JCPAA Review Of Coastwatch

Surveillance Australia Pty Ltd

Submission To The

Joint Committee Of Public Accounts And Audit

Review of Coastwatch

Table Of Contents

1 Glossary of Terms and Abbreviations

CMS	Civil Maritime Surveillance
SAPL	Surveillance Australia Pty Ltd
NJS	National Jet Systems
JORN	Jindalee Over the Horizon Radar Network
Electro Optic Sensors	Stabilised turret fitted to an aircraft containing an Infra Red Sensor for night operations, a TV camera for day operations. Some have laser range finders, laser illuminators and spotter scopes fitted as well.
Ocean Surveillance Radar	Radar specially designed for detecting maritime targets
FLIR	Forward Looking Infra Red.
Global Hawk	High end UAV being tested by US Military
HF Surface Wave Radar	Australian designed and developed Radar that uses the principle of the surface wave of High Frequency Radio Transmissions to adhere to sea water and bend round the horizon to detect targets at distances up to 300km
AEW&C	Airborne Early Warning & Control Aircraft
Mark 1 Eyeball	Human Eyeball
ISAR	Inverse Synthetic Aperture Radar
ESM	Electronic Support Measures
Comint	Communications Intercept
UAV	Unmanned Aerial Vehicle

2 Corporate Background

2.1 NATIONAL JET SYSTEMS GROUP

The National Jet Systems Group of companies (NJS) was established in Adelaide in 1990 and is engaged in the provision of specialised aviation services under contract to Government and major Corporations, such as Qantas and BHP, throughout Australia and the Region.

These services are unique in that NJS supplies aircraft, aircrew, cabin staff, mostly in the client's livery, and engineering support which together make-up a complete 'turn key' service. The customer supplies only operational control or in the case of regular public transport, passengers.

Such a unique service removes the necessity for customers to invest huge capital funds in starting operations.

The NJS Group's annual turnover exceeds $240 million. The Group employs more than 850 personnel to operate and support a diverse fleet of 39 aircraft located throughout the Region. NJS currently flies over 50,000 hours per year expanding to over 60,000 hours per annum over the next two years.

2.2 SURVEILLANCE AUSTRALIA

Special mission operations are concentrated in the wholly owned group subsidiary, Surveillance Australia Pty Ltd (SAPL). SAPL was specifically formed to carry out fixed wing aerial surveillance (Coastwatch) services. Under this contract SAPL supplies 13 (shortly 15) specially modified surveillance aircraft, pilots, observers, engineering staff and operational management.

All aircraft have extensive communications fits and special surveillance modifications. Eight aircraft (Dash 8s & F406s) are equipped with state of the art ocean surveillance radars and five aircraft (Dash 8s) are also equipped with stabilised electro optic sensors that gives them a genuine day/night capability.

SAPL flies around 15,000 hours per annum of aerial surveillance increasing to nearly 20,000 hours later this year with the introduction of the two Dash 8 aircraft sought by the Government to counter the increasing influx of illegal immigrants.

SAPL has extensive corporate knowledge in aerial surveillance operations as a result of practical experience from Coastwatch operations and selective recruitment of civil surveillance specialists and ex military personnel.

3 Scope Of Response

Given our background and expertise in aviation and more specifically, aerial surveillance operations, the scope of our response has been limited to aviation, civil surveillance and operational matters.

This has been done to stay within our immediate area of expertise as we see more value in this, than conceptualising on matters of policy and inter-relationships between Government Departments, about which we do not have intimate knowledge or particular expertise.

Our submission will address:

- the effectiveness of Coastwatch's allocation of aviation resources to the task;
- specific issues raised by Audit Report 38, 1999-2000, Coastwatch – Australian Customs Service, and:
- the cost of Government supplied resources in a Coastguard environment.

4 Effectiveness of Coastwatch Allocation of Aviation Resources to the Task

Coastwatch is at the forefront of protecting the Nation's security from the multitude of civil threats. In carrying out this function Government has directly funded Coastwatch to the tune of over A$50M per annum in the next financial year.

Coastwatch employ a range of high cost human and capital assets for the task both directly and under various contract arrangements, secondments from the military and other government departments.

