

Speech for Porthmadog - 15th November 2013

Cyfeillion, a'i gyfeillion, noswaith dda a diolch i chi am fy ngwahodd.

Friends, and comrades, good evening and thank you for inviting me. I apologise for not being able to address you in Welsh tonight, I am afraid you will have to put up with English for the rest of my speech.

My name is Harry Rogers I bring greetings from Bro Emlyn For Peace and Justice, a local activist group that formed in 2003 as a response to Tony Blair's illegal war on Iraq and we have been involved in a number of campaigns since that time. I personally have taken a keen interest in the research, development, and deployment of unmanned aerial vehicles (UAVs) and in particular Unmanned Combat Aerial Vehicles (UCAVs) since about 2006. I have spoken on a number of occasions to this subject and the last time I spoke at a public event on this issue was at an anti drone conference in Cardiff earlier this year. That conference led to the formation of Drone Campaign Network Cymru which is umbrella organisation co-ordinating information about, and activities against military & surveillance drones in Wales & beyond and I am now a member of the co-ordinating committee of that group. We recently organised a very successful protest demonstration outside the entrance to West Wales Airport at Parc Aberporth which is where the MOD are carrying out the airworthiness testing of the Watchkeeper drone, or at least this is the official line, I have my doubts on this and will touch on some of what I suspect is happening there later on in this speech.

I want to address a number of issues tonight and these are:

- A brief history of recent events at Parc Aberporth and the MOD base at Parcllyn
- What is the current state of play vis a vis drone technology?
- Why is there such acquiescence in the use of Drones by politicians from all the major political parties?
- How do we move forward to bring about an end to the development, testing and deployment of drones in Wales and beyond?

I will take questions at the end of the speech so please do feel free to ask me anything you want on what I have said and also ask my view on any ideas that occur as a result of listening to the talk.

A brief history of recent events at Parc Aberporth and the MOD base at Parcllyn

I suspect that you already know quite a lot of the old history relating to RAF Aberporth and RAF Llanbedr in that they were both used to test missiles up to both bases being closed down. Everybody in West Wales and in North Wales were very exercised by the loss of local employment that this caused. I don't know much about what happened up at Llanbedr but in Aberporth it has been an ongoing saga ever since the base was closed and handed over to the privatised company Qinetiq. There was a lot of hoo haa at the time about the fact that that the management buyout team got the company for peanuts, more of this later. This led to loss of hundreds of jobs and knocked on into the local economy. In a separate though linked bit of economic development the Welsh Development Agency and the National Assembly For Wales set about using some of the £2.4 billion pounds of objective one EEC grant funding to set up a Science Park next to the the West Wales Airport which was bidding to become a full blown local airport with Civil Aviation Authority status (since gained). The idea was that the Science Park would attract companies in the field of information and communications technology into West Wales and kick start economic regeneration along the lines of the Irish Celtic Tiger model which saw Eire become the second largest developers of software in the world. High tech companies would be attracted by sweeteners such low rents and rates and the close proximity to the

airfield. People were told that there would be replacement jobs and more for what had become an industrial wasteland. The buildings were erected along with a swish new bit of roadway. They looked fabulous and the WDA were sure they were onto a winner. No high tech companies came, no jobs were created, and the local people watched a few million pounds wend down the Swanee.

The WDA and the National Assembly scratched their heads and worried about what was going to become of the Science Parc. Meanwhile Qinetiq and the MOD were busy negotiating with the new owners of West Wales Airport to start using the newly extended runway to begin testing the Watchkeeper UAV for the British Army and so was hatched the plan to turn the science park into a brand new centre for excellence for Unmanned Aerial Systems Research and Development. This seems to make absolute sense as there are many companies in the world who develop and manufacture drone technology. So with another fanfare of press releases saying that there would be 1000 new jobs created by the implementation of the new economic development opportunities afforded by drone technology companies from all over the world were invited to come and set up shop at the Science Park. To date fewer than 50 actual jobs have been created by this initiative and most of the science park buildings remain unoccupied so after ten years the whole debacle looks like a wild west Wales ghost town with tumbleweed blowing around the brand spanking new empty roads. There has been a lot of activity on the airport runway though as the MOD and Thales have carried out hundreds and hundreds of test flights of the Watchkeeper military surveillance drone. Also Qinetiq and the MOD have organised a handful of drone trade fairs at the base but none of this activity has been of any major significance to the local economy whatsoever. I should also point out that the MOD applied for and got permission to extend the flight test area for the drones over a large area of Wales extending from Aberporth to Sennybridge. The West Wales Airport has been granted permission for Unmanned Aerial Vehicle testing over large swathes of Welsh countryside. There was an, in my view, unsatisfactory public consultation carried out locally before the drone testing of the Watchkeeper actually began and people were told that the UAVs were not going to be solely used for military purposes, and in fact most of the drone development at Aberporth was going to be for civilian purposes. Evidence of this is yet to be seen, in fact the only UAVs flying out of the airport are British Army Watchkeepers.

