

**SPEECH BY DICK OLVER, CHAIRMAN, BAE SYSTEMS PLC at the WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS - Tuesday 12 July, 2005**

**1. INTRODUCTION**

**1.1 Opening**

Thank you very much Lee. And good morning everyone, including those of you listening to the web-cast.

It is an honor to share some thoughts with you in these surroundings and in such good company.

I am aware of the great service that Lee has performed for this country, particularly on security-related issues.

And I am conscious of the stature of the statesman to whom this center is a memorial.

In the context of today's topic, we recall that it was Woodrow Wilson who led the United States into the First World War, declaring "the world must be made safe for democracy."

Since that time, American forces have fought for democracy on many occasions, often alongside British forces as they are doing today in Afghanistan and in Iraq.

In Britain we do not forget what the United States has done for the freedom of Europe.

As Prime Minister Blair, has said, our two countries share the same objectives and we share the same values. Those objectives include controlling the proliferation of conventional and non-conventional weapons and technologies in the interests of national security and the global war on terror.

Indeed, as we saw in the despicable attacks on London last week, there remain those who seek to destroy our way of life. But they will not succeed. In such times it is good to know that we are united with our closest allies in standing up for what we hold dear. So I thank you for the support that has been shown by so many Americans for the UK – and particularly for London – in the past week.

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<sup>1</sup> <http://www.number-10.gov.uk/output/Page6573.asp>

And it is at times like this that we are reminded of the great responsibility that all of us involved in the security business bear. We need to remain tireless in our assistance to our defense and security services.

## **1.2 Personal introduction**

Personally, it is a great pleasure for me to be back in Washington. I have spent much of my life working with American colleagues. And during my BP career, I lived in the US on three occasions – in New York, in San Francisco and in Houston.

I am now privileged to be chairing a truly transatlantic organization, supporting the armed forces of both our countries.

I see the role of the defense industry very straightforwardly. The men and women of the armed forces give their all to protect freedom and democracy; and we in this industry must therefore give them our very best.

Clearly, defense is very different to energy and other industries in that defense makes a direct and material contribution to national security. It has a unique character and a unique responsibility.

There are, however, some important similarities between energy and defense. Both are very technology and capital intensive. Both involve a high degree of government interaction – and present governments with challenges about when to encourage competition and choice - and when to exercise command and control. Both have global reach. And both have large numbers of intelligent and dedicated engineers, scientists, and technicians.

In the energy business, unlike defense, we are able to take full advantage of our global team by sharing technology and re-locating experts from one place to another. I'll come back to this subject in a few minutes.

## **1.3 Today's theme**

Today, with such challenges in mind, I want to look at how we can ensure that the US and the UK have the most constructive partnership possible in the field of defense technology.

I would like to put forward two propositions about that partnership and then set out a vision of how it might be strengthened in the future.

I'm aware that Woodrow Wilson said that the best way to make enemies is to try to change something. But that's a risk I'm prepared to take on this critical issue.

The first proposition is about our *understanding* of the issues. My observation, after spending a year in this industry, is that the US and UK defense partnership has yet to produce a coherent response to the phenomenon of globalization. There is no consensus on this and the debate needs to take place.

The second proposition is about the *action* we take as a result of that understanding.

My belief is that – as well as offering opportunities, *globalization* presents real challenges to the US. This, despite its overwhelming dominance in defense matters today.

Part of the response to those challenges should be to extract the maximum value from working with partners.

And the UK is not only the United States' closest ally, but one that, I think, has something significant to bring to the partnership.

## **2 RESPONDING TO GLOBALIZATION**

### **2.1 Impact of globalization?**

But let me start with the context – that of globalization. The process of globalization has created both benefits and challenges. And if you look at the world as a whole, I submit that the net impact has been extremely positive.

Trade has increased about 15-fold since the 1950s, per capita income has nearly tripled, life expectancy has grown by 20 years, infant mortality has dropped by two thirds and millions have been lifted out of poverty.

This is not to pretend that the benefits of globalization have been equally shared. A billion people still live on less than a dollar a day.

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<sup>2</sup> [http://www.cipe.org/publications/fs/ert/e35/e35\\_05.htm](http://www.cipe.org/publications/fs/ert/e35/e35_05.htm)

Too many countries are unable to compete effectively, sometimes due to corruption in their own countries or protectionism in others. These are issues that are being addressed elsewhere, as we saw last week at the G8 Summit.

