



# ASSAULT ROUTE

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## *Editor's Comment*

### **NOW THAT THE CAT IS OUT OF THE BAG: HO/DR AND AMPHIBIOSITY**

Now that Vice-Admiral Maddison has spoken to a Senate committee, the already well-known news that amphibiosis is imminent can be published here. Perhaps one should say it is “again imminent”, for we have seen such a development before in the form of the Standing Contingency Force (SCF). On top of that, we have seen many a pronouncement over the years swearing devotion to the principles of jointery, littoral manoeuvre and amphibious capability (explicit or implied). Maybe, one could say with all justice, we should not get too excited...not yet, at least.

Nonetheless, I am taking a positive view that real development is at hand. The original appreciation back in the days when then-Rear Admiral Garnett of Maritime Forces Atlantic and then-Colonel Labb   of 1<sup>st</sup> Canadian Division authorised the first amphibious study was correct: the new geo-strategic imperatives of the post-Cold War world identified at that time are proving to be irresistible and unavoidable. In the years that followed, we in the tiny amphibious community were always more certain that an amphibious capability *would* emerge than we were of *when* it would emerge. There have been many reasons for the slow progress in amphibiosis in Canada over the past 16 years. There were impediments (like the budget cuts of the late 1990s), distractions (like Afghanistan, a continental war in a desert-dominant region), higher priorities (like the introduction of new ships, submarines and the task group concept),

and false starts (like the Standing Contingency Force). To say the least, “H Hour” for amphibiosis has been, at best, an uncertainty. However, although the budget problems remain with renewed vigour, most of these other problems I just mentioned have passed. Moreover, there is the good news that the skepticism amongst Canadian officers is less now than what it was in the mid-1990s. If there are not more advocates of amphibiosis today, there are at least many more minds open to discussing it.

So we now enter into what promises to be an exciting era. It will be a productive one as well if we approach the challenge correctly. The best advice I can give the amphibians right now is to network and pass information. One of our most critical tasks at the moment will be to communicate the new concepts correctly (e.g., HO/DR is the driver while amphibious capability is the enabler) and to encourage and maintain a recognisable community of amphibious stakeholders by networking with a view to wide situational awareness and passage of information. The SCF is a treasure trove of lessons learned in this respect, lessons that can be implemented now to the great benefit of the new amphibious effort. So keep in touch and keep talking to each other!

## **THE GLOBE AND MAIL**

### **CANADA'S STUCK WITH SECOND-HAND SUBS UNTIL 2030, NAVY SAYS**

Vice-Admiral Paul Maddison, head of the Royal Canadian Navy, told a Senate committee Monday...

...During his testimony, Adm. Maddison also revived the idea that the navy should possess an amphibious assault ship, a proposal christened by

former chief of the defence staff, retired general Rick Hillier, as the “Big Honkin’ Ship.”

Such a vessel would allow the navy, army and air force to quickly deliver humanitarian aid in future disasters.

Adm. Maddison says it's one of the lessons that came out of the 2010 earthquake relief mission to Haiti.

That operation saw the military use a rented supply ship to move vehicles to the Dominican Republic, where they had to be off-loaded and flown by C-130 Hercules into the disaster zone because the ports in Haiti had been destroyed.

With a landing ship, that could have been avoided.

MURRAY BREWSTER

OTTAWA—*The Canadian Press*<sup>1</sup>

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## HO/DR SUPPORT VESSEL CONCEPT OF EMPLOYMENT UNDER DEVELOPMENT

**NDHQ, Ottawa** – A Directorate of Maritime Strategy (DMARSTRAT) team has been formed to draft the Concept of Employment (COE) for a “HO/DR Support Vessel”. “HO/DR” stands for “Humanitarian Operations / Disaster Relief” and it refers to the specific Canadian Forces (CF) approach to what Canada and her NATO allies have traditionally called “Humanitarian Assistance / Disaster Response” (HA/DR). The HO/DR Support Vessel is the centrepiece of an amphibious capability that will, in turn, enable a HO/DR (Maritime) concept.

The DMARSTRAT team is comprised of Cdr R. Ferguson, LCdr S. King and LCdr M. Butler. The Director of Maritime Strategic Operations (DMSO) SO Amphibious Warfare is also a member, this attachment being facilitated by Cdr S.A. Bell, currently DMSO and formerly both the chief “conceptioneer” for the Standing Contingency Force (SCF) and commander of the Maritime Amphibious Unit (MAU). Notably, LCdr G. Johnson, presently a Canadian exchange officer with the Royal Navy’s amphibious force, will return to Canada this summer for assignment to DMARSTRAT. His exceptional knowledge and experience will undoubtedly be a great boost.

