



Memorandum to the Danish Public  
Accounts Committee on Potential  
Examination of the Procurement of  
New Fighter Aircraft

November  
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**Potential Examination of the Procurement of New Fighter Aircraft**

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**I. Background**

1. At a meeting on 13 September 2007, the Public Accounts Committee requested that I in a memorandum accounted for the organisation of a possible future examination of the Joint Strike Fighter (JSF) programme.

In this memorandum I shall account for the organisation of a possible future major examination of the Defence's procurement of new fighter aircraft. Part of the memorandum will focus on the JSF programme, because Denmark has appropriated funds for participation in the JSF programme and not for any of the other fighter aircraft programmes (Gripen and Eurofighter). Consequently, the audit will cover activities which have already been implemented in relation to the JSF programme.

2. The five appendixes to this memorandum account in more detail for:

- Danish participation in the JSF programme.
- Reports on the JSF programme prepared by other supreme audit institutions.
- The efforts to provide a basis for a decision to procure new fighter aircraft.
- Industrial participation relating to the procurement of new fighter aircraft.
- Rigsrevisionen's participation in the JSF SAI (supreme audit institution) Conference.

Key points of the appendixes are incorporated in this memorandum.

3. The Finance Committee has considered and approved four appropriations relating to Denmark's participation in the initial phases of the JSF programme. Denmark is not committed to procure the JSFs by any of these four appropriations. Danish industry is co-funding part of the cost related to Denmark's participation in the JSF programme.

4. The US and the Netherlands participate in the JSF programme and their respective supreme audit institutions have conducted major examinations of the programme. The American supreme audit institution - the Government Accountability Office (GAO) – and the Dutch supreme audit institution – Algemene Rekenkamer (AR) – have in reports in 2007 and 2006 reviewed the risk factors of the JSF programme, including budget overruns, acquisition strategy and cost per aircraft.

5. The Ministry of Defence is responsible for providing the Folketing (parliament) with a basis for decision regarding procurement of new fighter aircraft in replacement of the current F-16 aircraft. The Ministry of Defence expects to present the information serving as a platform for the political decision in late 2008/early 2009. According to the ministry, several

factors will contribute to the basis for decision, including a military recommendation, scope and nature of the collaboration with Danish industry, financial issues, strategic considerations, and security policy issues.

The Danish Defence is monitoring three aircraft programmes which are all contenders to succeed the F-16s. Contenders are the American JSF, the Swedish Gripen and the European Eurofighter. Moreover, the Ministry of Defence has stated that the possibilities and consequences of prolonging the life span of the current F-16 aircraft are being investigated in connection with the assessment of the possible successors.

6. The terms applying to industrial participation and return are not identical for the three fighter aircraft contenders. The Minister of Economic and Business Affairs has exempted the JSF programme from the industrial return requirement which is, however, expected to be upheld with respect to the two other candidates.

The manufacturers of Gripen and Eurofighter have indicated their intentions to invite Danish industry into partnerships with the suppliers. They have also stated that they are prepared to offer full industrial compensation in the form of orders placed with Danish companies. It is difficult to estimate the order potential related to the JSF programme accurately, but the Ministry of Defence expects it to be substantial.

7. Since 2005, the supreme audit institutions of Australia, Canada, Italy, the Netherlands, Norway, Great Britain, Turkey, and Denmark have collaborated on the auditing of the JSF programme and exchanged audit experiences.

## **II. Replacement of Current F-16 Fighter Aircraft**

8. The F-16 aircraft currently operated by the Danish Airforce were procured over a period stretching from the late 1970s to the late 1980s. The aircraft have been upgraded regularly and towards the end of the 1990s, they were modified and brought on level with current state-of-the-art fighter aircraft.

