



The financial processes relating to the JSF programme

International collaboration, national audits

2018



Foreword

The Dutch contribution to the US Joint Strike Fighter (JSF) programme and the purchase of 37 of these fighter aircraft for the Dutch air force together constitute one of the largest projects ever undertaken by the Dutch Ministry of Defence. Never before has so much money been spent on a defence materiel project. At the same time, little is known about the financial processes relating to this project. The majority of these processes are played out in the US. While the Dutch Minister of Defence depends on information supplied from the US for the purpose of reporting on the project, there has been a consensus that there are only limited opportunities for auditing this information.

Working in part in conjunction with colleagues from the Norwegian Office of the Auditor General (*Riksrevisjonen*), the Netherlands Court of Audit has audited the financial processes at the JSF Program Office in Washington and at the Dutch Ministry of Defence.

This report on the financial aspects of the JSF project is unusual, because it is the first occasion on which foreign audit offices have performed an audit at the US Department of Defense. At the same time, it is also a 'routine' audit report, in that auditing ministerial expenditure is one of the Court of Audit's core activities.

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Summary

The partners involved in the JSF programme need to scrutinise their financial contributions to the programme very carefully before making any payments. This is because many of the calls for funds that the JSF Program Office (JPO) sends to the partners contain errors. These errors have been uncovered by the meticulous checks carried out by the Dutch Ministry of Defence. Against this background, we are confident in concluding that the Dutch government has paid the right amounts for the Joint Strike Fighter (JSF).

At the same time, the process of auditing the financial contributions is by no means easy. Working partly in collaboration with the Norwegian Office of the Auditor General, the Netherlands Court of Audit audited the financial processes surrounding the JSF programme. We performed audits both at the JPO in the US and at the Dutch Ministry of Defence. It became clear during the course of the audit that the mere fact of undertaking this audit has already helped the Ministry of Defence to improve its ability to report on the regularity of its expenditure on the JSF programme.

Two US aircraft manufacturers, i.e. Lockheed Martin and Pratt & Whitney (LM/P&W), have been commissioned by the JPO to design and produce a fifth-generation fighter aircraft. This is known as the JSF or F-35. The two main contractors are working together with a large number of subcontractors. The new fighter aircraft is intended to replace aircraft currently in use by the countries participating in the programme. The JPO is invoiced for the work performed for the programme, distributes the invoices among the nine partners in the programme and pays the aircraft manufacturers.

The majority of the financial processes surrounding the JSF programme are played out in the US. Audit agencies at the US Department of Defense are responsible for checking the invoices that LM/P&W send to the JPO for the work they have performed. Although the subsequent audit reports give the JPO an assurance about the accuracy of the invoices, the JPO has not to date shared this information with its international partners. It was only after pressure was brought to bear as a result of the joint audit performed by the Norwegian and Dutch national audit offices, and after the Dutch Ministry of Defence reached a new agreement with the aircraft manufacturers, that these audit reports were passed on to the Dutch Ministry of Defence. On the basis of these reports, we were able to conclude that the invoices submitted by commercial parties involved in the JSF programme are subjected to sufficient scrutiny in the US.

The joint audit performed at the JPO also showed that it was not until 2017 that the JPO, to a certain extent in response to this audit, produced a manual for the allocation of costs among the international partners. Although the procedures described in the manual are in themselves suited for designing a systematic means of distributing the costs, errors nonetheless occur in practice. This is partly due to the large number of manual calculations required by the procedures and partly because the procedures set out in the manual are not always followed to the letter. It is also a matter of some concern that virtually all the errors have been identified by the defence ministries in the partner countries (notably those of Norway and the Netherlands) and that very few have been detected by the JPO itself. Against this background, the conclusion drawn in the joint audit is that the ministries in the partner countries need to take action themselves to ensure that the calls for funds they receive are indeed correct.

The two national audit offices involved in this joint audit then proceeded to ascertain whether the ministries in their own countries had indeed taken such action. The Netherlands Court of Audit concluded that the Dutch Ministry of Defence had designed a systematic and verifiable procedure for dealing with calls for funds and for making payments to the programme. The procedure has enabled the Minister to identify and remedy a large number of errors made by the JPO. Despite this, for far too long (i.e. until 2017) the Ministry had implicit faith in the information supplied from the US, particularly that relating to audits of invoices from LM/P&W. The Minister should have acted more firmly and at an earlier stage, based on already existing arrangements, and insisted that she should be supplied with the information she needed in order to report to parliament on spending on the JSF programme.

Dutch payments to the JSF programme are channelled through a dollar account held by the Dutch government in the US. The balance on the account is constantly kept at a level that is around USD 60 million higher than is necessary given the pattern of payments. The same applies on a *pro rata* basis to the other partner countries. All the partner countries' dollar accounts (including that held by the Dutch government) contain a large amount of money that the JPO has asked be held in reserve to cover future spending on the JSF programme. The Dutch Minister of Defence cannot decide without consultation to temporarily delay her payments to the programme. At the same time, she can, as one of those involved in the organisation of the programme, urge the JPO to strike a better balance between the amount of money held in the partners' accounts and the payments made from the same accounts.

Recommendations

We make six recommendations in this report. These are explained in brief below.

1. The picture emerging from the international JSF programme is that the financial processes that need to be followed in order to arrive at the correct allocation of costs among the participating countries come with their own, specific problems. It is precisely for this reason that suitable procedures are needed, i.e. not just in order to allocate the costs, but also to keep a check on the way in which this is done. As far as both the international JSF programme and the Dutch JSF project are concerned, these procedures have been developed and refined on a gradual basis. At the same time, the JSF project is no more than a first step on a long road: the Dutch Ministry of Defence is planning to undertake many more investments in defence materiel in the future. Moreover, the Minister has made clear, in the 2018 Defence White Paper, that she wishes to undertake future materiel projects in collaboration with other countries. Plans for a large number of new investment projects have already been presented to the Dutch House of Representatives, and some of these are international projects. Here too, large sums of money are involved and the problems the government is likely to encounter will be similar to those encountered in the JSF project.

We urge the Minister of Defence to ensure that, whenever the government undertakes any new international investment projects, suitable procedures for ensuring that costs are correctly allocated and that the allocation of costs is properly monitored are put in place from the very outset.

2. Even in the case of an international investment project such as the JSF project, the Minister still needs to satisfy the requirements for reporting to the Dutch parliament on the revenues, commitments, expenditure and results relating to the project. If necessary, the Minister must be able to make use of the findings of audits performed by audit offices in other countries. In doing so, the Minister must satisfy herself that these audits comply with generally accepted standards. In order to do so, she must have access to the reports and data underlying the audits in question. In practice, even in those cases where access arrangements have indeed been put in place, as with the JSF programme, dogged determination is sometimes required to actually get hold of the documents in question.

We urge the Minister to ensure that she acquires (from the other partners) and checks all the information she needs for reporting purposes.

3. National audit bodies such as the Dutch National Audit Service and the Netherlands Court of Audit must be able to perform their audits. This means that they, too, must be able to gain access to the necessary information. However, the bilateral arrangements made in this respect with the aircraft manufacturers involved in the JSF project initially prevented them from doing so.

We recommend that, when making international agreements, the Minister explicitly stipulate that the Netherlands Court of Audit must be given unrestricted access to information at all times.

4. The procedure followed by the Ministry of Defence in dealing with calls for funds does not contain any check of the cost allocation ratio used for allocating costs to the Netherlands. This means that there are no guarantees that the share of the costs allocated to the Netherlands is correct. The financial system does, however, contain a cap, i.e. a maximum 'commitment limit' that prevents the government from paying any more than the total value of the commitment created for a given contract. A payment may be deemed to be lawful only if the underlying documents are correct.

For this reason, we urge the Minister of Defence nevertheless to check incoming calls for funds in order to ensure that the correct cost allocation ratio has been used.

5. To date, the Minister of Defence has not known whether the invoices submitted by LM/P&W were correct. Although the invoices had been audited by the Defense Contract Management Agency and the Defense Contract Auditing Agency (DCMA/DCAA), it was not clear whether these audits complied with US standards and could therefore be considered as being reliable. The Ministry decided to issue *pro-forma* 'certificates of performance' in order to allow payments nonetheless to be made. We have established, as part of our own audit, that the audits performed by the DCMA/DCAA do indeed comply with US standards. This removes the need for the Ministry of Defence to continue to issue *pro-forma* declarations. Instead, it can simply refer to the audits already performed by the DCMA/DCAA. We should however point out that our audit relates only to the state of affairs at a given moment in time.

We urge the Minister of Defence to continue to ensure in the years to come that the audits of invoices performed by the DCMA/DCAA are reliable.

6. The dollar accounts of the partner countries, including the Netherlands, contain large sums deposited in response to requests from the JPO. This money is waiting to be spent by the JPO.

We recommend that the Minister of Defence use her influence in the organisation of the JSF programme to urge the JPO to strike a better balance between the amounts deposited into the partners' dollar accounts and the amounts spent from these accounts.

Response of the Minister of Defence

The Minister of Defence responded to our draft report on 12 October 2018, writing in part on behalf of the State Secretary for Defence.¹ A summary of her response follows below. The full (Dutch) text of her response is available on our website (www.rekenkamer.nl). The chapter concludes with our afterword.

The Minister said that she valued our audit findings and appreciated our acknowledgement of the fact that, partly thanks to the way in which she had organised the national system of checks, the Dutch payments for the F-35 were correct. The Minister conceded that these checks were not easy to organise and regarded our report as a tool for improving the national checks. She said that she would take full account of our recommendations. She was planning to adopt recommendations 1, 3 and 4 in full. Her response to recommendations 2, 5 and 6 is summarised below.

In response to our second recommendation, i.e. that the Minister should ensure that she acquires from the other partners, and checks, all the information she needs for reporting purposes, the Minister said that she recognised the importance of having access to the findings of audit bodies in the partner countries and that she would take this information into account when taking decisions about the project and when reporting on the regularity of spending.