In order to be prepared to seize any opportunity to acquire a suitable ship which may become available on short notice, work is focused on the support vessel itself. However, initial research has begun for a governing “HO/DR (Maritime) Operating Concept”. Meanwhile, links have already been made with the Adaptive Amphibious Capability (AAC) work underway in the Amphibious Warfare Cell (AWC) in DMSO. Those familiar with this concept may be interested to know that the HO/DR development has accelerated work on SHARPROCK (the AOR-centred option) and opened for consideration the advanced stage called BULLDOG.

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## NANOOK PROGRESS IS SLOW

**Halifax** – Trans-littoral manoeuvre (TLM) involving Canadian Army troops and Royal Canadian Navy (RCN) ships and boats will be minimal in this year’s Op NANOOK, the annual sovereignty exercise in the Canadian Arctic. The overwhelming importance of sea and air movement to operations in the Canadian Arctic & Northland requires additional emphasis, for it has proven difficult to build on the success of a seaborne joint task group in 2009. There are various impediments to such progression, particularly the short period of time available in-theatre to conduct unique-to-Service training for some elements. For example, the Canadian Army element is usually based on the Militia, which compresses most training into the

<sup>1</sup> From *The Globe and Mail* web site at URL <http://www.theglobeandmail.com/news/national/canadas-stuck-with-second-hand-subs-until-2030-navy-says/article2351916/print/> as at 02 Mar 12.

actual deployment period, which makes additional tasks such as Sea Safety & Survival (SSS) training a burden. Other sources of reluctance exist as well and these must be identified and addressed.

Lt(N) H.R. (Hal) Shiels, whose amphibious roots date back to the Minor Amphibious Operations Study (MAOS) in 1996, continues to play a key role in NANOOK planning and wherever possible stresses the importance of developing the sea manoeuvre requirement. The growing Canadian Army interest in TLM may re-invigorate the joint effort as well. We shall see what happens in 2013!

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#### *Allied Developments: Australia*

## THE LOOMING TRANSFORMATION OF THE ADF

by James Brown - 1 February 2012 3:20PM<sup>2</sup>

Listening to the three service chiefs speak at the Seapower Conference\* yesterday, three things seem clear. Firstly, the ADF of five years from now will look very little like the one we have today. Secondly, the service chiefs are well aware of the challenge they face in transitioning the ADF towards being a joint, expeditionary, amphibious force. Finally, these three men will not be seeing much of their families in the next few years.

The Chief of Navy, Vice Admiral Ray Griggs, described the shift to amphibious operations that will occur with the arrival of the RAN's LHDs as a 'quantum leap' for the ADF.

The scale of change occurring in the ADF was best detailed in Chief of Army LT GEN David Morrison's speech. It was a frank appraisal of the shortcomings Australia has in conducting amphibious operations – something that in his opinion we now need to 'relearn from first principles' after a 70-year hiatus. He outlined the need for a conceptual shift in Army away from

viewing the Navy and Air Force purely as strategic lift, to understanding how to fight with all three services in a truly joint battle-space.

The Chief of Army also said that the recently launched Plan Beersheba will for the first time allow the Australian Army to achieve the objectives of the 2000 Defence White Paper, by overcoming the 'penny-packeting' of capability in the past that has made achieving joint interoperability so difficult in Army.

To understand how complex the shift to amphibious operations will be, consider that, as GEN Morrison notes, the force will need to learn how to operate every aviation and armoured platform it has from the LHDs, and then understand how to maintain and repair them at sea. The Defence Science and Technology Organisation (DSTO) is currently modeling how to support these operations, assessing things like the way airflow over the decks of the LHDs will effect Army's helicopter operations.



There is a healthy scepticism among the service chiefs about the ADF's ability to handle complexity. The Chief of Army reminded the audience yesterday that East Timor in 1999 was a strategic shock for which the ADF was unprepared, and a 'triumph of improvisation rather than professional mastery'.

At the Seapower Conference there are references everywhere to the Navy's newest ship, HMAS Choules. The Royal Australian Navy is rightly proud that it has trained a crew for HMAS Choules in a short period and transitioned the vessel to Australia ready for amphibious operations – a reminder that a simple and timely solution well executed can be better than a complex one.