9. According to the Ministry of Defence, the F-16 aircraft have a projected life span of between 6,000 – 8,000 flying hours. Continued use of the F-16s beyond this limit is considered uneconomical. Based on the current pattern of use, the F-16 aircraft are expected to reach the maximum of flying hours in the period leading up to 2020. Starting in 2010, the Danish Defence will phase out individual F-16 aircraft. The Ministry of Defence has stated that the condition of the aircraft and increasing operational costs make it imperative to decide on a possible successor now. However, the Ministry of Defence has also indicated that the possibilities and consequences of prolonging the life span of the F-16 aircraft are being considered concurrently with the military assessment of the potential successors for the F-16s.

In December 2006, the Ministry of Defence informed the Folketing's Defence Committee of the estimated remaining life span of the F-16 aircraft (the Defence Committee, general section, appendix 44).

10. The two most recent defence agreements, which set the framework for the activities to be pursued by the Danish Defence during the agreement periods, touch upon the issue of new fighter aircraft.

From the defence agreement for 2000-2004 it appears that Denmark is participating in the JSF programme and that the Danish Defence is required to monitor aircraft programmes of potential interest to Denmark with regard to replacement of the F-16 aircraft.

It appears from the defence agreement for 2005-2009 that Denmark continues its participation in the JSF programme. The agreement stipulates that the combined fighter aircraft structure, including the number of operational aircraft, must be adapted to suit the nature of current tasks and take into consideration the life span of the F-16 aircraft and the possibili-

ties of phasing in new fighter aircraft in the long term. The fighter aircraft are part of the domestic exertion of territorial sovereignty and participate in relevant international operations.

### III. Potential Major Examination

11. With reference to the Public Accounts Committee's request, a potential major examination could address these subjects:

- The Ministry of Defence's studies of the future requirement for fighter aircraft in the Danish Defence, including number of aircraft to be procured.
- The Ministry of Defence's efforts to evaluate the various aircraft contenders.
- The Ministry of Defence's assessment of total costs related to procurement, operation and maintenance of the various aircraft contenders.
- The Ministry of Defence's risk assessments of the contenders.
- Effects of Danish participation in the JSF programme, e.g. orders for Danish industry or transfer of technology.
- The Ministry of Defence's organisation of the fighter aircraft project.

12. As mentioned earlier, GAO and AR have in their audit reports pointed to significant problems within risk management and budget overruns in the JSF programme. Consequently, the audit subjects outlined here will to some extent overlap the contents of GAO's and AR's reports. I will regularly evaluate whether and how the experience gained by GAO, AR or other supreme audit institutions can be applied also in a Danish context.

13. For the sake of good order, I need to emphasize that the final design of the examination will be determined during Rigsrevisionen's detailed planning phase. The basis of the examination will largely depend on the studies and assessments carried out by the Ministry of Defence. I shall therefore in a memorandum inform the Public Accounts Committee of the specifics of the examination.

14. I am prepared to discuss with the Public Accounts Committee whether such an examination should be launched.

Henrik Otbo  
Auditor General

## Appendix 1. Danish Participation in the JSF Programme

### *Appropriations Approved by the Finance Committee*

1. The Folketing's Finance Committee has approved four appropriations concerning Danish participation in the JSF programme. Denmark is not by any of the four appropriations committed to procure the JSFs, if the F-16 aircraft are to be replaced. By Appropriation 95 6/12 2000, the Finance Committee just approved that part of the appropriation granted earlier for participation in the JSF programme could be applied in 2000 rather than in 2002. So, the contents of that particular appropriation will not be specified any further.

The costs of participating in the JSF programme are calculated in US dollars in current prices over the period and will reflect changes in the dollar exchange rate. However, in the text below, appropriations are stated in Danish kroner with information about the US dollar exchange rate applied at the time when the appropriation was granted.

2. With Appropriation 342 9/9 1997, the Finance Committee approved Danish commitment to the programme, and the Ministry of Economic and Business Affairs and the Ministry of Defence were authorised to spend DKK 70 million (10 million US dollars based on a US dollar exchange rate of 700) for the requirements specification phase which ran from 1997 to 2001.

