



Cayman Islands

**SPECIAL REPORT OF
THE AUDITOR GENERAL**

ON

***THE PURCHASE OF A HELICOPTER
BY THE ROYAL CAYMAN ISLANDS POLICE***

Cayman Islands Audit Office

October 2008

**REPORT ON THE PURCHASE OF THE HELICOPTER
BY THE ROYAL CAYMAN ISLANDS POLICE
TABLE OF CONTENTS**

Executive Summary..... 1

Background..... 4

Key Dates in the Helicopter Procurement Process 5

Meetings with Cabinet 7

Cost to Date Regarding the Purchase and Refit of the Helicopter 9

Purchase of the Helicopter as a “sole source” 10

Was the purchase of the EC135T1 the RIGHT Helicopter for the RCIP needs 12

No proper need analysis was done 12

Little to No Discussion of Operational Requirement Between RCIP and Cabinet .. 16

How the EC135T1 was Selected as the Helicopter of Choice by the RCIP 17

Conclusion..... 20

Present Operational Problems with the Current Helicopter 21

Operational Capacities of the Helicopter as Currently Configured 21

Flotation Devices 23

Auto Pilot 24

Instrument Flight Rules (IFR) 25

Summary and Conclusions 26

ROYAL CAYMAN ISLANDS POLICE

Executive Summary

1.01 On Wednesday September 10, 2008, His Excellency the Governor wrote to me requesting that my Office review the purchase by the Royal Cayman Islands Police (RCIP) of a helicopter. I decided to accept the engagement as I believed that the current debate would be assisted by an independent review of the situation to date.

1.02 I have reviewed the procurement of the helicopter from the date of the implementation of the concept of an Air Support Unit in November 2006 until the middle of September 2008. I have reviewed documentation relating to the purchase of the helicopter including discussions with Cabinet, the documents referring to the type of helicopter to be purchased and the numerous documents relating to the purchase itself. I have also reviewed documentation relating to the present operational capabilities of the helicopter as well as possible solutions to the current operational shortcomings of the helicopter.

1.03 The main source of documents that I reviewed was the Royal Cayman Islands Police. In addition, I have spoken to and received documents from officials of the Portfolio of Internal and External Affairs, the Civil Aviation Authority of the Cayman Islands (CAAoCI) and the independent consultant who was hired to assist in the helicopter purchase.

Findings

1.04 Based upon my review, I believe that the current operational restrictions placed on the helicopter would severely limit its usefulness for police interdiction or other duties. However, there appears to be some possibility that restrictions relating to flying time away from land and the use of an auto pilot may be modified. These issues should be discussed and concluded as soon as possible. If the restrictions are adjusted, it will be up to the RCIP and Cabinet to decide if the current helicopter can fulfill its role in the Cayman Islands. If the restrictions cannot be modified, then I believe that the helicopter should be sold and the concept of an Aerial Support Unit for the RCIP should be reexamined.

1.05 I remind readers that I am not an expert in helicopters and in fact one of my first recommendations is that the RCIP should hire a consultant well versed in helicopters to review this report and make recommendations going forward. However, I believe that the facts outlined in this case are sufficiently clear so that the conclusions I have drawn are reasonable. However, these are very technical issues so readers are strongly advised to read the report in its entirety to gain a complete understanding of the current situation.



1.06 There has been much discussion about what various officials involved in the process did or did not say. I have attempted to document, to the best of my ability, what meetings were held and what was discussed. However, from a post decision point of view, it is clear to me that:

- No clear documentation of what the required operational capacities of the helicopter was ever done. Without this clear statement of capabilities, many misunderstandings and much confusion arose.
- There was very limited communications between the RCIP, and the CAAoCI regarding the operational shortcomings of the helicopter purchased. Without this discussion, the opportunity to review the purchase was missed.
- There were discussions with Cabinet early in the procurement process about the various functions the helicopter would be able to meet. Included in that discussion were references to the Instrument Flight Rules (IFR). Later in the procurement process, the decision was made to purchase a helicopter that could fly only under Visual Flight Rules (VFR) capabilities. The Commissioner insists that Cabinet was always fully informed of all aspects of the helicopter purchase while Cabinet insists that they were unaware of the operational limitations of the helicopter purchased. As I did not attend the meetings and no transcripts exist of the various discussions, I am unable to form an opinion as to which version is correct. However, in my review, I can find no Cabinet paper or other type of written communication that shows that these operational limitations were ever discussed with Cabinet
- Although there was some good documentation regarding the type of helicopter to purchase and why the purchase should be sole sourced, concerns about operational problems were not fully discussed with CAAoCI officials. Therefore, there was no clear understanding of the limitations of the helicopter until August 2008.

1.07 It should be noted that even though a good deal of time has been lost in pursuing this option thus far, it is likely that any financial loss regarding this purchase may be minimal if the decision is that the helicopter should be sold. Present information indicates that if the government tries to sell the helicopter now, it is most likely that most, if not all, of the funds expended to date will be recovered.



Report Clearance

1.08 I have cleared this report with the Acting Commissioner of Police, senior officials of the Portfolio of Internal and External Affairs as well as senior officials of the Civil Aviation Authority of the Cayman Islands. In addition, I have discussed the report with the Police Commissioner, Mr. Stuart Kernohan. They have been most helpful in assisting me with writing the document and have provided invaluable suggestions to improve this report. I thank them all for their invaluable assistance in preparing this Report.

Don Duguay

*Dan Duguay, MBA, FCGA
Auditor General
Georgetown, Grand Cayman
Cayman Islands*

October 21, 2008



2. Background

2.01 On Wednesday, September 10, 2008, His Excellency the Governor wrote to me requesting that my Office review the purchase by the Royal Cayman Islands Police (RCIP) of a helicopter. I decided to accept the engagement as I believed that the current debate would be assisted by an independent review of the situation to date. In completing this report, I have tried to summarize the process taken to date in the procurement of the helicopter.

