

## Coastwatch—coordination and cooperation

Senior Customs officer Rod Stone recently returned from an overseas study tour that gave him an opportunity to observe civil maritime operations in Canada, Britain and Norway. The experience has left him confident that the planning and operational techniques used by Customs Coastwatch are world class.

The most noticeable advantage of the Australian approach is the level of coordination and cooperation between the various government

agencies that use the service. The limited assets available in Australia for conducting maritime surveillance and response are used at optimum levels.

### Canada

Canadian surveillance authorities face the same challenges as their Australian counterparts - long stretches of remote, rugged and sparsely populated coastline and vast offshore zones. Three major threats that vie for coverage by civil and military aircraft and vessels are illegal fishing, pollution control and the more recent emergence of people smuggling.

Surveillance efforts observed by Mr Stone were robust and utilised some leading edge data collection and dissemination technologies. In Australia, Coastwatch multi-tasks assets to simultaneously fulfil as many client requests as possible during any given flight, the Canadian approach is to conduct sorties largely on behalf of a single client.

“Potentially an aircraft, on its return from a surveillance mission, can refuel and change clients and then fly back out over much the same area to look for activities of



A flight in Norway gave Mr Stone a view of a coastline similar to that of Australia's north-west, with rocky islands scattered before the mainland (above). A flight in a Canadian Department of Fisheries and Oceans Beech King Air 200 (right) took Mr Stone out over the Flemish Cap.



interest to that client," Mr Stone said.

Before observing Canadian surveillance operations first hand, there was a round of meetings in Ottawa.

The common theme through each of the meetings was the lasting impact of significant cutbacks made by the Canadian government, with some areas subjected to funding reductions of up to 40 per cent. Mr Stone said agencies were embracing risk management techniques in order to deal with workloads. Although cuts were widespread, funding for the civil maritime surveillance program remained steady.

It was then onto Halifax. According to Hector Smith, the Department of Fisheries and Ocean, Halifax-based surveillance supervisor, Canada now does not have a problem with foreign fishing vessels off its eastern seaboard. This is in stark contrast with the "turbot war" when illegal foreign fishing resulted in serious depletion of fish stocks and caused a public outcry about the government's handling of fisheries management. This resulted in the DFO civil maritime surveillance program. The program is largely credited with keeping eastern Canadian fishing zones free of foreign incursions.

While in Halifax Mr Stone also met with Canadian National Defence, Joint Ocean Surveillance Information Centre (JOSIC) and was briefed on the way in which the Centre supports Canada's military maritime surveillance operations.

"The resources available to the Canadian agency were impressive both in terms of data feeds and the

number of people available to do the job. Our Coastwatch Analysis Unit is modest by comparison with JOSIC but the quality and coverage of the work is on a par," Mr Stone said.

Moving onto St John's in Newfoundland Mr Stone saw the surveillance operation first hand. Hosted by Provincial Airlines Limited (PAL), the civilian contractor servicing both DFO and Canadian Coast Guard, he accompanied a fisheries surveillance flight out of St John's on one of PAL's three radar equipped aircraft.

Newfoundland was just emerging from a long hard winter that had seen record snow falls. The aircraft flew over a myriad of frozen lakes and deep snow drifts as it climbed out to its on-task point just off the coast. Under the direction of the embarked DFO officer the observers generated a surface picture of vessel activity with the aid of surveillance radar. Unlike Coastwatch procedures where clients accompany surveillance flights as an observer, the DFO officer took the role of Mission Coordinator.

Having cleared Canadian waters of likely targets, the sortie continued out to an area of international waters known as the Flemish Cap. Compared with the scattered fishing activity observed inside the Canadian EEZ, the waters around the Cap were crowded with vessels representing numerous European fishing nations: Russian, Polish, French, British, Spanish and Portuguese fishing vessels were seen vying for space to deploy nets and long lines.

Before leaving St John's, Mr Stone met with a local Canadian Coast

Guard officer, Gerry Mallard, whose organisation has a singular focus on pollution control. The Coast Guard operates a single Dash 8 aircraft based in Montreal. This aircraft is occasionally available for tasks in the Newfoundland region, with the main source of aerial surveillance support provided from PAL under a separate contract.

The visit to Canada reinforced the effectiveness of off-shore monitoring by aerial surveillance.

### Britain (12 – 24 May 2001)

In Britain Mr Stone saw government outsourcing taken to another level.

A visit to a Ministry of Defence helicopter flying school at Shawbury, Shropshire, began the British leg of the trip. The school is operated under contract by FBS, a subsidiary of the Cobham Group. This Group now owns National Jet Systems and through it Surveillance Australia - the company that supplies fixed wing aircraft to Coastwatch.