Notwithstanding these difficult issues, there have been major benefits for many emerging economies that have been able to add value within the global supply chain – for example India as a software center or China as a manufacturing powerhouse.

There have been benefits for companies that have invested to compete at the global level, developing global brands and gaining economies of scale. And there have been benefits for consumers who have enjoyed greater quality and choice.

Democracy itself has globalised. In 1950 there were around 20 countries with universal suffrage and multiparty elections. By 2000 there were 120. And as President Bush has put it, “Democracies equal peace.”

However, there is now a major challenge to developed countries from the pace of growth of the emerging economies. For example, thinking of the future needs of the defense industry, we should be concerned that China and India produce over 300,000 graduate engineers each year, while the US produces just 60,000, and the UK around 20,000.

Such facts may make us uncomfortable, but we cannot un-invent globalization. The genie is out of the bottle. We simply have to respond to it – and that includes those of us in the defense industry.

## **2.2 Responses**

So, how do countries and organizations respond to globalization?

At one end of the spectrum there is the welcoming response – in which players take advantage of the benefits and resolve to compete in the marketplace.

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<sup>3</sup> <http://www.freedomhouse.org/reports/century.html>

<sup>4</sup> <http://www.whitehouse.gov/news/releases/2005/01/20050107-4.html>

<sup>5</sup> <http://cio-asia.com/PrinterFriendly.aspx?articleid=1079&pubid=5&issueid=48>

<sup>6</sup> <http://www.nsf.gov/sbe/srs/seind04/append/c2/at02-33.xls>

At the other end of the spectrum there are those who resist globalization and look for ways to limit the power of global market forces.

### **2.3 Justifiable market management**

The complexity that policy-makers have to face is that there are both valid and invalid reasons for setting limits on the market. The challenge is to know the difference.

For example, one valid reason for not leaving everything to the market is to assist countries that are still working their way up to the level at which they can compete.

Another valid intervention is to secure environmental benefits. This is why we have limits on sulphur levels in gasoline. This is also why many governments, including the US, are subsidizing solar power until it can compete on its own.

And then of course there are considerations of national security: ensuring that - at least in the realm of defense technology and intelligence - this is not a borderless world.

### **2.4 Unjustified market management**

On the other hand, there are unjustified interventions in the market.

For example, failure to reform the EU's agriculture subsidy policy will continue to hurt farmers from the developing world and ultimately leave uncompetitive European farmers high and dry.

In the US, while we can welcome the proposed elimination of cotton subsidies, debate continues over whether tariff barriers should be imposed on Chinese imports.

But as Alan Greenspan pointed out last month, if low-cost imports do not reach the US from China, they will reach it from South America or elsewhere.

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<http://yosemite.epa.gov/opa/admpress.nsf/b1ab9f485b098972852562e7004dc686/85d60bed6693e58f85256e270050648c?OpenDocument>

<sup>8</sup> <http://www.eere.energy.gov/solar/budget.html>

What he said about China applies equally to other protectionist activity. Mr. Greenspan said, "A policy to dismantle the global trading system in a misguided effort to protect jobs from competition would rebound to the eventual detriment of all U.S. job seekers, as well as millions of American consumers."

In the energy business, the protectionist angle is slightly different. Here, some argue that countries should seek to reduce dependence on imported energy.

And of course it makes sense for a country to maximize the energy it can produce indigenously at competitive costs. But it makes no sense to reject an open and free market that is delivering secure supplies.

If a country were to do so, prices would rise as indigenous energy became increasingly difficult to extract. And trading partnerships would be weakened, affecting the relationships between the countries concerned.

In fact I would argue that security of supply is *strengthened* through having a diversity of energy sources in an open global market.

So there is a balance to be struck – rejecting unjustified limitations on the market while accepting that there are some valid boundaries to be set.

## **2.5 Partnership and mutual advantage**

For those who choose to accept the challenge of the market and compete, one powerful tool is to forge strong partnerships.

Winning in a global marketplace can often depend on the extra competitive edge that comes from having the right partner –a partner with the right technology, a partner with the right assets, a partner with the right market knowledge, and a partner with shared and aligned beliefs. In short, a partner with whom one shares a bond of trust.

Another cornerstone of success is to do business in a way that generates mutual advantage – creating benefits not only for partners but for suppliers, customers, governments and communities.

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<sup>9</sup> <http://www.bloomberg.com/apps/news?pid=10000103&sid=aJPievhWVrmY&refer=us>

## 2.6 US-UK Partnership generally

The US-UK relationship has been one of partnership and mutual advantage. This has been most graphically demonstrated on the battlefield, but it also has an economic dimension.

