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Performance Audit

OneSKY: Contractual Arrangements

Airservices Australia

Department of Defence

Australian National Audit Office

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31 July 2019

Dear Mr President
Dear Mr Speaker

In accordance with the authority contained in the *Auditor-General Act 1997*, I have undertaken an independent performance audit in Airservices Australia and the Department of Defence. The report is titled *OneSKY: Contractual Arrangements.* I present the report of this audit to the Parliament.

Following its presentation and receipt, the report will be placed on the Australian National Audit Office's website — http://www.anao.gov.au.

Yours sincerely

Grant Hehir
Auditor-General

The Honourable the President of the Senate
The Honourable the Speaker of the House of Representatives
Parliament House
Canberra ACT

AUDITING FOR AUSTRALIA

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Summary

Background

1. The December 2009 National Aviation White Paper identified expected benefits from synchronising civil and military air traffic management through the procurement of a single solution to replace the separate systems of Airservices Australia (Airservices) and the Department of Defence (Defence). The OneSKY Australia program involves the procurement of a Civil Military Air Traffic Management System (CMATS). Airservices is the lead entity for the procurement.

2. The procurement process commenced with a Request for Information issued to industry in May 2010, with 23 responses received. A Request for Tender (RFT) was issued in June 2013. Six tenders were received, four of which proceeded to detailed evaluation, during which one was set aside on the basis that it was clearly not competitive. The two highest ranked tenderers proceeded to the final evaluation stage. Decisions were then taken to set-aside, and later exclude, the second-ranked tenderer from further consideration (on the basis that it was 'clearly non-competitive') rather than enter into parallel negotiations with two tenderers.[1]

3. Negotiations with the successful tenderer (Thales Australia) commenced in September 2014. Offers were submitted by the successful tenderer in October and December 2014. On 27 February 2015, it was announced that an advanced work contracting arrangement would be entered into allowing discrete parcels of work to be performed while negotiation of the acquisition and support contracts was progressed. The earlier offers (including the response to the RFT) expired in October 2015. Another offer was submitted in June 2016, with a final offer submitted in September 2017, followed by further negotiation on scope, price and commercial terms.

4. In February 2018:

- an acquisition contract was signed by Airservices and the successful tenderer (as well as a support contract). The acquisition contract had a target price of AUD$1.22 billion and a ceiling price of AUD$1.32 billion (applying exchange rates on the date the contract was signed);
- Defence obtained Government approval for a $243 million increase to its project budget (including $90 million identified as relating to CMATS) to enable it to afford its share of project costs. Associated with the budget increase, Airservices and Defence were to undertake cost reduction measures, including capability offsets, to enable work to be delivered within the revised Defence budget for CMATS; and
- cost sharing arrangements between Airservices and Defence were updated and formalised through the execution of an On-Supply Agreement. For a fixed price of $521 million, CMATS will be provided to Defence along with an alternative air traffic

1 The Conditions of Tender had envisaged that the outcome of the 'Parallel Negotiations and Scope Refinement Process' was to have negotiated one or more draft contracts with each of the tenderers selected to participate to a point where they would be able to be executed, to enable Airservices to then select the preferred tenderer. Contract execution was scheduled for April 2015.

management tower solution at four sites[2] and the voice control switch developed under Advanced Work Order 3. Defence's contribution to program management costs are also included within this agreed amount. Airservices and Defence are each responsible for their own personnel and resourcing costs.

5. In February 2018 when the decision was taken by Airservices to enter into the acquisition contract, it estimated its acquisition program costs to be $1.517 billion. This figure does not include the fixed acquisition price of $521 million agreed between Airservices and Defence.

Rationale for undertaking the audit

6. OneSKY Australia was selected for audit because it is a significant program. The program has an estimated total cost of more than $4.11 billion.[3] Australian airspace covers 11 per cent of the globe and OneSKY is expected to improve safety and efficiency for civil and military air traffic, while catering for the significant forecast growth in the aviation sector.

7. In August 2015, the Minister for Infrastructure and Regional Development and the Senate Rural and Regional Affairs and Transport Legislation Committee requested that the Australian National Audit Office (ANAO) examine the implementation of the OneSKY program. This is the third audit the ANAO has undertaken in response to those requests.[4]

Audit objective and criteria

8. The objective of the audit was to assess whether the contract for the acquisition of the Civil Military Air Traffic Management System demonstrably represents value for money.

9. To form a conclusion against the audit objective, the ANAO adopted the following high-level criteria:

- Were required timeframes achieved for the replacement of existing systems?
- Is there adequate assurance that the price being paid is consistent with a value for money outcome for the capability being acquired?

Conclusion

10. Important changes were made, after the successful tenderer was selected, to the timeframe for delivery, scope of work, type of contract and price. An appropriate governance framework was established to evaluate whether negotiations had resulted in contract terms that

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2 Advice from Airservices CEO to the Chief of Air Force in January 2018 was that the cost of the alternative tower solution at four Defence sites (Richmond, Edinburgh, Oakey and Gingin) would be approximately $8 million. In March 2019 Defence advised ANAO that 'Defence contracted for the entirety of its agreed scope at a fixed price of $521 million, with no breakdown agreed for the alternate air traffic management solution. The ultimate cost of the alternate air traffic management solution, as with the CMATS solution, is a matter for Airservices.'

3 This estimate comprises: the acquisition cost of $1.517 billion for Airservices of the OneSKY Program, including CMATS, other associated projects and contingencies; the $1.445 billion estimate for support costs of the existing and new Airservices air traffic management system (see paragraph 3.36); and the project budget for Defence as at February 2018 of $1.149 billion (see paragraph 2.16).

4 See Auditor-General Report No.1 2016–17 *Procurement of the International Centre for Complex Project Management to Assist on the OneSKY Australia Program* and Auditor-General Report No.46 2016–17 *Conduct of the OneSKY Tender*.

represent value for money. Shortcomings in the application of that framework mean that value for money has not been adequately demonstrated.

11. If the current contracted timeframes are achieved, there will be a more than ten year delay (from 2015 to 2026[5]) in the replacement of the existing separate civil and military systems compared with the timeframe envisaged at the start of the procurement process. The capability baseline for the new combined system was established in advance of issuing the Request for Tender through appropriate engagement with industry. Delays with tender evaluation activities were exacerbated by even longer delays in the negotiation phase. Negotiations took so long that the offer submitted by the successful tenderer expired and the lives of the existing separate systems needed to be further extended. Negotiations also resulted in a late change in the contracting model from the one that had been presented to the market in June 2013.

12. There is inadequate assurance that the acquisition price is consistent with a value for money outcome:

- For the June 2016 offer, a comprehensive evaluation report was produced that included a clear conclusion that value for money had not been achieved. This was principally due to concerns about the $1.449 billion estimated acquisition cost.
- Through further negotiations, changes were made to delivery timeframes, the scope of work and the contract model, leading to a September 2017 final offer (with an estimated target price of $1.23 billion with the ceiling price to be 10 per cent higher) followed by further negotiation on scope, price and commercial terms. An evaluation report addressing each criterion, the expected total cost of ownership and whether the negotiated outcome represented value for money, was not prepared by the CMATS Review Board (CRB) and provided to the Airservices Board to inform the decision to sign the acquisition contract. Rather, the Board was provided with a report prepared by the Lead Negotiator[6], who was not authorised to and did not undertake a full evaluation of the offer.[7] The records of the relevant Board meeting do not identify or discuss the provision of the February 2018 Lead Negotiator's Report[8], and do not outline the value for money considerations of the Board.

13. Price risk is dealt with in the terms of the acquisition contract.

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5 The contract was amended in December 2018 to delay final acceptance by six months from 20 August 2025 to 20 February 2026.

6 The Lead Negotiator's report was endorsed by each member of the CRB.

7 Under Airservices and Defence's Contracting Negotiating Directive, the Lead Negotiator did not have the authority to examine in full the total cost of ownership criterion, or reach a conclusion on whether the offer represented value for money. These were matters reserved for the CRB, but the CRB did not produce an evaluation report.

8 The Lead Negotiator's report concluded that the offer represented 'better' value for money than the previous offer which had been assessed as not value for money. The Lead Negotiator's report confirmed the rankings for four of the five evaluation criteria (but did not provide this assurance against the total cost of ownership criterion).

Supporting findings

Negotiation timeframes

14. The planned timeframe of replacing the systems in 2015 was not met. The current date for acceptance of the replacement system is 2026. Delays with the conduct of the tender, tender evaluation and contract negotiations contributed to this more than ten year delay. This meant that Airservices and Defence had to extend their existing, separate air traffic management systems beyond that which was originally envisaged.

15. Scope requirements for the harmonised civil military air traffic management systems were established prior to entering into negotiations. A request for information and industry briefing process had been undertaken, and the resulting feedback was used to inform the development of the tender requirements. The requirements were released with the June 2013 Request for Tender and updated in October 2013, prior to tenders being received.

16. In November 2016, more than two years after negotiations began, it was decided to change the acquisition contract from the firm fixed price model that had been part of the June 2013 request for tender. A change to a target cost incentive contract model had first been suggested by the successful tenderer in December 2015. Airservices' decision to change the contracting model was made after various price submissions under the fixed price contract model received during the negotiation process had been identified as not representing value for money and/or as not likely to be affordable. The ceiling price under the target cost incentive model that was then adopted is more than double the price submitted by the successful tenderer in its response to the 2013 request for tender.

17. The delays in negotiating and finalising an acquisition contract, together with the scheduled delay in replacing the existing separate civil and military systems, have required the lives of the existing systems to be extended beyond that which was originally envisaged at an estimated cost of at least $212 million. Delays have also required additional resourcing from both entities for contract negotiations and project management. The costs relating to the additional resources for negotiations and project management were not quantified.

Negotiation outcome

18. Traceability was not maintained between offered requirements and the original Request for Tender. Traceability focused on changes over time in the various offers submitted by the preferred tenderer against updated versions of the requirements. The number of high priority requirements at the end of negotiations was 3.6 per cent greater than at the beginning of negotiations, with 6.7 per cent of the high priority requirements included in the Request for Tender modified in the signed acquisition contract.

19. There is a clear scope specified for the signed acquisition contract. Changes to the contract scope were envisaged before the acquisition contract was signed. To date, two change proposals have been actioned (in August 2018 and December 2018).

20. Price risk is dealt with in the terms of the acquisition contract. Of note is that the contract:

- requires the successful tenderer to use its 'reasonable endeavours' to ensure that the outturn price is, at final acceptance, lower than a target price of $1.22 billion;

- incorporates a painshare/gainshare framework intended to incentivise cost containment. This includes providing that Airservices' exposure to actual costs being greater than the target price is limited to a 50 per cent share of the costs above the target price up to the ceiling price, capping Airservices' exposure at $1.32 billion; and
- allows the contract scope to be amended, and provides a mechanism for the target and ceiling prices to be adjusted for scope changes.

21. There is inadequate assurance that the contracted acquisition price is consistent with a value for money outcome for the capability being acquired. Assessment governance arrangements for the June 2016 offer (which was rejected for not providing value for money) were appropriate. There were shortcomings in the application of the governance arrangements for the final (accepted) September 2017 offer. Of significance was that the CMATS Review Board did not prepare a comprehensive assessment report that addressed each of the evaluation criteria, quantified the expected total cost of ownership and analysed whether value for money had been achieved.

Summary of entity response

22. Summary responses provided by Airservices and Defence are provided below, with the full responses at Appendix 1.

Airservices

> Airservices notes the audit found that a number of elements of value for money examined in accordance with the audit scope were found to be sound, including that program scope requirements were well understood prior to entering negotiations, a clear scope was established for the signed contract, and there is appropriate management of price risk in the contract. We further note that no recommendations are made by the ANAO.
>
> Air traffic control systems are not an off-the-shelf product and there are only a very small number of suppliers of air traffic management systems worldwide. Each system is a system of systems which must cater for a nation's differing requirements including airspace coverage, surveillance inputs, system interfaces, national security and the specific requirements of the local aviation industry. These differences create complexities and mean that all air traffic control systems are unique for each country. Furthermore, recent international experience in air traffic management system procurement has demonstrated the importance of ensuring that scope is locked down as early as possible, that operational and safety assurance requirements can be met, and that the negotiated contractual terms are appropriate to manage any risks that emerge during the execution phase of a program.
>
> In this circumstance, the value for money considerations are necessarily broad and must include supplier market maturity, the specialist nature of the capability required and the level of risk. We accept that there are some areas that the report has identified where, with the benefit of hindsight, we could have better documented to provide a more auditable trail of decision making. However, that would not have materially impacted the decision-making process, nor the substance of the evidence relied on by the Board as decision-maker, nor the outcome. The Airservices Board, as the approval authority for the acquisition, clearly understood and acquitted its obligations in relation to making all reasonable enquiries to ensure the contract represented value for money.

Defence

> Defence acknowledges there is room to enhance the administrative arrangements supporting and documenting actions and decisions in such a complex program. Defence maintains however, that its procurement of a Civil and Military Air Traffic Management and Control System adequately demonstrates value for money. Defence thoroughly considered and documented its value for money assessment in the delegate submission for the On-Supply Agreement, through which Defence is acquiring the capability from Airservices.