What is the current state of play vis a vis drone technology?

The whole issue of drone usage is controversial and is more and more coming onto the agenda of a variety of protest groups and other organisations around the world. We all know that the governments of UK, USA and Israel are using drones as killing machines and for surveillance purposes on a continual basis. So successful has the implementation of remote control technology been that we see decreasing levels of personnel employed by armed forces in what is euphemistically called the theatre of war. This is however not exactly what all players in the game are happy with. Politicians who are increasingly exercised by the tribulations of implementing austerity measures are very happy as drone warfare is cheaper than conventional warfare, and also makes life easier politically in that there are fewer personnel coming home in black bags draped with flags. However some sections of the armed services are worried about a number of issues arising from Pentagon driven so called advances in war fighting capabilities. In Britain the Raf have distinct qualms about the future developments in drone technology. The major issue is Autonomy. The RAF say that "As UAVs are developed with increasing levels of automation it will reduce the requirement for operator training in the more traditional piloting skills of flying the aircraft, such as landing and takeoff, and focus the training more towards operating the payload."

The MOD and in particular the RAF are discussing issues about the levels of automation they are comfortable with. They recognise that highly automated weaponry systems are unlikely to be able to apply judgement and pragmatism to "situations". They are worried about legal and ethical considerations that occur when there are no human beings in the loop leading to loss of life or injury. The future is one where outdated weaponry will give way to what they term

"precision weaponry" and where the battle-spaces increasingly involve unmanned and cyber operations.

Autonomous weapon systems are capable of understanding higher level intent and direction, and perception of their environment, leading to the ability to take appropriate actions to bring about desired states. To be able to decide on a course of action, from a number of alternatives, without depending on human oversight and control. Although the overall activity of an autonomous unmanned aircraft will be predictable, individual actions may not be.

UAVs are used in scenarios which are highly distasteful and we all know that they are used for surveillance and targeting, and carrying out, weapon attacks inside the borders of countries such as Pakistan and Palestine. All of this is currently done with "man in the loop" systems but it will not be too long before drones are flying with what the RAF says is " the ability to independently locate and attack mobile targets, with appropriate proportionality and discrimination."

The RAF are worried about issues relating to the Geneva Convention with regard to autonomous UAV development and usage and they say that "compliance will become increasingly challenging as systems become more automated. In particular, if we wish to allow systems to make independent decisions without human intervention, some considerable work will be required to show how such systems will operate legally."

Already there are automated weapons systems in use in Afghanistan, for example, the Phalanx and Counter-Rocket, Artillery and Mortar (C-RAM) systems used because there is deemed to be insufficient time for human response to counter incoming fire.

Future autonomous UAV systems will have to adhere to legal requirements and civilian airspace regulations. This will require political involvement in getting the necessary changes made. In my view it is absolutely vital that politicians understand the issues clearly and concisely because once made it will mean that there is going to be a lot of military and civilian hardware flying about in the airspace without any human interface whatsoever. The RAF say "As systems become increasingly automated, they will require decreasing human intervention between the issuing of mission-level orders and their execution." and they go further saying "It would be only a small technical step to enable an unmanned aircraft to fire a weapon based solely on its own sensors, or shared information, and without recourse to higher, human authority." They also discuss the timescale for the introduction of increased autonomy via Artificial Intelligence, saying ;- " Estimates of when artificial intelligence will be achieved (as opposed to complex and clever automated systems) vary, but the consensus seems to lie between more than 5 years and less than 15 years." Their words, not mine.

The RAF are clearly worried about the direction all this is going in and they say "As technology matures and new capabilities appear, policy-makers will need to be aware of the potential legal issues and take advice at a very early stage of any new system's procurement cycle." I believe this highlights a degree of paranoia on the part of the RAF vis a vis it's own future role.

Not only are the RAF exercised about legal dilemmas. Ethics and morals related questions also are in their thoughts such as when, where and how automated and autonomous unmanned systems may be used. This applies not just to the use of drones of course but also to all other forms of weaponry in any environment.

Will all future wars be fought remotely with little or no loss of friendly or military personnel?

Will future conflicts be waged between increasingly complex unmanned systems?

In my view a problem that we face today is that big business accountants have

control of governments and the most expensive resource used in public services is human beings. So autonomy offers massive savings in manpower and support for that manpower both before and after conflict occurs. As artificial Intelligence comes on board we are likely to see more complicated tasks arising that are beyond the capability of humans to deal with due to speed, complexity and information overload. No doubt some of you are probably suffering that now, but I only have a bit more to say before I will take questions, so bear with me.

The RAF and many others in the field are grappling with issues such as whether it is possible to develop AI that has the capability to focus on the unique (at the moment) ability that a human being has to bring empathy and morality to complex decision-making. The RAF say "To a robotic system, a school bus and a tank are the same - merely algorithms in a programme - and the engagement of a target is a singular action; the robot has no sense of ends, ways and means, no need to know why it is engaging a target. There is no recourse to human judgement in an engagement, no sense of a higher purpose on which to make decisions, and no ability to imagine (and therefore take responsibility for) repercussions of action taken."