In response to our fifth recommendation, i.e. that the Minister should ensure that the audits of invoices performed by the DCMA/DCAA remain reliable in the years to come, the Minister said that the DCMA/DCAA were audit agencies that should be assumed to operate in accordance with the relevant US quality standards, as our audit had indeed confirmed. The Minister said that there was no reason to believe that there would be a decline in the quality of these audits in the future.

In response to our sixth recommendation, i.e. that the Minister of Defence should use her influence in the organisation of the JSF programme to urge the JPO to strike a better balance between the amounts held in the partners' dollar accounts and the amounts spent from these accounts, the Minister said that every payment made from the Dutch

government's dollar account in the US was underpinned by solid documentary evidence. The Minister pointed out that it was in part thanks to a carefully thought-out payment procedure that the Netherlands had been able to swiftly discharge its financial obligations. The balance of the US dollar account is liable to fluctuate; the Minister said that an increase in the number of payments in the years to come meant that it was likely to rise in the future. She wished to stress that the Ministry of Defence would continue to make efforts to achieve a careful balance between payments into and out of the account.

The Minister said that our report confirmed the importance of carrying out thorough financial checks in relation to international defence materiel projects. This would remain of vital importance in the coming years, the Minister said, as the Ministry of Defence would again be investing in modernising, strengthening the military power of, and enhancing the sustainability of the Dutch armed forces.

Court of Audit afterword

Although the Minister said that she would take full account of our recommendations, she would not appear to be convinced of the need to take action in relation to our second, fifth and sixth recommendations. We would like to make the following comments in this respect.

It is thanks to this audit that the Minister, and hence the Dutch parliament, have finally received an assurance about the regularity of expenditure on this project. However, this is something that the Minister should be able to establish herself, not only in relation to the project for the replacement of the F-16, but also in relation to other projects. Our recommendations, notably the second and fifth recommendations, are intended to ensure that she is able to discharge this responsibility in the future. Our recommendations go beyond simply taking note of reports produced by other bodies, as the Minister promises to do. The point is that the Minister must be able to confirm the reliability of these reports, for example by gaining access to the underlying information. Although our audit team found that the reports published by the DCMA/DCAA, i.e. the auditors for the US Department of Defense, on the invoices submitted by LM/P&W during the period between January 2017 and June 2018 complied with the relevant standards, this was simply a description of the state of affairs at a given moment in time and should not be taken as indicating that this is always the case. It is clear from the criticisms levelled in the past by the GAO and the OIG at the audits performed by the DCMA/DCAA that there is a need for constant alertness. It is not inconceivable that similar criticism may make it imperative to take action in the near future.

The Minister stressed the need for striking a balance between payments made into and out of the dollar account. However, in the light of the large amount of money currently held at the JPO's disposal in dollar accounts, she could also actively urge the JPO to strike a better balance between incoming and outgoing payments.

Finally, although the procurement of the F-35 is the biggest military programme currently in operation, the government is planning a number of other large-scale investment programmes for the armed forces in the coming years. These involve large sums of money and our recommendations will be relevant to them, too.

Format of this report

This report looks at whether we are able to guarantee the regularity of Dutch spending on the JSF project, this being an aspect on which the Minister of Defence is required to report to parliament. Chapter 1 contains a brief introduction to our audit. The answer to the main audit question is set out in chapter 2. Chapter 3 summarises the Minister of Defence's response to this audit report. A number of points raised by the Minister are addressed in our afterword, which follows. Appendix 1 contains background information and explains the audit methods we used. It also contains a more technical description of the audit.

1 About this audit

1.1 Both a partner in and a customer of the JSF programme

The Netherlands is both a partner in and a customer of the JSF programme. The financial processes surrounding these roles and the risks of making incorrect payments that are bound up with these processes, differ greatly from each other.

Since 2002, together with eight other countries, the Netherlands has been one of the partners in the US Joint Strike Fighter programme. The aim of the programme is jointly to develop and produce a new fighter aircraft. This is known as the JSF, although its full name is the Lockheed Martin F-35 Lightning II (often abbreviated to F35).² The other countries participating in the JSF programme (apart from the US) are the United Kingdom, Australia, Canada, Denmark, Italy, Norway and Turkey. Based on various international agreements known as memoranda of understanding (MoUs), the Dutch Minister of Defence has agreed to contribute a sum of over €1.76 billion to the project.³ This contribution is intended to be spent on aircraft design and production, establishing a maintenance line for future users, and the further development of the aircraft.

The Dutch government decided in 2013 that the JSF would be the successor to the F-16 fighter aircraft. As one of the customers of the JSF programme, the Minister of Defence has agreed to purchase 37 JSF aircraft.⁴ The procurement of the JSFs and all the related equipment required for operating them requires an investment of €4.5 billion.⁵ The plan is for the aircraft to be delivered to the Netherlands during the period from 2019 to 2023.

Figure 1 shows that there has been a sharp increase in spending on the JSF project⁶ (in both capacities collectively) during the current government's term of office.

Expenditure on JSF project peaks during current government's term of office

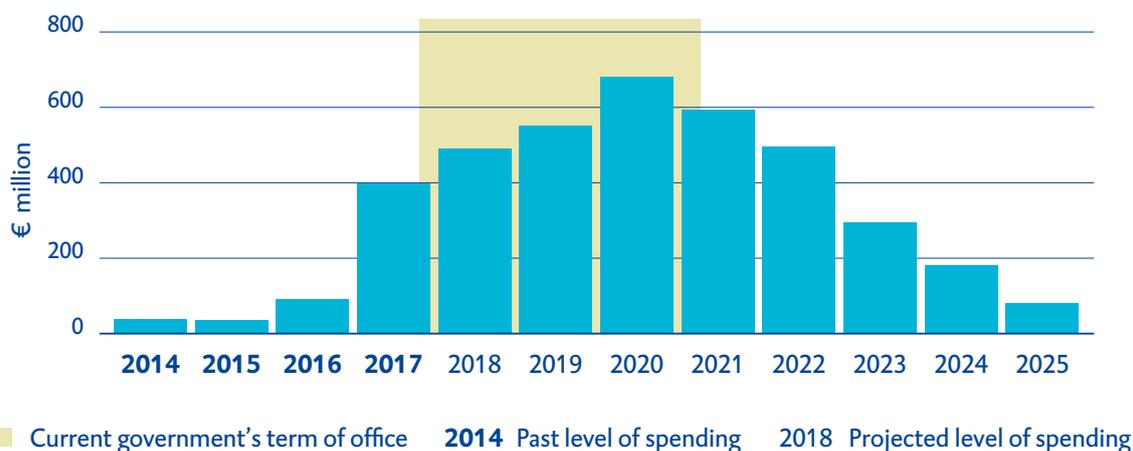


Figure 1. Ministry of Defence expenditure on the JSF project. Source: Ministry of Defence, 2018⁷.

Expenditure by the Dutch Ministry of Defence on the JSF programme is channelled through the JSF Program Office (JPO) to the US Department of Defense, which acts as an intermediary between the partner countries and the aircraft manufacturers. The financial relationships are shown in figure 2.

Financial processes JSF

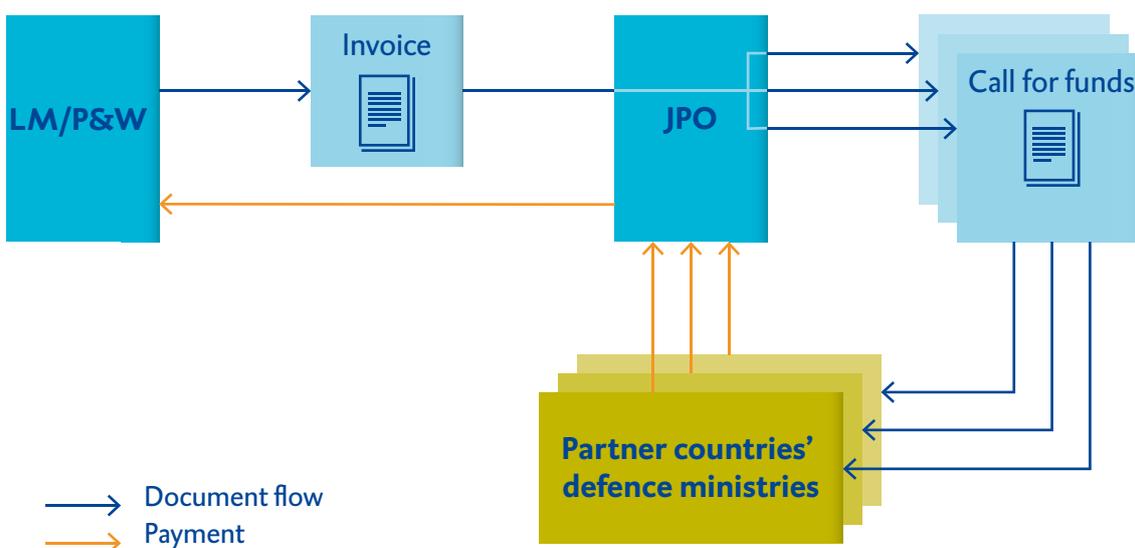


Figure 1. Ministry of Defence expenditure on the JSF project. Source: Ministry of Defence, 2018

The JPO has commissioned two aircraft manufacturers, viz. Lockheed Martin and Pratt & Whitney (LM/P&W), together with a large number of subcontractors, to design and produce the aircraft and all the related equipment. LM/P&W invoice the JPO for this. The JPO is responsible for carrying out a full check of incoming invoices, keeping a systematic record of them and ensuring that each country pays the right amount. To this end, the JPO sends calls for funds to the partner countries. Once these contributions have been paid, the JPO then pays the manufacturers' invoices.

1.2 Verifiability of spending on the JSF programme

1.2.1 Dependent on information received from the US

In order to give a full account of the spending on the JSF programme, the Dutch Minister of Defence is heavily dependent on information received from the US. This information is not easy to verify. This is the same problem encountered by the Dutch National Audit Service, a government body which (at the request of the Dutch House of Representatives) issues audit reports on the Minister's progress reports. The reports prepared by the National Audit Service routinely contain a disclaimer stating that it is not able to give an opinion on the reliability of the information received from the US.