Key learnings for all Australian Government entities

23. Below is a summary of key learnings which have been identified in this audit that may be relevant for the operations of other Commonwealth entities.

Procurement

- Significantly increased risks arise when negotiations commence with a single tenderer and all other tenderers are excluded. These risks are further increased when the offer submitted by that tenderer is not fully compliant and expires before negotiations have been concluded in respect to important matters such as the form of the contract, the capability to be delivered and the price to be paid.
- If consideration is being given to changing contract models after a procurement process has commenced, ideally each tenderer should be given the opportunity to bid on any change to the contract model.
- Prior to taking a decision to enter into a contract, it is important that decision-making entities be provided with balanced and comprehensive advice that clearly addresses whether a proposed contract represents value for money, and the criteria that were applied in reaching the conclusion. This should be supported by good records being made of matters taken into consideration in arriving at a decision as well as the terms of the decision taken (as this is fundamental to effective governance, accountability and transparency).
- Where price or scope of bids is well outside expectations, or there is a wide variation between tenders, this may indicate misunderstandings in industry about requirements. It is prudent in this situation to review scope and price expectations before progressing negotiations with a tenderer.
- Where significant price increases occur during negotiations, there should be consideration of value and benefits gained for the additional cost proposed against the scope requirements of the project and transparent reporting of the price increase justification to decision makers

Audit findings

1. Background

Introduction

1.1 The December 2009 National Aviation White Paper identified expected benefits from synchronising civil and military air traffic management through the procurement of a single solution to replace the separate systems of Airservices Australia (Airservices) and the Department of Defence (Defence). The OneSKY Australia program involves the procurement of a Civil Military Air Traffic Management System (CMATS). Airservices is the lead entity for the procurement.

1.2 The procurement process commenced with a Request for Information issued to industry in May 2010, with 23 responses received. A Request for Tender (RFT) was issued in June 2013. Six tenders were received, four of which proceeded to detailed evaluation, during which one was set aside on the basis that it was clearly not competitive. The two highest ranked tenderers proceeded to the final evaluation stage. Decisions were then taken to set-aside, and later exclude, the second-ranked tenderer from further consideration (on the basis that it was 'clearly non-competitive') rather than enter into parallel negotiations with two tenderers.[9] Auditor-General Report No. 46 2016–17 examined the conduct of the OneSKY tender process up until the announcement of the successful tenderer in February 2015. The overall audit conclusion was:

> The design of the OneSKY tender process was capable of producing a value for money outcome. The successful tenderer was assessed as significantly stronger in terms of technical capability as well as involving much lower schedule risk. The successful tenderer had also submitted significantly higher acquisition and support prices than the other tenderers. Adjustments made by the Tender Evaluation Committee (TEC) to tendered prices suggested that the successful tenderer offered the lowest cost solution. The TEC's approach did not highlight to decision-makers the trade-off that needed to be made between the technical merits and cost of the competing tenders. There have also been significant delays with the conduct of the OneSKY tender process.

1.3 That earlier audit report examined the procurement process up to the selection of the preferred tender. At the time it was tabled in April 2017, contract signature was not expected before mid-2017. As a result, Auditor-General Report No. 46 2016–17 did not examine the conduct and outcomes of the contract negotiation process, which was the final stage of the tender evaluation process set out in the RFT. This stage, titled 'Parallel Negotiations and Scope Refinement Process', was conducted in phases, which could occur in parallel or be merged: Phase 5A–Remediation and Clarification; Phase 5B–Discovery; Phase 5C–Critical Negotiations; Phase 5D–Advanced Work; and Phase 5E–Detailed Negotiations.

1.4 Negotiations with the successful tenderer (Thales Australia) commenced in September 2014. Phase 5A offers were submitted in October and December 2014. On 27 February 2015, it was announced that an advanced work contracting arrangement would be entered into allowing discrete parcels of work to be performed under Advanced Work Orders (AWOs) while negotiation

9 The Conditions of Tender had envisaged that the outcome of the 'Parallel Negotiations and Scope Refinement Process' was to have negotiated one or more draft contracts with each of the tenderers selected to participate to a point where they would be able to be executed, to enable Airservices to then select the preferred tenderer. Contract execution was scheduled for April 2015.

of the acquisition and support contracts was progressed.[10] A Phase 5C offer was submitted in June 2016, with a Phase 5E offer submitted in September 2017.[11]

1.5 In February 2018:

- an acquisition contract was signed by Airservices and the successful tenderer (as well as a support contract). The acquisition contract had a target price of AUD$1.22 billion[12] and a ceiling price of AUD$1.32 billion (applying exchange rates on the date the contract was signed);
- Defence obtained Government approval for a $243 million increase to its project budget (including $90 million identified as relating to CMATS). Associated with the budget increase, Airservices and Defence were to undertake cost reduction measures, including capability offsets, to enable work to be delivered within the revised Defence budget for CMATS; and
- cost sharing arrangements between Airservices and Defence were updated and formalised through the execution of an On-Supply Agreement. For a fixed price of $521 million, CMATS will be provided to Defence along with an alternative air traffic management tower solution at four sites[13] and the voice control switch developed under Advanced Work Order 3. Defence's contribution to program management costs are also included within this agreed amount.[14] Airservices and Defence are each responsible for their own personnel and resourcing costs.

1.6 In February 2018 when the decision was taken by Airservices to enter into the acquisition contract, it estimated its acquisition program costs to be $1.517 billion. This figure does not include the fixed acquisition price of $521 million agreed between Airservices and Defence.

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10 Airservices entered into four AWOs, with a total value (as of March 2019) of $177.2 million. Most of this related to system design and the voice communications switch.

11 No offers were required to be submitted as part of Phase 5B reflecting that its purpose was to achieve mutual disclosure and constructive testing as a basis for the negotiation of key scope and terms during Phase 5C. There was also no Phase 5D offer reflecting that its purpose was to undertake Advanced Work Orders with the purpose of de-risking program execution and support.

12 In November 2018 the Airservices Board was advised that the second contract change proposal (see further at paragraph 3.17) had resulted in a net reduction of $8.2 million to the target price comprising a reduction of $38.6 million for 'Defence scope reduction' and largely offset by an increase of $30.4 million (with an 'associated schedule impact' of 'up to five months') for scope changes 'known at contract signature' that 'are considered essential in achieving CMATS capability benefits'.

13 Advice from Airservices CEO to the Chief of Air Force in January 2018 was that the cost of the alternative tower solution at four Defence sites (Richmond, Edinburgh, Oakey and Gingin) would be approximately $8 million. In March 2019 Defence advised ANAO that 'Defence contracted for the entirety of its agreed scope at a fixed price of $521 million, with no breakdown agreed for the alternate air traffic management solution. The ultimate cost of the alternate air traffic management solution, as with the CMATS solution, is a matter for Airservices.'

14 Defence is a budget-funded entity. Airservices is funded by revenue from industry, involving charges for enroute, terminal navigation and aviation rescue and firefighting services. The level of charges is based on five year forecasts Airservices prepares of activity levels (including traffic volumes), operating costs and capital expenditure. As monopoly provider of such services within Australia, Airservices' prices are regulated by the Australian Competition and Consumer Commission. Where Airservices proposes to increase its prices it is required to notify the Australian Competition and Consumer Commission which is responsible for assessing the proposal, and is able to object to the proposed price.

Rationale for undertaking the audit

1.7 OneSKY Australia was selected for audit because it is a significant program. The program has an estimated total cost of more than $4.11 billion.[15] Australian airspace covers 11 per cent of the globe and OneSKY is expected to improve safety and efficiency for civil and military air traffic, while catering for the significant forecast growth in the aviation sector.

1.8 In August 2015, the Minister for Infrastructure and Regional Development and the Senate Rural and Regional Affairs and Transport Legislation Committee requested that the Australian National Audit Office (ANAO) examine the implementation of the OneSKY program. In response, three performance audits have been conducted by the ANAO.

1.9 The first audit was tabled in August 2016 (Auditor-General Report No.1 2016–17 *Procurement of the International Centre for Complex Project Management to Assist on the OneSKY Australia Program*). Its objective was to examine whether Airservices had effective procurement arrangements in place, with a particular emphasis on whether consultancy contracts entered into with the International Centre for Complex Project Management (ICCPM) in association with the OneSKY program were effectively administered.

1.10 The second audit was tabled in April 2017 (Auditor-General Report No.46 2016–17 *Conduct of the OneSKY Tender*). Its objective was to assess whether the OneSKY tender was conducted so as to provide value with public resources and achieve required timeframes for the effective replacement of the existing air traffic management platform.

1.11 Due to delays in signing contracts, the second ANAO performance audit was not able to examine the outcome of the contract negotiations. The Conditions of Tender had envisaged that the outcome of the 'Parallel Negotiations and Scope Refinement Process' was to have negotiated one or more draft contracts with each of the tenderers selected to participate to a point where they would be able to be executed, to enable Airservices to then select the preferred tenderer. Only one tenderer proceeded into the negotiations phase.[16] Contract execution was scheduled for April 2015 but occurred in February 2018.

1.12 The Parliament (via the Joint Committee of Public Accounts and Audit and the Senate Rural and Regional Affairs and Transport Legislation Committee) asked the ANAO to consider a third audit once a final contract was executed. Accordingly, an audit of the negotiation of the OneSKY contractual arrangements was included in the ANAO's 2017–18 and 2018–19 Annual Audit Work Programs.

15 This estimate comprises: the acquisition cost of $1.517 billion for Airservices of the OneSKY Program, including CMATS, other associated projects and contingencies; the $1.445 billion estimate for support costs of the existing and new Airservices air traffic management system (see paragraph 3.36); and the project budget for Defence's AIR5431 Phase 3 as at February 2018 of $1.149 billion (see paragraph 2.33).

16 In April 2019 Defence advised the ANAO that: 'Defence very much acknowledges the challenges of negotiating with one party in isolation, however does not believe that Airservices and Defence would have been acting in good faith were a second tenderer to have been brought through the negotiation phase. This was considered at length by decision makers in deciding to set aside the second ranked tenderer.'

Audit approach

Audit objective, criteria and scope

1.13 The objective of the audit was to assess whether the contract for the acquisition of the Civil Military Air Traffic Management System demonstrably represents value for money.

1.14 To form a conclusion against the audit objective, the ANAO adopted the following high-level criteria:

- Were required timeframes achieved for the replacement of existing systems?
- Is there adequate assurance that the price being paid is consistent with a value for money outcome for the capability being acquired?

1.15 The audit scope was focused on the acquisition contract (the support contract was being negotiated at the same time).

Audit methodology

1.16 Key elements of the audit methodology involved examination of Airservices and Defence records relating to contract negotiations as well as associated entity and government approval processes, along with interviews of relevant staff.

1.17 The audit was conducted in accordance with ANAO Auditing Standards at a cost to the ANAO of $450 000.

1.18 Team members for this audit were Hannah Conway, Michael Jones, Jordana Colvin and Brian Boyd.

2. Negotiation timeframes

Areas examined

The ANAO examined whether required timeframes were achieved for the replacement of existing systems.

Conclusion

If the current contracted timeframes are achieved, there will be a more than ten year delay (from 2015 to 2026) in the replacement of the existing separate civil and military systems compared with the timeframe envisaged at the start of the procurement process. The capability baseline for the new combined system was established in advance of issuing the Request for Tender through appropriate engagement with industry. Delays with tender evaluation activities were exacerbated by even longer delays in the negotiation phase. Negotiations took so long that the offer submitted by the successful tenderer expired and the lives of the existing separate systems needed to be further extended. Negotiations also resulted in a late change in the contracting model from the one that had been presented to the market in June 2013.

Were planned system replacement timeframes met?

The planned timeframe of replacing the systems in 2015 was not met. The current date for acceptance of the replacement system is 2026. Delays with the conduct of the tender, tender evaluation and contract negotiations contributed to this more than ten year delay. This meant that Airservices and Defence had to extend their existing, separate air traffic management systems beyond that which was originally envisaged.

2.1 The 2010 Joint Operational Concept Document for the harmonisation observed that a 'window of opportunity' existed as both the Defence and Airservices air traffic management systems would 'reach their nominal LOT [*life of type*] in 2015'.[17]

2.2 An 18 month delay with issuing the RFT[18] increased schedule pressure on solution delivery. By the time the RFT was released in June 2013 Airservices and Defence had extended the life of their separate systems until 2018 and 2019 respectively. Airservices also negotiated with its existing vendor (who was the successful OneSKY tenderer) for a hardware upgrade to the current system, and the option to further extend the support arrangements through to 2021.[19]

2.3 Documentation released as part of the RFT informed tenderers that the existing systems were scheduled to expire between 2015 and 2018. Accordingly, the RFT sought proposed delivery schedules from tenderers with a final operational capability of the new harmonised system to be achieved by 2018–2021.

17 See Auditor-General Report No. 46 2016–17 *Conduct of the OneSKY Tender* paragraphs 1.2–1.3 for further information on the existing air traffic management systems.