Why is there such acquiescence in the use of Drones by politicians from all the major political parties?

It is abundantly clear to me that politicians in Wales at all levels and in all parties are either happy to be part of a total militarised system or have no idea what is going on or are bereft of ways to get themselves out of their bankrupt policy morass vis a vis economic development and are therefore forced to clutch at the straws offered them by the military and their pals who run the transnational arms manufacturers. In my view it is a combination of all three of these. I can hear some of thinking what has all of this got to do with us in Wales? Well Qinetiq, the NAFW and a number of transnational developers in drone and aerospace technology are engaged on a programme known as The ASTRAEA Project. The ASTRAEA programme is jointly funded by industry and the public sector including the Welsh Assembly Government. Half of the funding for ASTRAEA is therefore being provided by public sector organisations - including the TSB and the regions - with the rest from a consortium of seven UK companies: AOS, BAE Systems, Cassidian, Cobham, QinetiQ, Rolls-Royce and Thales UK.

The TSB, Technology Strategy Board (ATory body set up David "two brains" Willets), is a business-led executive non-departmental public body, sponsored by the Department for Business, Innovation and Skills (BIS).

I know for a fact that the National Assembly For Wales has put at least £3 million into this project via it's economic development committee and I also know that this project was never discussed on the floor of the assembly in Cardiff.

ASTRAEA stands for Autonomous Systems Technology Related Airborne Evaluation & Assessment and is a UK industry-led consortium focusing on the technologies, systems, facilities and procedures that will allow autonomous vehicles to operate safely and routinely in civil airspace over the United Kingdom.

The programme comprises two phases:

ASTRAEA I - 2006 to 2008

Engaged with the regulators to understand the issues

Developed appropriate technology to TRL 3+

Culminated in an integrated SE demonstration of the art of the possible

Created an internationally recognised position for the UK

ASTRAEA II - 2009 to 2013

Agreed a process with the regulator to establish suitability of various engineering solutions from the safety perspective

Created a process to identify and engage with potential UAS end users to establish more detailed and specific user requirements

Progressing solutions through live flight trials

Progress towards virtual certification

All of this research has clear military as well as civilian surveillance uses. Don't be fooled by UAV apologists who try to tell you that this research is benign, it most certainly is not.

How do we move forward to bring about an end to the development, testing and deployment of drones in Wales and beyond?

So we need to pose the following questions to everybody out there be it our friends and neighbours, other members of the public, local journalists and media workers, and most of all our elected politicians:-

Are they happy to allow Autonomous Robots to take on the responsibility of choosing which of us lives and which of us dies?

Can an autonomous robot be considered capable of waging ethical and legal warfare?

Can software and hardware accidents be distinguished from war crimes when robots go wrong?

Is it possible to establish clear policies on acceptable machine behavior?

How far out of the bottle is the technological genie?

Are we doomed to a Terminator style future?

Is it possible have a sensible debate about technological development anymore?

Do we really want Artificial Intelligence with a greater capacity to think than a human to be in any way involved in future theatres of War?

The RAF pose very important questions when they ask the following:-

- Do military planners and politicians understand the full implications of the systems they are currently tasking and those they hope to procure?

- In the current economic climate, who will decide the best balance between keeping existing equipment and personnel, or whether to give these up to fund new unmanned systems?

- Do we understand even the basic implications of such decisions for the associated defence lines of development?

- Crucially, do we have a strategic level of understanding as to how we will deliver the considerable number of changes that will need to be made to existing policy, concepts, doctrine, and force structures?

Finally, to conclude, we must expect to see governments bringing in changes to the law of armed conflict in order to accommodate the use of autonomous UAS and we must shout our opposition to this from the rooftops.

So there we have it friends, there is a lot for us to consider when we look into the issue of drones. We have to view all of this in an holistic way. That is we must not just lumber along from one demo to the next thinking only about the

impact of the current use of drone warfare, terrible though that is.

It is absolutely vital that we start to consider what future implications there are for the maintenance and development of basic human rights. We must also consider what the use of technology means in terms of social control measures such as we see the beginnings of in Gaza and elsewhere. I believe we are at, if not all ready passed, a dangerous turning point in the way we occupy this planet.

It is incumbent on us all to make a fuss about these issues if we want a planet where Human Rights are protected. If we don't then we condemn the world to a dystopian future where all kinds of as yet un-thought of technology is used to maintain the position of a global elite above and beyond that of the majority of the people. The choice is ours, make a ruckus or bury our head in the sand and wait for the worst possible sci-fi future to engulf us all. Drones Campaign Network Cymru is trying to ensure that as many people as we can reach are made aware of these issues, you can check us out on our Facebook page, we hope that we can be of help to people across Wales who want to try and influence a shift in policy decision making and eventually to bring about a drone free Wales.

Thanks for listening, I'm happy to take questions and take part in debate.