The purpose of the grant was to provide Danish industry with an opportunity to take part in the development of high technology and to ensure that the Danish Defence gets access to knowledge of and influence on the development of the fighter aircraft which may potentially succeed the F-16. The commercial aspect of the project induced the Ministry of Economic and Business Affairs to co-fund the project and contribute DKK 15 million.

Originally, total production was assumed to be approximately 3,000 JSF aircraft. The first fighter aircraft were expected delivered in mid 2008. Production was expected to be continued for approximately 25 years. It will appear from Appropriation 342 that the JSF programme represents a new approach on defence material projects. In the past, operational and technical requirements provided the basis for development and production, and in consequence, project costs often escalated beyond plan. The JSF programme is also managed by economic parameters and in the early stages of the programme efforts were made to maintain upper limit unit cost of around US dollars 30 million per aircraft. It was also the intent to refrain from making marginal capacity improvements which would increase costs of the project substantially.

3. By Appropriation 142 22/5 2002, the Finance Committee approved government expenditures of DKK 892.5 million (105 US dollars based on a dollar exchange rate of 850) for Danish participation in the JSF development and demonstration phase in 2002-2012 (later changed to 2013).

When it was decided to participate in the development and demonstration phase, Danish industry committed to contribute up to about DKK 170 million (US dollars 20 million) for the entire period. Danish industry had agreed to provide DKK 36 million (US dollars 5.4 million) in the years 2002-2004 when the Finance Committee approved Appropriation 142. Renegotiations conducted in 2004, and involvement of more companies, resulted in agreements for additionally DKK 38 million (US dollars 5.7 million) up to 2009. Government's direct expenditure related to its participation in the development and demonstration phase was estimated at approximately DKK 612 million (US dollars 72 million). Moreover, Denmark was during this phase also required to make a non-financial contribution of approximately DKK 110 million (US dollars 13 million) which includes a commitment to make a fighter aircraft available for test flights in the US.

According to Appropriation 142, Denmark's contributions to the JSF programme may be offset by discounts on the aircraft, should Denmark decide to acquire the JSF, and com-

pensation for development costs when the aircraft are sold to non-partner countries. These benefits cannot be realised before the production phase is embarked upon in 2012.

Total production was in 2002 estimated at a minimum of 5,000 aircraft of which 465 aircraft would be produced during the development and demonstration phase. It appears from Appropriation 142, which was submitted for approval in the spring of 2002, that the costs of participating in this phase have increased by well over 100 % compared to a 1999 estimate. Originally, the costs of Danish participation were estimated at US dollars 50 million, but the final price agreed was US dollars 105 million due to increased development costs and an extended development phase.

4. With the Finance Committee's approval of Appropriation 79 8/2 2007, Denmark joined the production, sustainment, and follow-on development phase. This phase runs from 2007 and 45 years ahead and total Danish cost will amount to a maximum of DKK 2 billion (US dollars 330 million based on a dollar exchange rate of 600), or around 1.5 % of total costs related to this phase. All expenditure relating to Appropriation 79 will be defrayed by the Ministry of Defence.

In 2007-2009, Danish expenditure includes only contributions to administrative activities. Average annual contributions in the remaining 42 years will be DKK 45-50 million. According to Appropriation 79, the countries participating in this phase of the JSF programme may procure, sustain and further develop the JSF at lower costs than non-partner countries. Participation in the production, sustainment and follow-on development phase does not constitute a commitment to buy the JSF aircraft. Denmark may pull out of the JSF programme at 90 days' notice.

Neither total expected production quantity nor the expected unit costs appear from the 2007 appropriation.

5. Table 1 sums up projected contributions to the JSF programme, in accordance with the three appropriations approved by the Finance Committee.