1.2.2 No US financial audit of the JSF programme

Since 2009, the US administration has been working on a programme for improving the financial statements issued by the federal government.⁸ The idea is for all parts of the US administration to publish 'accountable financial statements' in due course. The same applies to the JPO, which is part of the Department of Defense. The federal programme provides for the JPO to implement its own plan of action. The JPO's Joint Asset Reporting and Accounting (JARA) initiative is designed to enable it to report both to the federal government and to the international partners in the JSF programme. To date, however, the JPO has not published any financial statements.

The Office of the Inspector General (OIG) plays a role comparable to that of the National Audit Service in the Netherlands. Although the US system provides for the OIG to perform internal financial audits at the various ministries, it has not to date examined the financial processes relating to the JSF programme. The Government Accountability Office (GAO) does undertake annual audits of the JSF programme, but has not to date audited the financial processes involved.

In other words, no independent US audits have been carried out into the financial processes relating to the JSF programme on which the national audit offices in the partner countries can rely. This makes it difficult for these institutions to give assurances to their parliaments that JSF programme funding has been spent in a lawful (regular) manner. In short, there is a need to check whether the Dutch government is paying the right sums of money for the JSF.

1.3 Part of the audit performed as a joint audit by the Norwegian and Dutch national audit offices

In order to make sure that the Dutch government is paying the right sums of money for the JSF, we performed a joint audit, together with the Norwegian Office of the Auditor General, of the financial processes at the JPO in Washington. To this end, we exercised the audit rights written into the programme. Based on the findings of the joint audit, each of us then performed a further, separate audit of the financial processes and procedures in our own country. The Norwegian and Dutch national audit offices are publishing separate audit reports, based on the findings of both the joint audit in the US and the separate audit performed in their own country. This will enable the two countries, for the first time, to build up a picture of all the various financial processes relating to this massive project.

1.4 What exactly did we audit?

The key question in this audit is: *is the Dutch government paying the right amount for the JSF?* In order to answer this question, and working in conjunction with the Norwegian Office of the Auditor General, we sought to answer the following two sub-questions at the JPO in Washington:

- *Does the JPO provide all the partners with sufficient assurance that the invoices submitted by the commercial parties involved in the JSF programme comply with the contractual terms and any other agreements and arrangements that may be relevant?*
- *Can the defence ministries in the partner countries be confident that the payments they make as part of the JSF programme are correct and in accordance with the MoUs and the cost allocation agreements made in the MoUs? Can they also be sure that the payments are in line with all the contracts, agreements and arrangements made as part of the JSF programme?*

Based on the findings of this joint audit, we then conducted an audit of our own at the Dutch Ministry of Defence. This was intended to answer the following question: *Are the calls for funds from the JPO subjected to adequate national checks so as to guarantee that the associated Dutch expenditure is lawful?*

2 Is the Dutch government paying the right amounts for the JSF?

2.1 Regularity of spending

This chapter examines the question of whether there are sufficient guarantees that Dutch spending on the JSF project is regular. The term 'regular' (or 'lawful', which is also used in this context) means not just that the correct procedures have been followed, but also that the amounts paid are correct and that the Dutch government has not paid an invoice that should have been paid by another country. 'Regular' also means that the services or goods supplied are as agreed.

We based our audit on the following three principles:

- The JSF programme is based on relationships and collaboration between international parties who have been partners and allies for many years now. However, the trust stemming from these relationships does not obviate the need for transparency and accountability.
- The JSF programme is an international undertaking performed by a majority-interest partner working in conjunction with a number of minority-interest partners. According to the MoUs, the JSF programme must be implemented in a manner that complies with the national accounting and audit standards of *all* partner countries.⁹ However, the wide discrepancies between the partner countries in this respect mean that it is not realistic to expect the programme to comply with the requirements of all the various accounting systems. For this reason, the US component of this audit is based on an assumption that 'what's good enough for the US is good enough for us'. In other words, the audits in relation to the JSF programme performed by US agencies must comply with US standards. The processes followed in the Netherlands must comply with the accounting requirements laid down by the Dutch government.
- Finally, our audit was also based on an assumption that the regularity of the JSF programme is the joint responsibility of both the JPO and the partners in the programme. Any weaknesses in the JPO's procedures need to be ironed out by checks performed by the partners.

Working in tandem with the Norwegian Office of the Auditor General, we performed part of this audit at the JPO in the US (see section 2.2). We then conducted an audit of our own at the Dutch Ministry of Defence (section 2.3).

2.2 Audit in the US

The financial processes relating to the JSF in the US consist of two elements:

1. the invoices sent by the aircraft manufacturers to the JPO;
2. the allocation of costs to the partner countries in the calls for funds issued by the JPO.

In relation to these processes in the US, we sought to ascertain whether:

- *there are any guarantees that the invoices sent by the aircraft manufacturers involved in the JSF programme are correct (section 2.2.1);*
- *the procedures adopted by the JPO are such as to guarantee that the calls for funds sent to the partner countries do not contain any errors (section 2.2.2).*

2.2.1 Are there sufficient guarantees that the invoices are correct?

Together with a large number of subcontractors, two aircraft manufacturers, viz. Lockheed Martin and Pratt & Whitney (LM/P&W), have been commissioned by the JPO to design and produce the aircraft and all the related equipment. LM/P&W invoice the JPO to this end. We sought to ascertain whether adequate checks are carried out in the US to ensure that the invoices submitted by LM/P&W are correct.

Audits performed by the DCMA/DCAA

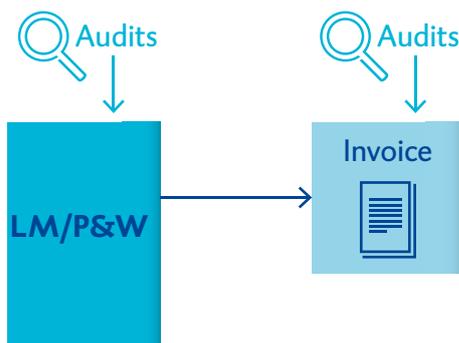


Figure 3. Audits of invoices submitted by LM/P&W

The Defense Contract Management Agency (DCMA) and the Defense Contract Audit Agency (DCAA) are internal audit services at the US Department of Defense. They check whether the invoices submitted by the aircraft manufacturers are correct.

Box 1. The DCMA/DCAA audit invoices submitted to the JPO

The auditing of Invoices by the DCMA/DCAA is a standard procedure: any company supplying goods or services to the US Department of Defense may present an invoice only after it has been approved by the DCMA. The DCMA may ask the DCAA to perform an audit. The DCMA/DCAA check whether the supplier in question has indeed supplied what it was supposed to supply, whether it has applied the right price and whether all the other aspects of the invoice are in order. If the invoice is found to be in order, the DCMA designates it as 'approved', after which the supplier is entitled to submit its invoice to the Department of Defense. Exactly the same procedure applies to the JSF programme.

The DCMA/DCAA perform random checks of invoices, which means that not every single invoice is checked. The DCMA/DCAA also conducts regular audits of the supplier's business procedures, such as the accounting system and the procedures for monitoring the progress of operations. This is important as these procedures are used to decide whether certain predefined milestones have been reached; if so, the supplier is then entitled to submit an invoice. There are also procedures and systems for calculating the use of materials, the amount of time spent, prices and other aspects of the invoicing procedure. Each of these business systems must be approved before the supplier is entitled to submit an invoice.

In recent years, both the Government Accountability Office (GAO) and the Office of Inspector General (OIG) have repeatedly voiced criticisms about the type of audits performed by the DCMA/DCAA. However, they have not to date specifically examined the audits performed in relation to the JSF programme.

Box 2. GAO and OIG critical about DCMA/DCAA audits

The GAO claimed in a 2012 report that the DCMA/DCAA either did not assess or did not assess in good time the business systems and procedures used by companies supplying the Department of Defense, even though the systems and procedures in question continued to be designated as 'approved'. In 2015-2016, the OIG reported that the DCMA was not doing enough to monitor the progress made in remedying shortcomings and did not make sufficient use of the sanctions it was entitled to impose in order to force suppliers to improve their procedures.¹⁰

For this reason, we decided to perform our own audit, in conjunction with the Norwegian Office of the Auditor General, of the audits performed by the DCMA and the DCAA in relation to the JSF programme. The object was to ascertain whether the audits had been thorough, i.e. whether the findings were reliable enough for us to be able to use them in our own audits.

Our joint audit in the US generated a great deal of information on how the DCMA/DCAA carry out this type of work. We were able to examine their standards, audit programmes and audit manuals, and we interviewed the auditors concerned. We found that both agencies have designed thorough procedures that are in line with generally accepted US standards, such as the GAO's Government Auditing Standards.¹¹ In order to assess whether these procedures were followed in practice in relation to the JSF programme, we needed to examine the audit reports produced by the DCMA/DCAA on the JSF programme.

We already pointed out in our 2017 accountability audit report that, until recently, the JPO passed on the audit reports drawn up by the DCMA/DCAA only to the US partners in the JSF programme, i.e. the US Air Force, the US Navy and the US Marine Corps, and not to the international partners. Thus, neither the National Audit Service in the Netherlands nor the Netherlands Court of Audit had received these reports to date. One of the ramifications of the agreement between the Dutch Minister of Defence and the aircraft manufacturers in relation to this project was that all bodies and persons other than those specifically named in the agreement were forbidden from gaining access to the information.¹² Late in 2017, however, the Minister of Defence agreed with LM/P&W to alter the arrangement, thus ending the effective embargo.

In the summer of 2018, based on the new arrangement between the Minister of Defence and LM/P&W, we were able to examine enough of the audit reports drawn up by the DCMA/DCAA to be able to conclude that their findings are reliable. The audits performed by the DCMA/DCAA of the invoices submitted by LM/P&W in relation to the JSF programme are in accordance with US standards. Based on these reports, we conclude that there are sufficient guarantees that the invoices submitted by LM/P&W are correct.¹³

This is not the only reason why we believe that the reports drawn up by the DCMA/DCAA are relevant to the international partners. They are also important in that they give an impression of the progress of the contracts and any delays that may have arisen. This is also why the JPO should have sent copies of the DCMA/DCAA's audit reports to all the partners right from the very outset.

