Following on the heels of the recent world recession and failing economies, many nations are resorting to draconian measures in slashing their budgets. Across the European Union and the wider Europe, governments are engaged in cutting public expenditure and we are entering an unprecedented period of austerity.

Cuts to defense spending must mean that the world is a safer place and that not so much military hardware is needed? If only that was a reality. In fact in some countries, these cuts are motivated by money alone and are not a reflection of a safer world. Spending cuts are good news when they reflect a safer world or a more sensible approach to procurement -- not when they are billed as making for ‘leaner, more efficient forces and are a smoke screen for the accountants axe. The cutbacks that have been taking place up to this point are scything through vital existing assets to pay for ridiculous overspends and delays to new projects. Its true that some nations harbor huge military infrastructure and deliver little operational output. However, other nations are clearly very active on the international scene and therefore need to maintain the tools for the job. If ‘big ticket’ programs are sucking up to much funding, its time to spend money more wisely in order to maintain the required force levels.

In the Month of October, the UK announced huge cuts in the Armed Forces - with civilian staff taking the biggest hit on jobs. Britain is shrinking its armed forces and scrapping key assets as part of stinging overall public sector cuts. One trade that will be ultimately affected in their armed forces will be the RAF Flight Engineers (Air Engineers) trade who will become victims of these cuts when they are finally enacted.

The Nimrod reconnaissance planes will be scrapped. The air transport fleet will be upgraded with A400M and A330 aircraft, replacing the Tristar and VC-10 from 2013. Some air force bases will close and 5,000 RAF personnel will lose their jobs over the next five years. The lumbering C-130 Hercules transport fleet, which has been used extensively in Afghanistan and Iraq, will be withdrawn from service 10 years earlier than planned and be replaced by 22 new A400M aircraft and 14 Airbus A330s which will also be able to provide air-to-air refueling.

My conservative estimate of RAF aircraft that carry traditional Flight Engineers at the present time are; eighteen Nimrods, fourteen VC 10’s, eight Tristars and thirty eight C-130’s. This is a total of seventy four aircraft that will make more than 150+ Flight Engineer positions (two per aircraft?) redundant on these affected aircraft.

Its Hercules C-130J airlifters will be withdrawn by 2022, a decade earlier than planned, leaving the RAF’s airlifter fleet made up largely of the larger C-17 and A400M.

The government also said it was scrapping the Nimrod MRA4 maritime reconnaissance capability even before the aircraft enters service. Late last year, the Labour government, then in power, announced it was withdrawing the Nimrod MR2 almost immediately and delaying the arrival of the nine MRA4s it had on order from BAE through 2012.

Plans showed a cut of 7,000 RAF airmen - a sixth of its staff - and 295 aircraft, leaving the Force with fewer than 200 fighter planes for the first time since 1914.

RAF Kinloss in Moray, Scotland, will close as an RAF base because of the Nimrod’s cancellation. But it may be used to house some of the Army displaced from Germany. The decision on RAF Lossiemouth’s future will be postponed until a decision on where the Tornadoes and jet strikers will be based.

Military search and rescue in peril: report

A Canadian Forces report says its search and rescue services are threatened because it can't recruit and retain staff. The report about a shortage of flight engineers obtained by CBC News describes the situation as dangerous and predicts that flight engineers will drop to a critical level across the country in less than a year.

Flight engineers are integral to a rescue operation - one of their jobs is to lower hoists from a hovering chopper to people in the ocean or aboard a disabled vessel.

The study says vigorous recruiting by private companies, such as CHC Helicopter and Cougar Helicopter Ltd. in Newfoundland and Labrador, is luring search and rescue personnel away from the military.

It said the sharp increase of flight engineers to the private sector has left dangerously low levels of personnel and it says the attrition threatens their ability to operate.

The report predicts that in the near future the military's central Newfoundland search and rescue operation will not be able to perform search and rescue without assistance from other bases.

The report recommends better recruiting, better training, and better retention.

"Because we don't want to just fix it for this year, we want to fix it for the long term," said National Defence Col. Michel Lalumiere.
Options for RAF maritime patrol - post-nimrod

R

eportedly, the decision came as a surprise even to senior officials – prompting rumours that the aircraft had been sacrificed to show
commitment to a significant large-scale cut, rather than yet more ‘salami-slicing’. Although, with only nine aircraft to have been delivered,
down from the original 21 ordered, it is unclear how much more the project could have been realistically reduced in size any further.
Whatever the history of this £3.5bn project, it was to have provided the UK with a highly capable maritime patrol aircraft (MPA) as well as a
Combat-ISTAR (intelligence, surveillance target acquisition and reconnaissance) platform and support to the nuclear deterrent. There is also
the counter-terrorism mission – both overland and at sea. Indeed – it could be argued that for a rogue state or terror group more likely (and de-
niable) way of delivering a nuclear weapon or other WMD would be via container ship than long-range missile. The Nimrod also provides
long-range SAR cover, coordinating rescues far out at sea.

At the moment with the Nimrod MR2 retired earlier this year at the end of March, the SAR mission is being undertaken by helicopters,
coast guard aircraft, a RAF C-130 (no surface search radar and Mark 1 eyeball) designated on to be standby for long-range SAR and friendly
allies. Lacking a dedicated long-range MPA asset – this is an unprecedented situation for the UK to be in – especially as an island nation reliant on
the sea. So does this mean the capability will be gone for good? Or is this just a capability holiday, gap or hibernation?

If we assume that this mission is important, and that future Governments may want to reconstitute it when economic conditions improve –
what then might be the options for a reborn RAF MPA fleet in a post-SDSR, post-Nimrod world?