**Table 1. Grants to the JSF programme 1997-2007, broken down on government and industrial contributions (DKK millions)**

	<b>1997-2001 Appropriation 342 9/9 1997</b>	<b>2002-2012 Appropriation 142 22/5 2002<sup>1)</sup></b>	<b>2007-2051 Appropriation 79 8/2 2007</b>
	Requirements specification phase	Development and demonstration phase	Production, sustainment, and follow-on development phase
Contribution by the Ministry of Economic and Business Affairs	15	-	-
Contribution by Danish industry	-	170.0	-
Contribution by the Ministry of Defence	55	722.5	2,000
<b>Total</b>	<b>70</b>	<b>892.5</b>	<b>2,000</b>

<sup>1)</sup> Danish industry has committed to provide funding and has at this point signed up for contributions in 2002-2004 and 2005-2009. Government expenditure includes non-financial expenditure amounting to around DKK 110 million.

## Appendix 2. Audits of the JSF Programme Conducted by other Supreme Audit Institutions

1. The US and the Netherlands participate in the JSF programme and their respective supreme audit institutions have conducted major examinations of the JSF programme.

### *The American supreme audit institution's report on the JSF programme*

2. Congress has mandated the Government Accountability Office (GAO) to conduct annual examinations of the JSF programme in the 2005 – 2010, inclusive. The third and most recent report from March 2007 is titled "Joint Strike Fighter – Progress Made and Challenges Remain".

The JSF programme was rebaselined in 2004 to address technical problems, cost increases and schedule overruns which were primarily caused by problems with the airframe weight. The overall conclusion of the report is that the JSF programme has overcome critical problems with the design identified early in the development phase, and that the programme is viable given progress made to date. But the report also points to areas of risk:

- Budget overruns
- Schedule delays
- Acquisition strategy.

3. According to GAO's report, total programme costs have risen by around US dollars 31.6 billion (from around US dollars 244.8 billion to US dollars 276.5 billion) since the new programme baseline was established in 2004. This means that the average procurement unit costs have increased from US dollars 100 to US dollars 112 million. The American Department of Defence will therefore now pay 12 % more per aircraft than originally expected.

The cost per aircraft stated in the GAO report is not the price Denmark will be paying, because the American Defence is procuring a large number of aircraft during the development and demonstration phase. Average cost per unit is higher during this phase than if the aircraft are procured from the subsequent production phase – as Denmark is planning to do if parliament decides to replace the F-16s with the JSFs.

When GAO prepared its report in 2007, it did not have access to the latest cost estimates for 2006. GAO's assessment that future cost estimates will be higher, unless program content is changed is based on previous experience with the JSF programme and similar procurement projects in general.

4. According to GAO's report, a fully integrated JSF aircraft is not expected to be delivered to the American Air Force, Navy and Marine Corps till 2012. This means that the JSF programme is delayed compared to 1996 when the JSF aircraft was expected to be in flight by 2010.

In spite of the delays which have occurred during the initial phases of the JSF programme, the American Department of Defence is planning to finish the development phase in 2013. This goal will be achieved by reducing the amount of time available for testing and development activities. GAO is of the opinion that the degree of concurrency between development and production includes risks to the JSF programme.

5. GAO is recommending that the American Department of Defence adopts an alternative procurement strategy, according to which overlap in production and flight testing and development would be reduced.

The American Department of Defence does not concur with GAO's recommendation and will continue its current strategy. However, reduced funding provided by the Congress has led to reduced production in the early phases and thereby reduced also the risk related to overlap in production and development.

*The Dutch Supreme Audit Institution's Report on Procurement of JSF Aircraft*

6. In October 2006, the Dutch national audit office, Algemene Rekenkamer (AR), published a report on the Dutch participation in the JSF programme titled: "Monitoring the Procurement of the Joint Strike Fighter. Situation in September 2006". The report was issued immediately prior to the Dutch government's decision to sign up for participation in the production, sustainment and follow-on development phase.

