



CREW Brief

Fall 2004, Vol. 2, No. 4

In this Edition...

Vectors towards the Future	p. 2
Operations	p. 3
Passages	p. 4



CHIEF OF THE AIR STAFF

LGen Ken Pennie
National Defence Headquarters
MGen George R. Pearkes Building
101 Colonel by Drive
Ottawa, ON K1A 0K2

EDITORIAL BOARD

Editorial Board Chairman
Assistant Chief of the Air Staff
MGen Marc Dumais

Executive Editor
Cdr Jeff Agnew
Director Air Public Affairs

Managing Editor
Holly Bridges
(613) 945-7716
bridges.hm@forces.gc.ca

Air Force Webmaster
Roy Ahopelto
(613) 992-0555
ahopelto.rl2@forces.gc.ca

Art Direction
ADM(PA) DMCS CS04-0316

FOR MORE INFORMATION

Air Force website
www.airforce.forces.gc.ca

Defence NET
www.forces.gc.ca

Chief of Defence Staff
www.cds.forces.gc.ca

Vice Chief of Defence Staff
www.vcds.forces.gc.ca



Message from the Chief of the Air Staff

On behalf of all members of the Air Force, both here at home and those who are deployed, greetings and welcome to the fall edition of Crew Brief.

As friends of the Air Force, you know the old saying that flexibility is key to air power; never has that been more true than it is today. In these changing and challenging times, the Air Force *must* be flexible in its response to, and management of, the kind of large-scale, long-term re-engineering that is underway. It's a challenge, to say the least – sort of like living in a house while undergoing extensive renovations.

So where are we in terms of Air Force transformation? Our crews are using state-of-the-art communications equipment on exercise, they're flying pilotless aircraft over Canadian airspace, they're fighting aerial battles from computer workstations, but most of all, they're most certainly delivering the beginnings of the transformation mission.

One of the greatest challenges we face is convincing our own members that transformation is viable and possible, and that they are an integral part of the process. Without the support of all members of the Air Force team, military and civilian who support us, we cannot even begin to fulfill our vision. Transformation is as much about people as it is equipment, and we are working hard to inspire a fresh, new mindset to tackle the challenges that lie ahead on both those fronts. Our vision to create an Aerospace Warfare Centre, for



Commander's Call October 2004, Ottawa.

example, will create a centre of excellence to address the future of air power and what it means for our people and our equipment.

However, significant changes to our organization will need to await the results of both the Defence Review and the International Policy Review. The security environment has changed dramatically since 9/11 and the traditional roles we have had for many years need to evolve to encompass the Defence and International Policy Review priorities.

So what does this mean to you, our Air Force stakeholders? The Chief of the Defence Staff has stated that the Canadian Forces must remain relevant to Canadians and that we must tell our story wherever possible. I invite you to consider sharing what you read in Crew Brief with those in your personal and professional circles.

By fostering an accurate and informed debate, the Air Force can better tackle some of the misconceptions and misunderstandings about our organization, ones that have the potential to undermine what we are trying to accomplish.

Help us engage Canadians in the good news stories we have to share. Despite significant resource constraints, these are exciting times within the Air Force. Our folks continue to deliver important and essential capabilities to Canada and Canadians each and every day, and it's their successes we want to convey.

Sic Itur Ad Astra

Ken Pennie
LGen
Chief of the Air Staff



Vectors Towards the Future

Air Force Transformation underway

4 Transformed aerospace capabilities means exploiting advanced technologies, new concepts of operations and synthetic, distance, and e-learning environments to significantly enhance effectiveness in operations.

Exercise Maple WAVE

At 1330 hrs Eastern Standard Time, 23 September 2004, four CF-18 fighters lifted off from airbases in Europe, en route to their rendezvous with NATO tanker aircraft. The Canadian aircraft then linked up with a combined force of aircraft with special equipment and weapons to suppress enemy ground based missile systems. NATO fighters swept the airspace ahead of the bombers, and airborne and ground based radar systems provided command and control. At 1400 hrs, the CF-18s pushed into hostile airspace to search for their pre-briefed targets.