In terms of the of the contracted aviation component, with the new aircraft, well in excess of A$100M worth of aviation assets plus well over 100 aircrew and close to 20,000 flying hours are at the disposal of the Coastwatch operation. In airline terms this would place the operation in the category of a large domestic regional airline.

However, rather than operating to a fixed number of ports on a fixed schedule Coastwatch operates from four locations, Australia wide and internationally on a very flexible flying program constantly being amended to cater for the varying threat assessment.

In comparison to Military Surveillance operations the Coastwatch operation far exceeds the RAAF P3 Orion operation in terms of annual rate of effort.

In addition the Coastwatch aircraft in general are far more capable than the P3 Orion aircraft in their ability to conduct civil surveillance operations and the radar and stabilised electro optics fitted to the Coastwatch aircraft out perform those currently fitted to the P3 Orion aircraft.

Whilst the provision of the aircraft and aircrew is contracted, Coastwatch maintains operational control of these very substantial and state of the art aviation surveillance resources. This operational control is exercised through Operations Controllers located at both a centralised National Surveillance Centre in Canberra and regionally dispersed operations centres located in the Customs offices in Broome, Darwin, Cairns and Thursday Island.

Coastwatch Operations has in the past being staffed almost exclusively by Customs Officers, although over the last 12 months a small number of serving military personnel have been seconded to Coastwatch. Generally the Customs Officers, particularly in the regions, have been rotated into Coastwatch for a two or three year posting before returning to the mainstream Customs functions.

Customs Officer training and experience is of limited relevance to the operational control of the aviation assets employed by Coastwatch. Hence these officers have been provided with a short internal course on aircraft resource management.

In comparison to Operations Controllers in similar roles such as the AusSAR SAR coordinators or the RAAF P3 operations officers the training provided is insufficient.

Particularly in relation to the recent substantial increase in and sophistication of the Coastwatch aviation assets combined with the recent feed of military intelligence data into the Coastwatch operational planning process.

4.1.1 Recommendation

In keeping with the evolving nature of the Coastwatch function it is our view that the scope, size, diversity and sophistication of the Coastwatch operation now warrants the creation of specialist operations officer positions.

It warrants that the staff employed in these positions are adequately trained and qualified to carry out their role and that they remain in the role for sufficient time to gain the necessary experience to be effective.

It warrants that the qualification, training and performance of these positions be benchmarked against similar positions in the Military, Air Services Australia or AusSAR.

These measures will ensure that the most efficient and effective use is made of the very substantial aviation resources that are allocated to the Coastwatch operation.

5 Reserved

6 Specific issues raised by Audit Report 38

The majority of Audit Report No 38, related to the internal workings of Coastwatch and its relationships with clients. There are also instances where the performance of the contractor and the methods of contract management are addressed. In formulating our response our aim is for the public record to restore a balanced argument to the statements and in so doing counter a series of perceptions about poor contractor performance, which are not based on facts or reflected in the terms of the services contracted for.

6.1 SECTION 3 RAAF CONTRIBUTION PARAGRAPH 3.11

Paragraph 3.11 indicates that the RAAF P3 Orions can provide 'additional services' because of the specialist military equipment carried. This statement is agreed, however it does not indicate that many of the specialist equipment capabilities carried on the Orions can now be obtained on the civil market at a much lower price.

Whilst it is not argued that Orions can fly for longer and faster than civilian contract aircraft there seems to be an unwritten conclusion which says that they are therefore a better surveillance asset. The report does not dissuade this conclusion and as previously shown cannot be justified by the facts which show that the Dash 8 can search larger areas in lesser time than the Orions.

Air Commodore Long, the recent Commander of the RAAF Maritime Patrol Group highlighted the limitations applicable to Orions being used in Coastwatch operations in the February copy of the Australian Defence Magazine. The conclusion portrayed in this paragraph is thus incorrect and should not be accepted by the Government.

Other statements in this paragraph are also misleading. The RAAF is used to patrol the Southern Ocean because this task was written into the concept of operations surrounding the present Coastwatch contract. It is not because it is beyond the capability of the civilian aircraft, though it is conceded that the RAAF aircraft can go further south than the current contracted aircraft.