2.2.2 Do the procedures at the JPO guarantee that the calls for funds are error-free?

The JPO is required to distribute the amounts invoiced by LM/P&W among the nine partners in the programme. The defence ministries in the partner countries receive a request for payment (known as a 'call for funds') from the JPO.

Allocation of costs among partners

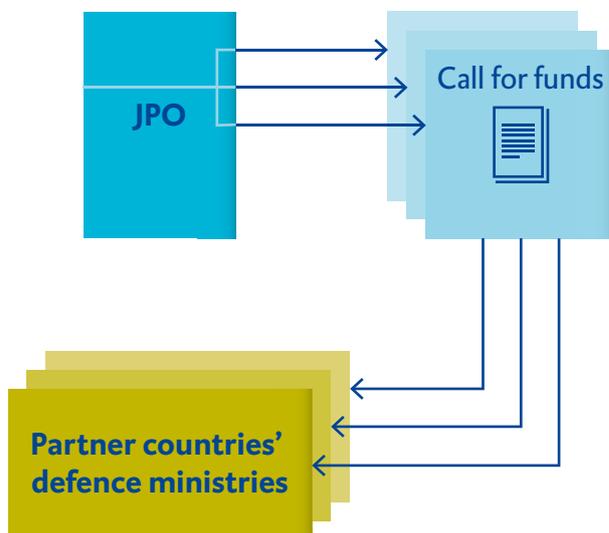


Figure 4. Allocation of costs among partners

We sought to establish whether the procedures followed by the JPO can guarantee that the calls for funds do not contain any errors. The process of calculating how much each individual country needs to pay towards a given invoice is not an easy one. The fact is that there are different types of calls for funds and there is a different cost allocation formula in each case. How the costs are allocated is related to the role played by the country in question in the JSF programme:

- whether it as a *partner* in the programme, i.e. a co-producer of the JSF;
- or whether it is a *purchaser*, i.e. a customer of the JSF programme.

There is a different cost allocation formula for each role. These are explained under points A and B below.

A Calculating a partner's share of the cost

The nine partners in the JSF programme are together responsible for the development and production of the JSF (by LM/P&W). They are also together responsible for setting up a worldwide maintenance organisation, and for the further development of the JSF.

To this end, the partner countries make a range of investments that they hope to recoup in due course from aircraft sales. How much each partner contributes towards the cost of these investments (known as the 'composite share ratio') depends on the number of aircraft that each partner has told the JPO it is planning to purchase, regardless of whether or not it actually buys this number of JSFs in practice. As the numbers of planned purchases are liable to change from one year to another, so the composite share ratios also alter from one year to the next.

Box 3. The composite share ratio for a partner country depends on the number of aircraft it is planning to buy

The percentage of the JSF programme costs which a partner country is required to pay depends on the number of aircraft that the country in question has told the JPO it is planning to buy. If a country lowers this number (known as the 'planning number'), there is a rise in the composite share ratios for the other countries, and vice versa. In theory, the planning number has no bearing on the actual purchase decision. For example, for a long time, the Netherlands had a planning number of 85 aircraft, until the Dutch government decided in 2013 that it would in fact buy 37 JSF aircraft. It was only after this decision was taken that the planning number was reduced from 85 to 37. At this point, the composite share ratio for the Netherlands was revised downwards accordingly (see Table 1).

Although Canada has not yet formally decided to procure any JSF aircraft, it nonetheless raised its planning number earlier this year from 65 to 88. This resulted in an increase in Canada's share of the costs and hence a further decrease in the Dutch share of the costs. The new planning number for Canada will not be factored into the percentages until 2019, which is why the figures in the table have not been adjusted. Any excess payments are not refunded in the event of a decrease in the planning number. Similarly, no charge is made for underpayment if the planning number rises.

Table 1. Annual composite share ratios for programme partners depend on the planning numbers

Country	2007-2011 Number	2007-2011 CSR	2012 Number	2012 CSR	2013-2014 Number	2013-2014 CSR	2015-2017 Number	2015-2017 CSR	2018 Number	2018 CSR
US	2,443	76.993%	2,443	77.803%	2,443	78.730%	2,443	79.968%	2,456	80.130%
UK	138	4.349%	138	4.395%	138	4.447%	138	4.517%	138	4.502%
AUS	100	3.152%	100	3.185%	100	3.223%	100	3.273%	100	3.263%
CAN	80	2.521%	65	2.070%	65	2.095%	65	2.128%	65	2.121%
DEN	48	1.513%	30	0.955%	30	0.967%	30	0.982%	27	0.881%
ITA	131	4.129%	131	4.172%	90	2.900%	90	2.946%	90	2.936%
NLD	85	2.679%	85	2.707%	85	2.739%	37	1.211%	37	1.207%
NOR	48	1.513%	48	1.529%	52	1.676%	52	1.702%	52	1.697%
TUR	100	3.152%	100	3.185%	100	3.223%	100	3.273%	100	3.263%
TOTAL	3,173	100.000%	3,140	100.000%	3,103	100.000%	3,055	100.000%	3,063	100.000%

In other words, the basic principle here is that, if one country reduces the planning number, i.e. the number of aircraft it is planning to buy, there is a rise in the composite share ratios for the other partners. This is a risk. However, the Dutch government has capped its contributions by setting a maximum limit in the MoUs. The US administration has agreed to pay any increase in the level of cost beyond this maximum limit.

This means that the JPO has an interest in taking great care to ensure that every cost item is attributed to the right year and that the right composite share ratio is associated with that year. Moreover, a different cost allocation formula is used for operational tests, given that only the US, the UK, the Netherlands and Australia have decided to take part in these tests.

B Calculating a purchaser's share of the cost

Basically, the idea is to sell the JSF aircraft and all the related equipment. In addition to the partners in the JSF programme (in so far as they have already decided to buy the aircraft), the purchasers include Japan, South Korea and Israel. So how does the JPO distribute the invoice amounts among all these countries? The answer is that it depends on the nature of the invoice in question. The configuration of the JSF varies from one purchaser to another: each country has its own specific requirements, in relation both to the aircraft and to the way in which they are delivered. For example, some countries have ordered certain parts that other countries do not want or want to have supplied in a different form. For example, the Netherlands and Norway both want their aircraft to be fitted with landing parachutes for landing on short runways, whereas other countries do not need this. In addition, every

country has its own order timetable, which means that the number of aircraft produced for a given country may vary from year to year. For example, the number of aircraft ordered by the Dutch government for the years from 2019 to 2023 inclusive is 8, 8, 8, 8 and 3 respectively. Orders are placed a few years before the projected delivery date.

The JPO combines incoming orders into 'lots', which it then contracts out on an annual basis to LM/P&W. The production of each of these lots is referred to as a 'low-rate initial production' (LRIP).¹⁴ An LRIP is commissioned every year; delivery follows several years later. The contracts state in great detail, often even for each individual item, how much of each lot each country is taking.

As part of a single LRIP, LM/P&W produce a number of aircraft and all sorts of different equipment for various countries. The invoices submitted by LM/P&W relate to a wide range of deliveries, including aircraft (or parts of aircraft), tool sets, initial sets of spare parts, initial training and other goods and services. It is up to the JPO to decide what is intended for whom and who has to pay how much of the invoice for a given delivery. As a result, each individual item comes with its own specific cost allocation ratio. Not surprisingly, therefore, allocating the costs among the purchasers of the aircraft is an equally complicated exercise.

2.2.3 The JPO Finance Operating Handbook

The JPO has gradually developed its procedures since it was first set up in 2002. In doing so, it has built on existing procedures used by the US Air Force and the US Navy. However, these existing procedures have proved difficult to transfer to relationships with international partners, as was the case with the JSF. The MoUs and the appendices to them merely contour the financial relationships between the partners.

In 2015, the JPO started compiling its own *JPO Finance Operating Handbook*, describing the processes and procedures used by the JPO. The handbook consists in the main of systematic descriptions of the procedures used by the JPO. Until then, these had only been recorded in the form of a couple of PowerPoint presentations. The JPO hopes that the handbook will help it to become more transparent and more accountable.

Chapter 3 of the handbook, entitled *F-35 International Directorate (ID) Business Financial Management (BFM) – Invoice Payment Process*, discusses the way in which invoices are processed and calls for funds are drawn up by the JPO's Business Financial Management team. Although this chapter initially took a long time to produce, the drafting process

suddenly gained momentum during the course of our joint audit. Chapter 3 more than doubled in size between 1 and 12 June 2017, i.e. just before our audit teams visited the JPO. The chapter has in the meantime been completed and subsequently approved by the JPO.

The joint audit of the procedures described in the handbook showed that they were well-planned and were intended to minimise the risk of errors in the calls for funds. It is important to bear in mind in this connection that the JPO has automated as many processes as it can and also performs a number of checks during every process.

However, there is always a risk of errors occurring. In particular, the allocation of costs among the purchasers of the JSF involves a large number of complex manual calculations. Moreover, the JPO admitted that procedures had not always been strictly enforced in the past and that errors had been caused as a result. We were also concerned to note that virtually all the errors identified had been detected by the defence ministries in the partner countries (notably in Norway and the Netherlands) and that very few had been picked up by the JPO itself. Staff at the JPO claimed that all the errors had now been rectified and told us that they expected the publication of the handbook to lead to procedures being followed more closely in future.

2.2.4 Information package enclosed with the calls for funds

The JPO encloses a comprehensive information package with every call for funds. This consists of copies of the underlying invoices received from LM/P&W and a breakdown of each invoice amount into the amounts payable by each country in accordance with its composite share ratio. This additional information is intended to enable the partner countries to check the accuracy of the calls for funds themselves.

2.2.5 Conclusion of the joint audit and opportunities for improvement

The conclusion we have drawn on the basis of our joint audit is that we may assume that the invoices sent by LM/P&W to the JPO have been subjected to proper audits in accordance with US standards.¹⁵

We also concluded that the JPO has established proper procedures for the correct allocation of costs among the JSF partners. However, these procedures were not formally laid down until relatively recently, i.e. in 2017, and require a large number of complex calculations. We also found that they were not always observed in practice, thus paving the way for errors. This means that the partner countries cannot blindly assume that the calls for funds from the JPO are indeed correct.