1) Boeing P-8 Poseidon

One high-end option might be the Boeing P8 Poseidon – now ordered by the US Navy and also as the P-8I by India. Though the P-8 would undoubtedly be expensive – it would offer savings by being based on a commercial,
in-service airframe, the ubiquitous 737-800. The RAF would also be able to tap into the US Navy’s support, training
and maintenance infrastructure – lowering operating costs. With over 108 aircraft to be procured by the US
Navy, (along with 12 P-8Is for India) there would be substantial economies of scale. Finally, another advantage it
would offer is that the Boeing mission system is almost identical to the MRA4 – giving some continuity to any
MPA4 aircrew who might have already trained up and still be in the RAF by the time a P-8 was introduced into
service.

2) Airbus Military A320MPA

A European solution might be an Airbus Military A319/A320-based MPA – which Airbus/EADS has al-
ready proposed to India. However, while Airbus Military has converted A310s and A330s into tanker-
transports, the A319/A320MPA would represent the first time an A320 family had been converted to a military
type. Starting from scratch again would thus mean increased risk and a longer development timeframe. How-
ever, an A320MPA could offer an attractive joint procurement for other European countries with MPAs, such as France, which is still operating the aging Bréguet Atlantique in this role.

3) Lockheed Martin P-3 Orion

A cheaper solution then, might be a refurbished and rewinged Lockheed Martin P-3 Orion. Lockheed is already
involved in a rewinging programme for these aircraft, and in 2018 there will still be some 400+ aircraft in
service with air arms and navies around the world. It is not without precedent too – the German Navy recently
retired its Atlantique MPAs in favour of EADS-refurbished, updated ex-Dutch P-3C CUPs. An Orion solution
then would give the RAF a four-engined dedicated MPA used by a number of allies.

4) Airbus Military C235/C-295MPA

If the SDSR really does represent a turning point in the UK’s fortunes, from a global player to an offshore is-
land concerned mainly with its own immediate territory – another highly affordable choice might be the Airbus
Military C235/C295 twin-engined turboprops. These aircraft in the MPA role are operated by a number of nations,
including Mexico, Chile, Portugal and in US Coast Guard service as the HC-144A Ocean Sentry.

5) Wildcards – Global Hawk/XP-1

Finally in terms of completeness there are also a couple of wildcards that are worth including.
The first is a Northrop Grumman Global Hawk or other UAV (eg. EADS Talarion) for the above water surveillance mission.
The US Navy has already selected the MQ-4C Global Hawk for its BAMS (Broad Area Maritime Surveillance) requirement, and
with its outstanding persistence and sensors it would be able to cover long range patrols. However, lacking MAD, sonobuoys and
a rear mission crew, any UAV solution would have to rely on another platform to perform the ASW mission. With the RAF still
keeping its Scavenger UAV ISTAR requirement – could a MPA/BAMS type capability be shoehorned into this?

Kawasaki XP-1 (JMSDF)

A second wildcard might be another MPA now being developed by another Island nation –
the Kawasaki XP-1 in Japan. A four-engined aircraft equipped with turbofans, the XP-1 (formerly P-X) patrol
aircraft will replace the 80 P-3 Orions in Japanese Maritime Self-Defense Force (JMSDF) service. However,
Japan is currently restricted from exporting defence technology – which makes this concept a long-shot indeed.
Tokyo, though, has recently been reported to be making moves to relax these rules to allow export of
weapons so the idea is perhaps not entirely improbable. Farfetched, but could a Japanese decision to acquire Eu-
rofighters as its next-gen fighter, also result in the UK buying P-Xs in return?

Summary

Of course – it may be that option 6 – ‘do nothing’ is the preferred option and that the UK’s maritime patrol aircraft capability – so vital with
Coastal Command and the Battle of the Atlantic is allowed to die. Co-operation with NATO and EU allies would mean that role specialization
of MPA would be left to someone else – an odd choice for an island nation. Indeed, it has already been reported that France has offered to sup-
port the UK with its Bréguet Atlantique fleet ahead of a new Anglo-French defence entente – driven not by a strategic rapprochement but by hard fiscal realities for both nations. However in these new austerity times it may be that the MPA mission, once given up, is never reconstituted – and the longer the capability ‘holiday’, the more likely this is – for as any future Treasury might argue: “well – you seem to have coped alright without it.”

The loadmaster on a USAF C-130 was invited to take the engineer’s seat for awhile. He started jabbering away, not realizing that he was transmitting on Uniform instead of over the ICS:

LM: "Hey, this is great! I see why you engineers like this seat so much -- you can see everything from here! This is just like the starship Enterprise! All ahead, Mr. Sulu, warp factor ten!"

Followed shortly afterward by:  ATC: "You wanna get back on intercom, Captain Kirk? You’re transmitting on my frequency!"

The total cost for the 15 Chinooks, including personnel, maintenance and operating costs, has more than doubled to $4.9 billion from the $2 billion when the project was presented to the Conservative government and approved. Helicopters that were initially scheduled to be delivered last July, now won't be ready until June 2013.

This kind of Sir Humphrey like manipulation of the politicians by public servants still has the power to shock.

28 maritime Cyclone helicopters are to replace the Sea Kings, which entered service in 1963. This project was first considered 25 years ago, but the contract was cancelled by the Chretien government in 1993 at a cost of $478 million. The acquisition process was started again in 1995, with the intention that the first Sikorsky Cyclones would be delivered in November 2008. We are still waiting -- and will be for at least another two years.