7. The Netherlands has, contrary to Denmark, decided to replace its current F-16s with the new JSF aircraft. The Netherlands will procure aircraft from the production, sustainment and follow-on development phase. However, as the aircraft is still under development in this phase, the unit price is uncertain and will be higher due to the limited number of aircraft being produced in this phase. On the other hand, Denmark will – if parliament decides to procure the JSF aircraft – get all its aircraft from the subsequent production phase when the number of aircraft produced will be higher and the price lower and less uncertain.

AR's report reviews the risk related to continued participation in the project, including

- Uncertainty concerning unit price and estimated cost over the life span of the aircraft.
- Information to the Dutch parliament.
- Volume of orders to Dutch industry.

8. In 2006, AR concluded that the JSF programme represented a financial risk which it would not be possible to quantify before the Dutch parliament decided on the JSF. Several factors contribute to the uncertainty of the project: No ceiling has been set for the unit price of the first aircraft and costs may therefore continue to rise. Limited access to information makes it difficult to validate the price of the aircraft. Moreover, the size of compensation for development costs in the event of subsequent sales to non-partner countries is uncertain. Finally, AR concludes that the estimation of costs over the life span of the aircraft is subject to some uncertainty.

9. AR also concluded that parliament would have been in a better decision-making position if it had received more information on the JSF programme, as recommended by AR since 2002. AR finds that the parliament should state its information requirements.

10. In its report, AR also reviewed issues concerning the Dutch industry and intake of orders to the Dutch industry. According to AR, the actual scope of the Dutch industrial co-production and co-financing is unclear.

The Dutch industry is required to remit part of the contribution made to the development and demonstration phase, proportionately with the value of orders received. In Denmark, the industry contributes fixed payments, irrespective of the value of orders received by the respective industrial partners. So AR's findings concerning the role played by industry cannot be directly transferred to Denmark.

11. In December 2007, AR will publish a new report on the JSF programme. This report will be focused on the total life span costs of the programme, which in addition to the procurement costs will include operating and sustainment costs during the JSF aircraft's operational life.



### **Appendix 3. The Efforts to Establish a Basis for a Possible Decision to Procure New Fighter Aircraft**

1. The Ministry of Defence is responsible for the establishment of a basis for a political decision regarding the possible procurement of new fighter aircraft, including recommendations concerning aircraft type. The Ministry of Defence expects to have the complete material ready either at the end of 2008 or in early 2009.

#### *Replacement contenders*

2. The Danish Defence monitors three aircraft programmes which are all considered relevant successors to F-16 and which are expected to be in production when the F-16 aircraft are being phased out. Contenders are the American JSF, the Swedish Gripen and the European Eurofighter.

3. According to the Danish Defence, replacing the current F-16s with new F-16 aircraft is not an option. The production of F-16s will cease in 2011. Procuring new F-16 aircraft would therefore require extensive investments long before the current F-16s are worn out. However, the Ministry of Defence has stated that the possibilities and consequences of prolonging the life span of the current F-16 aircraft are being reviewed concurrently with the assessment of possible successors.

The Norwegian Ministry of Defence has developed a model for future fighter aircraft capacity which includes an evaluation of the possibilities of expanding the life the Norwegian F-16s by 2,000 flying hours. The Norwegian government has decided to procure new fighter aircraft, but the decision concerning aircraft type may be postponed, if it is decided to extend the life span of the current F-16s.

4. JSFs are developed in the USA and produced by Lockheed Martin. The JSF programme was started back in 1995. It was initially all American, but is now an international partnership of 9 nations, participating on different levels. The US and Great Britain participate on level I, Italy and the Netherlands on level II, and Turkey, Canada, Denmark, Norway and Australia on level III. Being a level I partner makes Great Britain the second largest investor in the project after the US and the partner with most influence on the development of the programme.

The JSFs are expected to enter service in 2012, at the earliest. In the production, sustainment and follow-on development phase, it has been indicated to According to Lockheed Martin's information that around 3,100 JSFs are to be delivered to the 9 partners in the programme.