2.3 Audit in the Netherlands

Ultimately, all the partners in the JSF programme are themselves responsible for the regularity of their payments. In the knowledge that the procedures followed in the US, although adequate in themselves, cannot rule out the occurrence of errors, the partner countries' defence ministries need to perform their own checks of the accuracy of the calls for funds.

The arrangement we made with the Norwegian Office of the Auditor General was that each of us would perform this part of the audit in its home country. We therefore examined the financial processes relating to the JSF project at the Dutch Ministry of Defence. The principal question in this respect was:

Do the checks performed by the Dutch authorities of the calls for funds from the JPO provide sufficient assurance as to the regularity of Dutch payments to the JSF project?

2.3.1 Procedure improved thanks to bigger role for FABK

Until the end of March 2017, the F-35 project team at the Dutch Ministry of Defence was more or less solely responsible for receiving, accounting for, checking, processing and paying calls for funds as part of the JSF programme. Although the Financial Accounts and Management Office (FABK) at the Ministry was involved in the actual transfer of funds, it played only a minor role.

We wrote to the Dutch House of Representatives on 10 March 2015, criticising the way in which the F-35 project team handled the financial accounts for the JSF project.¹⁶ Various improvements have been made to the project organisation since then, in part thanks to the fact that, in April 2017, the FABK was made responsible for handling a much larger share of the financial processes.¹⁷

The procedure followed by the FABK in dealing with calls for funds is robust and detailed, and is aimed at ensuring that any errors in the calls for funds are detected and remedied at the earliest possible stage.

A large part of the procedure is performed by FINAD, the Ministry of Defence's computerised accounting system. FINAD is the accounting module of the Ministry's enterprise resource planning system for materiel logistics and finance (ERP M&F) and

contains a series of built-in checks that must be performed before any payment can be made. The procedure also requires every payment order to be checked by a senior official before payment can go ahead.

The FABK still needs to obtain a great deal of its information from the F-35 project team, some of which it obtains from the database maintained by the project team.

Box 4. Database of accounts for the procurement of the F-35

In 2017, the F-35 project team set up a database containing the accounts for the procurement of the F-35. This was done because, when the Ministry of Defence purchased its ERP M&F system (of which FINAD forms part), it decided not to buy the FINAD project module. This meant that much of the information required for the payment procedures for the JSF project could not be processed in FINAD. The database contains a systematic record of:

- contracts and the relevant commitments;
- invoices and associated payments.

The information on contracts includes details on each individual item. The information on calls for funds and the related payments is supplied by the FABK. The database is an MS Access database and is manually updated in the main. One of the members of the project team has been designated as the database manager. Access and processing rights are laid down in the form of 'writing and reading rights'. This is because of the confidentiality of (country-specific) information in the contracts and also so as to safeguard the integrity of the database. The FABK only has reading rights in relation to the database, and supplies entry data for invoices and payments in the form of a source file. The project team then (automatically) imports this file into the database.

The database is a tool that helps to make up for the absence of a project module in the ERP M&F. The F-35 project team is responsible for the completeness and accuracy of the data in the database.

2.3.2 Built-in safeguards

The procedure followed by the FABK does not imply that it checks whether the JPO has applied the correct cost allocation ratio in a call for funds. The Ministry of Defence claims that this is not necessary as there is no risk of the Netherlands paying too much. This is because an agreement has been reached, for each item in each contract, on the size of the Dutch contribution. An important source document in this respect is the Award Approval Sheet (AAS), which the Ministry of Defence uses to authorise the JPO to sign contracts with the aircraft manufacturers on its behalf. The AAS specifies the precise value of the Dutch contribution to the contract, which the F-35 project team then enters in the

accounts as a 'commitment'. The FABK can check in the accounts whether the Dutch contribution towards an invoice is less than the value of the commitment in question. Although the JPO might conceivably apply the wrong cost allocation ratio in connection with a particular partial delivery, resulting in the Netherlands paying too much, the maximum value of the relevant commitment forms a guarantee that the Netherlands will in no event end up paying more than the total amount specified for the contract in question. After all, if the Dutch contribution towards a particular invoice is bigger than it should have been, the maximum value will simply be reached earlier than otherwise. The FABK warns the JPO if this happens.

Although this line of argument seems sound enough, the fact is that, if the Netherlands has overpaid on a previous call for funds, this is not actually noticed until there is a risk of the maximum value of the commitment being exceeded as a result of a future call for funds. At this point, the Netherlands then needs to ask the JPO to adjust the call for funds. It is also worth noting that any overpayments may result in the pattern of payments for the JSF project turning out differently from the Ministry's budget estimates.

For this reason, it would make more sense to check the calls for funds to make sure that the correct cost allocation ratio has been used. Expenditure is deemed to be regular not only provided that the total amount paid by the Netherlands is correct, but also provided that the underlying documentation is in order.

The strength of the safeguard also depends on the accuracy of source documents such as the AAS. The figures authorised in the AAS form the basis for the commitments created in the accounts against which the FABK checks the calls for funds. It is possible that the FABK may overlook certain errors in these documents. Errors in the AAS might arise, for instance, if certain commitments need to be charged to an LRIP in a previous year, in which a different cost allocation ratio applied. The F-35 project team is responsible for ensuring that the information in the AAS is correct; the same applies to the figures in the database.

2.3.3 Difference between payments made as a partner and payments made as a customer

It is not just the allocation of costs in the JSF programme that varies according to whether the payer is a partner or a customer. The same applies to the method of payment. This means that it is absolutely vital to make sure that the JPO bases its calls for funds on the appropriate role, i.e. is the call for funds addressed to the Netherlands as a customer or as a partner? It is clear from section 2.3.8 that the JPO is relatively prone to making errors in this respect.

Such errors could potentially have serious consequences for the Netherlands.

In its capacity as a *partner*, the Ministry of Defence pays an annual contribution into a dollar account held in the US by the Dutch government. The size of the annual contribution depends on the amount that the JPO reckons it needs, from one year to another, to implement the programme, and also on the composite share ratio applying to the Netherlands (see section 2.2.2). The Netherlands has authorised the JPO to debit the Dutch dollar account with the amounts needed to pay the invoices presented by LM/P&W and also to pay for the other programme expenses. In other words, the FABK does not actually need to pay the calls for funds received by the Dutch Ministry of Defence (designated by the JPO as 'CSR calls'). The calls for funds serve for information purposes only.

The Dutch Ministry of Defence also receives calls for funds in its capacity as a *customer*. These are designated by the JPO as 'non-CSR calls'. Whenever it receives such a call for funds, the Ministry then pays it itself. This is a policy choice: Australia is the only other country to operate in the same way. The other partner countries make an annual deposit for non-CSR calls into their dollar account for the JSF programme, in the same way as they deposit annual contributions for CSR calls for funds. In this way, the JPO can charge all calls for funds to their accounts. The policy adopted by the Dutch Ministry of Defence is that, whenever it receives a non-CSR call for funds, it deposits the amount in question into its dollar account in the US and instructs the bank to transfer the amount to the JPO.

Payments made for the JSF programme, as a partner and as a customer

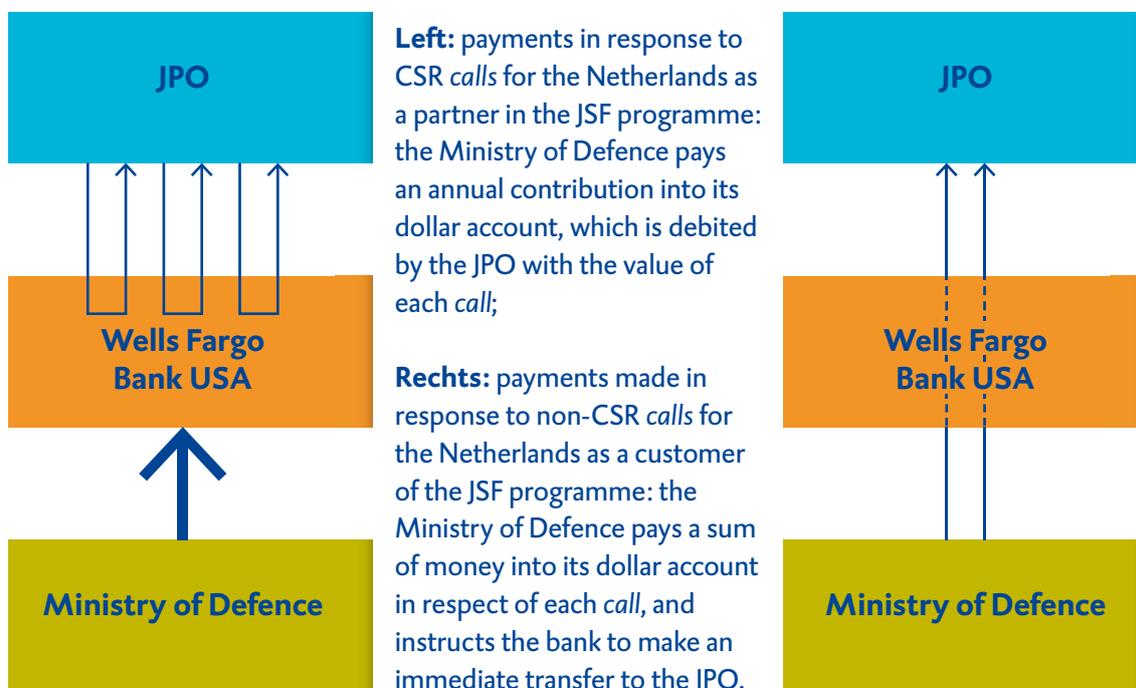


Figure 5. Payments made by the Netherlands for the JSF programme, as a partner and as a customer.

Due to the different methods of payment, the FABK must carefully check whether the JPO has correctly distinguished CSR calls from non-CSR calls for funds. This is because the Ministry of Defence needs to make a transfer to its dollar account for each non-CSR call for funds, but not for a CSR call for funds. The situation is complicated by the fact that the JPO sometimes combines invoices for both CSR and non-CSR payments in a single call for funds.