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<sup>2</sup> From The Interpreter, a web site of the Lowy Institute for International Policy at URL <http://www.lowyinterpreter.org/post/2012/02/01/The-looming-transformation-of-the-ADF.aspx> as at 03 Mar 12.

## OUR AMPHIBIOUS HERITAGE

# “Tilt!”

*Having seen his first V-22 Ospreys flying from Kandahar Airfield, the editor’s eye was taken with a book currently available at Chapters. The Dream Machine by Richard Whittle is sub-titled, The Untold History of the Notorious V-22 Osprey. The MV-22 is a leap forward in vertical manoeuvre in the U.S. Marine Corps, which pressed for development of the aircraft in order to maintain the viability of modern amphibious assault. As the V-22s take to the air and become a familiar sight, it is fitting that we Canadians look back on our own experience, tiny though it is in comparison with the Osprey saga. The Canadair CL-84 was a tilt-wing vertical take-off and landing (VTOL) aircraft developed in the 1960s. This was a “tilt-rotor” design in which the wing and engines swivelled upwards to change the aircraft’s motion from forward flight to hover mode. The claim that the V-22 was “derived” from the CL-84 is highly questionable. There were a number of tilt-rotor designs in the 1950s and 1960s. However, the CL-84 was not a flash in the pan but a serious development project that saw the U.S. Marine Corps, amongst others, closely examine the concept and the aircraft produced at Cartierville, Quebec. The CL-84 even went to sea with them! The following brief history reminds not only of this little known Canadian story, but of the aerial aspect of amphibious warfare which is not often represented in Assault Route.*

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*Canadian Aviation and Space Museum:*

CANADAIR CL-84-1 DYNAVERT

- A Canadian experimental twin-engine aircraft designed and manufactured by Canadair Limited between 1964 and 1972.

- Its tilt-wing permitted vertical and short-take-off-and-landing (V/STOL).
- Produced as part of a 1950s and 1960s wave of interest in “convertiplanes” (aircraft with helicopter and airplane capabilities).
- Its flight control system was designed by Karlis Irbitis, a brilliant Latvian engineer who came to Canada in 1948.



- Although four aircraft were built and three flight tested, production did not ensue: the market was not ready and the aircraft’s complex technology required further development.
- Convertiplanes only entered service in the first decade of this century.

### Background History

The CL-84’s experimental “tilt-wing” design was an attempt to produce an aircraft that would combine vertical take-off-and-landing with a low-speed, fixed-wing capability. Canadair broke new ground with this design. Four CL-84s were constructed. Even though two crashed through mechanical failure, with no loss of life, the design was considered a success. No production contracts were procured and work on the design was halted.

The Dynavert featured a wing that could be tilted through 90 degrees, complete with two engines swinging large propellers. Vertical take-off was accomplished with the wing tilted. The

transition to normal winged flight was accomplished by slowly returning the wing to a horizontal position. This procedure was reversed for vertical landing.

[Regarding the aircraft in the Canada Aviation and

*Space Museum]*

This CL-84, the third prototype, was manufactured by Canadair Limited in Montreal in 1969. Though it was ground tested in 1969, it did not fly until September 1972, when test flights involving Canada, the United States and the United



The U.S.S. *Guadalcanal* (LPH 7) (below) and the U.S.S. *Guam* (LPH 9) (left) hosted trials of the CL-84.



Kingdom began.

Starting in Canada, testing moved in December 1972 to the U.S. Navy Test Center at Patuxent River, Maryland, where the aircraft remained for most of the next eighteen months. Test exercises included the first convertiplane transition from conventional to hovering flight under blind flying conditions, which took place on April 5, 1973. Trials were also carried out from helicopter carriers USS Guam and USS Guadalcanal. In all, 196 test flights were completed, totalling over 169 flying hours. Without a market for the aircraft, the program was abandoned in 1974.