In the time between the helicopters first being given the green light in 2003 and a revised approval two years ago, costs have nearly doubled to $5.7 billion from $3.1 billion. Those costs may soar higher still because of further delays in the Cyclone project, which mean additional spending to keep airborne the ancient Sea Kings, memorably described as "a collection of nuts and bolts flying in loose formation."

The Cyclone purchase offered fresh concerns, because the contract was awarded on the basis of the lowest bid that complied with the stated requirements. Except, of course, it didn't end up being the lowest price because of National Defence's shifting demands.

The cost of purchasing and servicing 28 CH-148 Cyclone maritime helicopters and 15 CH-1-47 Chinooks has reached $11-billion, and their delivery is at least half a decade behind schedule.

Canada's New Helicopters

<table>
<thead>
<tr>
<th>CH-147F CHINOOK</th>
<th>CH-148 CYCLONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. speed:</td>
<td>196 mph</td>
</tr>
<tr>
<td>Max. takeoff weight:</td>
<td>50,00 lbs</td>
</tr>
<tr>
<td>Crew:</td>
<td>3</td>
</tr>
<tr>
<td>Capacity:</td>
<td>55 troops or 27,999 lbs cargo</td>
</tr>
<tr>
<td>Armament:</td>
<td>Up to 3 7.62 mm machine guns</td>
</tr>
<tr>
<td>Max. speed:</td>
<td>190 mph</td>
</tr>
<tr>
<td>Max. takeoff weight:</td>
<td>28,644 lbs</td>
</tr>
<tr>
<td>Crew:</td>
<td>4</td>
</tr>
<tr>
<td>Capacity:</td>
<td>22 personnel</td>
</tr>
<tr>
<td>Armament:</td>
<td>2 x MK-46 torpedoes GP machine guns</td>
</tr>
</tbody>
</table>

Historically, vertical flight has required a compromise between hover performance and forward speed. If you look at efficiency vs. speed, the desired helicopter attributes are good hover efficiency, low speed controllability, low downwash and hover endurance. High disk loading aircraft such as Harriers and JSF, hovering capabilities are limited, and their operational costs tend to increase due to the required power loading. Sikorsky is focused on creating an aircraft that provides more speed without compromising the essential attributes that make helicopters valuable.

The Sikorsky X2 TECHNOLOGY demonstrator aircraft will incorporate several new technologies and demonstrate them in a flight environment. These technologies include an integrated Fly-by-Wire system that allows the engine/rotor/propulsor system to operate efficiently, with full control of rotor rpm throughout the flight envelope; high lift-to-drag rigid blades, low drag hub fairings, and Active Vibration Control. In addition, the aircraft will be used as a ‘flying wind tunnel' to determine the main rotor to propulsor aerodynamic interaction, shaft angle optimization for performance, and blade tip clearance for a range of maneuvers. This will allow optimization of the X2 TECHNOLOGY suite for future products.
Sikorsky has incorporated decades of company research and development into X2 Technology helicopters. The S-69/XH-59A Advancing Blade Concept Demonstrator showed high speed was possible with a coaxial helicopter and auxiliary propulsion; the Cypher UAV expanded company knowledge of the unique aspects of flight control laws in a fly by wire aircraft with coaxial rotors; and the RAH-66 Comanche, which developed expertise in composite rotors and advanced transmission design.

On 4 May 2009, Sikorsky unveiled a mock-up of a Light Tactical Helicopter derivative of the X2. The X2 first flew on 27 August 2008 from Schweizer Aircraft’s (a division of Sikorsky Aircraft Corporation) facility at Horseheads, New York. The flight lasted 30 minutes. This began a 4-phase flight test program, to culminate with reaching a planned 250-knot top speed. The X2 completed flights with its pusher propeller fully engaged in July 2009. Sikorsky completed phase 3 of the testing with the X2 hitting 181 knots in test flight in late May 2010.

On 26 July 2010, Sikorsky announced that the X2 exceeded 225 knots (259 mph) during flight testing in West Palm Beach Florida, unofficially surpassing the current FAI rotorcraft world speed record of 216 knots (249 mph) set by a modified Westland Lynx in 1986. The X2 flight was purposefully made 37 years to the date of the S-69's first flight. On 15 September 2010, test pilot Kevin Bredenbeck achieved Sikorsky's design goal for the X2 when he flew it at a speed of 250 knots (290 mph) in level flight, an unofficial speed record for a helicopter.

The demonstrator also reached a speed of 260 knots (300 mph) in a shallow 2 to 3° dive.

We in Voyageur 308, as the closest available helicopter were called in to deploy our SAR Technicians to verify the crash sight. The two Search and Rescue Technicians sky genied (rappelled) to the ground and found an injured, but very happy Mr. Yates. After he had been stabilized and placed in a stokes litter (rescue basket), he was hoisted into the helicopter. I still remember the tears and look of gratitude on his face. I guess he finally felt secure enough to just let go. Successful rescues in the third week of a search are a rarity, and something never to forget. Mr. Yates had been a few seconds away from not being found. He knew it, and we knew it.

That night a few of us went to the hospital to visit Mr. Yates just to see how he was doing. He told us how he had hung small, shiny, pieces of metal, from sticks, so that they would move with the wind and reflect the sunlight. This metal moving in the wind is what the spotter had seen. He told us he had heard, and seen, the rescue aircraft a couple of times, but didn't have any means of signalling or attracting their attention, as most of his survival gear had been destroyed in the post crash fire. He told us how he had been preparing for the worst, and had sewn small scraps of paper with his last wishes and thoughts, into the cuffs of his clothing, hoping, that some day he may be found.

There are certain Search and Rescue (SAR) missions that always stand out when a person thinks of past missions. For me as a "Flight Engineer", that mission was "SAR YATES".