2.02 In doing so, I have relied primarily on the paper files of the RCIP as well as discussions with other persons involved in the helicopter purchase. In particular, I have spoken with the helicopter expert who was hired by the RCIP to assist in the purchase of the helicopter. I have also spoken to officials from the Civil Aviation Authority of the Cayman Islands to try to understand the current operational limitations of the helicopter as it is currently configured as well as how additional equipment may affect its operational parameters.

2.03 I have reviewed the draft report with senior officials of the RCIP as well as the Portfolio of External and Internal Affairs.

2.04 In particular, I have been able to discuss the report with Stuart Kernohan, the Commissioner of Police. This was a vital part of my audit work since Commissioner Kernohan was a major component in the helicopter procurement process.



3. Key Dates in the Helicopter Procurement Process

3.01 To assist the reader in understanding the helicopter purchase process, I believe that the following is a summary of the key dates.

Date	Event
Nov. 26, 2006	Cabinet approves the establishment of an Air Support Unit. It was noted at this meeting that a previous meeting of the Finance Committee (March 2006) made a provisional allocation of \$1.8 Million CI for the purchase of a helicopter. At this meeting, it was noted that there would be an additional amount of \$336,000 CI to equip the helicopter. Annual operating expenditure for the helicopter was estimated at \$1.1 Million CI. Cabinet approved at this meeting the establishment of an Air Support Unit with the ability to purchase or lease a twin engine helicopter. Cabinet also approved the additional recurrent expenditure.
Feb/Mar 2007	RCIP decides that the Eurocopter EC135T1 is best suited to its needs.
July 11, 2007	CTC approves a sole source contract for the purchase of the helicopter.
July 17, 2007	At a Cabinet meeting, Cabinet was updated on the cost of purchasing and retro fitting the helicopter. Cabinet approved a revised figure of \$2,462,200 for the purchase and retro fit of the police helicopter.
July 18, 2007	The helicopter is purchased.
August 2007	The helicopter was air freighted to the USA for refit.
May 2008	RCIP is informed that the gearbox needs to be replaced.
Aug. 14, 2008	Cabinet is informed that the cost of the gearbox repair is \$159,800. This, along with other unanticipated costs, means that the expenditure required to get the helicopter to the Island would be \$2,962,200. Cabinet is asked to allow the Portfolio to seek supplementary funding of \$500,000 if needed.



Aug.26, 2008 Officials of the Portfolio of Internal and External Affairs and the Civil Aviation Authority are invited to Cabinet to discuss the CAAoCI's operational parameters for the use of the helicopter.

3.02 It is my understanding that discussions relating to an air support unit predated even the Finance Committee meeting of March 2006. In these discussions, the Royal Navy and other experts provided information to the government of the Cayman Islands relating to the importance of having aerial support for the Islands. These discussions looked at numerous options including fixed wing and helicopter options.



4. Meetings with Cabinet

4.01 Readers of the above key dates will note that several of the key dates refer to various Cabinet meetings. However, there were more meetings with Cabinet than mentioned above. The following table shows all the meetings with Cabinet relating to the purchase and subsequent refurbishment of the helicopter and the items discussed.

Date	Cabinet meeting items and decisions
June 30, 2005	A presentation by the RCIP makes the first mention of the Air Support Unit as part of a presentation on the Strategic Direction and Requirements of the RCIP.
Nov. 23, 2006	Cabinet approves the establishment of the Air Support Unit and the procurement of a twin engine helicopter. At this meeting, a listing of tasks that would be done by the Unit was presented. The Cabinet approved a budget of \$1.8 Million for purchase and \$336,000 for refit expenditure. It was also noted that annual cost would be approximately \$1.1 Million CI.
March 13, 2007	Cabinet is advised, with Commissioner of Police in attendance, that aircraft should be purchased rather than leased; and further advised that a suitable used helicopter has been identified. Projected cost given as \$1.8M + \$0.4M for specialist equipment. Cabinet authorizes pursuit of this used unit subject to valuation assessment and ensuring deposits are refundable.
March 20, 2007	Commissioner of Police meets with Cabinet to provide an update of the project. Cabinet discussed the storage, maintenance and piloting for the helicopter. Cabinet asked the Commissioner of Police to report on the status of these arrangements.
April 17, 2007	Cabinet was informed that the procurement process was paused due to maintenance issues. Cabinet is informed that the initial evaluation of the Fair Market Value of the aircraft by professional appraisers retained by the RCIPS was \$2.74 Million. Questions were raised regarding staffing and budgeting.
April 24, 2007	Commissioner of Police meets with Cabinet to answer Cabinet queries on the budget and staffing plan. He advised Cabinet that the purchase price would be \$2.0 to 2.2 Million Euros.



- July 17, 2007 Cabinet is given a detailed list of costs to affect the transfer, shipping the helicopter to the US and performing required refit. Total costs for the project are estimated at \$2,462,200. Cabinet approves revised spending for the purchase to \$2,462,200.
- Oct. 23, 2007 Commissioner attends and updates Cabinet on the purchase of the helicopter and its expected arrival in Grand Cayman. There were discussions on maintenance, insurance and pilot training.
- Nov. 22, 2007 Cabinet is updated on the helicopter purchase. Small cracks had been noticed during the refit and were repaired at a cost of \$10,000. Cabinet is also informed that a winch will cost \$200,000 as opposed to the original cost of \$70,000. To keep the project within budget, Cabinet agrees to defer the purchase of low skid gear with extensions and pop out floats. This item had previously been included in the list of refit items approved at the July 2007 meeting.
- Nov. 26, 2007 Cabinet discusses the operations and maintenance of the police helicopter. Cabinet directs that the matter be dealt with through the Public Tendering process.
- Aug. 14, 2008 Cabinet was informed of unexpected replacement of the gearbox and unanticipated expenses for management and inspection fees. Approval is requested for an additional supplementary funding of \$500,000 bringing the project total to \$2,962,200.
- Aug. 26, 2008 Cabinet meets with Portfolio of Internal and External Affairs officials and officials from the Civil Aviation Authority to discuss CAAoCI operational requirements for the use of the helicopter.