Canadian pilots knew they would test their discipline and combat skills against aggressive defenders with capable fighter planes and an array of surface-to-air missiles. The CF-18s, with their radar controllers, formed a team to fight through defences to attack their targets, then engage with scrambled enemy fighter aircraft on their way home.

This intensive air battle took place over two hours, but was not reported in the

news because it happened in a distributed simulation nicknamed "Maple WAVE".

The Chief of Air Staff sponsors a modelling and simulation project called "Canadian Advanced Synthetic Environment" or "CASE". CASE, a capital project managed by the Director General Aerospace Equipment Program Management, Radar and Communication Systems, has the job of setting up simulation support for state-of-the-art simulations. As part of a learning and definition phase, CASE joined a NATO initiative called the First Warfighter Alliance in a Virtual Environment, or First WAVE.

Canada contributed three-dimensional terrain maps from the Deputy Chief of Defence Staff Mapping and Charting Establishment (MCE) in Ottawa, four CF-18 simulators and all of the "Red" or opposing forces. Seven sites were connected: Tunney's Pasture, 3 Wing Bagotville, the CF-18 Software Engineering Support Centre in Mirabel, CAE Inc. in Montreal, DRDC Toronto, 1 CAD and 4 Wing Cold Lake. Because of the

importance of the Canadian contribution, CASE scheduled a large-scale operational test 23 September, nicknamed, "Maple WAVE" as described above.

While crews engaged in virtual combat for two hours, the exercise provided a wealth of lessons to prepare for First WAVE. Maple WAVE received a positive technical assessment from CAE, Inc., Plexys Inc. and DND's IM Group, and strong feedback from the operational crews. Mr Fred McLaren, the CASE PM, and Lieutenant-Colonel Bob Jones, First WAVE Project Director, have reported to NATO that Canada's contribution to First WAVE is, "good to go!"

In November, simulation assets from Canada, France, Germany, Italy, The Netherlands, the United Kingdom and the United States joined in the largest real-time combat simulation ever attempted: First WAVE. 

Watch for more examples of Air Force transformation at www.airforce.forces.gc.ca and in *The Maple Leaf* at www.forces.gc.ca.



CF flies world first with UAV

The Air Force played a key role in a world first last August when the Canadian Forces flew an Uninhabited Aerial Vehicle (UAV) over domestic airspace during Exercise *NARWHAL*. Major Mike Addison, a Navigator from 14 Wing Greenwood, was the Senior Mission Commander for the Atlantic Littoral Intelligence, Surveillance and Reconnaissance Experiment (ALIX). He led the crew that flew a UAV over domestic Canadian airspace for the first time. The UAV – the US-built *Altair* – was launched out of Goose Bay and controlled by Maj. Addison's team from a remote operating centre in Ottawa. An air navigator with 12 years experience in flight testing, Maj. Addison – along with senior sensor/radar operator Warrant Officer Steve Dornan – has been involved in all of the CF's UAV tests. UAVs are critical to the future of the CF and will continue to be a key transformational capability as they provide unprecedented situational awareness and connect the command and control network in new and unforeseen ways. The total cost – including setting up the networks, moving people around, and chartering the *Altair* from its US manufacturer – was about \$4.5 million. Lieutenant-Colonel Steve Newton, project head at the Canadian Forces Experimentation Centre (CFEC) reports it was money well spent as the trials will make the CF "a much smarter consumer" of the product it eventually acquires. CFEC will analyze the information gathered on ALIX and present recommendations to the Joint Capability Requirement Board. 

OPERATIONS Update

Op SIRIUS

Two CP-140 Aurora maritime patrol aircraft and more than 65 Air Force personnel deployed to Sigonella, Italy in September on Operation SIRIUS, Canada's participation in a NATO Campaign Against Terrorism mission known as Operation ACTIVE ENDEAVOUR. Personnel from 14 Wing Greenwood and 19 Wing Comox are helping our NATO allies fight maritime terrorism by monitoring and surveilling activity at sea, hailing ships, and tracking contacts of interest. Op SIRIUS will be conducted from mid-October until mid-December.