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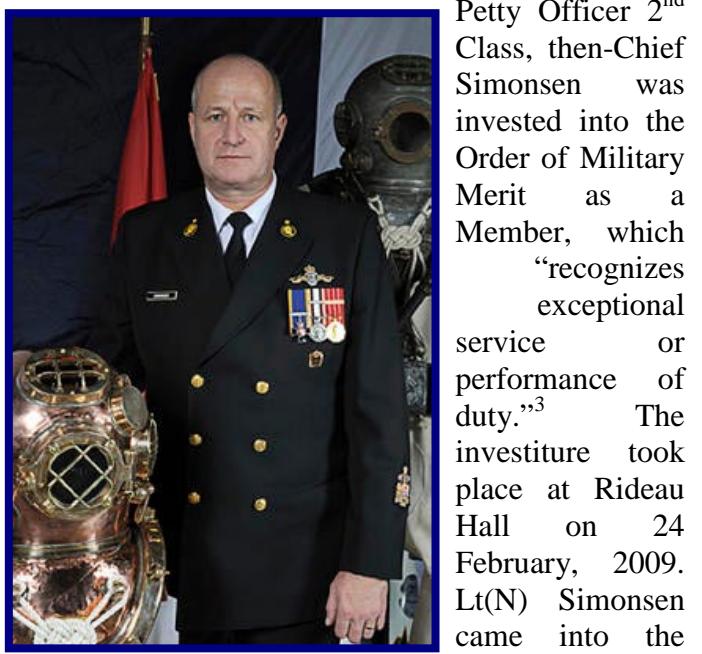
*Brigadier-General Peter Charlton C.D., MSc., F.C.A.S.I., P.Eng. (Ret'd) (1931-2006) served as the project manager for the CL-84. Starting in the Royal Navy, he transferred to the Royal Canadian Navy in the 1950s and commenced a long technical career, including service as "the Senior Technical Officer in VX10, responsible for the technical management of the development and trials of the "Beartrap" Helicopter Hauldown System pioneered by the RCN." BGen Charlton worked at Spar Aerospace Limited beginning in 1980 after his retirement from the Canadian Forces.*

[Acknowledgments: Canada Aviation and Space Museum web site at URL <http://www.aviation.technomuses.ca/collections/artifacts/aircraft/CanadairCL-84Dynavert> as at 03 Mar 12 ; the U.S.S. Guam LPH 9 Association web site at URL <http://ussguam.org/> as at 03 Mar 12; the Shipspotting.com web site at URL <http://www.shipspotting.com/gallery/photo.php?lid=303383> as at 03 Mar 12; and The Association of Old Crows web site at URL <http://www.canadiancrows.org/en/grandfather.html> as at 03 Mar 12.]

## COLLEAGUES

### **Lieutenant (Navy) Mark Simonsen, M.M.M., C.D.**

Sometimes it takes a little while for news to get around to the *Assault Route* desk. During a recent visit to the Canadian Forces Fleet School (Quebec) (CFFS[Q}) in Quebec City, the editor learned that Chief Petty Officer 1<sup>st</sup> Class M. (Mark) Simonsen has been promoted and remains at the Fleet Diving Unit (Atlantic) in Halifax as a newly-commissioned naval lieutenant. Prior to that and while still a Chief



Petty Officer 2<sup>nd</sup> Class, then-Chief Simonsen was invested into the Order of Military Merit as a Member, which "recognizes exceptional service or performance of duty."<sup>3</sup> The investiture took place at Rideau Hall on 24 February, 2009. Lt(N) Simonsen came into the amphibious orbit during the Standing Contingency Force (SCF) initiative, 2005-2007, when he was one of the founding members of the Amphibious Reconnaissance & Clearance Squadron (ARCS) of the Maritime Amphibious Unit (MAU). The ARCS had been designated as the rapid-development demonstrator element for the SCF, charged not only with developing an enhanced conventional forces reconnaissance, pathfinding and clearance capability for the new force, but to achieve early operational capability in order to demonstrate the viability of the SCF as a force-builder and its ability to move from paper to reality in short order. Lt(N)

<sup>3</sup> See "Governor General to invest 50 individuals into the Order of Military Merit" on the Governor General of Canada web site at URL <http://archive.gg.ca/media/doc.asp?lang=e&DocID=5638>

Simonsen was a key player in the ARCS and its impressive success. Since then, Lt(N) Simonsen has kept in touch with the amphibian community and referred persons seeking amphibious information or advice to other members of the amphibian community when appropriate. This networking effort is much appreciated and sets a very good example at a time when a new amphibious initiative in support of humanitarian operations is at hand.