5. Cost to Date Regarding the Purchase and Refit of the Helicopter

5.01 From my review of the files provided to me by the RCIP, it is apparent that there has been an escalation of the price of the helicopter from the date of original approval to the current situation. In the November 23, 2006 Cabinet meeting that approved the purchase of the helicopter, the original estimate for the purchase price was \$1.8 Million for the helicopter itself and \$336,000 to refit the helicopter. This totaled \$ 2,136,000. It has been estimated that the final costs for the helicopter purchase will be \$2,962,200. This is an increase of \$826,200 or a 37% increase of the project.

5.02 The actual purchase price of the helicopter was \$ 2,150,435.16. The helicopter had been independently valued prior to purchase at \$2,688,044. Therefore, the actual purchase price of the helicopter was 19.5% higher than originally estimated but 20% lower than independently valued.

5.03 The original estimate for refit was \$336,000. The helicopter was given a full mechanical inspection by an independent company in the UK prior to purchase. The main components of the refit were the painting of the helicopter, inspection fees and other repairs, the purchase and installation of a gearbox and the purchase and installation of a rescue hoist. The total current and estimated costs for these items are \$519,385. Therefore, these refit costs are \$183,385 or 54.5% above the original estimate. The main component of this cost increase appears to be the purchase and installation of the gearbox. This added \$159,800 to the cost of the refit of the helicopter. This gearbox replacement was determined necessary based on the detailed inspection carried out in the USA after the purchase of the helicopter. This repair was not noted during the inspection done in the UK before the helicopter was originally purchased.

5.04 What appears to be substantially missing from the original estimate could be considered the “soft” cost of purchasing a helicopter. These included items like consultancy fees, freight, inspections and transport to the Islands. The following soft costs have either been paid or are estimated in relation to the purchase of the helicopter:

Finder’s fee	\$ 46K
Consultant	13K
CAAoCI Inspection and License fee	50K
Management fee	89K
Air freight, insurance and import fees to US	10K
Transport to CI	25K
Other costs and contingencies	<u>59K</u>
Total soft costs	\$292K

5.05 The total costs (both paid to date and estimated) are thus summarized as :

Purchase price	\$ 2,150,000
Refit costs	520,000
“Soft” costs	<u>292,000</u>
Total	\$ 2,962,000



6. Purchase of the Helicopter as a “sole source”

6.01 This helicopter was purchased from a sole source. In other words, no competitive bids were held. This is due to the way that used helicopters are purchased.

6.02 Early in the procurement process, it was apparent that the budget set for the helicopter project was a major factor in the decisions that were subsequently made. For example, one of the first decisions made was that a used helicopter would be purchased. This was due to cost considerations and the long lead time perceived for the purchase of a new helicopter. A decision was made that a used helicopter from the East Midlands Police Department in the United Kingdom would be purchased. Later in this report, I will review whether this was the best helicopter to buy. In this section, I will look at the process used once the decision was made to purchase this particular helicopter and whether proper procedures were taken to ensure that appropriate value for money was obtained.

6.03 When obtaining any assets, it is government policy that public offers to purchase be sent out and tenders received from parties interested in providing the product. This process serves three useful purposes; it allow openness and transparency when the government makes major purchases, it allows all interested persons the ability to supply goods to the government and supports government attempts to get the best value for the funds expended.

6.04 Generally, the Office of the Auditor General supports the use of the tendering process in government procurement and recommends that it be used as much as possible. However, it is not always appropriate or practical to use this process. The purchase of a used helicopter seems to be one of these situations.

6.05 Used helicopters are usually purchased through brokers who are aware of the machines that are available and try to match these machines to organizations like the RCIP that have need of them. This is the route that the RCIP took in enquiring into available used helicopters.

6.06 In our opinion, this was the most reasonable way forward for the RCIP for this particular situation. To put out a tender for a used helicopter would have been pointless as there most likely would have been no response. Therefore, the use of a broker seems to have been the appropriate way to acquire this particular type of machine.

6.07 However, the RCIP, like all government organizations, still must prove that it is making the appropriate decisions and that ultimately they received value for the money expended. This usually involves two separate processes.



6.08 The first requirement is that the decision to sole source procurement should be reviewed and evaluated by the Central Tendering Committee (CTC). Regulation 37(2) of the financial regulations (2005 revision) permits a Chief Officer to make an acquisition without public tendering if the contract is evaluated by the CTC and that the overriding requirement for value for money is satisfied.

6.09 To meet these requirements, discussions by e-mail were held commencing March 2007 regarding the need to use sole source as the best way to purchase a particular used helicopter. On July 3, 2007, the Commissioner of Police wrote to the CTC providing details on the need to sole source and the steps taken to ensure that value for money had been obtained. On July 11, 2007, the Chairman of the CTC wrote to the Commissioner confirming approval for the RCIP to purchase the EC135T1 helicopter from the East Midlands Air Support Unit.

6.10 In his proposal of July 3, 2007, the Commissioner provided evidence relating to the value for money issue. To obtain a fair market value for this aircraft, the RCIP engaged the services of HeliValue\$, Inc. This independent company is the publisher of **The Official Helicopter Blue Book** and provides a fair market value for any particular helicopter. HeliValue\$ provided a report dated May 7, 2007 which evaluated the fair market value of the EC135T1 helicopter then owned by East Midlands Air Support Unit at \$3,440,000 US.

6.11 The helicopter was obtained for \$2,150,435 CI. The equivalent amount in US dollars would be \$2,590,885 (exchange rate \$1 US = \$.83 CI). Therefore, it appears that the RCIP obtained a price for the helicopter than was less than fair market value.