The Helicopter Detachment of Task Force Bosnia-Herzegovina officially closed up shop on October 4 ending six years of Air Force participation in Operation Palladium. 408 Tactical Helicopter Squadron had the honour of completing the last tour in the Balkans. The squadron initially deployed to Bosnia in November 1998 as part of Canada's efforts to restore security and stability in the region.

Meanwhile, the Air Force delivered considerable aid to flood victims in Haiti over the past couple of months. Our CC-150 Polaris (Airbus A310) and CC-130 Hercules aircraft made several trips to transport much-needed charitable donations from organizations such as Moisson Montréal, the International Federation of the Red Cross and the Government of Quebec.

Training

Exercise Narwhal

Exercise *NARWHAL* tested more than our ability to fly Uninhabited Aerial Vehicles over domestic airspace as previously mentioned. *NARWHAL* also allowed the Canadian Forces to jointly train and conduct sovereignty operations in a remote northern area. The Air Force contributed CH-146 Griffon and CH-124A Sea King helicopters for *NARWHAL* which took place in mid-August in the Cumberland Peninsula area of Baffin Island. *NARWHAL* involved about 600 CF personnel including personnel from various headquarters, CF Northern Area; the frigate HMCS Montreal; G Company, 2nd Battalion, The Royal Canadian Regiment; 427 Squadron and 440 Squadron; the Canadian Rangers; and the Canadian Forces Experimentation Centre. From all reports, the exercise was a resounding success.



The New Human Resource Vision

"Proud, professional, strong and people-focused Air Force team dedicated to excellence and innovation to achieve the Air Force mission".

Air Technician Training Renewal

The Director General Air Personnel launched the new HR vision over the past year which will drive many of the transformational activities that will be necessary for our personnel. The Air Force is undergoing a concerted effort to revitalize basic air technician training, for example, and the Air Technician Training Renewal (ATTR) programme falls squarely under this new vision. ATTR will explore how we can provide the most modern training aids and up-to-date learning environment possible. Current initial air technical training does not provide sufficient practical proficiency and subsequently places a training burden on operational flying units. This situation has a ripple affect as it ultimately infringes on our ability to generate mission-ready aircraft while members are being trained. Also, aggressive recruiting policies and an elevated operational tempo have combined to significantly increase the required training volume over the past five years, well beyond our ability to cope and the situation is expected to continue for at least a decade. ATTR will be a key element in the overall training strategy for each of the 500-series air technician occupational trades and ultimately will help us push more trainees through the system.

Upgrading our capacity to train

The era of continuous learning has dawned and the tools to make it happen are available. The Air Force Integrated Information and Learning Environment (AFIILE) program is working closely with the Defence Learning Network (DLN) to share lessons learned, eliminate duplication and, like most post-modern militaries, allow for the upgrading of our capacity to train. Computers make it easier than ever to train, particularly over the Internet, however, there are challenges and complexities associated with this new method of delivering professional development. AFIILE strives to deliver a common set of tools, standards and best practices in a multi-user, networked environment to enable all Air Force learning material to be delivered in a more standardized manner.

AFIILE will also establish access to expertise and funding for the development and maintenance of learning content, through a Centre Of Excellence (COE). The COE will provide consulting expertise to assist trainers in delivering effective e-learning solutions that will decrease development time, decrease time to qualification, increase Air Force training capacity, facilitate and support the integration of learning and workplace knowledge content, and measure and report the business impact of learning and human performance interventions and methodologies. Students, instructors, headquarters training staff, standards officers, training administrators and schedulers will use AFIILE to access a wide range of capabilities. 

EQUIPMENT Update

The modernization of our CF-18 fighter jets continues to move along at its forecast pace. The Engineering Change Proposal 583R2 project (ECP 583R2), a major component of Phase II of the Omnibus CF-18 Incremental Modernization Project, has been approved.

The Minister of National Defence approved the Treasury Board submission for the ECP 583R2 on October 8, 2004 while Treasury Board granted the expenditure authority for the modernization of up to 80 CF-18 aircraft on October 25, 2004.