2.3.4 Effectiveness of the procedure

By tracing a number of calls for funds, we were able to establish that, in practice, the FABK does indeed stick to the procedure as described. The procedure is also effective in detecting and remedying any errors in calls for funds. Some cases require extra communication with the F-35 project team or the JPO.

2.3.5 Checking supplies of goods and services

Establishing the regularity of payments also involves checking supplies of goods and services. The accounting system used by the Dutch Ministry of Defence requires the presence of a 'certificate of performance' stating that the goods or services for which

payment is being requested have been supplied in accordance with the agreements made. Until we performed our joint audit, this had been a sort of black box for the Ministry of Defence, i.e. it was unverifiable. Although copies of the invoices from the aircraft manufacturers (stamped 'Approved') were enclosed with the calls for funds sent to the Ministry, it had no way of knowing how these had been checked. In spite of this, the F-35 project team at the Ministry of Defence nonetheless systematically issued positive certificates of performance in relation to the JPO's calls for funds. The project team claimed that it did not have any way of determining whether the invoiced supplies complied with the relevant agreements, but 'simply had to rely on the information from the JPO'. The team drew up *pro-forma* certificates of performance 'to enable payments to proceed'.

In other words, the certificates of performance did not provide any guarantees that the goods and services invoiced by the JPO in the latter's calls for funds were actually in accordance with the agreements made.

Our audit team found that the audits of the invoices performed by the DCMA/DCAA were in accordance with US standards (see section 2.2.1). This means that the Dutch Ministry of Defence no longer needs to issue any *pro-forma* certificates of performance and instead can simply refer to the DCMA/DCAA's audits.

We should, however, point out that our opinion relates only to the state of affairs at a given moment in time. The Ministry of Defence should take steps in the years to come to ensure that it is consistently able to rely on the audits of invoices performed by the DCMA/DCAA.

2.3.6 Checks performed by the Dutch embassy

A special Ministry of Defence controller stationed at the Dutch embassy in Washington is a vital link in the audit chain in relation to the JSF programme. One of his duties is to ensure that the JPO's accounts tally with those of the Dutch Ministry of Defence, and that errors are avoided. Since 1 January 2017, the controller at the embassy has also checked transfers from the Netherlands, withdrawals from the account by the JPO, and transfers by the JPO to LM/P&W. These checks have proved to be a highly effective means of weeding out errors in the payment process.

2.3.7 Balance on the Dutch dollar account in the US

Dutch payments to the JSF programme are channelled through a dollar account held by the Dutch government in the US. The balance on the account is constantly kept at a level that is around USD 60 million higher than is necessary in the light of the pattern of payments. This

is because the JPO is relatively quick in sending calls for funds to the partner countries, but less quick in paying LM/P&W. The Ministry of Defence claims that this applies not just to the Netherlands, but also (on a *pro rata* basis) to the other partner countries. As a result, the partner countries' dollar accounts contain almost USD 1 billion that the JPO has asked be held in reserve to cover future spending on the JSF programme.

The Dutch Minister of Defence cannot decide without consultation to temporarily delay her payments to the JSF programme. At the same time, she can, as one of those involved in the organisation of the programme, urge the JPO to strike a better balance between the amount held in the partners' accounts and the payments made from the same accounts.

2.3.8 Analysis of errors in calls for funds detected by Dutch checks

The procedures followed by the Dutch Ministry of Defence in relation to the financial processes for the JSF project have proved to be effective, in that the Ministry has been able to detect a large number of errors in the calls for funds it has received. The records kept by the Ministry show that it received a total of 838 calls for funds worth USD 511 million during the period between January 2017 and June 2018. It identified and rectified 59 errors in these calls. Two calls contained more than one error. This means that over 7 per cent of the calls received by the Ministry contained errors. The monetary value of the errors identified in the 59 calls for funds varied widely, from just a couple of cents that the Netherlands had been undercharged to USD 6.3 million that the Netherlands had been overcharged.

Table 2. Nature of errors in calls for funds and their processing

Nature of errors	Number
JPO errors: wrong cost allocation ratio or classification error (CSR/non-CSR):	26
Other JPO errors:	19
Dutch errors:	12
Errors made by LM/P&W:	2
Total:	59

Virtually all 59 cases involved some sort of human error. In 26 cases, the JPO had made an error in calculating the Dutch cost allocation ratio or had made a classification error (i.e. in classifying a call for funds as either CSR or non-CSR). A further 19 cases involved other JPO errors, such as incomplete information enclosed with the call for funds or double payments made to LM/P&W. 12 cases involved errors made in the Netherlands, in some cases because staff were not aware that CSR calls for funds had already been debited to the dollar account. In two cases, the error lay with LM/P&W.

Table 3. Detecting errors

Error detected by	Number
Controller at Dutch embassy:	47
FABK:	8
JPO:	3
LM:	1
Total:	59

The vast majority of errors were detected by the controller at the Dutch embassy. Eight errors were detected by the FABK and just three were spotted by the JPO.

The list of errors produced by the Ministry of Defence underlines the importance of checking for errors at the Ministry itself. It also shows that the Ministry's procedures are effective. Staff implementing the procedure have been able to discover errors in the calls for funds or in the processing of such calls, which they have then been able to remedy. This prevents incorrect payments from being made or, as the case may be, enables undue payments to be rectified. The checks performed by the controller at the Dutch embassy in Washington have proved to be particularly effective.

2.3.9 Conclusions drawn from the audit in the Netherlands

Our audit at the Ministry of Defence shows that the Ministry follows systematic procedures in dealing with calls for funds. The procedures have been designed so that only calls that comply with the formal requirements qualify for payment. The list of errors compiled by the Ministry also shows that the procedure is effective in detecting and rectifying errors in the calls for funds. This applies both to errors made by the JPO and to errors made at the ministry in the Netherlands.

Although the procedure prevents the total value of Dutch payments for the JSF programme from exceeding the preset limit, it does not guarantee that the correct cost allocation ratio is applied in each call for funds. This is also an aspect that needs to be checked if the payments are to be classified as being regular.

This audit represents the first occasion on which an assurance has been provided that the audits performed by the DCMA/DCAA comply with US standards. In other words, it is only now that, in issuing certificates of performance, the F-35 project team can have confidence in relying on the audits performed by the DCMA/DCAA.



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The Ministry of Defence should take steps to ensure that it is consistently able to rely on the audits of invoices performed by the DCMA/DCAA in the years to come.

The partner countries' dollar accounts contain a large amount of money that the JPO has asked be held in reserve to cover future spending on the JSF programme. As one of those involved in the organisation of the programme, the Dutch Minister of Defence is in a position to urge the JPO to strike a better balance between the amounts held in the partners' accounts and the payments made from the same accounts.



3 Minister's response and Court of Audit afterword

3.1 Response of the Minister of Defence

The Minister of Defence responded to our draft report on 12 October 2018, writing in part on behalf of the State Secretary for Defence.¹⁸ A summary of her response follows below. The full (Dutch) text of her response is available on our website (www.rekenkamer.nl). The chapter concludes with our afterword.

The Minister said that she valued our audit findings and appreciated our acknowledgement of the fact that, partly thanks to the way in which she had organised the national system of checks, the Dutch payments for the F-35 were correct. The Minister conceded that these checks were not easy to organise and regarded our report as a tool for improving the national checks. She said that she would take full account of our recommendations. She was planning to adopt recommendations 1, 3 and 4 in full. Her response to recommendations 2, 5 and 6 is summarised below.

In response to our second recommendation, i.e. that the Minister should ensure that she acquires from the other partners, and checks, all the information she needs for reporting purposes, the Minister said that she recognised the importance of having access to the findings of audit bodies in the partner countries and that she would take this information into account when taking decisions about the project and when reporting on the regularity of spending.

In response to our fifth recommendation, i.e. that the Minister should ensure that the audits of invoices performed by the DCMA/DCAA remain reliable in the years to come, the Minister said that the DCMA/DCAA were audit agencies that should be assumed to operate in accordance with the relevant US quality standards, as our audit had indeed confirmed. The Minister said that there was no reason to believe that there would be a decline in the quality of these audits in the future.

In response to our sixth recommendation, i.e. that the Minister of Defence should use her influence in the organisation of the JSF programme to urge the JPO to strike a better balance between the amounts held in the partners' dollar accounts and the amounts spent from these accounts, the Minister said that every payment made from the Dutch government's dollar account in the US was underpinned by solid documentary evidence. The Minister pointed out that it was in part thanks to a carefully thought-out payment

procedure that the Netherlands had been able to swiftly discharge its financial obligations. The balance of the US dollar account is liable to fluctuate; the Minister said that an increase in the number of payments in the years to come meant that it was likely to rise in the future. She wished to stress that the Ministry of Defence would continue to make efforts to achieve a careful balance between payments into and out of the account.

The Minister said that our report confirmed the importance of carrying out thorough financial checks in relation to international defence materiel projects. This would remain of vital importance in the coming years, the Minister said, as the Ministry of Defence would again be investing in modernising, strengthening the military power of, and enhancing the sustainability of the Dutch armed forces.

3.2 Court of Audit afterword

Although the Minister said that she would take full account of our recommendations, she would not appear to be convinced of the need to take action in relation to our second, fifth and sixth recommendations. We would like to make the following comments in this respect.

It is thanks to this audit that the Minister, and hence the Dutch parliament, have finally received an assurance about the regularity of expenditure on this project. However, this is something that the Minister should be able to establish herself, not only in relation to the project for the replacement of the F-16, but also in relation to other projects. Our recommendations, notably the second and fifth recommendations, are intended to ensure that she is able to discharge this responsibility in the future. Our recommendations go beyond simply taking note of reports produced by other bodies, as the Minister promises to do. The point is that the Minister must be able to confirm the reliability of these reports, for example by gaining access to the underlying information. Although our audit team found that the reports published by the DCMA/DCAA, i.e. the auditors for the US Department of Defense, on the invoices submitted by LM/P&W during the period between January 2017 and June 2018 complied with the relevant standards, this was simply a description of the state of affairs at a given moment in time and should not be taken as indicating that this is always the case. It is clear from the criticisms levelled in the past by the GAO and the OIG at the audits performed by the DCMA/DCAA that there is a need for constant alertness. It is not inconceivable that similar criticism may make it imperative to take action in the near future.