6.12 Therefore, it is the opinion of the Office that, having decided to purchase the EC135T1, the RCIP followed the proper steps in sole sourcing the contract. It also got good value for money for the specific purchase of this particular type of helicopter.



7. Was the Purchase of the EC135T1 the RIGHT Helicopter for the RCIP Needs?

7.01 While it is fair to say that the RCIP took the proper steps to procure the EC135T1 once it had decided to purchase this particular type of machine and that it appears to have acquired this machine at a good price, the larger and more important question is whether the EC135T1 was the right helicopter to buy. Another way of stating this is can the present machine purchased do the main job required of it by the RCIP?

7.02 I have attempted to delve into this question even though I have no particular knowledge of helicopter purchases and even less knowledge regarding the operational capacities of various types of helicopters. However, I have done an extensive review of the files and I believe they show enough of the process for an informed layman to come to a conclusion. More importantly, I have discussed my conclusions with the consultant who was eventually involved in the project. He agrees with my overall conclusions which I have presented at the end of this paper. However, I caution readers of this report that although I am comfortable making the conclusions that I have based on evidence presented to me and discussions with knowledgeable people in the helicopter industry, it would be very prudent for the government to retain an expert before any major decisions are made.

No Proper Needs Analysis Was Done

7.03 A helicopter purchase is no different than any other capital purchase in one major area. The first step in this helicopter purchase, like any other purchase, is that the user prepares a detailed analysis of what their needs are for this purchase. Having done that, a thoughtful discussion regarding what piece of equipment can meet those needs can be held.

7.04 Based upon my review of the files given to me by the RCIP, I believe that no comprehensive and detailed analysis of what the RCIP wanted to have this helicopter do was ever completed. It is true that there are several papers relating to the need for an Air Support Unit. These papers, however, in my view do not constitute a true needs analysis. They mainly make the argument that an aerial component is needed to ensure that drugs and guns do not illegally enter the Cayman Islands. While this defines the type of role that the RCIP wanted the helicopter to play, it does not state the operational capacities that would be required from such a craft.



7.05 The closest that a true needs analysis that was done was the Cabinet paper dated November 23, 2006. In this paper, the demands for air support were defined as:

- Border Security for all 3 islands
- Police pursuits
- Critical Incident Response
- Surveillance
- Search and Rescue
- Long Range Deployment of Resources for Policing
- Casualty Evacuations including from Cayman Brac and Little Cayman

7.06 The paper then goes on to make the argument that only a twin engine helicopter could meet all these functionalities. It also, critically in my opinion, twice talks about a helicopter that has Instrument Flight Rules (IFR) capabilities.

7.07 During my review, I have come to learn about the differences between Instrument Flight Rules (IFR) and Visual Flight Rules (VFR) capabilities. To fly VFR rules, there must be a certain amount of visibility. This means that only flights during the day (when there is clear visibility) or in the night (when there is sufficient moonlight or ambient light from land) are possible for that aircraft. Flights during inclement weather, low night light conditions or away from land at night would not be possible for any VFR aircraft including helicopters. To have a greater capacity to fly in inclement weather, at night or away from land masses beyond a certain distance, a helicopter would have to have IFR capabilities. This would mean additional instrumentations that would allow the pilot to fly safely at night or in inclement weather. In general, an IFR rated helicopter is going to be substantially costlier because of the additional instrumentation and would require additional pilot training.

7.08 This distinction is important because in the November 23, Cabinet paper, IFR is mentioned twice. In the first section entitled “The Advantages of a Twin Engine Helicopter”, the following statement was made:

“A twin engine aircraft (Instrument Flight Rules) would allow off-shore night operations in a hostile environment of no ambient light levels. This night-time environment demands an instrument rated helicopter to ensure that the aircraft maintains its correct orientation (i.e. does not invert).”



Later in the same section the following statement was made:

“Despite the higher operating costs, therefore, it is recommended that the aircraft of choice should be twin – engined. Only a twin- engined helicopter would provide the following capacities:

- *Deliver the full range of roles outlined above*
- *Operate off-shore at night in low ambient light levels (Instrument Flight Rules) This will be vital to interdict drug-laden vessels reaching our shores, especially in the Sister Islands.*
- *Perform casualty evacuations from Cayman Brac and Little Cayman in poor weather conditions (Instrument Flight Rules)*
- *Provide the proper safety for the crew*
- *Comply with new (pending) CAAoCI regulations.”*

7.09 It should be noted that nowhere in the document, or any other document, could I find a statement that an IFR capable machine was to be bought. However, after reading the paper, I was forced to assume that the RCIP would be buying an IFR capable machine. However, the final purchase is a VFR machine. This appears to be the main source of the present confusion among elected officials when they were recently made aware of the operational limitations of the helicopter purchased by the RCIP.

7.10 On preliminary review, it may appear that there is a substantial difference between a helicopter that is IFR capable and one that is limited to VFR only. For some elements of the multiple missions, the difference can be important. For example, medical evacuation would not be possible by a VFR helicopter if there was bad weather conditions or if night conditions did not warrant VFR flight. However, it has been pointed out to me by the Commissioner of Police that this distinction may not be as great when we think of the normal police activities such as surveillance or assisting ground and marine units of the RCIP are considered.

7.11 For a helicopter to be effective in areas such as surveillance or assisting ground and marine units, the helicopter must be able to “see” the area or observe the suspect. If it cannot “see” the situation, it is of little use. To give an example, even if the Police have reason to believe that there is a drug shipment coming into Grand Cayman, sending the helicopter out under IFR rules would be of very limited value. If the helicopter pilot cannot see the criminal, it can do little to assist the marine units that would be called to make the capture. In short, the helicopter is only of use under VFR conditions and therefore the lack of IFR instrumentation has little direct effect on its operational capacities for police activities.