6.2 SECTION 3 CONTRACTOR AIRCREWS PARAGRAPH 3.16

We are perplexed by the comment relating to technical difficulties which presents a negative impression but provides no detail and in our opinion has no basis. The paragraph goes on to commend the professionalism of contractor aircrews but at the same time relates a Coastwatch concern of contractor staff turnover and the subsequent training bill.

This is an unusual approach and confusing as Note 67 says that contractor staff turnover is less than the industry average. There seems to be a suggestion in this paragraph that contractor staff be indentured for long periods and that this can be

addressed by contractual means. In the general work conditions of today's society this does not appear to be realistic.

This reporting of this concern appears unduly harsh as there appears to be no similar assessment or comment in the report on Coastwatch staff turnover or the practice of rotating staff every 2-3 years and the associated training bill or impact on experience levels of this practice.

6.3 SECTION 3 CONTRACTOR PERFORMANCE ASSESSMENT PARAGRAPH 3.23

This paragraph describes the Performance Measurement system used in the Coastwatch contract. Whilst we do not wish to become embroiled in an argument about the appropriateness or otherwise of this system. It appears that the description does not address the important principles described to us during contract negotiations.

Our understanding was that the Performance Measurement System was introduced because Coastwatch was dissatisfied with past Liquidated Damages regimes and saw a need to provide performance based incentives to contractors via a broad based system wide measurement system

In particular the objectives of the present system as annunciated by Coastwatch during the tender process and subsequently would:

- encourage contractors to fix 'systemic' problems
- have safeguards be built into the system to allow major issues to be negotiated without a legal battle
- consider whole of service issues to be more important than single flights
- strike a balance between the spares and support levels built into the contract by specified rates of effort, flight notification periods and the budget.
- allow Coastwatch to avoid problems associated with adversarial contracting systems.

Such a system would encourage a contractor to rectify their own shortcomings and establish a reserve of credits through over-performance. This credit could be used to offset periods where circumstances beyond the control of the contractor caused the score to drop below the 90%.

We understood that the 90% level was selected because extensive records/experience on contractor performance had shown that it was difficult for a contractor and cost prohibitive for Coastwatch to have the contractor provide a service level average of more than 90% against the benchmark over the period of the contract.

Whilst the majority of the paragraph's description is factually correct, it does not describe the reasons behind the scoring system, thus presents an image of a system which is flawed and can be 'manipulated' by the contractor. (see word avoid in last sentence) This does not show a contractor who has entered into the spirit of the Performance Measurement regime as an 'honest operator'. Rather it portrays the contractor as a manipulator of the rules, even though the Commonwealth set the rules.

6.4 SECTION 3 CONTRACTOR PERFORMANCE ASSESSMENT PARAGRAPH 3.24

The paragraph introduces the concept of Individual Flight Performance and higher performance weighting for critical tasking. Another appropriate description for this principle is 'Increased State of Readiness".

At no stage during the tender process or the contract negotiations was the concept of critical tasking presented as a contractual requirement beyond the stated rate of effort reflected in the contract. The theme throughout the tender process and contract establishment was a need for high levels of continuous service.

By implication the paragraph implies that critical taskings not being met are a significant problem. This is not the case. Surveillance Australia is more than conscious of the need to achieve critical tactical taskings.

Over the period of the contract we have gone to extraordinary lengths at times well beyond our contractual obligations to meet these critical taskings. At the end of the day Coastwatch's success is our success.

The notion implied in the last dot point that addressing the critical tasking situation by simply increasing the performance weighting does not appreciate the implications of this recommendation.

Critical taskings are not single one off isolated stand alone flights with ample notification. More often than not they are very short notice and are the culmination of a long period of sustained flying activity when resources are stretched to the limit. To increase the ability and reliability of meeting critical taskings would require a significant increase in the resources currently contracted for.

A good analogy is that of a city fire brigade, which would employ around 5 full time crews per appliance to cover a 24 hour 7 day a week callout situation, which has few other routine responsibilities.