The US is the UK's largest export market and the UK is the US's 4th largest export market. US investment in the UK last year, at \$23bn, was a quarter of its total investment in the European Union.

There is also evidence that the UK punches above its weight in innovation. The UK has just 1% of the world's population, but 5% of its global expenditure on science. It produces 8% of the world's scientific publications, and receives 9% of citations.

Our countries are also rich in professional, cultural and social relationships.

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And if I may dare to ask for a small amount of audience participation, can I now ask how many people here are UK citizens – please raise a hand?

And how many US citizens?

And how many from other countries?

I hope those listening to the web-cast are joining in with this!

And among the US citizens, may I ask how many have worked with British colleagues?

How many have lived and worked in the UK?

Is there anyone who has studied at a UK academic institution?

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<sup>10</sup> <http://www.cia.gov/cia/publications/factbook/geos/uk.html>

<sup>11</sup> <http://www.cia.gov/cia/publications/factbook/geos/us.html>

<sup>12</sup> TH email on 'Deep Integration'

<sup>13</sup> <http://www2.britishembassy.dk/?id=157>

OK – thank you - that’s very interesting – I won’t push my luck and ask how many of you understand cricket.

## **2.7 Implications for defense**

So what does all this mean for the defense industry? As I have indicated, defense is unique and extremely complex. But certainly it has an increasingly significant global aspect.

Major contractors increasingly work across borders, serving a number of customers among governments and groups of governments. And there is an open and dynamic market in components.

Let’s take a brief look at BAE Systems. We now operate on five continents with nearly 100,000 people. We are a genuinely transatlantic defense company. We work on US, UK, and European programs.

In the past year we have made six significant acquisitions in the US, including just last month that of United Defense. The United Defense business has been integrated into a global land and armaments operating group, along with businesses in the UK, Sweden and South Africa. That unit, along with two others, is headquartered here in the Washington DC area. The entire US-headquartered business now contains 45,000 people – 35,000 of them Americans. Interestingly, while BAE Systems plc is listed on the London Stock Exchange, something in the order of 40% of our shares are held by US institutions.

And while we have a growing business in the US, so do some US companies in the UK.

For example, General Dynamics in the UK is providing the Armed Forces with the BOWMAN radio system, which is a solution based upon technology proven in operational use with the US and other forces throughout the world.

Raytheon’s latest Paveway IV missile has been selected by the UK’s Ministry of Defence and is currently in trials on the Harrier aircraft.

In defense, as elsewhere, globalisation presents challenges and opportunities. One challenge is the danger of sensitive technology falling into the wrong hands. And it is therefore right that countries should set limits on the market to protect the most sensitive technologies.



However it is also right, when appropriate, to take advantage of the opportunities that the market offers.

The precise judgments on where to draw the boundaries are very fine ones – and they are not made any easier by the volume at which the debate is sometimes conducted.

For example, among the calls for limitations on the market is the ‘Buy America’ campaign in Congress. You’ll not be surprised to hear that I regard this as misguided. In fact, I believe such an approach would impair the United States’ defense capabilities because it would prevent the *US* taking full advantage of the opportunities of the global market, as it has done for years. To take just a few examples:

- The Excalibur 155mm munition combines US guidance expertise with Swedish experience in airframe design.
- Components for the guidance and control systems for the Tomahawk missile are made in Britain and Italy, and
- The Predator unmanned aerial reconnaissance system uses parts made in the UK, Belgium, Austria, Switzerland and Japan.

If we go back even further, much of the superiority of the United States can be traced to its willingness to welcome people and ideas from other countries. Pierre Chao of the Center for Strategic and International Studies has noted that US military superiority has often been built on the innovations of foreigners: the jet engine, designed by a British engineer; nuclear weapons and the space rocket, designed by German émigrés; the submarine, designed by an Irish immigrant; and the helicopter, invented by a Russian immigrant.

The results of this melting pot of innovation – in addition to the world’s strongest military – include a healthy stream of US exports and the associated jobs.