Mr. Yates was a prospector from Texas who had been prospecting in Alaska for the summer and was transiting home to Texas through British Columbia in his Bell 47 helicopter.

Around the beginning of September 1979, he was reported overdue and missing to the Rescue Co-ordination Center, (RCC) Victoria. The two puts the Buffalo aircraft and Voyageur helicopter 308, which I was on, were packed for the trip back to home base.

Search and Rescue crews never quit. Even though the first few miles had been previously searched (many times) it was still worth keeping a lookout for something as difficult to spot as a Bell 47, particularly since up to that point the search had been disappointing. It was also habit that makes you keep looking, even if you aren’t in the search area. One of the spotters in the Buffalo aircraft, while doing a final scan of the area, caught a slight reflection from something near a cut line through the bush. After a few passes the Buffalo spotters were positive it was an unknown, unmarked crash site. They were also sure they saw some movement at the scene.

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I don't think there are very many people who could survive, injured, at those temperatures, and under those conditions (swampy) for very long. He was not a "city slicker pilot". He was a tough, hardened prospector, who was able to adapt to the little he had around him.

This was one of the few successful searches I was on. It’s not often a fishing boat sinking, or an aircraft crash has a happy ending. When you are involved with a lengthy successful search you will always remember it. It’s a pretty good bet you will always remember the successful ones and probably forget the unsuccessful. I do remember a few of the unsuccessful, mostly with a tinge of sadness, and a feeling of not really having completed our tasking. Such is the life in Search and Rescue.
There was an article on SAR Yates in Readers Digest back in 1980 or 1981.

R.V. Ward, Flt. Eng. (Retired)

The probability of survival is inversely proportional to the angle of arrival. Large angle of arrival, small probability of survival and vice versa.

Islanders send P.E.I. flag to Highway of Heroes
Ontario group’s request rejected by province

A P.E.I. flag was sent to the Highway of Heroes courtesy of, from the left, Brian Pound, Tommy Llewellyn, Bob Thorne and Paul Batchilder after it was discovered a request to the provincial government to donate a flag was turned down.

A P.E.I. flag was sent to the Highway of Heroes, courtesy of some private citizens after a request by an Ontario group for a flag donation was rejected by the Island government.

Dan and Bill McNeil are members of a group that pays respect to fallen Canadian soldiers along the 401 highway in Ontario, dubbed the Highway of Heroes. They sought to acquire the flags of all provinces as part of the ceremony but were turned down when they called P.E.I.

“My wife had to go to confession after she expressed her opinion on the matter,” said Dan McNeil from his home in Scarborough, referring to his wife, Glenda, who grew up in North River, P.E.I.

“I mean we couldn’t believe it ... we use the flags to wave and honour those fallen soldiers who have been returned home from the wars.”

McNeil said his brother, Bill, gathered donated flags from all the provinces, but when Bill contacted the Premier’s Office in Charlottetown, he was told he could either buy one or rent one with a $25 deposit.

“He spoke to a woman who said the province doesn’t give them away,” said McNeil. “He didn’t get a name but he was really pissed ... he’s got three kids who have served time in Afghanistan.”

But the government flag policy has been around for some time.

“The flags are expensive and we get requests for hundreds each year,” said a spokesperson. “We’re having difficulty finding an appropriate one in respect of a soldier from that province who gave the supreme sacrifice,” said McNeil.

“Hundreds of people turn out to honour our soldiers.”

The Ontario man said when P.E.I. said no, he decided to contact someone he thought would kick up a fuss.

“I follow the Island news on the Guardian and Graphic websites and I thought I’d contact Peter Llewellyn about it to see if he could help. I’d met the man one day on a visit to his shop and he’s motivated.”

The former Georgetown mayor, now seeking the Tory leadership nomination, didn’t take long to respond and help mail a flag to McNeil’s group Tuesday.

“I have no idea why the government would have such a policy,” said Llewellyn. “But there’s something wrong when we can’t donate a $12 flag to such a cause.”

As a retired flight engineer from long ago, I would like to add my two cents worth about the revival of the crewman’s position and the slow death of the flight engineers trade.

When I started to fly in 1955 on the old C119 flying boxcar, we were classified as crewmen and received the handsome sum of $30.00 a month flying pay.

We were told at that time we did not qualify for the trade of flight engineer because we did not touch engine throttles during flight. Therefore we were not eligible for either flight engineer wings or the extra $75.00 a month as awarded at that time.

Also, the aircraft did not have a designated position on the flight deck for either a crewmen or flight engineer. During takeoff and landings the crewmen would utilize the radio officers seat turned around to face forward so that he could monitor engines and other instruments and advise the pilots should he observe a potential problem. He would also record readings on a flight log.

After becoming safely airborne, he would relinquish the seat to the radio officer and proceed to the cabin and visually check the engines and other systems, being careful not to alarm the passengers in the process!

Potential crewmen were usually recruited from either the aero engine or airframe trades. After a couple of years it became more and more difficult to attract suitable candidates and at the same time a substantial number of active crewmen became disenchanted with the job and requested to return to their primary trade.

The C119, in its time, was a fine aircraft and did sterling work for the Air Force, a large portion of which was carried out in the high arctic. It was, however, a bit of a maintenance hound and required lots of care and attention. Its engines were very prone to sudden failure without any warning! If the aircraft happened to be heavy, the next few minutes could scare the heck out of you! Let’s just say its single engine performance left a lot to be desired.

Crewmen put in many hours after landing working in far from ideal conditions on numerous problems that arose in many cases. The word began to spread that the position of crewmen was not a glamorous or cushy job, hence the reason for lack of volunteers and disenchanted from the active flyers.