5. JAS 39 Gripen was developed in Sweden and is produced in collaboration between SAAB and the British BAE Systems. The Gripen programme was launched back in 1980 and the first aircraft was delivered in 1993. The aircraft has been used by the Swedish Air Force since 1997. Sweden has 204 Gripens. The Czech Republic and Hungary have each leased 14 Gripens and South Africa has ordered 26 Gripen aircraft. Production of the current version is expected to reach a total of approximately 260.

6. Eurofighter was developed by primarily Germany, Italy, Spain, and Great Britain. The programme is managed by a joint project office under NATO. The Eurofighter programme was started in 1983 and the first fighter aircraft was delivered in 2002. The aircraft is in service and has been delivered to 5 European countries (Austria in addition to the 4 partner countries). Germany, Italy, Spain, and Great Britain are expected to acquire a total of 620 Eurofighters, Austria has ordered 15 and Saudi-Arabia 72. Total production will be around 700 Eurofighters.

7. Despite the fact that both Gripen and Eurofighter are operational, further development of the current versions must be anticipated, if the aircraft are procured for the Danish defence. Denmark has been offered versions of the 2 aircraft which have not yet been devel-

oped, but will be according to current plans. According to the Ministry of Defence, the Gripen aircraft will be significantly upgraded compared to the current version. So far the Swedish authorities have only granted funds to a programme designed to demonstrate the capabilities of the upgraded aircraft.

Gripen and Eurofighter are already in service, but the plans to further develop the aircraft represent a risk.

#### *Evaluation model*

8. The Danish Defence is currently collecting comparable data on the three contenders in order to prepare a military recommendation of fighter aircraft type. Data collection takes place within the framework of an evaluation model which stipulates various qualitative evaluation criteria relating to technical, operational and financial aspects. The 6 key areas are: Survivability, mission efficiency, procurement cost, operating cost, project risk, and ability to meet future requirements.

Late in 2005, the Acquisition and Logistics Organization of the Danish Defence issued a so-called Request for Information (RFI) to the potential suppliers of the new fighter aircraft. The Danish Defence will use the information provided by the suppliers to compare the aircraft programmes. The evaluation model was presented to and approved by the suppliers before the RFI was issued.

On the background of the responses provided in the RFI from 2005, the Danish Defence asked the suppliers to provide additional information in a supplementary RFI in June 2007. Response deadline was 30 November 2007. To supplement the responses provided in the RFI, the Danish Defence also collected information on meetings, through exchange of experiences, in connection with test flights, etc.

9. Denmark has privileged access to information on the JSF in its capacity as a JSF programme partner. The Danish Defence is trying to set up collaboration agreements also with the other 2 candidates in order to get access to more information. The Ministry of Defence has stated that the collaboration agreements are entered with the purpose of collecting information from other sources than the suppliers, like for instance the users of the aircraft.

On 12 September 2007, the Minister of Defence signed a collaboration agreement with the Swedish government concerning Gripen.

The Ministry of Defence is currently finalizing a collaboration agreement with the multinational Eurofighter-programme.

10. In 2008, Defence Command Denmark is expected to present a military recommendation to the Ministry of Defence based on the information collected during the RFI process.

#### *The Ministry of Defence's draft to a basis for the political decision*

11. The Ministry of Defence is responsible for the establishment of a basis for a political decision concerning the procurement of new fighter aircraft, including aircraft type. The Ministry of Defence has stated that several factors will contribute to form the basis, including:

- Military recommendation.
- Extent and character of the collaboration with Danish industry.
- Financial aspects.
- Strategic considerations.
- Security policy.

12. Defence Command Denmark is responsible for the preparation of the military recommendation which will be based on an evaluation of the three candidates and is expected to be ready in 2008, as indicated above.