Currently Coastwatch has contracted for 2 crews per Dash 8 aircraft. A similar aviation analogy would be the NSW Air Ambulance Service which operate 4 aircraft from a single base at a similar annual rate of effort. They have slightly more than 4 crews per aircraft to cover this type of response situation.

What this type of comment does reveal is the change in operational circumstances that have occurred over the last two to three years. Coastwatch was resourced, funded, tendered and contracted for a predominantly strategic operation. However over the last two to three years Coastwatch has evolved into a more tactical operation. This change in circumstances has resulted in the resource shortfall.

Whilst the concept of weighting critical taskings is attractive on the surface there are a number of substantial cost and administrative issues which would have to be addressed. SAPL's view is that it can be achieved but at an increased cost. We firmly believe that there is no way that the cost effectiveness theme in Recommendation No 8 is achievable as by definition readiness will always result in human and material assets sitting waiting for something to happen.

To determine if Recommendation No 8s can achieve cost effectiveness we ask the committee consider the following factors before recommending a critical tasking approach to performance measurement. In particular:

- How would a critical task be defined, as many critical tasks are a product of history rather than forward planning?
- What notice would be given for future critical tasks to enable the contractor to be prepared?
- How would the performance loadings be designed to give an appropriate balance between normal tasks and critical tasks.
- Would the Commonwealth be prepared to pay for an increased level of readiness.

7 Cost of Government supplied resources in a Coastguard environment

The debate on an Australian Coastguard is destined to be long and involved. It will touch many aspects of Government policy and future directions and we believe, will be decided by these and cost issues. Therefore a critical part of this debate is cost versus output considerations. This debate has already occurred in the Coastwatch context and being resolved firmly in favour of contracted aviation services. Therefore our submission is only relevant if a Coastguard agenda is being considered.

7.1 Cost Versus Output

Government experience with operating fleets of aircraft is mainly vested with the military, though there are other examples of departments operating their own aviation assets. Apart from the military, which is only now testing concepts of civilian owned and operated aircraft, the trend has been to outsource these aviation services to civil enterprise. This has occurred because it has been proven on a case by case base that the competitive situation generated by out sourcing does result in government being able to purchase aviation resources at a lower cost than in-house options. The other lesson from the out sourcing experience is that service does not necessarily suffer and often significantly improves under civil arrangements.

The Coastguard debate needs to take this these experiences into account as all indications are that the cost of a Commonwealth operated Coastguard which owns and operates its own resources will be a significant extra drain on Government finances over the current arrangements. Some form of cost savings method will probably have to be applied to reduce these costs if the Coastguard option is taken up. Contracted aviation services is a means of accomplishing this and it is worthwhile briefly investigating this approach.

7.2 Contract Aviation Services in the Coastguard Context

The output of aviation in a Coastguard environment is one of information, be it surveillance, search and rescue or survey data. This information can be obtained without a requirement for the personal legislative authority used on 'on the ground' operations where a man with a badge is used to arrest, hold or investigate instances.

The nature of the aviation environment is such that this is done remotely either by sensors or by a man looking out of the window or talking on a radio. What is unusual is that it is normally the vehicle, which holds the authority rather than the people on board that vehicle.

The Customs Act provides a good example as the legislation applies to the vehicle and provided that vehicle has appropriate identification it can order other vessels to stop or proceed to a port. There is no reason why similar legislation cannot apply to Coastguard aviation services.

If this is accepted, then the next question is one of how to provide aviation services at the best price. Competition is a proven form of getting the best deal and there are numerous examples of the Commonwealth using competition to provide civilian services instead of taking the more expensive in house options. This would apply to Coastguard aviation services and would be proven by distilling costs to a dollar per square nautical mile searched level and comparing the cost of contract surveillance with in house options.

We believe that contracted Coastguard aviation services will:

- enable the Commonwealth to structure contracts such that hardware can be changed out regularly and well before life of type thus enabling operational concepts to be upgraded to meet the evolving situation rather than being dictated by equipment life
- have no capital equipment bulge during establishment of the service
- be able to transfer substantial risk to the service provider
- capitalise on competition to reduce costs

8 Reserved