Around 1957, things got so bad that a delegation from Ottawa descended to Downsview (the home of 436(T) Sqn at that time) and after some discussions, we were awarded an increase of flying pay plus the honor of wearing flight engineer wings. I recall this history to point out that the Air Force can be flexible when it wants to be.

In my opinion, the position of crewmen on either the CC177 or the new C130J with very few in flight duties will be hard to fill. I
cannot visualize a person who would voluntarily spend many hours preparing the aircraft for its next flight, and then would use that time on a stretcher to rest in the back of the Boeing or Lockheed hotel!

As to the idea of reducing their ranks structure of flight engineers and seeing men of that time on a stretcher to rest in the back of the Boeing or Lockheed hotel. Perhaps we should engrave a tombstone and donate it for display at the Air Force museum! It is sad, but we have to admit the Glory days of the flight engineer trade are over as we now join the ranks of the radio officers and navigators.

Perhaps we should engrave a tombstone and donate it for display at the Air Force museum!

Ron Hutton

While taxiing past aircraft stands, and noticing some passengers boarding the rear entrance of a Finnair DC9, the Captain remarked to the F/O: "Look at all those people disappearing into Finnair."

**BA passengers tried to halt 777 take-off after taxiing error**

Two passengers attempted to stop a British Airways Boeing 777-200 from taking off from a Caribbean airport last September, after realizing the crew had lined up at the wrong runway intersection, but were too late to prevent the departure.

The pilots of the twinjet, bound for Antigua, had intended to depart from the southwestern end off runway 07 - the 'A' intersection - at St Kitts' Bradshaw, International Airport.

Despite specifically requesting a departure from 'A', the aircraft mistakenly taxied instead for the “B” intersection, near the runway's midpoint, leaving available take-off distance of just 4,000 ft. The take-off performance calculations had been based on a distance of 6,283 ft.

The oversight escaped detection despite several references and queries in the communications, between the crew and air traffic control.

In details of the event released after the incident, the UK Air Accidents Investigation Branch reveals that the carrier's station engineer and airport duty manager were on board the 777 and realized the error as the aircraft lined up on the runway.

The engineer quickly moved from his seat to speak to a member of the cabin crew, telling her that he needed to contact the pilots immediately to warn them the aircraft was wrongly positioned.

In the cockpit the captain had specifically commented that the runway looked short. Neither pilot had been to the airport before and the lack of a tractor meant the crew had taxied the jet from the stand themselves. But, in spite of the captain's concerns, neither crosschecked the jet's location on the runway.

Instead, the captain told the co-pilot to "stand on the brakes", says the AAIB, and apply a high thrust setting - some 55% of N1 level before releasing the brakes for the take-off roll. In the cabin behind, the station engineer realized that the aircraft was powering up for take-off and abandoned his bid to reach the crew. The 777 accelerated but reached the touchdown zone markers for the reverse direction runway 25 by the time it passed the crucial V1 decision speed, and lifted off about 984 ft from the end of the paved surface.

**An old pilot's viewpoint on the Airbus**

Jeff Hathorn writes:

I have had several emails asking my opinion about the Air France crash and before that, the US Airways Hudson Riv. crash. As most of you know, I have flown the AB330-300 in Intl. ops. for several thousand hrs. as well as, like most of you, multi thousands in Boeings. For the record, my Boeing time is 707, 727, 100, 200; 737-200, 300, 400; 747-100, 200,SP; 757, 767. I also have lots of Douglas (6 types) and Lockheed (2 types), Convair (2 types), Lear (2 types). With all that, here’s what I see through my "caveman" point of view: Airbus philosophy has left the art of flying and therefore the pilot out of the loop. They train and design the operation so that any low experienced/low skilled person who is good at rote memory (read third world/read and do) pilot can get into this plane, with enough repetition and rehearsal; fly a normal trip.

FATAL FLAW #1-- The engines are FADEC (read computer/electronically) controlled and the flight controls are fly by wire/radio signal.. THERE IS NO DIRECT CONTROL FROM THE PILOT TO THESE CRITICAL SYSTEMS. Following in this spirit/philosophy, the pilot training strictly emphasizes always to be in the automated mode-read auto throttles and auto pilot in all operations even including a single engine failure approach and single engine missed approach!- i.e. AUTO FLT; ALL THE TIME. Nowhere is there any contingency, training or flight manual information data for a pilot to take over manually and fly attitude and power settings for a certain configuration in the event that these auto systems fail. NOR are there any MANUAL, direct link controls to the engines/flt controls from the cockpit, FEDEC is auto control, all the time. If the Hudson River plane had allowed the pilot to override the auto throttles, could the pilots have produced some thrust? In the Boeings, you can "firewall" the engines 'til they melt or rip off the wing! In every other plane I have flown in the past 40 years, there is a section in the flt. ops. manual that relates to this. Mainly it is a table that gives engine thrust settings and aircraft pitch settings for different speeds/configurations in the event that the pilot's airspeed indication in not reliable.