13. The assessment of the collaboration with Danish industry will include a review of the contenders' current involvement with Danish defence-related industries and the value of the orders which the three contenders may place with these companies. The significance of the industrial collaboration to the Danish economy will also be assessed and so will the technological level and nature of the orders which the individual candidates have placed and are expected to place with Danish defence-related industries. The Ministry of Defence will conduct the evaluation in tight coordination with the Ministry of Economic and Business Affairs and the Danish Enterprise and Construction Authority. Appendix 4 deals with the industrial participation in the procurement of new fighter aircraft.

14. The financial aspects of the project will be evaluated by a cross-ministerial working group made up of representatives from the Ministry of Finance, the Ministry of Defence, and the Ministry of Economic and Business Affairs. The financial data procured by the working group will be included in the basis for government's decision on procurement of new fighter aircraft. The Ministry of Defence has stated that the mandate for the working group will be submitted for approval by the Finance Committee early in 2008. The working group is expected to start its work early in 2008. The Danish Defence will provide the working group with financial data on procurement, operation and sustainment.

15. The strategic considerations are separated from the military recommendation and make it clear that selection of aircraft type will affect Denmark's selection of strategic partners. The Ministry of Defence has stated that according to experience, the selection of aircraft type often leads to operational cooperation, and countries using the same type of combat aircraft collaborate on technology and logistics, etc.

16. The considerations regarding security policy issues include an assessment of the fighter aircraft as an active instrument of security policy today and in the years ahead. The Ministry of Defence will cooperate with the relevant authorities to make an assessment of security policy issues. In continuation hereof, the Danish Institute for Military Studies has worked out a report on Denmark's future requirements for fighter aircraft. The report was published on 1 October 2007.

#### *Organisation*

17. The strategic aspects of the possible procurement of fighter aircraft will be considered by the department of the Ministry of Defence.

Defence Command Denmark is responsible for the military recommendation and has set up a project organisation to manage the task. Defence Command Denmark's head of Co-ordination Staff is chairman of the New Fighter Aircraft Steering Committee which is collecting information from two sub-project teams. In mid 2007, Defence Command Denmark also established a New Fighter Aircraft Project Office which will work out the military recommendation and collect and coordinate all contributions made by the Danish Defence.

#### Appendix 4. Industrial Participation in Procurement of New Fighter Aircraft

1. Largely all Western countries insist on industrial return when procuring defence-related equipment abroad. Foreign suppliers of defence equipment, who sign contracts with the defence to deliver defence equipment worth in excess of DKK 25 million, are under obligation to sign an Industrial Cooperation Contract (ICC) with the Enterprise and Construction Authority. Suppliers are required to place defence related orders with Danish companies for amounts corresponding to or exceeding the value of the defence equipment procured. Contracts with the industry are authorised by the Act on Industrial Promotion, section 18 (no. 602) of 24 June 2005. The purpose of entering into these contracts with the industry is to strengthen Danish companies' technological capabilities, access to market and cooperation with foreign suppliers of defence equipment.

2. The regulations governing industrial participation and return are not identical for the three fighter aircraft contenders. The Minister of Economic and Business Affairs has exempted the JSF programme from the industrial return requirement which is, however, expected to be upheld with respect to the two other contenders.

Initially, the RFI process did not include collection of data on the opportunities of industrial participation. However, the suppliers decided to shed light on the subject. Based on incoming data, the Ministry of Defence formed the opinion that it should be possible to enter into satisfactory agreements concerning industrial participation with all three contenders. When supplementary data was collected, suppliers were requested to provide information on the industrial opportunities.

The manufacturers of Gripen and Eurofighter have both stated that they intend to involve Danish industry in partnerships with the suppliers and that industrial return-on-investment will be minimum 100 %.

Suppliers to the JSF programme are selected according to a "best value for money" principle, i.e. orders will be placed only with competitive suppliers. This approach minimizes the risk of increased programme cost, often resulting from industrial return requirements. The nine international partners who signed up for the production, sustainment and follow-on development phase of the JSF programme have, however, stated the importance of winning contracts for their respective industries and having equal opportunities to compete and win development and production contracts.