18 See Auditor-General Report No. 46 2016–17 *Conduct of the OneSKY Tender*, paragraphs 12, 2.24–2.29 and Figure 2.1.

19 In July 2019, Airservices advised the ANAO that 'The current Eurocat support contract is valid until 31 December 2021 and has an optional extension until 31 December 2024.'

2.4 Tender evaluation activities took more than twice as long as planned.[20] This was compounded by even longer delays in the negotiation phase. Rather than the 'Parallel Negotiations and Scope Refinement Process' taking the planned 11 months, negotiations with a single tenderer took more than 41 months. One consequence of this was that the tender validity period expired (on 30 October 2015) before negotiations were completed.

2.5 By May 2015, eight months into negotiations, the successful tenderer had identified that a change to the originally proposed delivery schedule was required and would be reflected in its next offer. Airservices identified a consequential three to five year delay in the delivery of a replacement air traffic management solution.

2.6 This delay, which would have resulted in the initial delivery of the solution in 2023 and final delivery in 2027 at the latest was identified as unacceptable by the negotiating team. In order to manage and mitigate the increased risk to the delivery of a replacement system before the revised expiry dates of the existing systems, negotiations considered a three staged delivery of CMATS. The first stage was intended to 'allow Defence's critical need for ADATS replacement to be met […] by about 2020–2021' while the second stage sought to deliver 'Airservices with much of what it seeks by […] about 2021–2022.' The third and final stage would be the delivery of the full CMATS solution.

2.7 In 2013, Defence had extended the life of its ADATS automation system (provided by Raytheon) to 2023. By 2016, Defence had begun considering further life of type extensions to its air traffic management system. In 2018 the Government approved an additional $33.4 million to the Defence project budget to extend the system life until 2027.

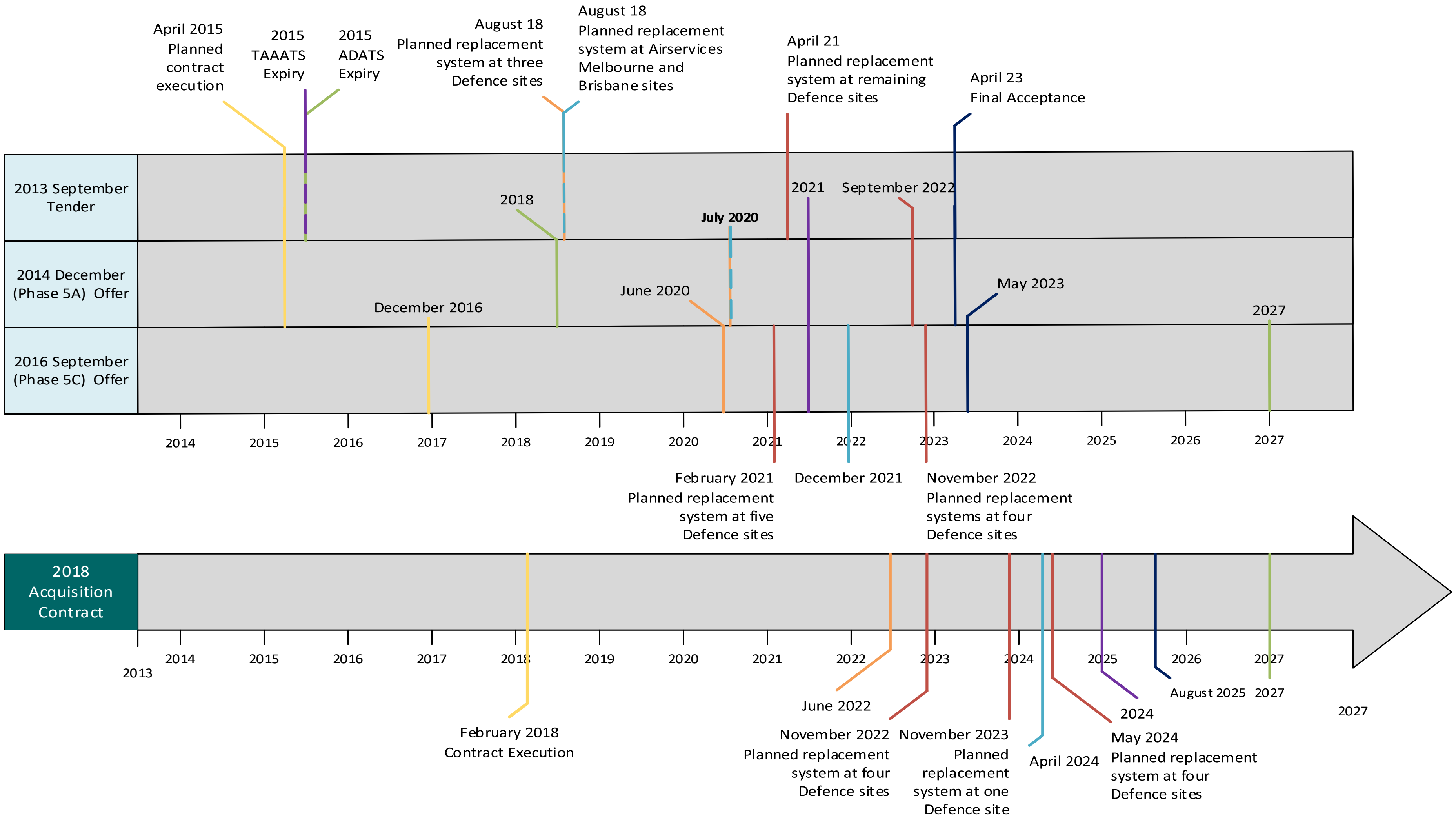
2.8 In 2016, Airservices extended the life of its existing air traffic management system with its existing vendor (Thales Australia) through a hardware refresh, an extension to existing support arrangements to December 2021 and safety enhancements. By 30 June 2018 Airservices had spent $102.6 million on extending its existing system, with a further $42.5 million forecast expenditure out to 2025, when CMATS is expected to be operational. In December 2018, Airservices extended the life of its existing system through to December 2024.

2.9 As illustrated by Figure 2.1, forecast contract execution dates, and CMATS introduction to service dates at different Airservices and Defence sites, varied throughout contract negotiations. These schedule changes placed pressure on the existing air traffic management systems, with extensions made to ensure transition between existing systems and the new CMATS was possible. The 30 November 2017 report of a procurement assurance review of the governance framework and audit trail in support of the Parallel Negotiations and Scope Refinement Process (Phase 5) , which was commissioned by Airservices, concluded that:

> the extended duration of Phase 5 has given rise to Program delay while also accentuating existing systems obsolescence issues.

20 See Auditor-General Report No. 46 2016–17 *Conduct of the OneSKY Tender*, paragraphs 12, 2.30–2.32, Figure 2.1 and Table 2.2

Figure 2.1: Changes to delivery schedules over time



Source: ANAO analysis Airservices and Defence records.

2.10 The final delivery schedule in the acquisition contract provides for:

- initial acceptance of a replacement air traffic management system to
  - three Defence sites by mid-2022, with an upgrade to full capability by 2024. The acquisition contract's delivery schedule was amended in December 2018, resulting in a delay of scheduled acceptance of full capability for two of these Defence sites out to early-2025. One site was removed from the scope of the CMATS acquisition contract, and will receive an alternative solution as agreed in the On-Supply Agreement between Airservices and Defence; and
  - another four Defence sites by late-2022, with an upgrade to full capability by late 2024-early 2025. The change in delivery schedule in December 2018 delayed scheduled acceptance of full capability for two of these Defence sites out to mid-2025. Two of these sites were removed from the scope of the CMATS acquisition contract and will receive an alternative solution;
- acceptance of a replacement system to the remaining five Defence sites by late 2023–early 2024. The change in delivery schedule in December 2018 delayed scheduled acceptance of full capability for four of these Defence sites out to late-2024. One site was removed from the scope of the CMATS acquisition contract and will receive an alternative solution to be provided by Airservices; and
- acceptance of a replacement system to Airservices Melbourne, Brisbane, Perth and Sydney sites by 2024. Acceptance of a replacement system at these Airservices sites has been delayed by the December 2018 change to the delivery schedule. Melbourne moved from February 2024 to September 2024, Brisbane moved from April 2024 to July 2024, Perth moved from August 2024 to March 2025 and Sydney moved from December 2024 to July 2025.

2.11 Final acceptance of the entire CMATS solutions was scheduled for 20 August 2025 when the contract was signed in February 2018. The contract amendment made in December 2018 delayed final acceptance by six months from 20 August 2025 to 20 February 2026.

2.12 In March 2019, Defence advised the ANAO in respect to the conclusion of this chapter that:

> Although it has taken longer than anticipated to enter into contract, the time invested upfront was used to clarify and ensure a clear understanding of Airservices' and Defence's requirements, and to reduce risks that could have eventuated after contract signature (and thereby further delay the schedule and increase the cost of the program).

Were scope requirements well understood prior to entering negotiations?

> Scope requirements for the civil military air traffic management system were established prior to entering into negotiations. A request for information and industry briefing process had been undertaken, and the resulting feedback was used to inform the development of the tender requirements. The requirements were released with the June 2013 Request for Tender and updated in October 2013, prior to tenders being received.

2.13 A Request for Information (RFI) was released to industry in May 2010, seeking industry engagement and 'information on a national Air Traffic Management (ATM) system comprising an

Air Traffic Control (ATC) automation system for both Airservices and Defence, Control Tower systems for Defence and Surveillance sensors (radars) for Defence.'[21] The RFI also sought to develop an understanding of industry's capability and capacity, perceptions of risk associated with the prospective procurement, views on the advancement of technologies, schedule considerations, whole of life cost implications and perspectives on technical risk.

2.14 A review of the six complete and nine partial RFI responses concluded that industry appeared to have the capability and capacity necessary to procure or construct a national ATM system, yet also noted 'that the greatest risk existed around requirements definition, and that a clear understanding between the two organisations would be required.'

2.15 In preparation for the release of the Request for Tender (RFT) to market, industry briefings were conducted and the requirements of a harmonised civil military air traffic management system were further refined. A draft set of tender documents, including the draft set of requirements were developed.

2.16 The system requirements were explained at varying levels through a range of documents. At the highest level was the Joint Acquisition Statement of Work followed by the Common Operational Concept Document, which defined the scope, operational and internal needs, and the 'boundaries for capability' of the CMATS system acquisition. Further detail, such as system architectural, functional, performance and capacity requirements were identified in the Joint Function and Performance Specification (JFPS). The JFPS was intended to describe 'the CMATS requirements with sufficient detail to ensure that the solution would support Airservices Australia and Defence needs as described in the COCD.' According to the JFPS, the requirements would then be:

> flowed down to and be included in the System Specifications and Design Documents that will be delivered by the contractor. The requirements in the documents together with the approved functional, allocated and product Baselines will be used to support the acceptance and commissioning process of CMATS for operational use.

2.17 A draft set of requirements was released to industry on 11 December 2012 'to allow tenderers to review the document, and to have a *[sic]* early opportunity to prepare for the RFT release'.

2.18 In June 2013, after the development of the solutions requirements and the two draft releases to industry, a finalised JFPS was released as part of the RFT. While the tender was open for responses, clarification questions regarding the JFPS were sent to Airservices. In response, the JFPS was re-issued on 4 October 2013, noting that the changes 'do not materially impact the scope of the RFT, such as typography and reference and amendments required to ensure clarity to prospective tenderers of the original intent of the RFT requirement'.

2.19 Between October 2013 and the end of the tender evaluation phase in August 2014, no further amendments were made to the JFPS.

21 Defence removed replacement radars from the CMATS acquisition scope in November 2013, prior to Second Pass Government approval.

Was the contracting model established and agreed early in the negotiation process?

In November 2016, more than two years after negotiations began, it was decided to change the acquisition contract from the firm fixed price model that had been part of the June 2013 request for tender. A change to a target cost incentive contract model had first been suggested by the successful tenderer in December 2015. Airservices' decision to change the contracting model was made after various price submissions under the fixed price contract model received during the negotiation process had been identified as not representing value for money and/or as not likely to be affordable. The ceiling price under the target cost incentive model that was then adopted is more than double the price submitted by the successful tenderer in its response to the 2013 request for tender.

2.20 The Request for Tender issued in June 2013 included a draft acquisition contract. The payment arrangements under the draft contract involved a firm fixed price model, as follows:

- the contract price was payable upon the achievement of milestones;
- additional discretionary 'incentive payments' of up to $20 million could be made upon evidenced achievement of superior contract performance in areas such as cost, schedule or performance, based on agreed performance objectives; and
- liquidated damages clauses were included to address delays.

2.21 Tender respondents were asked to address their level of compliance against the contract. None of the tender responses proposed an acquisition contract based on an alternative contracting model. The Tender Evaluation Committee concluded that acceptable contract terms were likely to be negotiated with the successful tenderer more quickly and with less risk than with the other tenderers. The acquisition price submitted by the successful tenderer under the firm fixed price contract model was $630 million.

2.22 The tendered acquisition price expired in October 2015, more than one year after negotiations had commenced (in early September 2014). Also in October 2015, the OneSKY Lead Negotiator recorded that one of the 'themes' of the negotiations had been a 'strong determination' on the part of the successful tenderer 'to migrate their fixed price bid to a cost plus contract'.