REF Air France FATAL FLAW #2-- Airbus has incorporated composite materials into critical structural components in order to "one up" the competition with the "BEAN COUNTERS MISSION" of becoming a lighter plane with less fuel burn. Example 1: The AB 330 has no wing spar from the point where the engine mounts to the wing all the way to the wing tip! Example 2: the Air-Bus 300-600 that AMR crashed at JFK has a honeycomb composite rudder with no spar in it. This failed on this Airbus aircraft. In summary: The pendulum of Commercial Aircraft design has swung way past the point of prudent/safe design. The
momentum for this swing is found in the fact that "bean counters" and "bottom liners" backed by political forces (read Green, et al.) have hijacked the construction and certification process of our commercial fleets to the point of producing unsafe passenger transports. I predict that each succeeding accident will be blamed on "Pilot Error" like the poor AMR JFK crash; "Act of God/NATURE" - USAir Hudson; "Weather related" - Air France. I support the premise that these official findings of causal/contributing factors are but a deflection from the true cause - too much under/ flimsy/composite construction and inadequate pilot input and override ability to these automated systems.

Respectfully, Jeff Hathorn, Old-school Pilot, Naples, FL

A certain airline had only recently begun flying from Chicago to Delhi and back. The return trip often goes very far north to take advantage of favorable winds. Very far north, as in, sometimes over the North Pole. On this flight, the 2 pilots on duty had been in the air for 10 hours as they approached the pole and it was winter (for the northern hemisphere) so, it being about 0700Z (2 a.m. in Chicago) it was dark and quiet and most of the jokes had been told so they were tired and bored.

One of them says, Hey, let's see how far it is exactly to the south pole as we fly over the north pole! Brilliant, says the other and happy to have something different and interesting to do, they type the coordinates of the south pole into the flight management system (FMS) and just as they pass over the north pole execute the navigational input.

That's where things go badly for them as the FMS is comprised of 3 independent navigational computers that continuously compare their data and vote amongst themselves on where they are and what to do. Like vote themselves or one of the others out of the ability to control the aircraft if they sense degradation in capabilities.

So now, on top of the world, alone, in the dark, all 3 computers simultaneously fail. Unheard of. Never happened before. They didn't know what happened and it took a Honeywell tech rep to pull the 3 FMCs once they were back in Chicago to determine what happened. Do you have it?

The computers always figure the most direct course between 2 points, what we call the great circle route. From the north pole the 3 computers all solved the distance in a nanosecond but EVERY direction is the correct course and in trying to solve which of the infinite courses were best all 3 of the FMCs locked up and dropped off line!

So for the next 3 hours until they regained satellite coverage and could update their position, their 200 million dollar high-tech machine was navigated like Lindbergh: time, distance and heading. Maybe you would have rather not known that.

That airline no longer flight plans its flights directly over the pole.

In 1989 I embarked on a task, which I never would have attempted if I had known how long it would take to complete. It seemed simple enough; name a geographical point in Canada by which to remember an aircraft in perpetuity - a piece of Canadiana. Of course, I am referring to a Canadian aircraft that served its country and its crews through twenty years of rough duty. From the Arctic desert, to the wide waters of the Western Pacific, to the edges of the old boundaries of Eastern Europe, to Caribbean shores during the Cuban Missile Crisis, and to all parts of our fine country, the Argus aircraft served its masters well. It's almost impossible to say just how many Canadians were touched by this aircraft. The aircrews who flew it, the groundcrews who serviced it, the passengers it transported to far-flung duty, and the ordinary Canadians who marveled at that time, its state of the art complexity. How many were close to the Argus... 5000, 10,000, 25,000? For those, it has become a memory they will carry with them always. More than that, though, I wanted to remember the servicemen who, in the course of their flying duties over the long period that the Argus was operational, met their ends in one of two terrible accidents, one in Puerto Rico and one in Summerside. In each case, whether it was human or mechanical, the complete cause will never fully be known.

A topographical memorial to these aviators was my goal. Given the innumerable unnamed topographical features in this second largest country of the world, there should be an appropriate island, lake, point of land or mountain by which to immortalize the Argus. I talked to the Geographical Naming Section of the Department of Mapping and Charting in Ottawa and was directed to apply to the provincial or territorial equivalent of that government body. I thought that the vastness and relatively unnamed obscurity of the Northwest Territories would offer the easiest path.

In 1989, I contacted the authorities in Yellowknife, NWT. It should not take longer than six months, I was told. Within a month I had procured detailed maps and had selected five potential sites. Two lakes, two islands and one point of land were plotted and submitted to Yellowknife for approval. Six months later, to my great surprise, all submissions were said to have local names and, even though not formally named, could not be renamed. These were sites that were hundreds of kilometers from the nearest settlement! Back to the maps again.

This procedure occurred with regularity over the next two years, until I had happened to pick one lake in the Western Arctic that, it seemed, had been overlooked by the local hunters. Now the only requirement was that the Government of the Northwest Territories have the permission of the nearest settlement, Paulatuk, to move forward with the official naming. Letters, faxes and personal interviews by Government personnel with the local officials seemed to yield no progress, and the project continued to get sidetracked for a further four years. During this time I dealt with no less than three successive heads of the Geographical Naming Section of the NWT Government. Each time I would have to start over with an explanation of my quest, and each time I was told, "It should not take longer
than six months." Being an optimist, I believed it to be true each time. Eventually, in 1995, the NWT Government fought through the bureaucracy and "Argus Lake" was formally proclaimed to be an entity.

The lake is located to the Southwest of Paulatuk NWT, at position 69 degrees 13 minutes 15 seconds North, and 125 degrees 15 minutes 55 seconds West. It is about four kilometers in diameter and is roughly circular in shape. It was a long battle, but it was worth the fight. "Argus Lake" will not be named on a map until the current series of maps and charts of the area are revised and reprinted. In some cases, that too could take in excess of five years, but in the relatively near future, "Argus Lake" will be recognized as a permanent memorial to all who recall the last of the big piston engine aircraft to serve the RCAF and the CAF.