3. Appropriation 79 8/2 2007 states that warranted by the Act on Industrial Promotion, the Minister of Economic and Business Affairs exempted the JSF programme from the industrial return requirement with respect to current and future projects. In continuation hereof, it was decided to establish a monitoring system which will be based on information provided by the foreign suppliers, primarily Lockheed Martin, concerning the contracts won by Danish industry. The information will require subsequent verification by the Danish companies. The Enterprise and Construction Authority has stated that the monitoring system is currently being established and is expected to be ready by the end of 2007.

The Enterprise and Construction Authority has on its own initiative supervised a reporting system and asked some 30 or 40 companies to submit data on JSF programme related contracts into the system. On the background of this data, the Enterprise and Construction Authority has reported that eight Danish companies have won contracts amounting to US dollars 68.4 million. In addition, 12 Danish companies have received enquiries regarding sub-contracts.

4. It is difficult to estimate accurately the total contract potential for Danish industry. According to current data submitted by the responding companies, the contract potential is estimated at US dollars 675 million.

The Ministry of Defence is of the opinion that the contract potential reported by the companies is probably too conservative, as it is difficult for the industry to estimate the aggregate contract potential for the duration of the JSF programme. According to the Ministry of Defence, the reason for this is that the JSF programme is divided into several different stages. Invitations to tender for the individual stages are issued regularly and each covers only a limited time period. So the industry only has information on the specific contracts up for tender at the time in question.

In Lockheed Martin's most recent updated plan for industrial participation, the potential for Danish industry is estimated at around US dollars 4,380 million. To this should be added the contract potential related to 2 engine manufacturers.

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## Appendix 5. Rigsrevisionen's Participation in the JSF SAI Conference

1. In 2004, the Dutch supreme audit institution took the initiative to set up an international auditing collaboration for the partners in the JSF programme. Denmark was already a partner in the development and demonstration phase and financially committed. On that background, Rigsrevisionen decided to join the auditing collaboration along with the other partners' supreme audit institutions. In 2005, the JSF SAI (Supreme Audit Institution) Conference was established with participation from the supreme audit institutions of Australia, Canada, Denmark, the Netherlands, Italy, Norway, Great Britain, and Turkey. The American supreme audit institution participates as an observer.

As a result of the auditing collaboration, the participating supreme audit institutions are exchanging experience concerning the JSF programme. Audit initiatives are planned and carried out either jointly or as parallel audits in the individual partner countries. The objective is to boost the effect of auditing and reduce overlap.

The auditing collaboration is based on the same principles as the former auditing collaboration on development and production of the F-16s. The Lessons Learned report from 1997 has provided the basis of this new collaboration. The Lessons Learned report is being referred to in memorandum no. 3 of 29 April 1998 to the Public Accounts Committee on developments in the implementation of the procurement of 58 F-16 fighter aircraft (report no. 2/1994).

2. The first achievement of the auditing collaboration concerning the JSF programme was to ensure improved access for the participating partners' supreme audit institutions to conduct audits in accordance with the agreement on the production, sustainment and follow-on development phase. This agreement was signed by the participating partner countries' respective Ministers of Defence in November 2006 – February 2007.

The auditing partners agreed to make identical comments to the respective defence authorities' on the auditing regulations governing the above-mentioned agreement. In consequence, regulations concerning protection of the right of access were considerably improved when the Ministries of Defence headed the final negotiations.

3. At a meeting in September this year, the participants in the JSF SAI Conference discussed the possibility of implementing actual auditing initiatives at this point of time when only a few of the countries have made the final decision to procure the JSF aircraft. Members generally agreed to investigate the possibilities of having the individual supreme audit offices conduct comparable reviews of the extent to which the Ministries of Defence take risk management into consideration when they prepare the basis for decision to the parliaments.