The ECP 583R2 will see the major, and most complicated systems of Phase II of the modernization, integrated into the CF-18. These components include the Canadian/Royal Australian Air Force, co-operatively developed,

Multi-Purpose Colour Display Group, Data Link – Link 16, Joint Helmet Mounted Cueing System and a new Chaff/Flare Dispensing System.

Implementation of the ECP 583R2 will ensure that the CF-18 fleet regains and maintains the interoperability and minimum essential operational capability required to meet government assigned roles and missions.

Validation and verification testing will begin in the fall of 2005 with fleet implementation beginning fall 2006. We expect the entire modernization process to be complete by fall 2009.

This is but one great example of a number of equipment modernization initiatives that are underway today. We anticipate that following our Defence Review, we will have even more to speak about. 

Passages

Some key positions have changed hands in the Air Staff since our last communiqué.

Command Chief Warrant Officer

Chief Warrant Officer (CWO) Roger Bouchard is firmly in the seat as the new Command Chief Warrant Officer, a position he assumed from CWO Daniel Gilbert who now serves as the Canadian Forces Chief Warrant Officer. To date, CWO Bouchard has visited Colorado Springs, 443 Squadron in Pat Bay and Air Command Academy personnel at 16 Wing Borden. CWO Bouchard has been impressed with the high calibre of people delivering the Air Force mission. In the Chief's words, "We have a lot of good people working for us and we must take the time to encourage their hearts. Our biggest challenge will be to create a structure that will meet our expeditionary needs. We must create a mindset that will enable us to deploy and redeploy globally so as to operate and sustain forces from deployed locations within Canada and around the globe. Advancing Transformation will be a big challenge for all of us, but I am sure we will succeed. I am also impressed with the hard work being done by both headquarters to procure the tools we all need to do our jobs. It might not be evident to most people, but rest assured we are working extremely hard to serve you and our country."

Special Advisor Chief of the Air Staff/Commander Air Command

Colonel (Ret'd) Dave D. Peart has taken over the helm as Special Advisor to Chief of the Air Staff/Commander Air Command from Colonel (Ret'd) Walt Pirie. Col (Ret'd) Peart's appointment will be of particular interest to our Honorary Colonels as the SA CAS coordinates our annual Honorary Colonels conference. He brings with him a wealth of experience and we look forward to working with him as we progress through these interesting and challenging times within the headquarters environment.

Honouring the passing of 413 Squadron Honorary Colonel Air Commodore Len Birchall

I would be remiss, of course, if I did not acknowledge the passing of Air Force icon, Air Commodore Len Birchall. Air Commodore Birchall, CM OBE DFC Oont CD, passed away on Friday, September 10, after a battle with lung cancer. He was 89. Air Commodore Birchall's funeral was held in Kingston on September 13 and although the occasion was a sad one, the atmosphere was one of profound respect for the man and his life, joy at having known him and infinite admiration for all he stood for.



Representatives from 413 Squadron, the Star of Burma Association, the Air Force Association of Canada, the Royal Military College of Canada, veterans and military members, past and present, also turned out in great numbers.

Three Griffon helicopters from 427 Tactical Helicopter Squadron flew past the church in a fitting final tribute, as Air Commodore Birchall had been the HCol for another of 1 Wing squadrons, 400 THS, for more than 20 years. Air Commodore Birchall was a gallant gentleman to the end carrying out his last official military duty with typical dignity. At the beginning of July, a delegation from 413 Squadron flew to Kingston to ensure their HCol could participate in the Squadron's Change of Command parade, since he was unable to travel. Although in a wheelchair and in poor health, Air Commodore Birchall obviously took great pride in the uniform he wore for the occasion and the joy of being reunited with his squadron shone through. Air Commodore Birchall's passing is a great loss to us all. A true Canadian hero has gone but shall not be forgotten. In lieu of flowers, donations can be made to:

The Air Commodore Leonard and Kathleen Birchall Award/Scholarship Fund, Air Cadet League of Canada, Constitution Building, 313 Rideau St, Ottawa, ON K1N 5Y4. 