Steve Phillips

Steve Phillips is an acquaintance of mine and a member of the Royal Canadian Legion, Branch 60, in Burlington, Ontario. At the age of 89, Steve is lucky to be alive. Not because of the ailments that typically afflict most octogenarians; he is actually exceptionally active and fit, and a damned fine dancer for his age group.

No, Steve Phillips has had brushes with death throughout his life and walked away relatively unscathed. In his many harrowing raids through German skies filled with fighter planes, anti-aircraft fire, mid-air collisions and the various mechanical failures common in early flight. He never refused to board his plane, even though he had seen the carnage in the skies over occupied Europe and had lost many friends to horrific deaths above.

Phillips volunteered in 1940. He endured the worst of the Blitz, as the Germans mercilessly pounded urban Britain with repeated bombings. "Later, I got even," Phillips adds grimly.

Today, Phillips speaks in glowing terms of the British people's historic courage in the face of daily carnage. He talks of one day when suddenly, there were German planes flying overhead. He saw a parachute out the window and thought, "good, we got one of those..." - when, shockingly, the parachute exploded violently. It was a land mine dropped via parachute from a German plane. It blew out the window of his quarters and threw him across the room.

Only three of his seven crew are still alive. Obviously, Phillips is one of the lucky three.

One senses that Phillips is still hesitant to embrace the carnage rained down on Germany. He is tentative to describe the bombings and calls the fire-bombings of major German residential areas a terrible thing. He was and is clearly a bomber with a soul. He realizes that lives had to be taken to win the war, but carries a burden of guilt for the horrors dropped on the aggressor, guilt partially there due to his own experiences enduring the Blitz in London.

Phillips talks of the British tradition of doing a shot of rum immediately after returning to base, of watching the chalk board, as crew's names were written down as they returned from bombing missions... and of the big, green gaps in the board afterward, usually indicating that other friends and fellow airmen had not survived the night. His enviable luck carried him through unhurt, however.

He remembers bombing from higher altitudes, typically 14,000 to 15,000 feet in the Halifax’s. At that altitude, it was imperative to breathe bottled oxygen. Phillips was the forward gunner in the plane. He remembers a panicked call from his friend, a tail gunner: "I'm gonna die, a bullet just shot a hole in my oxygen tube: the agitated voice wailed. "Got any gum?" the pilot asked, calmly. "Yeah!" came the response. "Well, chew it, and plug it!"

He enjoys watching movies and documentaries about World War II these days. "We were a tiny cog in the big machine, but now we can see the big picture," he says, grinning.

Phillips led a rather adventurous life, working as a teacher in Africa for a few years, crossing the African continent on foot with only a tent at one point. He was threatened by a huge, deadly cobra in his car at one point in Africa; not surprisingly, he escaped unscathed.

Luck apparently runs in the family, too. His brother, an infantryman, was taken prisoner with his squad in Europe by the Nazis. They were locked in a basement, likely about to be executed, when they were liberated at the last minute by another Canadian squad.

When you wear your poppy on Remembrance Day, think of Steve Phillips and others like him. They were put into terrifying situations and found ways to cope and get the job done. If not for this heroism, we may be living under Nazi rule to this day. Canada's greatest generation deserves the most heartfelt thank-you that you, as a Canadian, can offer. And make sure that you thank every veteran you see for doing his or her part.

Wally's First Tour

12 Squadron Wickenby

31 Operations

May to October 1943

Flight Engineer Wally Smith who kept ED995 airborne for 30 operations

On the night of the 23rd May 1942, some three months after his 22nd birthday, Wally and the rest of the crew set off on the first operation of their tour of duty, bound for Dortmund. Not only was this their maiden flight, but it was also that of their aircraft a Lancaster Bomber ED995.

ED995 had only been delivered to Wickenby some four days earlier. Unbelievably, Wally went on to complete the whole tour of 30 operations in this one plane!

The crew who had only come together as the seven last men standing when everybody else had ‘crewed up’ through self-selection based on known experience or friendship.

So seven men, unknown to each other, all from different walks of life and from different parts of the UK, set off on a flight of just short of 6 hours, totally unaware that through trust, courage, teamwork and a large slice of luck, six of them would survive the first tour of some 5 months and 200 flying hours ahead.

Brian Heath

Mid Upper Gunner with ED995 PH-X for all 30 Operations (In total Brian did 50 ops all from Wickenby completing his second tour with 626 Squadron.)

The only original crew member not to survive was Wireless Operator Sgt. T Routledge, who died
of oxygen starvation on the second operation, a night raid on Dusseldorf. Tom Routledge is buried in Pershore Cemetery Worcestershire. He was only 29 years old.

Below is an extract from 12 Squadron Record Book 25th May 1943

12/X F/O F.T. Wright - On return it was found that the Wireless Operator F/S T.A. Routledge 1178835 had died of anoxia, caused by failing to plug into the oxygen supply, and had been without oxygen for about 52 minutes at 20-25,000'.

The Crew of ED995 PH-X
F/O F J WRIGHT, F/O E V SANDERS, Sgt D T HONE, Sgt D R TATTERSALL, Sgt B S HEATH, Sgt G W SHRIMPTON, Sgt W J SMITH

These brave young men were carried through their whole first tour of 30 operations in ED 995. The tour included bombing raids on Berlin, Hamburg, Milan, Turin and Peenemunde. Sgt D T Hone was replaced by Sgt R Edgeworth for the last 3 ops of the crew’s tour. (Bob Edgeworth was killed in action during his second tour with 626 Squadron also based at Wickenby).

Peter Young stood in as Bomb Aimer for Doug Tattersall on three operations, coincidently he was killed in the same Lancaster as Bob Edgeworth LL797. They were on a raid to Schweinfurt 24/25 February 1944 and crashed at Marsal (Moselle), 10 km SE of Chateau-Salins, France.