7.12 I found this argument useful in developing my own understanding of VFR versus IFR helicopters. It certainly makes sense and I believe it is a main reason that the Commissioner could justify overlooking this limitation in the helicopter that he wished to purchase.



7.13 However, it is hard to imagine that this viewpoint was obvious to the elected officials and bureaucrats that were reviewing the purchase. If this argument had been made when the EC135T1 was being contemplated for purchase, it may be that a solid argument could have been made that this machine was still the right one for the Islands. However, as far as I can tell, a paper outlining the information above was never developed and shared with other participants in the purchase. Given that there was an expectation at the first meeting of Cabinet that the helicopter to be purchased would be IFR capable, I believe that the Commissioner should have formally informed the Cabinet of the lack of IFR capabilities (as well as any other operational limitations) of the helicopter he was contemplating purchasing. In hindsight, this seems to be a critical opportunity lost to have common consensus on what capacities were being purchased and a reaffirmation that this was the right way to proceed.

7.14 A related note is the many tasks that were noted in this paper for this helicopter to perform. I am sure that the vision of a multi-role helicopter that could perform several function made the “sale” of an Air Support Unit easier. However, trying to have a helicopter that could perform all those tasks may well prove impossible. It would certainly result in an aircraft that would be very expensive to buy and too expensive to operate in its everyday role of surveillance and detection. In other words, trying to provide a solution to all needs may mean that focus on the main tasks was lost.

7.15 This is what I believed happened in this case. Although the above passages imply some of the needs of the RCIP in its drug interdiction and surveillance roles, it does not define the when and the where of what the machine needs to be capable of doing. While I acknowledge that this list was developed with the hind sight knowledge of the CAAoCI restrictions, I believe that a descriptive needs assessment of the capabilities required by the RCIP in its drug interdiction and surveillance role would have included:

- The ability to operate X hours in a single instance
- The ability to operate out to X miles from shore
- The ability to transit between any of the 3 Cayman Islands under any weather conditions
- The ability to operate for extended period over water and away from visual contact with land
- The ability to operate at night

7.16 These requirements seem obvious based on my review of the documents and my subsequent understanding of CAAoCI requirements and the information quoted above. Perhaps they seemed equally obvious to the people making the decision about which helicopter to buy. However, I was unable to find any documentation that outlines the needs similar to those noted above. Neither could I find any analysis that took these needs as a baseline in trying to document which helicopter could best meet the needs of the RCIP.



Little to No Discussion of Operational Requirement Between RCIP and Cabinet

7.17 Given that the simple operational goals as I have outlined above were never formally articulated by the RCIP, it is of little surprise that operational capabilities were never on any of the agendas of the Cabinet meetings that discussed the helicopter purchase. Earlier, I had noted 11 meetings with Cabinet relating to the helicopter purchase. I have reviewed the submissions relating to each of these Cabinet meetings and when available the Extract from the Minutes of Cabinet. Therefore, I am able to comment on what was presented to Cabinet and what decisions were made. However, it is my understanding that there are no Minutes which document the discussions held within Cabinet meetings.

7.18 From my review of the papers available to me, I note that only in the November 23, 2006 were operational capacities of the helicopter even vaguely reviewed. However, as previously mentioned, the missions of the helicopter were discussed but not the operational capabilities. In the nine subsequent meetings, many items were discussed including notes that the Cabinet was to receive an update from the Police Commissioner but I could find no evidence that any discussion of operational capacities was discussed. However, I again caution the readers that I make that observation based on the material available to me.

7.19 The last meeting of the Cabinet relating to helicopters was held on August 26th 2008. I believe at that meeting the CAAoCI discussed its view about the operational restrictions that would be placed on this particular helicopter.

7.20 I would have also expected that a discussion would have taken place between the Police Commissioner and the CAAoCI about the operational limitations of the helicopter. The Commissioner has stated to me that he believed that a compromise could be achieved and that the issue of transit time would have been documented when the Police Operating Manual for the helicopter had been finalized. However, the CAAoCI has stated to me that no substantive discussion about transit issues had occurred when the issue first arose in March 2007. It appears to me that such a critical issue should have been discussed as soon as possible and ideally resolved before the helicopter was purchased. There should have been written communication about the problem and a written solution. If such a process had been done when the problem had first arisen, then this misunderstanding between the parties could have been avoided. However, I could find no such documentation. In the final analysis, I believe that this is another example of different points of view that could have been avoided if there had been a documented approach to both the CAAoCI and Cabinet aimed at resolving the issues noted.



7.21 Based upon my review, there appears to have been very little discussion between the Police Commissioner and the Cabinet regarding the operational capacities of the helicopter. From the first meeting in Cabinet in November 2006, the Cabinet was led to believe that the helicopter would be capable of IFR flight. It is unclear if Cabinet understood well the distinctions between the operational capacities of a VFR helicopter and an IFR rated helicopter. However, the Commissioner knew that the helicopter that he was considering purchasing had numerous shortfalls including a lack of auto pilot and IFR instrumentation. At that point, I would have expected that the Commissioner would have conferred with the CAAoCI to determine what operational constraints such as the ability to transit to the Sister Islands would be placed on a helicopter equipped as the current one is. After that, I would have expected that the Commissioner would have discussed with Cabinet the operational limitations of the helicopter that he wished to purchase and explained how he felt that the role, even diminished, would still be of value to the RCIP and the country. However, I can find no evidence of such a discussion.

How the EC135T1 was Selected as the Helicopter of Choice by the RCIP

7.22 It is unclear to me how the decision was made within the RCIP to purchase the EC135T1 from East Midlands Air Support Group. There is no detailed document that goes through a list of requirements and then matches up these requirements against various types of helicopters. In fact, at this stage, I would have expected that the RCIP, not having any particular expertise in helicopter purchases, would have hired an expert to help determine what helicopter would best meet their needs. Although an expert was eventually hired, this was after the decision to purchase the EC135T1 was already made. The role of the consultant was then mainly confined to arranging for the purchase and refit of the helicopter that had already been selected.