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The Minister stressed the need for striking a balance between payments made into and out of the dollar account. However, in the light of the large amount of money currently held at the JPO's disposal in dollar accounts, she could also actively urge the JPO to strike a better balance between incoming and outgoing payments.

Finally, although the procurement of the F-35 is the biggest military programme currently in operation, the government is planning a number of other large-scale investment programmes for the armed forces in the coming years. These involve large sums of money and our recommendations will be relevant to them, too.



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Appendices

1. Background information and description of audit methods
2. List of abbreviations
3. Bibliography
4. Notes



Appendix 1 Background information and description of audit methods

This appendix contains background information on this report and a description of the audit methods used. The following points are discussed:

- Terminology
- Reasons for performing the audit
- Joint audit by Norwegian and Dutch national audit offices
- Access to DCMA/DCAA reports
- Assessment of the DCMA/DCAA's audit reports
- National audit
- Separate audit reports

Terminology

JSF programme and JSF project

The terms 'JSF programme' and 'JSF project' are both used in this report. They do not have the same meaning. The JSF programme is the US programme for the development and production of the Joint Strike Fighter (JSF). Participation in this programme is open to international partners, and the Netherlands is one of the partners in the programme. The JSF project, on the other hand, is the name of a Dutch project that includes both participating in the US programme and purchasing the JSF. The Dutch Minister of Defence originally referred to the project as being officially called the 'F-16 Replacement Project'. Since the government decided that the JSF (or the F-35, as it is also called) should be the successor aircraft to the F-16, the Minister has referred to the project as the 'Project for the Acquisition of the F-35'.

JSF and F-35

The terms JSF and F-35 are used interchangeably, both in the Netherlands and in the international arena. For example, the body responsible for the JSF programme in the US is the JSF Program Office (JPO). For a long time, the Dutch Ministry of Defence alternated between the two names. This lasted until 2013, since when it has consistently referred to the aircraft as the F-35. In 2005, the Netherlands Court of Audit launched a series of audits into the replacement of the F-16, consistently using the term JSF throughout. In order to maintain this consistency, we have decided to continue to use the same term in all our reports.¹⁹

Reasons for performing the audit

Dependency on information from the US

The Netherlands Court of Audit has been auditing the project for replacing the F-16 since 2005. A team of specialist auditors has been permanently stationed at the Ministry of Defence (which is responsible for the project), where they have audited the information available on the project. Every year since then, we have published audit reports and sent letters to the Dutch House of Representatives. Time and time again, though, the audit team encountered the same problem: the project is heavily dependent on information received from the US, the accuracy of which is either very difficult or impossible to check. The processes at the JPO have been more or less 'black-box processes', i.e. hidden from view and not open to verification.

The National Audit Service encountered the same problem. The Dutch House of Representatives has asked the National Audit Service to audit the progress reports prepared by the ministers. These audit reports routinely contain a disclaimer stating that the National Audit Service cannot give an opinion on the reliability of information received from the US.

Box 5. Disclaimer in audit reports on progress reports²⁰

"As far as the internal and external information on the F-35 and its development is concerned, and the validation of this information, [... the Ministry of Defence and] the National Audit Service are very dependent on the information supplied by various US agencies. There are relatively few opportunities at [... the Ministry of Defence] for assessing the reliability of this information.

In many cases, this information is taken as a given and is assessed only in terms of its consequences for the project in the Netherlands. Although the partner countries are formally entitled (under the Memoranda of Understanding) to perform their own assessments of the accuracy of the estimates, of the actual project expenditure and of the accuracy (and completeness) of the US source information, in practice there are only limited opportunities for doing so. For this reason, we are unable to give an opinion on the reliability of the information received from the US."

Audit gap in the US

The Office van de Inspector General (OIG) plays a key role in auditing federal expenditure in the US. Its role is similar to that played by the National Audit Service in the Netherlands;

the latter undertakes financial audits of the ministries' revenue and expenditure. The OIG performs similar audits for all investment projects undertaken by the US Department of Defense.

It emerged during the 2016 Annual JSF Conference of representatives of the national audit offices in the JSF partner countries that the OIG did not audit the financial processes relating to the JSF programme. The reason for this was that the OIG assumed that the Government Accountability Office (GAO) had already done so, as it had been specially requested to do so by the US Congress.²⁰ However, it became clear during the conference that the GAO audits did not focus on the financial processes. In other words, there was an audit gap.

In short, no independent US audits are performed of the financial processes in the JSF programme on which the national audit offices in the partner countries can rely. This makes it difficult for the national audit offices to give an assurance to their national parliaments that expenditure from their JSF budgets has been regular.

International partners' rights of audit

The MoUs regulate the relations between the partner countries in the JSF programme. The MoUs set out, among other things, the rights of audit in relation to the JSF programme of the national audit offices in the partner countries. The agreement is that these national audit offices are entitled to have access to any information they may need for discharging their national audit responsibilities. The relevant national audit reports are also distributed to all the partners.²¹ As at the date on which this audit was performed, no national audit office had exercised these rights of audit.²²

Joint audit by Norwegian and Dutch national audit offices

The Norwegian and Dutch national audit offices decided to perform a joint audit of the financial processes at the JPO in Washington. This was followed by a further, separate audit of the financial processes and procedures that we each performed in our own country. The main question in this audit was: *is the government paying the right amount for the JSF?*

In the joint audit performed in conjunction with the Norwegian Office of the Auditor General, we sought to answer the following two questions:

- *Does the JPO provide all the partners with sufficient assurance that the invoices submitted by the commercial parties involved in the JSF programme comply with the contractual terms and any other agreements and arrangements that may be relevant?*

- *Can the defence ministries in the partner countries be confident that the payments they make as part of the JSF programme are correct and in accordance with the MoUs and the cost allocation agreements made in the MoUs? Can they also be sure that the payments are in line with all the contracts, agreements and arrangements made as part of the JSF project?*

Following a six-month preparatory period, a specialist team consisting of two Norwegian and two Dutch auditors spent an entire week auditing the financial processes in relation to the JSF programme at the JPO in Washington. The first part of the audit focused on the audits performed by the DCMA/DCAA of the invoices submitted by the aircraft manufacturers. The second part examined the processes at the BFM team (which is part of the JPO), which is responsible for drawing up the calls for funds.

During our meetings with staff at the JPO and the DCMA/DCAA, we were shown copies of the most relevant documents and given access to systems. We were thus able to build up a good picture of the procedures at the JPO. We were not given permission to inspect the DCMA/DCAA's reports on the audits they had performed at LM/P&W.

US standards

One of the basic principles underlying the joint audit was: *'What's good enough for US is good enough for us'*. This is a compromise: according to the MoUs, the JSF programme has to satisfy the national accounting and audit standards of *all* the partner countries.²³ However, it is not realistic to expect the programme to comply with the requirements of all the various accounting systems. For this reason, our audit is based on an assumption that the audits of the JSF programme performed by US agencies must comply with US standards. The processes followed in the Netherlands must comply with the accounting requirements set by the Dutch government.

But do the audits performed by the DCMA/DCAA comply in practice with US standards? We had reasons to doubt whether this was indeed the case. After all, both the GAO and the OIG had in the recent past repeatedly criticised the way in which the DCMA/DCAA carried out the audits. The GAO claimed in a 2012 report that the DCMA/DCAA either did not assess or did not assess in good time the business systems and procedures used by companies supplying the Department of Defense, even though the suppliers continued to be designated as 'approved'. In 2015-2016, the OIG reported that the DCMA was not doing enough to monitor the progress made in remedying shortcomings and did not make sufficient use of the sanctions it was entitled to impose in order to force suppliers to improve their procedures.²⁴

However, until at that point, the GAO and the OIG had not assessed the audits performed by the DCMA/DCAA at LM/P&W in relation to the JSF programme. For this reason, we had to form our own opinion of the DCMA/DCAA's audits. In order to establish whether they were in compliance with US standards, we needed to have access to the reports produced by the DCMA/DCAA.

Access to DCMA/DCAA reports

Prior to our joint audit, the JPO shared and discussed the DCMA/DCAA's audit reports only with the US partners in the JSF programme, i.e. the US Air Force, the US Navy and the US Marine Corps. The foreign partners were not privy either to these reports or to the discussions. The reason given for this was that the reports contained sensitive proprietary information on LM/P&W and that, whereas US citizens were subject to US rules on the non-disclosure of confidential information, foreign nationals were not, which is why the latter constituted a risk. Given that LM/P&W needed to give their consent for the foreign partners to have access to the audit reports, this was not a matter that had been regulated in the MoUs (to which LM/P&W are not a party).

During the course of the joint audit, we were able to persuade the JPO that it was wrong to bar the foreign partners from gaining access to the information in the audit reports compiled by the DCMA/DCAA. After all, it was for this precise purpose that both LM and P&W had signed non-disclosure agreements (NDAs) with the defence ministries of the eight partner countries. In these agreements, the defence ministries in question promised to treat as confidential any proprietary information on LM/P&W that might be disclosed to them. Having signed these NDAs, the international partners in the programme should now be able to access the information contained in the DCMA/DCAA's audit reports on LM and P&W. The Norwegian and Dutch defence ministries subsequently received a number of these reports. As far as we know, the other partner countries have not as yet received any audit reports.

However, one of the ramifications of the NDAs was that, although the partner countries were allowed access to the information, the partner countries' national audit offices were not. The fact is that, under the terms of the NDA, the minister in question undertook to disclose the information only to a limited number of specified individuals. Staff of the national audit offices were not included in this list. The NDA thus prevented the defence

ministries from passing on the information to the national audit offices, which meant that the terms of the NDA were in conflict with the accounting regulations in the partner countries (which state that the national audit offices must be given access to information).