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## ON THE BEACHES

BY BILL NEWELL  
(R.C.N. BEACH COMMANDO "W")



*Bill Newell will return with more stories in future editions..*

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*Assault Route is an informal newsletter intended to provide a means of bonding the Canadian amphibious community and its allied friends while informing both of recent amphibious warfare developments and the heritage of Canadian amphibious warfare.*

*Views expressed are those of the authors and do not necessarily represent those of the Government of Canada, the Department of National Defence, or the Canadian Armed Forces.*

*Editor and Compiler: Major R.D. Bradford, SO Amphibious Warfare, CMS.DMSO, National Defence Headquarters, 101 Colonel By Drive, Ottawa, Ontario, K1A 0K2. E-Mail (Public, Unclassified, High-Volume): [amphibcanada@hotmail.com](mailto:amphibcanada@hotmail.com)*

## BOLD ALLIGATOR WAR GAME PREPS US ALLIES FOR NEW THREATS

By Joan Soley BBC News, North Carolina  
8 February 2012 Last updated at 22:36 ET

After a decade spent mostly fighting in deserts and mountain regions, the US military and its allies have been gearing up for future challenges by practising assaults on coastal areas.

A mythical nation is under attack by a belligerent neighbour. The US and its allies are deployed to save Amber from the invading forces of Garnet.

For the teams coming off the amphibious assault ship the USS Kearsarge, the mission was to push the intruding forces out.

In reality they arrived on the beaches and grounds of Camp LeJeune, a sprawling Marine Corps base in North Carolina.

Searching the waterways nearby for Garnet-affiliated "pirates" were US Navy Riverine units, based on small boats often visually associated with the Vietnam War.

The scenario was part of Bold Alligator, an 11-nation training exercise involving upwards of 19,000 troops.

While the scenario may have been a fiction, the reality for all involved is a shifting military focus, as the US and other participating nations are increasingly watchful of coastal areas of the Middle East - in particular Iran - and countries like China and North Korea in the Pacific.

The Bold Alligator exercise involves scenarios of mine warfare, fighting in shallow water and fending off attacks from smaller boats; methods known to be familiar to the Iranian Navy.

Capt Dorian Jones, commander of the USS Kearsarge, was quick to point out other uses for the training, such as responding to the Haiti earthquake two years ago.

"Amphibious operations encompass a number of different operations - humanitarian assistance, disaster relief. Amphibious forces are

flexible and capable, and they flex to a variety of missions."



### 'Back to basics'

Bold Alligator has been under way since the beginning of February, played out across Virginia and North Carolina in what US military officials say is the largest amphibious-focused training mission in over a decade.

The outline of the exercise is not far removed from the depiction in films like Saving Private Ryan, or even from the reality of the World War II Normandy beach landings.

Bold Alligator has taken months of planning and is a joint-forces operation between the US Navy and Marine Corps.

Participating in the exercise are 25 ships, including the aircraft carrier USS Enterprise and the lead assault ship USS Wasp.

Troops include sailors and Marines from several "partnership" countries such as the UK, Canada, France, Australia and the Netherlands.

According to Adm John Harvey, commander of US Fleet Forces, the purpose of Bold Alligator is "to get back to basics" in terms of the ship-to-shore method of fighting that the recent missions in Iraq and Afghanistan rarely required.

Speaking in Washington as Bold Alligator was getting under way, he said: "It was really instructive to me when we opened this thing up to our coalition partners, they jumped on it.

"I've got a French big-deck under way out there now, with a lot of French Marines embarked who are taking this exercise with great seriousness.

"Gen Heljik's [a US Marine Corps commander] got a couple hundred Dutch Marines who came over here for this.

"We have 11 nations playing and playing hard, like the Canadian minesweepers, and they're making these decisions to participate at a time when their fiscally-constrained environment is far, far more significant than ours."

From the amphibious assault ship USS Kearsarge, troops from the US, UK and Canada were grouped together and then sent out in LCAC landing crafts and V-22 Osprey - a helicopter-plane hybrid - as one part of the 12-day exercise.

Before flying off on 6 February, the would-be D-Day of the war games, Maj Chris Samuel of the British Royal Marines said: "This is essentially restoring our amphibious credentials and it's a unique opportunity really, to participate in a multinational exercise with our closest allies.

"This is what we're good at," he added.

[From the BBC web site at URL <http://www.bbc.co.uk/news/16944360?print=true> as at 03 Mar 12.]



U.S. Navy Sailors guide Landing Craft Air-Cushioned 53 (LCAC) as the craft turns around to return to sea in an exercise off the coast of Virginia Jan. 25. Exercise Bold Alligator 2012, the largest naval amphibious exercise in the past 10 years, represents the Navy and Marine Corps' revitalization of the full range of amphibious operations. The exercise focuses on today's fight with today's forces, while showcasing the advantages of seabasing. This exercise will take place 30 Jan & 12 Feb, 2012 afloat and ashore around Virginia and North Carolina. (U.S. Navy photo by Mass Communication Specialist 3rd Class Michael M. Scichilone /Released)