2.23 A Rough-Order of Magnitude price of $1.392 billion for acquisition was submitted by the successful tenderer in early December 2015. Airservices recorded that the 'magnitude of the price increase led to a series of high-level meetings in Paris in mid-December 2015'. Airservices further recorded that, at those meetings, the successful tenderer proposed a 'convergence action plan' and suggested that 'different commercial models, other than a Firm Fixed Price (FFP), could be adopted to better facilitate a strategic partnership'. Particular attention was drawn to a target cost incentive contract the successful tenderer had entered into for the modernisation of signalling infrastructure for part of the London Underground.

2.24 No change to the contracting model was made at that time, with the next offer under the firm fixed price contract model submitted in June 2016. That offer included an acquisition price of $1.025 billion. Assessment of this offer was completed in August 2016, concluding that:

- after taking into account additional costs and risks, estimated total acquisition costs amounted to $1.449 billion with an additional risk of $41 million; and

- the offer did not represent value for money, principally due to the prices and payment regimes as well as a range of other significant issues.

2.25 A non-binding hypothetical estimate of the cost of the acquisition contract was provided by the successful tenderer in July 2016. Airservices recorded that the $1.456 billion estimate was likely to be unaffordable.

2.26 Also in July 2016, a visit was made to Paris and London to meet with representatives of the successful tenderer and the contracting principal for the London Underground signalling upgrade project so as to gain further insight into the target cost incentive contracting framework (see paragraph 3.20 and Figure 3.1 for an overview of the contracted framework). In March 2019 Defence advised the ANAO that:

> The Airservices and Defence team selected for this visit included representatives experienced in target cost incentive contracting, relevantly through Defence's Wedgetail and Collins Class sustainment arrangements, including Defence's then Chief Contracting Officer. Subsequent to this visit, the team further researched the application of the pricing model, considering lessons from Defence's Jindalee Over the Horizon Radar Network (JORN) and Wedgetail Mid-life Upgrade projects, as well as Australian and international literature more broadly, and sought advice from both the then Capability Acquisition and Sustainment Group General Counsel and a legal firm with experience applying the model in the construction industry.

2.27 Airservices identified in August 2016 that an alternative contracting model would delay contract execution by 6 months. Nevertheless, by September 2016, a change in the contracting model had been identified as likely to be necessary in order to achieve value for money.

2.28 After being briefed, in November 2016 the Airservices Board requested the development of a counter proposal to the successful tenderer, including changing the acquisition contract to a target cost incentive approach. In January 2017, Airservices obtained probity advice that the change in contracting model was not so great as to require termination of the procurement process being conducted under the June 2013 Request for Tender. The probity advice was based on an assumption that the ceiling price under the target cost incentive framework would be the June 2016 offer price.

2.29 Negotiation of an acquisition contract under target cost incentive contracting model took place over the course of 2017. This included negotiations in relation to the capability baseline; ceiling and target prices; and allowable margin rates. This culminated in the provision of a final offer in September 2017, followed by further negotiation on scope, price and commercial terms. An acquisition contract applying the target cost incentive model was signed on 22 February 2018 with a target price of $1.22 billion and ceiling price of $1.32 billion. This is more than double the $630 million acquisition price submitted by the successful tenderer under the firm fixed price contract model.

What is the financial cost of any delays?

The delays in negotiating and finalising an acquisition contract, together with the scheduled delay in replacing the existing separate civil and military systems, have required the lives of the existing systems to be extended beyond that which was originally envisaged at an estimated cost of at least $212 million. Delays have also required additional resourcing from both entities for contract negotiations and project management. The costs relating to the additional resources for negotiations and project management were not quantified.

2.30 CMATS is one major element of work being undertaken by Airservices and Defence to modernise air traffic management. Airservices has seven other projects within the OneSKY Program. Defence's AIR5431 Phase 3 Project includes CMATS as well as the replacement or refurbishment of control towers and approach centres and network infrastructure upgrades. Delays to contract execution for CMATS has implications for the dependent projects as well as existing infrastructure and internal staffing and resourcing. For example, delays with contract negotiations required resourcing of the contract negotiating team over a longer period of time. In March 2019, Defence advised the ANAO that:

> Airservices and Defence reduced the size of the negotiation team over time (as appropriate to the matters to be negotiated) in order to minimise the associated cost. For example, the negotiation team for 5E was substantially smaller than the team negotiating 5A.

2.31 Significant additional costs have been incurred to extend the life of the existing civil and military air traffic management systems to meet the revised schedule for the introduction into service of CMATS.

2.32 Airservices' contract with the supplier of its existing system (also the successful tenderer) was due to expire in 2015. Following negotiations with the supplier, Airservices approved a hardware refresh, an extension to existing support arrangements to December 2021 and safety enhancements. Between 1 July 2014 and 30 June 2017 Airservices spent a total of $87.3 million on upgrades, enhancements and sustainment for the existing air traffic management system. Airservices spent a further $15.2 million in 2017–18 on system upgrades, enhancements and sustainment. It expects further expenditure of $42.5 million until 2025, when CMATS is expected to be operational.

2.33 In December 2014, Defence was approved a total budget of $906 million for AIR5431 Phase 3. By contract execution in February 2018, a Real Cost Increase to the Defence project of $243 million had been approved by Ministers. This increased the total Defence budget for AIR5431 Phase 3 to $1,149 million. The CMATS component of this budget was fixed at $521 million. Included in the Real Cost Increase was an additional $33 million to fund the continued sustainment of Defence's current air traffic management system out to 2027. This was in addition to $34 million in funding already provided to extend the system to 2023.

2.34 In April 2019, Airservices advised the ANAO that, in addition to the cost of asset life extensions, there are:

> more material savings (in a cash flow and cost sense) from deferring the significant capital expenditure, or consideration of the significant reduction in program and financial risk that resulted from the extensive negotiations.

3. Negotiation outcome

Areas examined

The ANAO examined whether there is adequate assurance that the price being paid is consistent with a value for money outcome for the capability being acquired.

Conclusion

There is inadequate assurance that the acquisition price is consistent with a value for money outcome:

- For the June 2016 offer, a comprehensive evaluation report was produced that included a clear conclusion that value for money had not been achieved. A key factor in reaching this conclusion was concerns about the $1.49 billion estimated acquisition cost.
- Through further negotiations, changes were made to delivery timeframes, the scope of work and the contract model, leading to a September 2017 final offer (with an estimated target price of $1.23 billion with the ceiling price to be 10 per cent higher) followed by further negotiation on scope, price and commercial terms. An evaluation report addressing each criterion, the expected total cost of ownership and whether the negotiated outcome represented value for money, was not prepared by the CMATS Review Board (CRB) and provided to the Airservices Board to inform the decision to sign the acquisition contract. Rather, the Board was provided with a report prepared by the Lead Negotiator[a], who was not authorised to and did not undertake a full evaluation of the offer.[b] The records of the relevant Board meeting do not identify or discuss the provision of the February 2018 Lead Negotiator's Report[c], and do not outline the value for money considerations of the Board.

Price risk is dealt with in the terms of the acquisition contract.

Note a: The Lead Negotiator's report was endorsed by each member of the CRB.

Note b: Under Airservices and Defence's Contracting Negotiating Directive, the Lead Negotiator did not have the authority to examine in full the total cost of ownership criterion, or reach a conclusion on whether the offer represented value for money. These were matters reserved for the CRB, but the CRB did not produce an evaluation report.

Note c: The Lead Negotiator's report concluded that the offer represented 'better' value for money than the previous offer which had been assessed as not value for money. The Lead Negotiator's report confirmed the rankings for four of the five evaluation criteria (but did not provide this assurance against the total cost of ownership criterion).

Was traceability of tendered and offered requirements maintained throughout the negotiation process?

Traceability was not maintained between offered requirements and the original Request for Tender. Traceability focused on changes over time in the various offers submitted by the preferred tenderer against updated versions of the requirements. The number of high priority requirements at the end of negotiations was 3.6 per cent greater than at the beginning of negotiations, with 6.7 per cent of the high priority requirements included in the Request for Tender modified in the signed acquisition contract.

3.1 The first evaluation criterion (see Table 3.7 on page 41) related to the extent to which the proposed solution offered by each tenderer met the specified technical, operational and safety requirements. The RFT outlined that the tenderers selected by Airservices to be involved in the Phase 5 Parallel Negotiations and Scope Refinement Process may be asked to further develop the requirements based on their tender responses to a contract ready standard. The RFT further stated that, should tenderers revise their pricing during the Phase 5 Parallel Negotiations and Scope Refinement Process:

- such changes must be traceable to the issues and outcomes of the Phase 5 Parallel Negotiations and Scope Refinement Process; and
- Airservices may decide not to consider any revised pricing if it considers that the tenderer has changed the underlying basis on which its pricing was calculated which is not traceable to the issues and outcomes of the Phase 5 Parallel Negotiations and Scope Refinement Process.

3.2 Tenderers were informed of the priority of each of the 3495 requirements included in the Joint Function and Performance Specification (see Table 3.1). Tender evaluation concluded that none of the tendered solutions satisfied all 3495 requirements, and that each tender had unacceptable non-compliances.[22] While each shortlisted tender was considered to have the potential to be further developed to achieve an acceptable baseline solution, the amount of effort (in terms of cost and schedule) to bring the solution of the successful tenderer to an 'acceptable baseline' was assessed to be 'minimal' compared with 'very significant' for the other two tenderers. A further report at the next stage of evaluation (when two tenderer's remained under consideration) concluded that that the second ranked tenderer 'presented serious deficiencies that would require considerable development before the system could be accepted'.

Table 3.1: Requirements tendered in 2013

Category	Definition	Number of requirements
Essential	A requirement without which the achievement of a capability would not be possible at an acceptable level of risk. Failure to meet an essential requirement would exclude an entire offer from further evaluation	9
Very Important	A requirement that is integral to achieve the intended functionality and/or performance. Failure to meet such requirements is likely to indicate a very high level of risk with the provided solution.	568
Important	Important to achieve the intended functionality and/or performance. Failure to meet several of these requirements would indicate a level of increased risk with the solution.	2035
Desirable	A requirement that is not a key factor in the achievement of the intended functionality and/or performance, but which is perceived as beneficial.	543
Advice	Information that is being given as supporting evidence only and not considered assessment criteria for evaluations. Supporting evidence in these statements will be used to provide context in evaluating other requirements.	340

Source: ANAO analysis of Airservices and Defence records.

3.3 Two offers were received from the successful tenderer during the first phase of negotiations (Phase 5A). The first offer, submitted on 22 October 2014, was rejected with the successful tenderer advised that this was because the pricing was not traceable against the October 2013 tender (the

22 Auditor-General Report No.46 2016–17 *Conduct of the OneSKY Tender*, paragraphs 3.20–3.22.

assessed impact was a $39 million increase on the $630 million tendered price. A revised offer was submitted on 17 December 2014. This revised offer was assessed to have addressed the deficiencies in the first submission.

3.4 Phase 5C negotiations commenced in January 2015. Modifications were made to 110 requirements. In addition, 214 requirements were added (the significant majority of these — 182 — were identified as 'important' or 'very important') and 165 requirements were deleted (of which 40 had been identified as 'important' or 'very important'). Of the 214 requirements that were added, 34 were later removed (30 of which had been identified as 'important').[23]

3.5 On 28 October 2015, the successful tenderer declined to extend the validity period of its tender and its Phase 5A offer (which were due to expire on 30 October 2015), advising Airservices that it considered the changes that had been made to the project scope and schedule had resulted in a 'significant evolution of the requirements and assumptions' on which the offers had been based.[24] From its perspective, Airservices recorded that:

- it had become apparent during the Phase 5C negotiations that the level of software development required to remediate the technical deficiencies identified in the tender evaluation was 'far greater than had been anticipated' (and further advised ANAO in April 2019 that 'this was underestimated when the RFT was being assessed'); and
- the preferred tenderer's costings to increase its level of compliance through software development were higher than had been expected and also created obsolescence risks for the existing systems.

3.6 The June 2016 (Phase 5C) offer was submitted on the basis of a baseline that incorporated a further seven changes to the requirements. Five of the changes involved modifications to existing requirements (with one requirement added and another removed). The assessment of the June 2016 offer:

- was intended to be a standalone assessment against the Phase 5C baseline (which, as noted, differed to the RFT requirements);
- did not set out to compare the offer with the tenders received in response to the RFT, although a 'high level traceability' was recorded as being undertaken against the successful tenderer's tender response (but not the requirements set out with the RFT); and
- concluded that the offer was 'more compliant' than the tender response and that this offer provided 'improved capability'.

3.7 Further changes to requirements were made to the baseline that informed the development of the September 2017 offer (the Phase 5E offer). Table 3.2 outlines the changes in comparison to the baseline that underpinned the Phase 5C (June 2016) offer. Just over half of the deletions had been categorised as 'important' or 'very important' requirements, with 90 per cent of the additions

23 Most of the deletions were made late in the negotiation process (between the final offer being received in September 2017 and the acquisition contract being signed in February 2018).