At Shawbury, FBS supplies 26 basic training helicopters, 9 advanced Bell 412EP, and 55 instructors along with maintenance facilities and domestic support to Royal Air Force (RAF) and Royal Navy (RN) students. The contract is a Private Financing Initiative (PFI) valued at 500 million pounds (AUD1.5 billion) over 15 years.

In total contrast, next a visit to another Cobham subsidiary, FR Aviation Survey Ltd based at East Midlands Airport near the city of Derby. Using a Dornier 228 and a Britain Norman Islander, the company provides a range of specialist aerial survey services to a number of client government

agencies. Mr Stone took part in a two-hour sortie on the Dornier that took in the Midlands cities of Birmingham, Derby, Coventry and Leicester.

Next stop was Bournemouth International Airport in Dorset to visit FR Aviation Limited, yet another firm in the Cobham Group.

FRA provides two distinctly different aviation services out of its Bournemouth base. First, for the UK Ministry of Defence (MoD), FRA operates 20 French-built Falcon 20 jets that are used for playing war-games with Royal Navy vessels. The opportunity to accompany one such mission was a high point of Mr Stone's trip.

The Falcon first pretended to be a maritime patrol aircraft challenging the HMS MONTROSE which was stationed about 80 kilometres off the south coast of Britain. For the second phase of the sortie, the Falcon became a land-launched missile, tracking out from shore at 500 metres above sea level as fast as the aircraft could fly.

Also based out of Bournemouth, FRA operates a small fleet of aircraft, including three radar-equipped Dornier 228s that provide maritime surveillance services principally for the UK fisheries management agency and HM Customs & Excise. The opportunity to accompany a Customs surveillance flight was eagerly accepted. Mr Stone joined the flight crew and Mick Wesbroom of HMC&E's Maritime and Aviation Operations and Intelligence unit and his Swedish Customs colleague, Jonathan Andersson, who was also evaluating the UK approach to maritime surveillance techniques.

The flight brief provided by HMC&E called for the sortie to first

proceed to Portsmouth harbour to locate and photograph a vessel of interest believed to be in the port. This afforded a bird's eye view of the harbour that has traditionally sheltered Royal Navy ships-of-the-line for centuries past. Among the vessels in the harbour at the time of the sortie were numerous warships including the aircraft carrier, HMS INVINCIBLE.

The flight then proceeded out over the Solent to the south of the Isle of Wight before returning to Bournemouth. This part of the sortie provided a good demonstration of the capability of the on-board sensors. Although using older radars and electro-optical sensors than that used by Coastwatch, the Dornier's electronic suite included state-of-the-art scanning and communications equipment. In particular, the satellite communication equipment provided secure data uplift-download capability that has replaced HF gear still used by Coastwatch.

#### Norway (24 May 2001)

The relevance of Norway to the civil maritime surveillance program in Australia may not be immediately apparent. However, both countries have lengthy coastlines and large off-shore zones to protect. Both also have small populations and limited taxpayers to fund maritime enforcement operations. Both have resorted to a combination of military and civilian resources as a means of preventing incursions into their respective zones. Specifically, Norway has a remote and inhospitable northern coastline not dissimilar to the northwest Kimberley coast.

Hosted by Nordic Aviation Resources AS, and accompanied by

the chief pilot, Tom Gunnar Fjelstad, Mr Stone joined the company's Dash 8 – 100 for an air navigation aid calibration flight from Sandefjord in southern Norway to Tromso situated north of the Arctic Circle.

The mission involved testing the approach aids at two airfields at Mosjoen and Rossvoll, both situated amid tumbling ranges of snow-covered mountains at the inland end of deep fjords.

In Tromso Mr Stone visited Luftransport, the company responsible for delivering Norway's extensive air-ambulance service.

The company moves over 14,000 patients a year for the Norwegian National Health Service and the must be ready to meet each and every call-out. The company's national operations centre in Tromso provided the organisational glue that ensures that aircraft and aircrew are ready to meet this challenge.

After two days north of the Arctic Circle it was time to head back south, the first leg to Bergen on the south-west coast aboard a Merlin IIIB operated by Wideroe Flyveselskap ASA for a combined four hour pollution control and fisheries management surveillance flight.

Even at this late stage in his tour, Mr Stone was to again see an operation that could have benefited from a more coordinated approach. For the first part of the flight the Merlin remained at 3,000 metres above cloud cover using side-looking radar to search for oil spills. Although the radar picked up numerous vessels most likely engaged in fishing, no attempts were made to identify the targets. Once south of 65 degrees North the

aircraft descended to 100 metres and conducted both pollution and fisheries work, dodging around the huge oil exploration and production platforms that dot the ocean off Norway. Above 65 degrees North, the Norwegian Coastguard were responsible for fisheries surveillance.

Back in Canberra Mr Stone said he now had the task of distilling, from the mass of information gathered, the lessons that may enable Coastwatch in Australia to further enhance its operational and business techniques.



The British Ministry of Defence helicopter flying school at Shawbury, Shropshire.