



Defence Academy  
of the United Kingdom

Cranfield  
UNIVERSITY

Impact of U.S. Export Control and Technology  
Transfer Regime  
on the Joint Strike Fighter (JSF) Project  
-- A UK Perspective

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# Summary

- U.S. requirements generated significant delay, increased costs, dampened initiative to increase capability, established critical restrictions on information sharing, and constructed barriers to effective supply chains.
- The U.S. system is too complex and attempts to regulate all items.
- It was too early for UK participants to have solid views on the impact of U.S. requirements on JSF logistical support arrangements.
- There was growing support for UK firms to design ITAR-free items.
- The UK interviewees believed the U.S. needs a system which is predictable, transparent and focussed on sensitive technologies. They were sceptical about the chances of successful reform.



# Best Said By ...

- "In all candour, I would encourage UK industry to design around the U.S. International Trafficking in Arms Regulations (ITAR) and produce ITAR-free items." -- Rt. Hon. James Arbuthnot, Chairman of the UK House of Commons Defence Committee
- "One of our suppliers had a fire at their facility. We determined that it was better to wait for them to rebuild their facility than try to get U.S. approval for an alternate supplier." -- UK Industry Representative



# Costs - Delays and Suppliers

- There was UK acceptance of the need to have an export control regime to protect sensitive technology.
- But the U.S. system is not fit for that purpose.
- ITAR generated critical delays, generally 6-9 months.
- Delays generated a disincentive to look for better or cheaper suppliers.
- The focus was on “who is approved” rather than “who is the best supplier.”
- Estimated increase of 30% of JSF costs.
- ITAR delays generated problems for work timelines.



# Costs – Administration and Complexity

- ITAR generated substantial extra work, particularly additional administrative costs.
- One company had to train 600 people on ITAR details and establish a computer training program.
- There was excessive complexity and a lack of clarity.
- What is “access,” “disclosure,” or “technical data?”





# Performance – People and Technology

- ITAR added an “additional bucket of sand” to working relationships.
- ITAR made it difficult to push the technological envelope.
- Affected the willingness of UK industry to pursue possible areas of technological development.



- The default position was play it safe.
- Using the traditional 80/20 split, ITAR hinders getting the remaining 20% of performance.

# Performance - Information Sharing

- ITAR restricted exchange of data.
- Could not get the data to see if requirements should be challenged.
- Can not design a component in isolation.
- Could not always get details on modifications done in the U.S.
- Restrictions on nationals by ITAR generates practical and legal problems.
  - One firm has 53 nationalities working for it.
  - UK law bans asking about nationalities of applicants for positions.



# Intellectual Property Rights

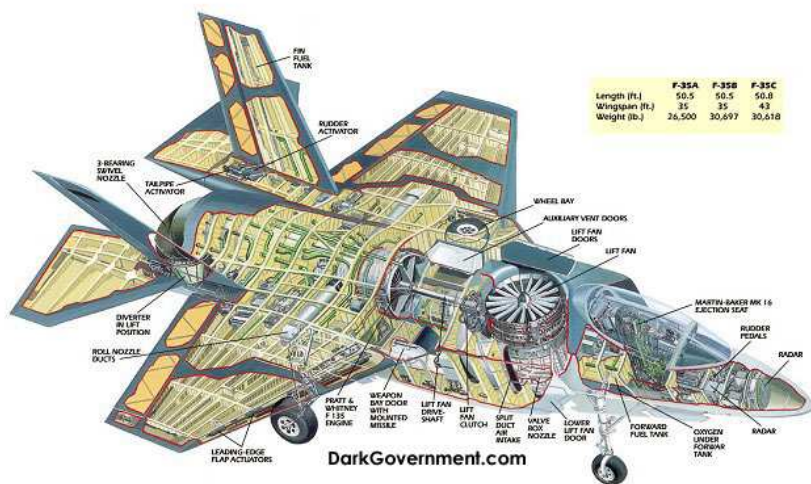
- Perception that U.S. firms used ITAR to protect U.S. IPR.
- UK firms were concerned about impact of ITAR to restrict their ability to use UK IPR.
- If work is done in the U.S. on UK IPR, it would become covered by ITAR and “contaminated.”





# ITAR Excesses

- ITAR is like “one drop of cyanide in a bucket of water. Once you’ve put the smallest drop in, everything becomes contaminated.”
- Concern that U.S. firms use ITAR as an excuse and a trade barrier to justify business decisions.



- The U.S. uses ITAR as an excuse for “sloppy work” – Arbuthnot
- There were innumerable horror stories.

# UK Access to Source Codes

- Remains a critical issue for the UK, so that it can have operational sovereignty.
- Source codes are key to integrating systems like Meteor on to the JSF.
- Views ranged from cautiously optimistic to very sceptical that UK will get all it needs on source codes.



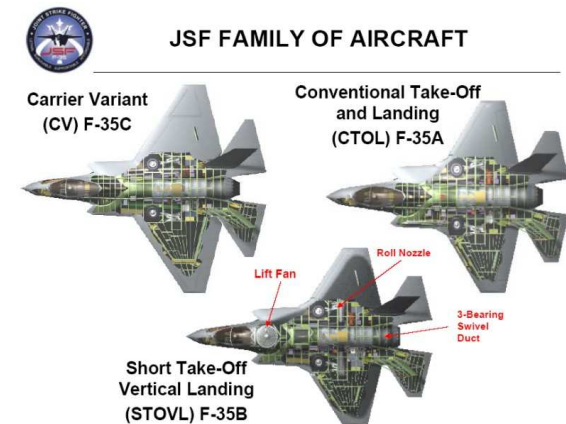
# Need For Reform

- Saving grace: good working relationships.
- But growing support for UK firms to design ITAR-free.
- General UK view - the U.S. system is flawed.
- UK supports fundamental reform of the system.
- Higher walls around a smaller number of truly sensitive items.
  - ITAR coverage now goes down to nuts and bolts.
  - Even if substance of ITAR is unchanged, a better process would make a big difference.
  - But scepticism about chances of successful reform.



# Logistical Support and Cost of Doing Business

- Too early in the process for the UK representatives to have a clear view on the impact of U.S. regime on JSF logistical support.
- ITAR appeared to be too big a cost of doing business for small and medium-sized UK firms.
- Acceptable for large UK firms due to the amount of money involved & the best technology.
  - Estimates of \$400 billion for JSF support work.
- Companies were not yet ready to say “enough is enough.”



# Conclusions

- Most of the UK commentary was quite negative and indicated a substantial amount of UK dissatisfaction, including growing support for producing ITAR-free items.
- If it is this bad in the UK, how bad must it be elsewhere?
- However, aggravation generated by the U.S. regime was still not great enough for the UK to walk away from major U.S. projects like the JSF.
- But the attraction of participating in U.S. projects arises from the funding unavailable elsewhere and the opportunity to work on the best technology.
- This raises questions about UK support if U.S. defence budgets fall and the U.S. technological edge decreases.
- From a UK perspective, the U.S. should implement a system which is predictable, simple, fair, transparent, and focused on truly sensitive technology.