24 While the successful tenderer did not extend the validity period of its two offers, in April 2019 Airservices advised the ANAO that an 'agreement had been reached between the parties that the conditions of tender would continue to be applied in good faith.'

relating to requirements in these two categories. There were also three 'essential' requirements added (earlier versions had all identified nine 'essential' requirements).

Table 3.2: Changes to requirements between the June 2016 and September 2017 offers

	Advice	Desirable	Important	Very Important	Essential	Total
Additions	5	5	79	40	3	132
Deletions	9	67	64	18	0	158
Modifications	13	30	97	25	0	165

Source: ANAO analysis of Airservices and Defence records.

3.8 Of the 132 additions made between the June 2016 and September 2017 offers, 43 were later removed from the baseline included in the acquisition contract signed in February 2018. The deletions included the three essential requirements (that had been included for the Phase 5E baseline) as well was 34 additions categorised as very important and important (28 per cent).

3.9 Of the 3495 requirements included in the RFT, 2850 (82 per cent) were retained without modification in the signed acquisition contract. Of these, nine had been categorised 'essential' (each of which had been included with the RFT), 506 had been categorised as 'very important' (89 per cent of those included in the RFT) and 1755 had been categorised as 'important' (86 per cent of those included in the RFT).

3.10 As illustrated by Table 3.3, overall between the RFT and the contract, the total number of requirements reduced by 2.7 per cent. The number of high priority requirements at the end of negotiations was 3.6 per cent greater than at the beginning of negotiations, with 6.7 per cent of the high priority requirements included in the Request for Tender modified in the signed acquisition contract.

Table 3.3: Change in requirements from RFT to signed contract

	RFT	Contract	Change
Total requirements	3495	3399	-2.7%
Requirements added	N/A	304	+8.7%
Requirements deleted	N/A	400	-11.4%
Requirements modified	N/A	245	7.0%
Offer price	$630m	$1.22b—$1.32b	+93% to +109%
Assessed cost of acquisition	$843m	$1.307b—$1.408b	+55% to +67%

Source: ANAO analysis of Airservices and Defence records.

3.11 The Lead Negotiator's 5 December 2017 report outlined that 'where possible', traceability was maintained between the September 2017 and June 2016 offers, as well as between the June 2016 offer and the October 2013 tender response. Traceability was not reported as having been maintained with the requirements set out in the June 2013 RFT (against which tenders had been received and evaluated). In March 2019, Defence advised the ANAO that:

> It would have been too challenging to trace each offer back to the original RFT as the contract was negotiated, hence this approach was confirmed with the probity adviser as being appropriate.

Is the scope of the requirements for the final acquisition contract clear?

There is a clear scope specified for the signed acquisition contract. Changes to the contract scope were envisaged before the acquisition contract was signed. To date, two change proposals have been actioned (in August 2018 and December 2018).

3.12 The scope of requirements for CMATS was detailed in the acquisition contract executed on the 22 February 2018. The acquisition contract included the Joint Function and Performance Specification (JFPS), with 3399 requirements. The contract allowed for variations to the contract through a Contract Change Proposals (CCPs) process.

3.13 As early as November 2016 the Lead Negotiator indicated the potential need to make changes to the contract post execution.

3.14 After receipt of the September 2017 offer, Defence concerns regarding affordability gave rise to negotiation on 'collaborative options' with Airservices, resulting in CMATS contract scope reductions for Defence where the affected Defence capability would be delivered in a different way.

3.15 Collaborative options for Defence reflected in the agreement it signed with Airservices in February 2018 included:

- removal of the CMATS tower systems at Oakey, Gingin, Richmond and Edinburgh and replacement with an Airservices alternative solution;
- consolidation of Oakey approach into Amberley;
- consolidation of Darwin and Townsville approach into Brisbane; and
- a revised approach to Defence operator training.

3.16 The first CCP was executed on 15 August 2018. The changes in this CCP stemmed from: customer initiated changes to 'address operational and business needs, and to tidy up errors in the previous capability baseline'; 'outcomes from CMATS Local Technical Meetings'; and contractor initiated changes relating to Advanced Work Order 3.

3.17 The second CCP was executed on 4 December 2018. This included changes relating to the scope reductions Defence agreed with Airservices prior to execution of the acquisition contract between Airservices and the successful tenderer. Other non-Defence specific scope changes, including some stemming from the Joint Engineering Escalation Panel and changes relating to Advanced Work Order 3 were also made. In April 2019, Defence advised the ANAO that:

> The second contract change proposal was executed on 4 December 2018. This included variations to the scope of the acquisition contract between Airservices and the successful tenderer in order to effect collaboration options agreed between Airservices and Defence to deliver the Defence project scope in a different manner, at no detriment to air traffic control capability.

3.18 A further six CCPs are planned according to a March 2019 update, including to:

- replace the JFPS with the Functional Baseline;
- make further adjustments for the Defence collaborative options and de-scoping;
- adjust the approved subcontractors list; and
- incorporate interface changes.

3.19 All Defence scope changes and collaboration options were expected to be incorporated by May 2019. In July 2019, Defence advised the ANAO that this had not yet occurred, with the fourth CCP 'likely' to be signed in July 2019 with the fifth CCP in October 2019.

How is price risk dealt with in the contract?

Price risk is dealt with in the terms of the acquisition contract. Of note is that the contract:

- requires the successful tenderer to use its 'reasonable endeavours' to ensure that the outturn price is, at final acceptance, lower than a target price of $1.22 billion;
- incorporates a painshare/gainshare framework intended to incentivise cost containment. This includes providing that Airservices' exposure to actual costs being greater than the target price is limited to a 50 per cent share of the costs above the target price up to the ceiling price, capping Airservices' exposure at $1.32 billion; and
- allows the contract scope to be amended, and provides a mechanism for the target and ceiling prices to be adjusted for scope changes.

3.20 The target price and the ceiling price specified in the acquisition contract each comprises a separate cost and margin component.[25] In turn, each component comprises a separate Australian dollar and Euro component. Applying the exchange rates on the date the contract was signed, the target price is estimated at $1.22 billion[26] with a ceiling price estimate of $1.32 billion.[27] In March 2019 Airservices advised the ANAO that it 'has hedged its foreign exchange exposure in line with its hedging guidelines, which require Airservices to hedge any transaction over $200,000 which is committed and has adequate cash flow certainty.' The contract includes a:

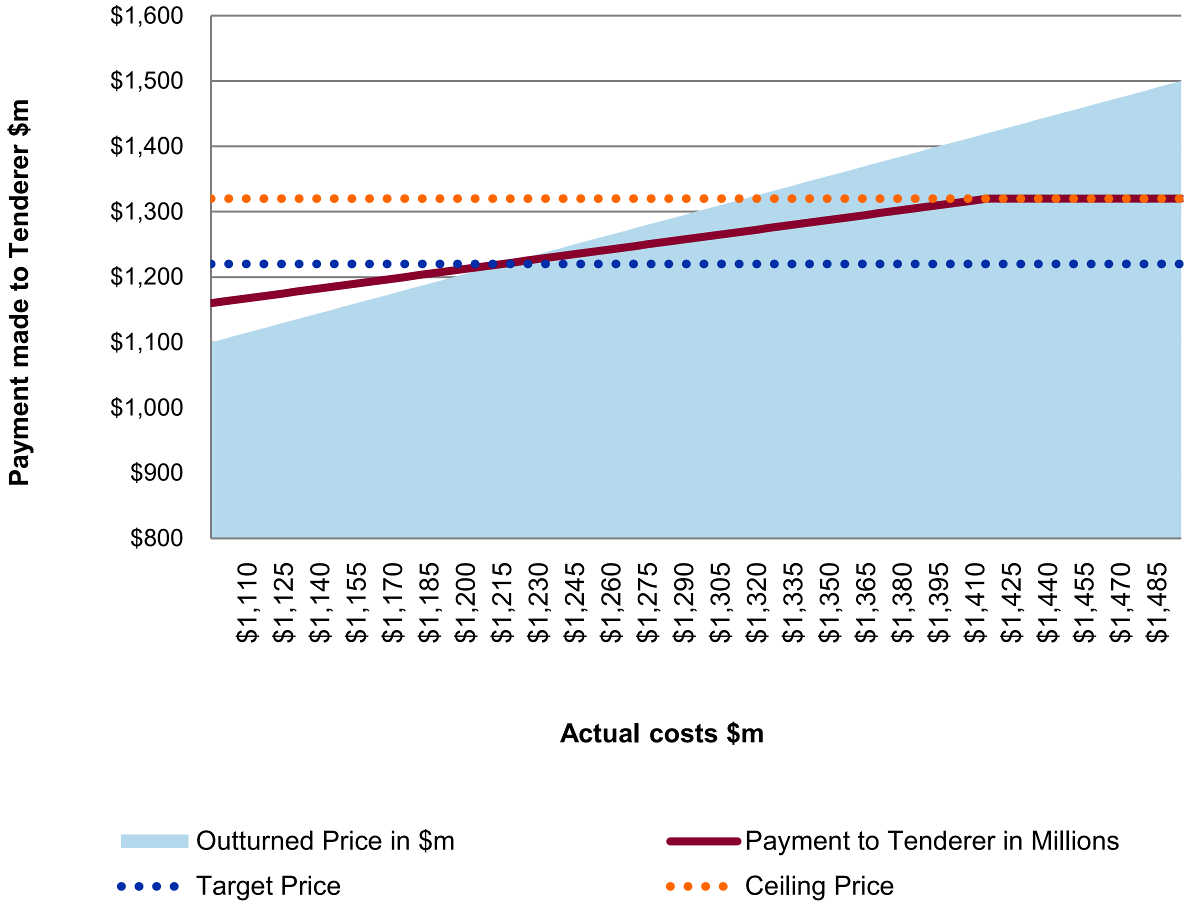
- cost checkpoint mechanism for monitoring the costs being incurred by the successful tenderer; and
- gainshare and painshare mechanism with respect to the target and ceiling prices (see Figure 3.1) that involves:
  - requiring the successful tenderer to use its 'reasonable endeavours' to ensure that the outturn price is, at final acceptance, lower than the target price. Airservices and the successful tenderer are to share in any savings should the outturn price be less than the target price; and
  - addressing the situation where outturn costs are above the target price. In the event the target is exceeded, the contract provides that the cost of the overspend be shared equally, up to the contracted ceiling price, after which the successful tenderer has no further entitlement to payment. This means that the cost to Airservices is capped at $1.32 billion.

25 The margin amounts were the same for the target price and the ceiling price.

26 The target price is AUD986.1 million plus EURO147.2 million.

27 The ceiling price is AUD1.07 billion plus EURO158.6 million

Figure 3.1: Operation of gainshare and painshare mechanism with respect to target and ceiling price



Source: ANAO analysis of Airservices documentation.

3.21 The contract established a Program Review Board to create a 'collaborative forum' to meet at least monthly to manage delivery risks, issues and opportunities. To assist, the contract requires Airservices to develop and maintain a project ledger of matters impacting on the performance of the contract, and the estimated cost of any ledger events.

Additional payments to the successful tenderer

3.22 In addition to the outturn price, additional payments may be made under the contract:

- Of up to $15 million for problem identification, reporting and rectification services. The amount to be paid is to cover direct material and subcontractor costs, plus indirect costs such as overheads and a margin (at a specified rate higher than the margin on which the outturned price was based). The $15 million provision may also be used for additional work undertaken by the successful tenderer to address risks, work not described in the Statement of Work or where there is doubt about responsibility in relation to an issue.
- For costs in relation to the operation of the ledger system (see paragraph 3.21), the preparation of some types of contract change proposals, costs relating to any milestones postponed where the delay was caused by Airservices and costs of any schedule recovery where the delay was caused by Airservices. There is no cap on any of these costs. Defence

advised the ANAO in March 2019 that the reason for no cap is that 'the events giving rise to them are beyond the reasonable control of the successful tenderer'.

3.23 The acquisition contract allows the contracted scope to be amended, and provides a mechanism for the target and ceiling prices to be adjusted for scope changes. Where the contract scope is increased, the margin payable to the successful tenderer is set at a fixed rate that is more than 50 per cent above that to be paid for the contracted scope. In March 2019, Defence advised the ANAO that this margin rate is 'more akin to industry standards for contracts of similar scope and risk'.

3.24 The acquisition contract specified that AUD84.1 million and Euro 10.1 million paid by Airservices under the first two Advanced Work Orders is included in the amounts payable under the acquisition contract.[28] The amounts payable under the third and fourth Advanced Work Orders are not rebated against the acquisition contract price. As at March 2019, these additional amounts to be paid to the successful tenderer total $78.1 million:

- $75.3 million payable to the successful tenderer for a replacement voice communication switch system. This work was part of the scope included in the RFT but was subject to Advanced Work Order 3 so as to mitigate technical and schedule risk; and
- $2.8 million payable to the successful tenderer for risk reduction studies addressing software assurance and cybersecurity. In relation to cybersecurity, the RFT had required information security that would satisfy the Protective Security Policy Framework and a secure air traffic management solution.

Is there adequate assurance that the price being paid demonstrably supports a conclusion that value for money has been achieved?