The first tour consisted of 30 operations. however, Wally completed 31. This was due to the fact that he was chosen to be the Flight Engineer to Wing Commander Craven on a night raid to Berlin on September 29th, 1943.

It was common practice for the Station Commanders to do occasional operations to keep their hand in. To do this, they usually chose experienced crew members. This was Wally’s 28th operation.

For Wally the last few ops’ of his first tour were coming thick and fast. The very next day after his sortie with W/Cdr Craven he was back with his normal crew on a raid to Hagen.

This raid was completed in the early hours of 2nd September. Amazingly, the crew flew on a raid lasting eight and a half hours to Munich that same night!

PILOT F/O JIMMY WRIGHT WHO BRILLIANTLY FLEW ED995 FOR 30 OPERATIONS

So in reality, that for Wally was the completion of his first tour he could walk away with his head held high having survived the 30 operations he volunteered for earlier that year.

But such was the nature of this man, he knew his crew and now close friends had only completed 29 ops’. So instead of walking away to a more normal life that morning he made the decision to do one more op’ so they could all finish their tour together.

Frankfurt was the destination, September 4th, 1943 the date, when messes Wright, Sanders, Hone, Tattersall, Heath and Shrimpton along with Wally set out on the last flight together.

ED995’S TRUSTY REAR GUNNER GEORGE W SHRIMPTON.

George spent over 200 operational hours in the rear turret most of them in temperatures of minus 20 degrees!

There seems to be a myth that the last op’ was always a ‘milk run’ something steady and not very dangerous. Well, a night raid over Frankfurt with a full bomb load at the height of the war is certainly no milk run.

So what made Wally want to do this extra operation? He had done his Tour and survived horrendous odds and yet put himself back in the firing line!

Many years later he explained why. "How could I have lived with myself had they not returned," he said. "The thought of that was far worse than the possibility of not returning myself."

They landed back from Frankfurt in the early hours of September 5th, 1943, for them all their first tour completed.

For Wally to survive 31 operations with 12 squadron in 1943 is even more remarkable, when during that year, 66 crews had either been reported missing or had been involved in operational crashes whilst flying from Wickenby!

Lancaster Bomber ED995 code PH-X, nicknamed Sarah, had stood the crew in good stead and as the tour progressed they became increasingly superstitious about anyone else flying in her.

On the afternoon of 19th May, 1943 at 15.40 hrs, they flew in her for the first time doing a 2 hour local flying stint. As the copy of the planes record at Wickenby shows, it appears that they were the first to fly in her and little did they know that with both the great skills of the Flight Engineer and the craftsmanship of the manufacturers, this plane would carry them for some 175 operational hours.

The crew only failed to reach their target once during their tour. ED995 suffered engine failure just after take off on the night of 8th
July but the ground crew got her airworthy for the next sortie to Gelsenkirchen the very next night.

Three nights later with a full bomb load and only flying at 16,000 feet, Sarah and the crew flew a 9hr 45 min op to Turin!

On the night of 24th June, the crew set off for a raid on Hamburg. On this operation they took a second pilot with them, Sgt. R S Yell. The whole trip took just 5 hrs 17 mins., despite flying back from the target on only three engines! (Sgt.Yell was killed in action 6 months later piloting a Lancaster to Hanover).

Probably the most infamous raid that the crew was to be involved in was the attack on the V1 and V2 rocket base at Peenemunde on the Baltic coast.

**Bomb Aimer Doug Tattersall** who with great accuracy dropped 6 x 1000, 1 x 4000 & 2 x 500 lb bombs on Peenemunde.

In the ever faithful PH-X at 21.20 hours on the evening of 17th August,1943, the crew took off from Wickenby and headed for Peenemunde carrying just short of a 5 ton bomb load (1 x 4000 lbs. 6 x 1000 lbs. and 2 x 500 lbs.). They successfully returned some 6 hours and 35 mins., later, landing back at Wickenby at 3.55 in the morning.

Of the 270 heavy bombers that attacked the target 40, never returned (almost 15%). A total of 270 aircrew lost their lives that night!

On the completion of the first tour, the crew went off for a well earned rest and just three days later ED 995 got a brand new crew for its next sortie. They must have felt really lucky to be in a plane that flew the previous crew through a whole tour, totally defying the odds.

They must have considered them selves fortunate in taking over a lucky plane having served the previous crew so well, however lady luck was not with them that night.


You might be a redneck pilot if you've ever asked a bar-tender for a Nav Light

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Virtual Airplane Museum
http://www.aviastar.org/index2.html

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**Fallen Eagles**
*Eternal rest grant them O Lord, and let perpetual light shine upon*

- Brasseur, George.  June 25, 2010
- Leworthy (Reg.) R. C.  August 30, 2010
- Rees, John, Jack, Emerson. August 31, 2010
- Dewar, Peter  November 01, 2010

We record with great sadness the passing of the following members of the Association

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**Lockheed Martin delivered** the first of ten shipsets of Mid-Life Upgrade (MLU) outer wings for installation on a Canadian Forces CP-140 on July 28. The MLU program replaces the outer wings, center wing lower surface, horizontal stabilizer leading edges, and other fatigue-life limiting structure with all-new components. Work will be carried out by IMP Aerospace at its facility in Halifax, Nova Scotia. The program will extend the structural service life of the CP-140 up to 15,000 hours, adding 20 years of operational use to the airframe.

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**You are at the Virtual Airplane Museum**
http://www.aviastar.org/index2.html