The US Administration has been candid about this issue. For example, last year, the Department of Defense published a study on the Impact of Foreign Sourcing of Systems. This not only concluded that the

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<sup>14</sup> <http://www.globalsecurity.org/military/systems/munitions/m982-155.htm>

<sup>15</sup> [http://www.acq.osd.mil/ip/docs/study\\_impact\\_foreign\\_sourcing\\_of\\_systems.pdf#search='Impact%20of%20Foreign%20Sourcing%20of%20Systems'](http://www.acq.osd.mil/ip/docs/study_impact_foreign_sourcing_of_systems.pdf#search='Impact%20of%20Foreign%20Sourcing%20of%20Systems')

use of foreign sources had not *adversely* affected long-term readiness and national security, but that there had been *positive benefits* from accessing non-US solutions and technology.

These benefits include:

- access to state-of-the-art technologies;
- the development of interoperable systems;
- mutually beneficial industrial strategies
- and, last but not least, exposing US industry to international competition and thereby helping to ensure that US companies remain innovative and efficient.

As the DoD's 2003 report on international industrial participation in the Joint Strike Fighter program observed, and I quote, "the US does *not* have the global monopoly on good ideas."

### **3 STRENGTHENING THE US – UK TEAM**

So how should the US ensure it maintains its lead within this international industrial context?

In my view one key factor is the extent to which the US values and uses the defense partnership it has with its closest ally, the UK.

#### **3.1 US-UK partnership in defense**

The story of our defense industry partnership is also a story of mutual advantage, in which the UK has often provided important contributions.

This goes right back to the British designed Mark V tanks used by the American 301<sup>st</sup> Heavy Tank Battalion in the First World War.

The Harrier itself is a classic example of co-operation. Originally developed in the UK as the world's first operational Vertical Take-off and Landing airplane, the technology was shared with the US where it was adapted and enhanced.

The result was a winner that was provided to the Marines, the Royal Air Force and to export markets. We pooled our skills to create something better than either of us could have done alone.

And of course there have been many other examples. These include the BROACH warhead from the UK Storm Shadow missile which is being applied to the US Navy's Joint Stand Off Weapon, and the unique technology we have brought to the M-777 light-weight howitzer, which is now being fielded with the US Marines.

Using UK innovations not only delivers technology benefits. It also brings direct advantages to the US defence budget and to program timelines. This is because it avoids costly research and development expenditure in areas where the UK has already made that investment.

However, there are many areas in which the UK has not been able to make its most effective contribution. This is because of US control mechanisms such as the need to gain export licences and arrange Technical Assistance Agreements.

These hinder technology-sharing among the US and its closest allies by requiring lengthy approval processes, even for unclassified technology. For a transatlantic company like ours, such controls mean that we duplicate many capabilities instead of making them complementary.

In the context of the close and multi-faceted US-UK partnership, such controls are particularly burdensome.

They are also prone to unintended consequences. For example, they can prevent US colleagues sharing technology details that are required if the UK team is to make its contribution. To put it simply, we can't provide a solution if we don't know what the problem is.

The guiding principle seems to be 'one-size-fits-all'. But that principle is out of place in a partnership of closest allies. It is especially counter-productive in the area of national security.

To put it bluntly, in a legal and regulatory sense the UK does not seem to be treated very differently from any other country that has an export-import relationship with the United States.

### **3.2 The JSF Program**

This has particular relevance in the world's largest defense collaboration, the F-35 Joint Strike Fighter Project, where the UK is the largest international partner.

We all want this to be a success story – just as the Harrier was.

And once again we – the UK in general, and BAE Systems in particular - stand ready to contribute our expertise, our technology and our capital investment.

For example, we are providing advanced manufacturing technology based on our experience with the Eurofighter Typhoon. This includes high accuracy surface machining which produces very high tolerance finishes. These in turn enable the use of a new generation of low observable coatings – stealth coatings - that provide considerable savings in weight and costs.

In other areas, however, the UK contribution may be inhibited by the export control regime. To give one example, another area of UK expertise is that of short take-off and vertical landing. We have been asked to lead the testing of this technology and to carry out operational modelling of mixed short take-off and conventional take-off operations – but we can only do this if we receive the right approvals.

As the DoD’s study on international industrial participation observed: “Export control issues have plagued virtually all of the JSF international partners.”

There is much at stake here – including the effectiveness of the fighter, the efficiency of industry collaboration and the strength of the US-UK alliance.

At the industry level, the regime prevents us operating efficiently. And it prevents us taking full advantage of our human and intellectual capital for the benefit of our customers on both sides of the Atlantic.

At the national level, it is a question of whether the UK can depend on the US to make this a project of genuine mutual advantage – one in which the UK contributes the best of its innovation, but also has access to the technology it needs to maintain and upgrade the aircraft under its sovereign control.