7.23 However there is some information on file that relates to a comparison of various types of helicopters and which one would best meet the needs of the Cayman Islands. There were two submissions made by the Commissioner to the purchase of this particular helicopter. The first, which was dated March 26, 2007, made a case that the Eurocopter manufacturer had the best types of helicopters to meet the criteria and profile of the RCIP requirements. It then narrowed the search down to three models of Eurocopter helicopters; the 355N, the 135 and the EC 365N. This paper finally noted that the EC135T1 that has come onto the market (the one that was ultimately bought from East Midlands) was the only used helicopter that has come onto the market since November 2006.



7.24 The second submission to the CTC was entitled “Purchase of Helicopter for Royal Cayman Islands Police Service” This document is undated but since it refers specifically to the EC135T1 that has just come on to the market, I believe that it was written around the same time as the previous paper. This paper documents the steps taken to date by the RCIP to determine the best type of helicopter to buy. They include discussions with a local pilot, discussions with experts in police support in the USA and the UK and field visits to the LAPD and the Coast Guard. This paper made the following conclusions:

- A light twin helicopter (marine environment) would be the most suitable classification for purchase
- The EC135T1 would be the best helicopter for the RCIP within that category.

7.25 The remainder of the paper addresses the issue of buying a used helicopter in the secondary market and how that might be accomplished in a governmental context.

7.26 One critical element in this paper was a short section entitled “Involvement of Civil Aviation Authority. This section read as follows:

“An important element in the purchase and operation of any RCIPS helicopter will be the control, regulation and oversight that this independent agency will be able to bring to the arrangement. Mr. Richard Smith has been consulted during the progress of this research and his office is supportive of this project. He is available to attend the meeting at short notice to offer support”

7.27 A third document relating to the procurement is entitled “Procurement of RCIPS Helicopter Consideration of Type/Model”. Again this two page paper is undated. It makes several of the points noted previously but does comment that given the budget a used helicopter is the only choice. Its conclusions were:

- No single helicopter will be able to do things perfectly
- A light-twin helicopter is the best choice
- The EC135 is the primary choice followed by the EC355N

7.28 In addition to the reports noted above, the only documentation of any kind I could find relating to the procurement of the EC135T1 was a series of 3 e-mails between the Commissioner and an expert in the UK. These e-mails were sent in March 2007.



7.29 In the first e-mail, the Commissioner asks about the operational capacities of the EC135T1 as well as two other helicopter types; the 355N and the 365N1. The Commissioner explained the operational capacities required in the following excerpt:

“The helo’s primary role is going to be police patrols both on the island and in the marine environment which is going to include night ops over sea in very low light conditions. This will be particularly important in its drug interdiction role.

Other roles include search and rescue and casivacs (sic) (these 2 being only a small percentage of the role). IFR would be required on a few occasions a year. As you can see, its (sic) a very varied remit for one helicopter”.

7.30 In his reply the UK expert points out some problems with the purchase of the EC135T1. He states:

“This means that the aircraft of your choice must be full autopilot and IFR equipped. The EC135T1 is NOT IFR equipped (unlike the T2) and to upgrade from its current specifications to that of full IFR (for civvy use) would cost us (if we were to do it) about \$ 500,000 GBP.”

7.31 He then goes on to state that the UK is about to dispose of 5 EC135T1 because new EU regulations would not allow them to fly at night without full auto pilot after 2010.

7.32 The issue of floatation devices was also discussed in the memo. The UK expert mentioned that if the helicopter was to operate more than 10 minutes offshore, it must have floats. The cost for this addition was estimated at \$ 50,000 British Pounds.

7.33 There is no additional documentation after this referring to which aircraft to buy. After this date, all correspondence relates to the purchase of the EC135T1 from the East Midlands Air Support Unit.

7.34 I am struck between the conflicting evidence between these two sources. While it appears that a rational choice was made based on solid criteria (as outlined in the three papers noted above), the Commissioner was also aware of the potentially serious limitations of the helicopter that he had identified as the most suitable for the needs of the RCIP. Under such circumstance, I would agree with his comment that the CAAoCI would be very useful in the control, regulator and oversight function. I would have expected that a frank discussion of the problems noted in the e-mails would have ensued and a solution documented. However, the CAAoCI informs me that no such discussion took place at that time. The Commissioner has stated to me that discussions did take place.



Conclusion

7.35 Based upon what I have seen, there appears to be some research done by the RCIP that point to the EC135T1 as the helicopter best suited to the needs of the RCIP. However, there is also evidence that the Commissioner knew of problems relating to floatation devices, autopilot and IFR issues. What, if anything, happened between the CAAoCI and the Commissioner in the Spring and Summer of 2007 is open to dispute as there is no supporting documentations to support discussions that may have been held and that there was an understanding with the CAAoCI regarding operational issues. I am unable to verify the Commissioner's assertions as I have been unable to find any documentation to support his claim.

7.36 Given the above, I am forced to conclude that there appears to be a rush towards the decision to purchase this particular machine. I would have expected that this part of the procurement process would have made extensive use of consultants who would have provided valuable advice as to which helicopter would best meet the needs of the RCIP. I found that this was not done. In fact, the helicopter consultant who was hired was only engaged after it was decided to purchase this particular helicopter. Therefore, the consultant's role was limited to acquiring the helicopter already suggested and getting the helicopter ready for operations.

7.37 There has been much discussion in the press and elsewhere as to what, if anything was discussed between the Commissioner and Cabinet regarding the operational limitations of the helicopter. The Commissioner insists that Cabinet was informed on several occasions at briefings provided by him. Cabinet, through public discussion, has indicated that it does not believe that it was informed about the operational limitations of the helicopter prior to August 2008.

