambulance, crash truck and parts of aircraft was Nickie with a female dog, proving himself and his dog-hood.

Buzz" Hayden ,417 Sqn. WWII Spitfire Pilot

Buzz who is now deceased, was a member of our MGen. Vokes Legion Branch 486 , in Bronte, Ontario.

Interesting Websites

UP AND AWAY WITH THE SHUTTLE CREW

NASA has constructed an electronic press release for its upcoming launch of the space shuttle. The interactive presentation features the crew, the shuttle itself, and the mission. It's pretty good.

See it at: [Http://www.nasa.gov/externalflash/rtf_flash/start.html](http://www.nasa.gov/externalflash/rtf_flash/start.html)

VE Day live from Piccadilly Circus

If you have ever wondered what it was really like to be at the heart of VE Day celebrations in London, England on May 8, 1945, there is a way, thanks to internet. You can hear early radio broadcasts of historic events at: www.hearitnow.umd.edu

The Worlds Largest Data Base of Aviation Videos

This is a real cool site — check it out!

<http://www.flightlevel350.com>

Welcome to Bruce Forsyth's Canadian Military History Page

www.geocities.com/Pentagon/Quarters/2529

The Aircraft Engine Historical Society is a non-profit educational

and historical society, open to the public, which fosters an appreciation of the people, art, and sciences associated with aircraft engine development, manufacture, and use:

<http://www.enginehistory.org>

Biggest Aviation Site in the World

<http://www.airliners.net>

"Where is the International Space Station?" is a NASA site devoted to the tracking and sighting of spacecraft. Zoom in and out to pinpoint one of over 500 satellites. Objects like space stations, shuttles and satellites are especially riveting when viewed over 3-D maps. You can also investigate all things space under Latest Science News. Find out what solar flares would do to astronauts caught scampering over the moon's surface! **To visit the site, GO TO:**

<http://science.nasa.gov/temp/StationLoc.html>

Market Garden Website

The site includes information on the Allied Military personnel who died in 1944 in or around Arnhem during operation Market Garden. The site is chock full of information of the operation and is definitely a must-see website!

www.marketgarden.com

**Did you know it's a sin for a woman to make coffee?
Yup, it's in the Bible —**

HEBREWS



YEAR of the VETERAN Lapel Pins (2 per person)

Veterans interested in obtaining this pin can contact Veterans Affairs Canada at the following numbers:

**1-866-443-0394 (English) or 1-866-522-2022(French)
or 1-800-443-0394**



PROPWASH



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Have a Wonderful summer! . . heads-up, and

Beware of low flying aircraft



Tally-Ho!