There is inadequate assurance that the contracted acquisition price is consistent with a value for money outcome for the capability being acquired. Assessment governance arrangements for the June 2016 offer (which was rejected for not providing value for money) were appropriate. There were shortcomings in the application of the governance arrangements for the September 2017 offer. Of significance was that the CMATS Review Board did not prepare a comprehensive assessment report that addressed each of the evaluation criteria, quantified the expected total cost of ownership and analysed whether value for money had been achieved.

3.25 The financial criterion adopted for tender evaluation was 'total cost of ownership'.[29] This required an assessment of the acquisition and support prices submitted by tenderers as well as Airservices' and Defence's additional internal and external costs. The largest component of the cost of ownership was the acquisition price to be paid to the successful tenderer.

3.26 The 2013 tendered offer and the December 2014 (Phase 5A) offer expired on 30 October 2015. The successful tenderer declined to extend the validity period as it considered the changes that had been made to the project scope and schedule had resulted in a significant

28 The first Advanced Work Order related to the delivery of documents, primarily plans and schedules, for the acquisition contract. The second Order enabled advanced work on preliminary design activities intended to de-risk the critical path of the program.

29 This same criterion was used in Phases 3 and 4 of the tender evaluation. See Auditor-General Report No. 26 *Conduct of the OneSKY Tender* 2016–17, paragraphs 3.49–3.75 and Appendix 2.

evolution of the requirements and assumptions on which the offer had been based. It nevertheless committed to continuing to participate in negotiations in accordance with the Conditions of Tender, subject to reserving a right to re-price.

3.27 Non-binding Rough Order of Magnitude price increases were received between October and December 2015 which Airservices identified as amounting to a $600 million increase on the $630 million tendered price. Airservices recorded that the magnitude of the price increase led to a series of high-level meetings in Paris in mid-December 2015 and the development of a plan to reduce costs and improve capability.

3.28 Two formal offers were subsequently received and assessed. The assessment of the June 2016 offer was completed in August 2016 and the assessment of the September 2017 offer was completed in December 2017. In July 2019, Airservices advised the ANAO that:

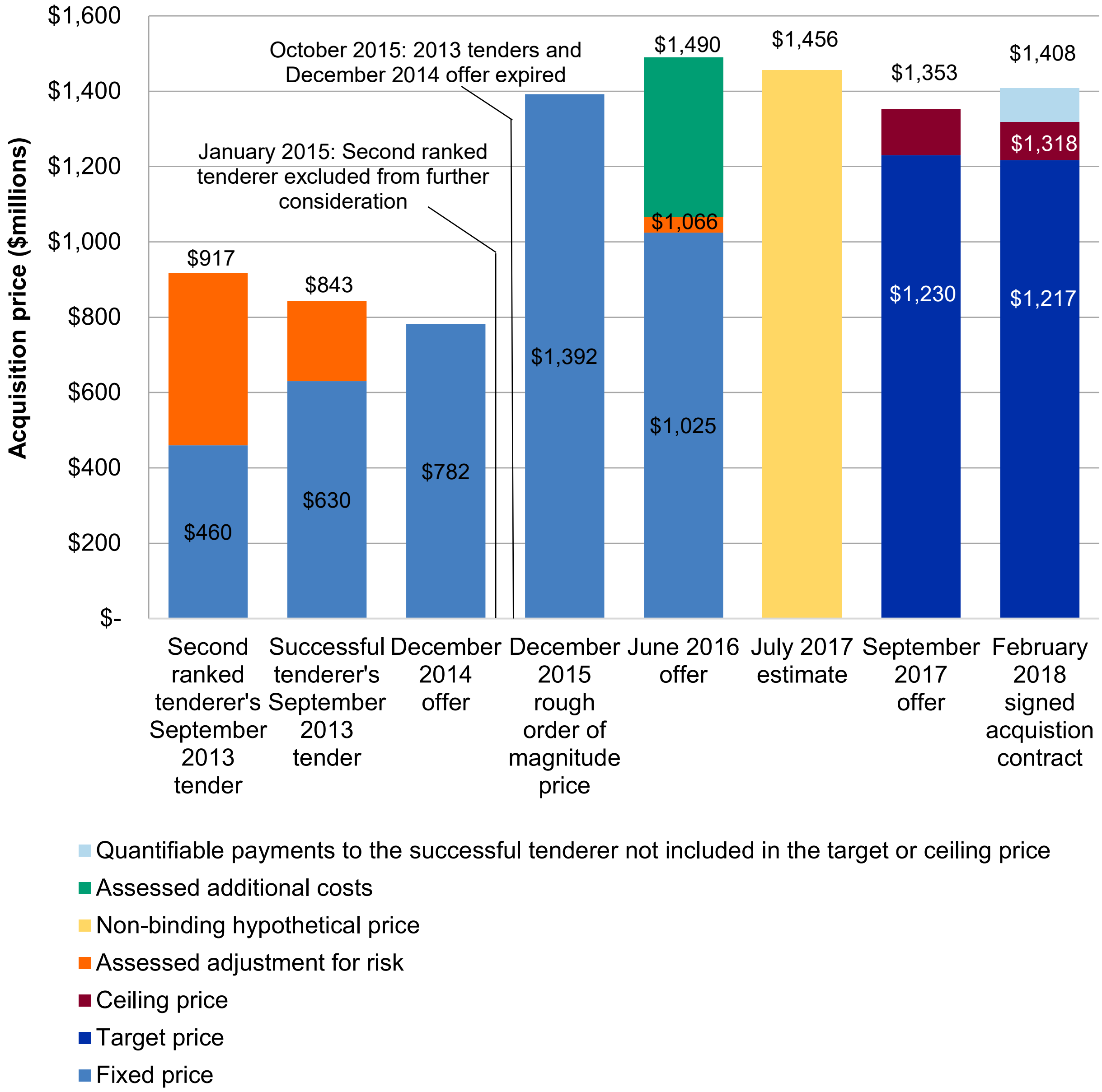
> The September offer of a target price of $1.23 billion was not accepted. It was not considered value for money and required further negotiation on scope (final refinement and substantive completion of the system requirements review), price (a reduction in overheads and some direct cost estimates) and commercial terms (for example including removal of the proposed stop payment clause, realigning the payment regime to the major outcome milestones).
>
> The target price of $1.205 billion[30] was only available after further negotiation resolved the scope, price and commercial terms identified in the October 2017 Contract Negotiation Directive.

3.29 As illustrated by Figure 3.2, the offered acquisition price increased significantly after the second ranked tenderer was excluded from negotiations and after the tender had expired. In this respect, the assessment report on the June 2016 offer identified a '74 per cent increase in price since the 2013 offer'. The assessed cost of the September 2017 offer was lower than the assessed cost of the June 2016 offer, but still significantly higher than the 2013 tender. In April 2019, Airservices advised the ANAO of its perspective, as follows:

> This implies the increase was a consequence of the exclusion, which is incorrect. On the contrary, this was the outcome countenanced in Phase 3 and 4 evaluations and the Phase 5 Contract Negotiating Strategy as the tenderers did not provide a price for the full scope and the scope priced was not acceptable.

30 Airservices has calculated this figure applying the exchange rate referenced by the successful tenderer in its September 2017 offer to the final amount included in the contract signed in February 2018. The figure of $1.217 billion included in Figure 3.2 was calculated by the ANAO by converting the foreign currency contracted component of the target price to Australian dollars using the exchange rate on the date the contract was signed.

Figure 3.2: Acquisition price changes



Source: ANAO analysis of Airservices records.

Responsibility for assessing whether value for money was achieved

3.30 The stated 'overriding objective' of the final negotiations was to 'negotiate a value for money outcome, at an acceptable level of risk to Airservices and Defence, using the Phase 5C *[June 2016]* offer as a basis, when assessed, in combination, against the evaluation criteria in the Tender Evaluation Plan.'

3.31 Contract Negotiating Strategies, as approved by the Airservices Chief Executive Officer and a senior Defence representative, established the CMATS Review Board (CRB) and recorded the strategy for tender negotiations. Table 3.4 outlines the membership of the CRB over the course of final negotiations. Contract Negotiation Directives, as developed and approved by the CRB were in place, and updated, to cover each stage of the negotiations.

Table 3.4: CMATS Review Board membership during final negotiations

	as at 16 December 2016	as at 30 March 2017	as at 24 October 2017
Airservices representative			Chief Executive Officer (CRB Chair)
	Chief Financial Officer (CRB Chair)	Chief Financial Officer (CRB Chair)	Chief Financial Officer and Lead Negotiator
	OneSKY Program Executive	OneSKY Program Executive and Lead Negotiator	OneSKY Program Executive
	Executive General Manager Air Navigation Services	Executive General Manager Air Navigation Services	Executive General Manager Air Navigation Services
	Chief Information Officer		
Defence representative	Head of Joint Systems Division	Head of Joint Systems Division	General Manager Ships [a]
	Director General Air and Space Surveillance and Control	Director General Air and Space Surveillance and Control	Director General Air and Space Surveillance and Control
	General Counsel	General Counsel	First Assistant Secretary Commercial[a]

Note d: The individual previously holding the role of Head of Joint Systems Division became General Manager Ships, and the individual previously holding the role of General Counsel became First Assistant Secretary Commercial during the negotiation. While the title of the roles changed, the individuals on the CRB remained the same.

Source: ANAO analysis of Airservices records.

3.32 Negotiations were directed by the CRB, which also provided guidance to the Lead Negotiator.[31] Negotiation items were identified by the CRB and collated into 'Issues' at each sub-phase, based on identified non-compliances with tender requirements, and other risks and issues identified during offer assessments. So as to prioritise issues for negotiations, issues were classified as strategic[32], material, significant and minor.[33] The CRB allocated negotiation authority of minor issues to the Lead Negotiator, while the higher priority issues were to be discussed with the CRB prior to agreement with the successful tenderer.

3.33 Under each version of the Contract Negotiating Directive for the Phase 5E negotiations, certain issues were 'excluded' or identified as 'reserve matters', and were outside the Lead

31 Over the course of negotiations, six individuals performed the Lead Negotiator role.

32 Strategic issues identified in the final negotiations did not relate to the JFPS requirements. Rather, they included the strategic partnership, the contract model and associated governance framework, program strategy and governance, the proposed collaborative framework with the successful tenderer, and the program cost model. None of these issues were linked to JFPS requirements.

33 Material issues were defined as those that: presented an unacceptable safety risk; seriously compromise the capability of the CMATS solution to meet the requirements of the COCD or JFPS; transferred, to an unacceptable extent, operational, commercial or financial risk to the customer.

Significant Issues were defined as those that would: adversely affect the capability of the CMATS solution to meet the requirements of the COCD or JFPS; transfer, inappropriately, significant operational, commercial or financial risk to the customer.

Minor issues include those that would cause inconvenience, require workarounds or create commercial uncertainty at a level below the 'significant' threshold.

Negotiator's authority. As illustrated by Table 3.5, the excluded and reserved matters were crucial to an assessment of the September 2017 (Phase 5E) offer against the financial evaluation criterion. The CRB, not the Lead Negotiator, was responsible for determining the total cost of ownership and whether value for money had been achieved. It was intended that value for money 'will be assessed by the CRB using the evaluation criteria in the Tender Evaluation Plan. […] The CRB will make the final determination on whether VFM has been achieved […] based on the recommendation of the LN [*Lead Negotiator*] at the conclusion of Phase 5E *[final negotiations]*.' The CRB did not meet after November 2017 however provided out of session endorsement of the Lead Negotiator's report in February 2018.

Table 3.5: Key negotiation matters outside the Lead Negotiator's authority

	Version 1 16 December 2016	Version 2 24 February 2017a	Supplement 24 October 2017
Value for money	Determined by, and reserved for CRB	Determined by, and reserved for CRB	No change
Total cost of ownership	Determined by, and reserved for, CRB and excluded from negotiation	Determined by, and reserved for CRB and excluded from negotiation	No change
Final pricing objective for negotiations	Reserved for CRB	Reserved for CRB	Contract Negotiation Team to negotiate pricing
Capability baseline	Reserved for CRB	Reserved for CRB	No change
Changes to the three stage rollout strategy	Reserved for CRB	Reserved for CRB	No change
Contract affordability	Reserved for CRB	Reserved for CRB	No change
Financial arrangements between Airservices and Defence	Excluded	Excluded	No change

Note a: Version 2 of the Contract Negotiation Directive, while effective as at 24 February 2017 was only executed by all members of the CRB by 30 March 2017.

Source: ANAO analysis of Airservices records.

3.34 Table 3.6 analyses key elements and underpinnings of the assessment undertaken of the June 2016 and September 2017 offers.