7.38 I have been unable to resolve this contradiction of opinions. I have reviewed Cabinet papers prepared and Cabinet Extracts of decisions taken. These do not reveal any discussions about operational limitations being discussed. However, there are several Cabinet meetings that request the Commissioner to provide an update on the helicopter procurement process. What was discussed at those meetings is unclear as there are no verbatim minutes of items discussed at Cabinet meetings. Therefore, it is impossible for someone who was not there to state what was or was not discussed. However, as I have stated, I would have hoped that important matters such as operational limitations of the helicopter purchased would have caused a Cabinet paper to be produced prior to any discussion. I am unaware of any such documentation being produced.



8. Present Operational Problems with the Current Helicopter

8.01 I write this section with some trepidation. I am certainly not an expert on helicopters and therefore readers should consider the observations and conclusions in this section with caution. However, I have sought to have these observations confirmed with industry experts. Therefore I believe them to be true. More importantly, it is important in discussing what the next steps in this saga are, that readers have an understanding of the current situation. Also, as a layman relating to the operations of helicopters, I hope to present the current situation so that it can be understood by those of us not expert in this area.

Operational Capacities of the Helicopter as Currently Configured

8.02 One key flashpoint for the current situation seems to be a discussion between the Civil Aviation Authority of the Cayman Islands and Cabinet. In a memo dated August 25, 2008, the Civil Aviation Authority made the following conclusions regarding the current operational capabilities of the helicopter

- Day operations would be Visual Flight Rules (VFR)
- Night operations would be restricted to VFR rules. This would mean visual contact with the Island or a moonlit night
- The current helicopter is not equipped for Instrument Flight Rules (IFR)
- The helicopter cannot fly more than 10 minutes from land unless it is equipped with flotation devices. Therefore, at present, the helicopter could not be flown, under any weather conditions, between Grand Cayman and the Sister islands.
- The helicopter is not equipped with an autopilot. This means that the pilot must manually control the helicopter at all times.

8.03 So, if I may summarize, given the current configuration the helicopter could only operate:

- Under daytimes VFR rules. The helicopter could not fly when VFR rules could not be observed (i.e. severe inclement weather)
- Night time operations would be severely restricted. The helicopter could only fly in good weather and only within sight of land. The helicopter could not fly in inclement weather or very far from land
- Currently there could be no legal transit of the helicopter between Grand Cayman and the Sister islands.

8.04 The most important of the three restrictions above seems to be the inability of the helicopter to fly legally between Grand Cayman and the Sister Islands. If this restriction were to remain in place, the ability and usefulness of the helicopter would be severely restricted. However, this statement about the current operational capacities needs to be explained further.



8.05 At present, the CAAoCI has made a ruling on transit based upon the UK standards that a helicopter equipped like the EC135T1 cannot be more than 10 minutes away from land. This ten minute measurement is based on two key assumptions:

- Assuming no wind conditions (either head or tail wind)
- Flight at normal cruising speed

8.06 The EC135T1 has a normal cruising speed of 124 knots. The shortest distance from Grand Cayman to Little Cayman is 58 nautical miles. Therefore, the normal transit time between the two points of land is 28 minutes. This means that the midway point between the two islands is 14 minutes from land for this particular helicopter. This helicopter in a normal transit from Grand Cayman to Little Cayman would be more than 10 minutes away from land for only 8 minutes of its 28 minute transit time.

8.07 As can be seen, this is not significantly in excess of the 10 minutes from the land rule currently contemplated by the CAAoCI. Given that there is only a small difference, the Head of the CAAoCI has stated to me that it **may** be possible for the helicopter to be granted an exception that would allow transit between the Cayman Islands. However, the operator (in this case the RCIP) would have to apply for an exemption and provide sufficient additional information about aircraft safety that would allow the CAAoCI to grant an exemption. In short, there may be a solution to the transit issue but it is by no means a guarantee that this helicopter would be able to fly legally between Grand Cayman and the Sister Islands.

8.08 Clearly, the restrictions on the current configuration severely impact the operational capabilities of the helicopter. However, there appears that there is some possibility of a compromise for the most difficult restriction; the ability to transit to the Sister Islands.

8.09 I strongly encourage the RCIP to hold immediate discussions with the CAAoCI to determine if an exemption can be provided for the Police helicopter. These discussions should be fully documented and if an exemption is granted, the terms and conditions should also be fully documented.

8.10 In addition to the issue of transit time, there appears to be three main issues that affect the operational capacities of the Helicopter. These are:

- Flotation devices
- Auto pilot
- IFR instrumentation

In the next sections, I will attempt to explain each of these issues and what can be done to rectify the situation.



Flotation Devices

8.11 Flotation devices are used in situations where there is a significant possibility that the helicopter will come down in water. Flotation devices are of two types, a permanent flotation device such as pontoons or a “pop-out” flotation device that is attached to the landing skids of the helicopter.

8.12 From a layman’s point of view, the need for flotation devices seems obvious given our geographical situation. After all, our island is a small one surrounded by vast expanses of water. The main duty of the helicopter has been described as drug interdiction which would seem to presuppose extended periods of time over water. Therefore, the need for flotation devices seems self evident.

8.13 In fact, flotation devices were contemplated for the helicopter from the very beginning. In informal e-mails and at the July 17, 2007 Cabinet meeting, pop out floats were discussed. The July 17, 2007 meeting notes that the low gear extensions and pop out floats would cost \$126,000. However, in a later Cabinet paper (dated November 22, 2007); the escalating cost of the helicopter was discussed. At that meeting it was proposed that:

*“... the purchase of the “low skid gear with extensions and pop out floats” be deferred which was estimated to cost **\$126K**. This change in spending would satisfy the shortfall in approved funding and would insure the helicopter is delivered to Cayman with a fully functional hoist/ winch for emergency rescues.”*

8.14 The paper then goes on to say:

*“... **\$2,462,200** will be sufficient to transport the helicopter with the relevant equipments stated previously, minus the low skid gear with extensions and pop out floats **which are not thought to be priority under the circumstances at this time by the RCIPS.**” (emphasis added)*



8.15 Certainly, the lack of floatation devices has a significant factor in the current operational limitations of the helicopter. If the helicopter had floatation devices, an exemption would not be required to allow transit to the Sister Islands under VFR rules.