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<sup>16</sup> JSF international industrial participation: a study of country approaches and financial impacts on foreign suppliers, June 2003

To work, the partnership has to be one that respects the UK's security needs and the British government's sovereign responsibility.

### **3.3 Beyond the JSF program**

There is also potential waiting to be released beyond the JSF program. To take another important area, there is a critical and recognized need for new technology to strengthen coalition-based, network-centric, warfare.

In this context, one promising technology we are pursuing is data fusion and situation awareness. This relates to the ability to combine data from many sources to build up a detailed picture of a threat situation.

In the UK, BAE Systems has invested heavily in this technology over the last few years and has built significant capability. Combined with the US capability, we believe it would be cutting edge. But we are waiting – waiting for approval to contribute what we know in order to develop more capable, interoperable solutions.

These export controls come from an understandable but perhaps inappropriate desire to be self-sufficient in defense, and to try to drive the risks of technology compromise to zero. But in both cases, these desires in reality impose real costs to US defense capabilities, costs that can outweigh any benefits.

Failure to share technology has potentially far-reaching consequences because it threatens interoperability between UK and US forces. This increases the dangers of blue-on-blue incidents and diminishes our collective national security capabilities.

As I said at the beginning. Our forces risk their lives for us and we owe them the very best our innovators can provide. I believe we can do better – that we can deepen this partnership and provide a better service to the people at the front-lines.

## **4 A NEW VISION OF TECHNOLOGY CO-OPERATION**

So what can be done to improve co-operation and enable technology to be safely, but more effectively, shared? Let me offer some thoughts we have been discussing with particular reference to the US-UK relationship.

Let's consider a 'What If' scenario...

And this relates to unclassified as well as to classified information.

For unclassified technology, what if there were no impediments to sharing technology and moving expert individuals between the US and the UK?

The US would gain access to tens of thousands of skilled engineers and scientists, to hundreds of highly skilled small and medium sized companies and to the technology of NATO's second largest defense equipment budget.

And the UK would be better able to equip its forces for future coalition operations.

In the world of classified information, what if the US and UK security systems could be harmonized so that people, instead of technologies, were licensed? The individuals concerned would be those who have already been through security clearances at a national level. A virtual 'passport' would authorize them to make use of each other's technologies within arrangements that had been agreed between governments to prevent unauthorized end use and re-transfer.

It is important to note that the UK has its own rigorous technology export protections and that these have recently been updated in the form of the Export Control Act of 2002.

The UK export control regime is among the most comprehensive in the world, comparable to that of the US. UK based operations such as ours have to be fully compliant with these provisions and we face criminal action if we fail.

So this is a vision that seeks to leverage the full benefits of access to each other's innovation while protecting the most sensitive national technology.

This vision, if enacted, would benefit the US and UK governments, their militaries and their defense industries. BAE Systems, of course, would benefit, but so too would other US defense companies such as Boeing, General Dynamics, Lockheed-Martin, Raytheon and many others.

The US and UK already co-operate very closely in the fields of nuclear technology and intelligence. If our two governments can have such close relationships in extremely sensitive areas, they should be able to create similar arrangements – and reap the benefits - in defense technology.

## **5 CONCLUSION – A MATTER OF TRUST**

I haven't mentioned the greatest safeguard for US technology which is shared with UK partners. It has nothing to do with licenses or laws. It is about trust. It is the trust that rises above technical undertakings by appreciating the value of partnership.

Trust is what enables people to work well together. Trust is essential to success in a globalised world.

It is what enables our armed forces to serve together as they do in Afghanistan and Iraq today. It is what has enabled this alliance to be a strong force for freedom and global security.

Continued and increasing trust is a pre-requisite if we are to benefit from each other's expertise. We need to recognise, respect and take advantage of each other's distinctive strengths.

I hope we can deepen and strengthen this relationship in the coming months in the interests of our Armed Forces and our citizens.

And given the surroundings of the Woodrow Wilson Center, I hope you will indulge me if I share one final reference to this nation's 28<sup>th</sup> President. Wilson was an academic, a professor, and a man of great learning. But he also appreciated the power of partnership and one of his most famous sayings has a particular relevance to our theme today.

You may recall what Wilson said ... "I not only use all the brains that I have - but all that I can borrow."

Ladies and gentlemen, I believe those are very wise words and I will not seek to add to them further. So thank you very much for your attention today. I would now be delighted to take any questions you may have.

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<sup>17</sup> <http://www.whitehouse.gov/history/presidents/ww28.html>