Table 3.6: Comparison of the June 2016 and September 2017 offers and assessments

	June 2016 Offer	September 2017 Offer
Contract model	Firm Fixed Price	Target Cost Incentive[a]
Acquisition price (excluding Voice Communication Switch)	$1.449 billion[b]	$1.23 billion–$1.35 billion[c]
Number of JFPS requirements	3544	3518
Tenderer's stated compliance with JFPS requirements[d]	92.7%	Not provided
Assessment of compliance with JFPS requirements[d]	Not assessed	Not assessed
Assessment Plan documented?	Yes[e]	No
Assessment Governance Adviser in place?	Yes[f]	No
Assessment Team	Phase 5C Assessment Team: • Chair • Deputy Chair • Capability Lead and Support member • Implementation Lead and Support member • Sustainment Lead and Support member • Financial Lead and Support member	Lead Negotiator Deputy Lead Negotiator Contract Negotiation Team
Comprehensive assessment report documented?	Yes, 117 pages	No — Lead Negotiator's reports were prepared[g] but see paragraph 3.32 in relation to the Negotiator's authority.
Financial evaluation criterion	Offer price Total cost of ownership Commercial arrangements Value for money	Offer price Commercial arrangements Value for money[h]
Assessment conclusion	Does not represent Value for Money, principally due to the prices and payment regimes	A framework that better incentivises collaboration and proactive risk and opportunity management (and hence is better able to achieve best value for money at an acceptable level of risk compared to a firm fixed price contract).

Note a: Initially, the expectation was that the ceiling price under this revised contracting model would be the non-risk adjusted price submitted in June 2016, as reflected in the probity advice obtained by Airservices on the change in contracting model. The price submitted in June 2016 was $1.025 billion.

Note b: A non-binding $1.456 billion hypothetical estimate of the cost of the acquisition contract was provided by the successful tenderer in July 2017, excluding the Voice Communication System. Airservices recorded that this estimate had 'crystallised' the costs and risks that had been estimated on the basis of the June 2016 offer.

Note c: The target price submitted in September 2017 was AUD$956.3 million plus EURO184.0 million (estimated to be a total of AUD$1.23 billion at the time of submission). The submitted ceiling price was ten per cent higher (estimated to be a total of AUD$1.35 billion).

Note d: When submitting the December 2014 (Phase 5A) offer and the June 2016 (Phase 5C) offer the tenderer provided a self-assessment of compliance against the tender requirements. As part of the evaluation of those offers compliance was assessed. Advice to the Airservices Board was that compliance increased with each offer. Airservices has been unable to provide the ANAO with evidence of an assessment of compliance for the June 2016 and September 2017 offers.

Note e: The Phase 5C Assessment Plan was reviewed by the OneSKY Probity Advisor and included the appointment of a Chair and Deputy Chair to lead the four assessment teams, each allocated to consider a separate tender evaluation criterion. The assessment plan also established an Assessment Governance Advisor to manage engagement and probity concerns. No such plan was developed for the Phase 5E assessment.

Note f: The Assessment Governance Adviser’s role was to ‘monitor procedural and probity aspects of the assessment process to ensure compliance’ with the Phase 5C Assessment Plan. This included managing communication and information between Airservices and Defence and the successful tenderer, maintaining records of the assessment and obtaining probity advice as required.

Note g: Two Lead Negotiator reports considered the September 2017 offer. The first one, dated December 2017, consisted of 16 pages, and was provided to the Airservices Board and used to inform a recommendation (that the Board did not agree to) to approve the entering into contract with the successful tenderer. Airservices Board records evidence that the February 2018 Lead Negotiator report was made available to the Board but the Board minutes do not evidence that the Board considered or noted the February 2018 report (31 pages). Importantly, this report provided an expanded assessment and analysis of the September 2017 offer including in terms of the evaluation criteria (see further at Table 3.8).

Note h: The Lead Negotiator’s report outlined that affordability and total cost of ownership (two elements of the tender’s financial evaluation criterion) were reserved matters for CRB consideration. See Table 3.5 for additional discussion on reserved matters. The report noted that the evaluation criteria was cost of ownership rather than fees payable to the successful tenderer, and that it was difficult to compare total cost of ownership in 2016 with ‘current expectations’. In the February 2018 Lead Negotiator Report it was noted that ‘it has been necessary to undertake scope reduction activities in order to ensure that the program is affordable for Airservices and Defence’ and that ‘A further scope reduction exercise will be necessary post contract to remove some further Defence scope’. No further analysis of affordability, or quantification of total cost of ownership was provided in that report (consistent with those matters not being within the authority of the Lead Negotiator).

Source: ANAO analysis of Airservices documents.

3.35 In December 2017, Airservices informed its Board that:

> Following negotiations to reign in risk and reduce low value scope, the parties have now reached in principle agreement to an Acquisition Contract with the following key features:
>
> - A target price of approximately $1.205bn (excluding GST and Voice Communication System); and a ceiling price which is $100m higher than the target price;
> - A 50:50 gainshare/painshare mechanism around the target price;
> - A framework that better incentivises collaboration and proactive risk and opportunity management (and hence is better able to achieve best value for money at an acceptable level of risk compared to a firm fixed price contract).

3.36 The Board was further advised that the total cost of acquisition for the OneSKY program to Airservices was $1.517 billion. This figure included Airservices’ share of the acquisition contract price expected to be paid to the successful tenderer as well as other program work and contingencies. The Board was also advised of the $1.445 billion estimated support costs for both the existing system ($282 million, not including the system enhancements previously agreed, see paragraph 2.32) and the replacement system ($1.163 billion). In July 2019 Airservices advised the ANAO that:

> The total cost of ownership to Airservices of acquiring CMATS for Airservices is estimated to be $2.2 billion. This includes the whole of life costs for the tenderer’s proposed solution over the

maximum term of the contract, including tender pricing and considerations of Airservices additional internal and external costs.

3.37 At its 13 December 2017 meeting, the Airservices Board was asked to approve the entering into of the acquisition contract. The Board did not agree to this recommendation at that meeting. Rather, the Board provided its approval to enter into the acquisition contract at its 8 February 2018 meeting.

Validation of evaluation and ranking against each criterion

3.38 In January 2017, the probity adviser for the OneSKY Program had advised Airservices that 'there are number of serious risks that arise […] which are not mitigated by the Counter Proposal [*the change in contract model*]' (see paragraph 2.28). The probity adviser noted that 'Airservices and Defence need to be prepared to justify why [*the successful tenderer*] is still the highest ranked tenderer against the evaluation criteria'. The probity adviser noted that, with respect to an assessment of value for money, this would be done 'without the benefit of any data about how other companies would have priced the Counter Proposal.' Similarly, the Contract Negotiating Directive required that value for money be assessed by the CRB against the evaluation criteria from the tender process.

3.39 In addition, the 30 November 2017 report of a procurement assurance review commissioned by Airservices stated that: 'we consider that Airservices (and Defence) need to be satisfied that the final negotiated position reached with *[the preferred tenderer]* at the end of Phase 5E remains value for money, and would not have altered the source selection decision at the conclusion of Phase 4 (or that unsuccessful tenderers should have been provided the opportunity to update their bids based on the revised arrangements). We note that our view in this regard is consistent with that of the Probity Adviser set out in its January 2017 advice in relation to the change of commercial model. We understand that the Program team intends to include its assessment of this matter in its source selection recommendation report.'

3.40 On 5 December 2017, to support the Board's consideration at its 13 December 2017 meeting of a management recommendation that it approve entering into the acquisition contract, the probity advisor stated that 'all probity matters that need to be addressed prior to the execution of the contract, and in particular, whether the matters noted in [*its*] advice dated 12 January 2017 have been addressed.' Probity advice in January 2017, December 2017 and February 2018 each emphasised that the importance of being able 'to justify why Thales is still the highest ranked tenderer against the evaluation criteria.'

3.41 The December 2017 Lead Negotiator Report did not contain assessment or validation against each of the original tender evaluation criteria. Instead, it stated that:

> While Airservices does not have the benefit of any data about how other companies would have priced the scope and contract changes, the Contract Negotiating Team (CNT) is confident that Thales is still the highest ranked tenderer against the evaluation criteria set out in the Tender.

3.42 Another Lead Negotiator report was finalised on 1 February 2018. It included a section titled 'Validation of the assessment'. As outlined in Table 3.7, the Lead Negotiator's report validated the original assessment against four of the five evaluation criteria. This was not done in relation to the total cost of ownership criterion (the fourth evaluation criterion).

Table 3.7: Lead Negotiator's February 2018 validation of the original evaluation rankings

Criterion	Validated?	Assessment from the February 2018 Lead Negotiator Report
1. The extent to which the proposed solution meets the technical, operational and safety requirements for both acquisition and sustainment phases of the life cycle of the integrated system.	✓	During the 5C and 5E negotiations, the [*successful tenderer's*] technical solution was reviewed and discussed in numerous technical workshops and some functionalities were improved and some were traded-off to reduce technical risks and cost to ensure affordability. […] The [*successful tenderer's*] proposed technical solution from the 5C and 5E negotiations remains superior to the [*second placed tenderer's*] and [*third placed tenderer's*] solution evaluated during the Phase 3 tender evaluation.
2. The tenderer's capability and capacity to implement an acceptable solution.	✓	[*The successful tenderer*] was assessed as being ranked 2 in relation to their capability and capacity to implement an acceptable solution, noting that the contracted schedule is significantly longer than the schedule that was originally proposed in [*successful tenderer*]'s tender. […]Phase 5E has resulted in [*successful tenderer*] being compliant with key requirements and processes […] This additional compliance provides additional certainty that an acceptable solution will be implemented, albeit in a longer timeframe than originally proposed.
3. The tenderer's capability and capacity to provide an acceptable sustainment solution.	✓	While there are sustainment-related details that are yet to be defined as a result of the Acquisition analysis and design processes, [*successful tenderer*]'s capability and capacity to provide a sustainment solution is assessed as more than acceptable. […]While [*successful tenderer*] to some degree has limited its exposure to defects delivered under the Contract (Acquisition), the CNT considers that [*successful tenderer*] has the capability and capacity to provide a suitable sustainment solution. If anything, the sustainment solution has matured and improved since the tender (although that maturity has come with a corresponding price increase as set out in the 5C assessment).
4. The total cost of ownership, tendered prices and pricing structure, the proposed payment schedule and financial risks.	✗	[*The successful tenderer*] was considered to have been ranked number one on price on the basis that it tendered the lowest risk adjusted price. While the adjustment to the [*successful tenderer's*] price made by the TEC in Phase 5C does not reflect the final pricing of the Contract (Acquisition) (even when price escalation is factored in) the CNT *[Contract Negotiating Team]* does not have any basis for changing the TEC's assessment of the ranking. Rather than dealing with ranking in relation to evaluation criteria 4, the CNT has focused on ensuring that the proposed solution reflects value for money at an acceptable level of risk (as set out in the main body of this report) and is affordable for Airservices and Defence.

Criterion	Validated?	Assessment from the February 2018 Lead Negotiator Report
5. Any commercial risks in relation to entering into Contract (Acquisition) and Contract (Support) with the tenderer.	✓	[*The successful tenderer*] significantly increased levels of non-compliance in relation to the commercial terms and conditions in comparison with the 2013 offer. Some further changes can be explained by the change to the TCI framework in the Contract (Acquisition), both parties' better understanding the significant risk associated with a complex software development program and some additions by the Customer. Overall, the CNT considers that […] once executed, the negotiated contracts appropriately manage the commercial risks associated with entering into contract. The CNT does not consider that the negotiation of the terms and conditions where [*successful tenderer*] indicated non-compliance in the 5C offer and during 5E significantly impacts on the original assessment. It is also noted that given the length of time of the negotiations, considerable movement in both parties' negotiating positions is to be expected.

Source: ANAO analysis of Airservices records.

3.43 September 2018 advice to the ANAO from Airservices was that the CRB did not meet again after 6 October 2017. Information later (in April 2019) provided to the ANAO by Airservices was that the CRB met on 1 November 2017 and that on 29 November 2017, operating out of session, CRB approval was sought to close out the remaining negotiation issues.

3.44 In order to support a recommendation to endorse the February 2018 Lead Negotiator report, and to authorise the CEO of Airservices to execute the acquisition contract, the CRB was advised in a 1 February 2018 out of session decision paper from the Lead Negotiator that:

> The Lead Negotiators Report is now complete, and sets out the outcome of the negotiations during Phase 5E.
>
> While clearances from relevant advisors are outstanding and the Contract Documents are subject to a final quality and consistency check, the Contract Negotiation Team (CNT) is satisfied that the negotiated arrangement represents a sound basis for entering into contract.

3.45 CRB members agreed to the recommendations of the decision paper.

3.46 The decision paper did not evidence the CRB's consideration of:

- the final offer against the original tender evaluation criteria (see paragraph 3.32); or
- matters reserved for CRB determination in the Contract Negotiation Directives (See Table 3.5) such as total cost of ownership, value for money, or other reserve matters outside of the Lead Negotiator's authority.[34]

3.47 The consequence of this was that the CRB did not discharge the responsibilities allocated to it under the Contract Negotiating Directives.

34 The Contract Negotiating Directive supplement approved on 24 October 2017 (the same date that the chair of the CRB was changed – see Table 3.4) set out that the Lead Negotiator's report was one of a number of inputs the CRB was to consider in deciding whether to recommend to the Airservices Board that the contract regime be entered into. The other inputs were the terms of the contract regime (comprising the acquisition and support contracts, including attachments and annexes, and the collateral deed), the arrangements under the On-Supply Agreement and 'other relevant information including information relating to the total cost of ownership, value for money and affordability'.