8.16 Therefore, it seems that the addition of floatation devices would seem to be a useful addition to this particular aircraft. However, there seems to be technical problems which ultimately mean that installation of pop out floats could not be retrofitted to this particular helicopter with its current skid configuration.

8.17 The information I quote below comes from a credible helicopter expert. Like all opinions, it is subject to correction. However, I have been sent sufficient credible sources that I believe it to be the definitive answer to the question of whether pop out floats can be installed on this helicopter.

8.18 Readers will need to understand the difference between a high skid configuration and a low skid configuration. These two terms refer to the skids, or more colloquially the landing gear of a helicopter. The current helicopter has a high skid capacity. This is to accommodate additional police equipment that is located on the exterior belly of the helicopter. Pop out floats cannot be attached to a high skid configuration as the helicopter would be too top heavy and would be in danger of tipping over when landing on water. Pop out floats can only be attached in a low skid configuration. However, the low skids would not accommodate the police pod below the helicopter. Simply stated, a low skid would not work unless the police pod is removed which would cause more operational restrictions.

8.19 Therefore, there appears to be two unpalatable options regarding pop up floats for this helicopter. The first would be to remove the police pod or reconfigure the machine so as to reposition the existing equipment. This option would certainly take a long period of time to make the modifications and have them certified. The second would be to attempt to operate the helicopter without any floatation devices. This would surely restrict the abilities of the helicopter and make it less effective.

Auto Pilot

8.20 An auto pilot is a device that allows the helicopter to be flown hands free. The effort required to control a helicopter over long periods can be intense. This is a particular issue with helicopters such as the EC135T1 which may be operated by a single pilot but requires that an autopilot is available under certain circumstances. The CAAoCI currently will not allow significant night operations without an autopilot. This is based on current UK standards.

8.21 The issue with the autopilot is a simple one. The EC135T1 cannot be modified to include an autopilot without reducing its lift capabilities and incurring major additional costs. There appears to be no practicable solution to this particular problem.



8.22 The issue of the autopilot requirement was highlighted in a memo between the Commissioner of Police and an expert in March 2007. In that memo, it was explained that the current EC135T1s on offer were being sold because EU regulations will require a full auto pilot if it is to be flown at night. It is still not clear to me whether the Cayman Islands CAAoCI will place a similar restriction on the current police helicopter. This matter needs to be resolved as a matter of urgency as I feel that its resolution would have a profound influence on any decision as to whether the helicopter will be considered as a vehicle that is good value for money in the Cayman Islands.

Instrument Flight Rules (IFR)

8.23 The issue of IFR flight instrumentation has been discussed earlier in this report. The ability of the helicopter to fly under IFR appears to have been a requirement from the very first approval of this project. Without IFR, the helicopter would be restricted to operating under VFR only. This would mean that it could not operate in inclement weather and its ability to operate at night would be significantly restricted.

8.24 The EC135T1 **can** be modified for IFR capabilities. However this is very expensive. The best estimate for upgrading this helicopter to full IFR capability is between \$450,000 and \$500,000 British Pounds.



9. Summary and Conclusions

9.01 The helicopter is currently in Louisiana, USA. It does not currently have any flotation devices, an auto pilot or IFR instrumentation. Under these circumstances, the CAAoCI has determined that it could be operated here under the severely restricted conditions noted above that would hamper its operational capacities. It would not be possible to install flotation devices on the current skid configuration. IFR instrumentation and an auto pilot could be installed but the cost would be prohibitive.

9.02 There appears to be several issues that need to be resolved before a decision on what to do next can be made. The main one is a frank and open discussion between the RCIP and the CAAoCI. The issue of a possible exemption to the current ruling that the helicopter cannot legally fly to the Sister Islands needs to be urgently explored and resolved. In addition, the issue of the lack of auto pilot and the effect on night flying needs to be clarified.

9.03 It may be that a resolution may be found. If so, I would propose that the RCIP then have a full and complete discussion with Cabinet on what the helicopter can (and cannot) do and have a decision made as to whether this helicopter represents good value for money.

9.04 If the restrictions cannot be lifted or if the Cabinet believes that the helicopter does not represent good value for money, then it will need to be sold. Evidence presented to me seems to indicate that the helicopter can be sold for most of the funds that have been expended to date on it. In other words, there seems a good chance that our financial loss may not be significant. Of greater importance is the time spent to date on the purchase of this helicopter.

9.05 If the decision is made that the helicopter is to be sold, I would recommend that the starting point of a new process would be to prepare a clear set of objectives as to what the Air Support Unit should be tasked with doing. If the present helicopter is sold, then the premise of an Air Support Unit can be started from a clean sheet of paper. Therefore, I would suggest that all options, from leasing and enhancing the present rental arrangements to purchase should be reviewed and evaluated.

9.06 The third conclusion relates to preparing a clear set of objectives as to what the Air Support Unit should do. In the previous decisions, there were two main flaws in determining operational capacity of the Air Support Unit. The first was a lack of clear and defined operational capacities of the aircraft. Some have been mentioned previously and it is likely that more may be added by the RCIP. However, these should be clearly defined and then agreed at the political level. That way there can be no misunderstanding as to what the Air Support Unit can do.



9.07 Along with this, there needs to be a clear understanding as to what other non police functions, such as search and rescue, medical evacuation, etc. is required for the helicopter. While it may seem reasonable to “load up” the machine with as many functions as possible, it is clear that asking several different capacities will result in helicopters that are much more expensive to buy and operate. This needs to be taken into account when making a final list of requirements.