We already stressed, in our 2017 accountability audit report, the need to gain access to information, where projects are performed by international partners. The responsible minister needs to make adequate arrangements in advance for him or her to be supplied with information on the nature of the progress made, and at the same time to ensure that the National Audit Service and the Netherlands Court of Audit can also have access to any information they need. This is the only means of giving an assurance to parliament that the way in which the relevant budget funds are spent is subject to independent scrutiny. For this reason, we have recommended that the Minister of Defence should ensure, in relation to the JSF project, that the JPO passes on copies of all audit reports in good time.

The Dutch Ministry of Defence recently made a new arrangement with LM and P&W which opened up greater opportunities for sharing information. The Netherlands Court of Audit has now received, and had an opportunity to examine, the majority of the audit reports. As of the date on which we closed our audit, the Norwegian ministry of defence had not yet made any new arrangement with LM/P&W. This means that the Norwegian Office of the Auditor General has not been given access to the same reports. The same applies to the national audit offices of the other partner countries.

Assessment of the DCMA/DCAA's audit reports

The DCMA/DCAA audit the invoices submitted by LM/P&W in relation to the JSF programme. This is how we formed an opinion on the quality of these audits: first, during the course of our joint audit in the US, we studied a great deal of information on the standards applied by the DCMA/DCAA, as well as their audit programmes and audit manual. Second, we held in-depth meetings with the auditors about their working methods, the way in which the audits are performed, sample invoices selected, and the companies' business systems assessed.

We were not given access to the auditors' working papers, nor to the reports compiled on the basis of these audits. Without any knowledge of the contents of the working papers, it is impossible to carry out a full review of the audits in question. For this reason, we were unable to establish whether the audits are fully compliant with the US Government Auditing Standards, otherwise known as the 'Yellow Book'. We were, however, able to check

whether the shortcomings identified by the GAO and the OIG in other DCMA/DCAA audits were equally apparent in the audits performed by the DCMA/DCAA of LM/P&W's invoices in relation to the JSF programme.

Against this background, we felt that access to the DCMA/DCAA's audit reports on LM/P&W was a minimum requirement for issuing an opinion on the quality of the audits in question.

We received and examined the following reports:

- Business system status reports (BSSRs) on LM for 2016, November 2017 and January 2018;
- BSSRs on P&W for April, September, October and December 2017, and January 2018;
- Program Assessments Reports (PARs) on LM Fort Worth for every month in 2016, every quarter of 2017 and the first half of 2018;
- PARs on P&W for every month in 2016, every quarter of 2017 and the first half of 2018.

We drew the following conclusions after studying these reports:

- LM's and P&W's business systems were assessed in good time, i.e. before the expiry of the period of validity of the previous assessment.
- The reports show that shortcomings in a system are taken into account in determining whether the system in question can continued to be designated as approved.
- Shortcomings are monitored systematically and subjected to a fresh examination in subsequent audits.
- Regular reports are produced containing detailed information, in relation to each manufacturer and each sub-contract, on the supplies relating to the contract in question, the status of production and the status of the business systems.
- Where necessary, the DCMA/DCSS impose sanctions in order to force suppliers to improve their systems and procedures.

We were thus able to establish that the shortcomings found by the GAO and the OIG in *other* audits performed by the DCMA/DCAA did not apply here. On this basis, we were able to conclude (as a 'negative assurance') that the DCMA/DCAA's audits of the invoices submitted by LM/P&W in relation to the JSF programme comply with US standards. This means that, if we assume that '*what's good enough for US is good enough for us*', we can, in performing our own audits, rely on the audit reports compiled by the DCMA/DCAA.

National audit

The national audit ties in closely with the joint audit. Whereas the joint audit was designed to assess US procedures, the national audit was intended to generate an opinion on the corresponding Dutch procedures in relation to the JSF project. The main audit question in this respect was:

Are the calls for funds from the JPO subjected to adequate national checks so as to guarantee that the associated Dutch expenditure is lawful?

The link between the national audit and the joint audit implies that:

- the risk analysis and the audit topics are based largely on the joint audit;
- the audit standards applied in this national audit are also based on the joint audit: the main audit standard is that procedures must be geared towards effectively detecting and remedying any errors in calls for funds or in the processing of calls for funds. This is irrespective of whether the errors in question originate from the JPO or from the Dutch Ministry of Defence. The provisions of the Government Accounts Act and the Central Government Budget Regulations were also treated as audit standards.

Our audit was also based on the International Standards of Supreme Audit Institutions (ISSAI).

We used the following sources for the national audit:

- descriptions of procedures at the relevant Ministry of Defence units;
- formal job descriptions for various members of the F-35 project team and the project controller;
- documented meetings with staff of each of the relevant units, followed by questions and answers by email;
- spreadsheets with comprehensive lists of calls for funds issued between January 2017 and June 2018; these also include the list of errors referred to in section 2.3.8;
- examples of relevant documents;
- documented meeting with the National Audit Service;
- case studies at the FABK.

For the case studies at the FABK we selected:

- 2 completed cases, selected as examples of 'best cases' by FABK;
- 4 completed cases, selected by us, as a means of assessing the effectiveness of procedures.

The four dossiers selected by us were:

- 1 non-CSR call for funds;
- 1 call for funds (payment of contribution);
- 1 case in which the FABK detected an error;
- 1 dossier in which the controller at the embassy detected an error.

The audit findings were submitted to the Ministry of Defence for comment.

Where relevant, the Ministry's response has been included in the findings.

Separate audit reports

Even though part of this audit was performed as a joint audit together with the Norwegian Office of the Auditor General and although the only differences between the two audits are in relation to the national audit, we agreed that each of us should feel free to make its own specific recommendations, taking account of the joint conclusions. In other words, this report was compiled without consulting the Norwegian Office of the Auditor General and only contains the opinions, standpoints and recommendations of the Netherlands Court of Audit.

Appendix 2 List of abbreviations

BFM	Business Financial Management (team at the JPO)
BSSR	Business Systems Status Report
CSR	Composite share ratio
DCAA	Defense Contract Auditing Agency
DCMA	Defense Contract Management Agency
FABK	Financial Accounts and Management Office at the Dutch Ministry of Defence
GAO	US Government Accountability Office
JPO	JSF Program Office
LM	Lockheed Martin
MoU	Memorandum of Understanding
NDA	Non-disclosure agreement
OIG	Office of the Inspector General
P&W	Pratt & Whitney
PAR	Program Assessment Report

Appendix 3 Bibliography

Publications

Only those publications to which reference is made in this report are listed below.

- Netherlands Court of Audit (2015). *Behoeftestelling vervanging F-16; Brief Algemene Rekenkamer; Reactie Algemene Rekenkamer op DMP-D brief Vervanging F-16*. ('List of requirements for replacement of F-16; letter from Netherlands Court of Audit; response of Netherlands Court of Audit to DMP-D letter on replacement of F-16.') House of Representatives, 2014-2015 session, 26488, no. 370. SDU (The Hague).
- Netherlands Court of Audit (2018). *Antwoorden Algemene Rekenkamer op vragen Vaste commissie voor Defensie*. ('Answers from Netherlands Court of Audit to questions asked by the Standing Committee on Defence.') House of Representatives, 2017-2018 session, 34 950 X, no. 8. SDU (The Hague).
- National Audit Service (2017). Audit report on the 18th progress report on the acquisition of the F-35. Ministry of Defence.
- Ministry of Defence (2017). 18th progress report on the acquisition of the F-35. 19 September 2017.
- SDD MoU 2002
- PSFD MoU 2006
- IOT&E MoU 2007
- GAO 12-83
- GAO 12-331G
- OIG 2015-139
- OIG 2016-001

Appendix 4 Notes

- 1 Because a number of grammatical corrections were made to the draft report prior to its publication, there may be certain linguistic discrepancies between the text of the draft version presented to the ministers for comment and the final version of this report.
- 2 See Section Terminology of Appendix 1 ('Background information and description of audit methods') for further information on the name of the aircraft.
- 3 2012 prices.
- 4 The Dutch Ministry of Defence has already purchased two JSF aircraft. These were delivered in 2013, for use as test aircraft during the operational testing phase.
- 5 2013 prices.
- 6 See Section Terminology of Appendix 1 ('Background information and description of audit methods') for information on the difference between the terms 'JSF project' and 'JSF programme'.
- 7 2018 prices.
- 8 The US federal government launched a programme called *Financial Improvement and Audit Readiness* (FIAR) in 2009. The ultimate aim of FIAR was to achieve and maintain 'Financial Improvement and (full) Audit Readiness' in relation to all annual financial statements published by US government services, with effect from 30 September 2017.
- 9 PSFD MoU art. 5.13.
- 11 GAO 12-331G, *Government Auditing Standards* (otherwise known as 'the Yellow Book'), 2011; revised in 2018.
- 12 See Appendix 1 ('Background information and description of audit methods') for further information on the efforts it took to gain access to the DCMA/DCAA's reports.
- 13 See section Review of reports DCMA/DCAA of Appendix 1 ('Background information and description of audit methods').
- 14 Low-rate initial production (LRIP), as opposed to full-rate production, which under US law may not commence until the development phase has been fully completed.
- 15 We did not reach this conclusion until the summer of 2018, when we were given access to the DCMA/DCAA's reports.
- 16 Netherlands Court of Audit (2015).
- 17 The minister reports various improvement in the financial management of the project on pp. 51 ff. of the 18th progress report of 19 September 2017. House of Representatives, 2017-2018 session, 26488, no. 435. SDU (The Hague).
- 18 Because a number of grammatical corrections were made to the draft report prior to its publication, there may be certain linguistic discrepancies between the text of the draft version presented to the ministers for comment and the final version of this report.
- 19 See also: Netherlands Court of Audit (2018).
- 20 In 2005, Congress asked the GAO to audit and report on the JSF programme every year.
- 21 SDD MoU: art. 5.11; Supplement SDD MoU US and the Netherlands art. 4.4.en 4.5; PSFD MoU art. 5.18 – 5.21; IOT&E-MoU art. 5.9 – 5.10.
- 22 Although the Netherlands Court of Audit performed a joint audit with the National Audit Service in 2014 into the estimates made by the JPO, the audit findings were not published.
- 23 PSFD MoU art. 5.13.
- 24 GAO 12-83, OIG 2015-139 and OIG 2016-001.



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