3.48 In April 2019, Airservices advised the ANAO that:

> The Airservices Board, as the approval authority for this acquisition, clearly understood and acquitted its obligations in relation to making all reasonable enquiries to ensure that the contract represented value for money.

3.49 The February 2018 Lead Negotiators Report was provided to the Airservices Board in its 8 February 2018 meeting. In this meeting the Airservices Board was considering contracting negotiations with Defence for the On-Supply agreement, a matter excluded from the Lead Negotiator under the contract negotiation directives (see Table 3.5). Minutes of this Board meeting record that Airservices management tabled two documents relating to the OneSKY Program. The minutes do not record:

- the provision, or discussion, of the February 2018 Lead Negotiator's Report;
- consideration of the Lead Negotiator's Report's validation of the initial assessment against the tender evaluation, except against the financial evaluation criteria (see Table 3.7);
- any commentary or advice from the CRB on the assessment of total cost of ownership or value for money (matters that the Lead Negotiator was prohibited from concluding on); or
- any reference to value for money considerations of the Board.

3.50 In July 2019, Airservices advised the ANAO that:

> In regard to those matters considered by the Board at its February meeting where it agreed to enter into the contract, it is important to note that the process and deliberations leading up to Board's decision to enter into the acquisition contract were cumulative, with many inputs deliberated and considered over many months in the lead up to the February meeting. That is, although the resolution recording the Board's decision to enter into the acquisition contract is dated 8 February 2018, the decision was, in fact, a cumulative decision made over an extended period after careful consideration of a large number of issues, advice (including verbal advice) and artefacts.

3.51 There is no evidence that the CRB made a determination regarding total cost of ownership or value for money. No CRB assessment report was provided to the Financial Delegates of Airservices or Defence and there were no records of the CRB having met after the Lead Negotiator's reports had been prepared. The program assurance review of the negotiation process commissioned by Airservices (see paragraph 2.9) also identified shortcomings in the records:

> The program developed a suite of policies, processes and guidance to support the implementation of the Phase 5 governance framework. These arrangements included requirements relating to record keeping, configuration management, and data storage. As we have stated, these arrangements, if followed consistently, would have led to a clear and defensible audit trail in support of the contract negotiation outcomes and source selection recommendation throughout Phase 5.
>
> However, it is apparent from our review, that the Program's compliance with these arrangements was inconsistent from the outset, and that the impact of these inconsistencies was magnified because of the scope, scale, and extended duration of Phase 5.

Consideration by Defence

3.52 Defence records outline concerns over the course of negotiations about value for money and affordability. Defence considered seeking approval to withdraw from the procurement and, instead, procure an off-the-shelf solution that would address its needs separate to civil aviation requirements.

3.53 Between December 2017 and February 2018 Defence and Airservices negotiated a compromise for Defence, with Defence noting that the final price for the solution was higher than Defence had forecast. Rather than seek a further increase to its project budget, Defence sought scope reductions, such as removing contingency capability within the system and potentially accepting the installation of lower cost non-CMATS solutions in some Defence towers. Defence advised Ministers that this would ‘not appreciably reduce the benefits’ for Australia, or impact on Defence’s capability to deliver safe and efficient air traffic management. In April 2019, Defence advised the ANAO that:

> The CMATS contract scope was reduced by Airservices in order to deliver certain elements of the Defence project scope in a different way, but the project scope remained stable. The collaboration options agreed with Airservices came at no detriment to Defence air traffic control capability.

3.54 Defence, via the On-Supply Agreement, did not participate in the move to a target cost incentive contract model. Instead, Airservices committed to provide a clearly specified solution to Defence at a capped, firm fixed price of $521 million. This approach means that Defence will not benefit in the event CMATS is delivered for less than the target price. It also means that Defence is protected in the event the cost is above the target price.

3.55 Defence’s February 2018 submissions to Ministers stated that the benefits to Defence of a harmonised civil military air traffic management system are modest, while an unquantified benefit was noted for the civil aviation industry. In March 2019, Defence advised the ANAO that:

> Defence advice to Ministers did not specifically describe the offer as value for money, noting that Defence would not become a party to the contract with the successful tenderer. Defence instead sought the necessary approvals to allow it to enter the On-Supply Agreement with Airservices in realisation of the broad national benefits of CMATS.

Grant Hehir Auditor-General	Canberra ACT 31 July 2019

Appendices

Appendix 1 Entity responses

Airservices Australia

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Dear Mr Hehir

Thank you for providing Airservices Australia with the proposed report under section 19 of the *Auditor-General Act 1997* – OneSKY: Contractual Arrangements.

We note the audit found that a number of elements of value for money examined in accordance with the audit scope were found to be sound, including that program scope requirements were well understood prior to entering negotiations, a clear scope was established for the signed contract, and there is appropriate management of price risk in the contract. We further note that no recommendations are made by the ANAO.

We note the inherent challenges of a procurement of this magnitude and complexity, where there are highly technical requirements, a very limited market of suppliers, and the procurement is on behalf of two agencies (Airservices and Defence) with differing requirements, funding arrangements and governance structures.

Air traffic control systems are not an off-the-shelf product and there are only a very small number of suppliers of air traffic management systems worldwide. Each system is a system of systems which must cater for a nation's differing requirements including airspace coverage, surveillance inputs, system interfaces, aspects of national security and the specific requirements of the local aviation industry. These differences create complexities and mean that all air traffic control systems are unique for each country.

In this circumstance, the value for money considerations are necessarily broad and must include supplier market maturity, the specialist nature of the capability required and the level of risk. These are reflected in the Commonwealth Procurement Rules, which place emphasis on a broad range of financial and non-financial considerations in the assessment of value for money.

It is also inevitable in a project of this size and complexity that, as we learn more as the program progresses, we will need to make decisions along the way that were not always planned at the start of the program, in order to ensure we deliver the best outcome for the Commonwealth. In this case this included changes to scope, the contracting model (from fixed price to a target cost incentive model) and the final evaluation documentation and contracting arrangements.

It was within this context that the negotiations proceeded to a single tenderer, rather than parallel negotiations with two entities, earlier than originally intended. As noted by Defence in the draft audit report, while parallel negotiations were our preferred approach, after a

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competitive open tender process[1] and early negotiations it was clear that there was only one tenderer with the necessary technical capability to deliver the program. Airservices would not have been acting in good faith to continue negotiations with a second tenderer in this situation.

This also meant that during the negotiation period it was never a realistic option for Airservices to return to market to seek a different or better outcome from a new tender process. We already had a complete picture of the supplier market and technical capability from our tender process, and were very aware that our preferred supplier was the only supplier that could meet our complex, but essential, technical requirements.

Thus our options were essentially to continue negotiations with the preferred tenderer in order to obtain a value for money outcome, or conclude the procurement and maintain our current air traffic management systems for the foreseeable future. Airservices was acutely aware of this choice, and regularly revisited whether to continue with negotiations, right up until the final Board decision in February 2018.

The OneSKY system, when commissioned, will facilitate air traffic control for 11 per cent of the world's surface for both civilian and military aircraft movements and will be the world's most advanced air traffic control system. Consequently, the procurement process was inherently constrained and complex from both an operational and a commercial perspective.

This complexity is demonstrated by the experience of other air navigation service providers internationally, which have faced significant challenges in procuring future air traffic management systems on appropriate commercial terms. The programs have experienced cost and time blowouts, which primarily emerged during the execution phase of the project due to uncertainty around scope and supplier capability. For example, the United States Federal Aviation Administration's modernisation program to replace its outdated air traffic control automation systems is over 10 years late and, at nearly US$7 billion and still not fully delivered, is more than 100 per cent over budget. A key finding in reviews of those arrangements was that the contracting and commercial arrangements were not appropriately managing the risks. Hong Kong's system was delivered four years late and has been the subject of criticism for frequent malfunctions and consequential operational impacts. Similar delays were also experienced in Singapore with its system replacement.

The Board was determined to ensure that Airservices learned from this international experience, by gaining certainty of the required technical capability and scope before entering into a contract. To that end, and to ensure that we achieved value for money, Airservices delayed the execution of the acquisition and support contracts and proceeded (under several targeted Advanced Work Orders) with a detailed scope and technical requirements definition and specification process with the preferred supplier.

As well as significantly lowering program and financial risks to Airservices, this allowed the acquisition price to be more prudently determined. Together with the shift to the target cost incentive contracting model, Airservices was able to negotiate a price of $1.205 billion in December 2017, down from an estimated $1.490 billion in in June 2016. Airservices share of this system acquisition cost was $665 million, spread over the 20 year life of the system. Defence's contribution is a fixed $521 million.[2]

As noted above, the time invested in negotiations, whilst simultaneously proceeding with Advanced Work Orders, has provided Airservices and Defence with certainty around project scope and consequently significantly reduced program and financial risk before the project moved into execution phase.

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[1] In its 2017 audit *Conduct of the OneSKY tender*, the ANAO concluded that the market approach "was appropriate for the scale, scope and risk of the joint procurement… [and]…promoted a healthy level of competition for the procurement."

[2] Note that these amounts do not total $1.205bn because at the time of contract approval the savings from Defence scope reductions (with no change in capability) to ensure it met its budget cap, while agreed, were not incorporated into the contract.

Airservices acknowledges that this meant contract negotiations took longer than originally anticipated. Nonetheless, this time was essential for Airservices to reach a value for money outcome.

We note that while there were costs associated with the delay, mostly due to the life extension of Airservices existing system (estimated by the ANAO as $129.6 million), these costs were more than offset by cash savings of $516 million from deferring the significant capital expenditure.

In regard to those matters considered by the Board at its February 2018 meeting where it agreed to enter into the contract, it is important to note that the process and deliberations leading up to Board's decision to enter into the acquisition contract were cumulative, with many inputs deliberated and considered over many months in the lead-up to the February meeting. That is, although the resolution recording the Board's the decision to enter into the acquisition contract is dated 8 February 2018, the decision was, in fact, a cumulative decision made over an extended period after careful consideration of a large number of issues, advice (including verbal advice) and artefacts.

Airservices is funded entirely through charging the aviation industry for the use of our services and we receive no government appropriations. The outcome negotiated for OneSKY, together with Airservices business efficiency program in 2015-2016, has enabled the OneSKY program to be delivered to our customers while also providing a 2 per cent price decrease from 1 July 2019 (having held prices since 2015, this represents a 10 per cent real price reduction over that period). With this, Australia receives the benefits of a single civil military air traffic management system, which will be the most technologically advanced in the world, and has an estimated economic value to Australia of over $1.2 billion.[3]

We have reviewed the ANAO analysis supporting its conclusion that there is inadequate assurance that the acquisition price is consistent with a value for money outcome. We accept that there are some areas that the report has identified where, with the benefit of hindsight, we could have better documented to provide a more auditable trail of decision-making. However, that would not have materially impacted the decision-making process, nor the substance of the evidence relied on by the Board as decision-maker, nor the outcome.

I would like to close by reiterating that the Airservices Board, as the approval authority for the acquisition, clearly understood and acquitted its obligations in relation to making all reasonable enquiries to ensure the contract represented value for money.

If you would like to interview any members of the Airservices Board in relation to its deliberations to provide context in relation to its value for money decision making process before finalising this audit please let me know and I would be happy to arrange this swiftly.

Thank you once again for the opportunity to provide comment on this report. Detailed comments and factual corrections for your consideration, some of which we also provided in response to the report preparation papers, are at **Attachment 1**.

Yours sincerely

John Weber

John Weber
Chairman

17 July 2019

[3] OneSKY Business Case (5E offer version), Deloitte., December 2017

Department of Defence

Australian Government

Department of Defence

PO Box 7900 CANBERRA BC ACT 2610

Mr Grant Hehir
Auditor-General
PO BOX 707
CANBERRA ACT 2601

Dear Mr. Hehir,

Australian National Audit Office Section 19 Proposed Report: OneSKY Contractual Arrangements

Thank you for your correspondence of 7 June 2019, which contained the Proposed Report for the *ANAO performance audit – OneSKY: Contractual Arrangements*. Defence appreciates the opportunity to review and comment on the Proposed Report.

Defence acknowledges there is room to enhance the administrative arrangements supporting and documenting actions and decisions in such a complex program. Defence maintains however, that its procurement of a Civil and Military Air Traffic Management and Control System adequately demonstrates value for money. Defence thoroughly considered and documented its value for money assessment in the delegate submission for the On-Supply Agreement, through which Defence is acquiring the capability from Airservices.

Attached to this letter are Defence's Proposed Amendments, Editorials and Comments (Annex A), and the Defence Summary Response (Annex B). These constitute Defence's formal response to the Proposed Report.

Our point of contact is ANAO Liaison Officer, Miss Alaina Brown who can be contacted by telephone on 02 6266 3103 or email: alaina.brown@defence.gov.au.

Defence remains committed to assisting you with the successful completion of this audit. We look forward to the upcoming tabling of the Final Report.

Yours sincerely

Greg Moriarty Secretary	**Angus J Campbell, AO, DSC** General Chief of the Defence Force
1 July 2019	1 July 2019

Annexes:
A. Defence Proposed Amendments, Editorials and Comments
B. Defence Summary Response