Tuesday’s panels at the CCW meeting on lethal autonomous weapon systems (LAWS) focused on definitional issues. Many delegations declared that clear definitions of autonomous weapons and meaningful human control are necessary to move forward. Yet many of these same delegations seemed to draw such definitions away from practical approaches, perhaps seeking to define autonomous weapons in a way so futuristic as to be implausible and never to affect any weapon developments they might contemplate. This discussion largely avoided the uncomfortable fact that when we talk about autonomous weapons we are talking about the development of new ways to kill each other—ways that ultimately reduce our own involvement as human beings in that killing. With autonomous weapons, we would abdicate responsibility and accountability for killing by removing our moral agency from that killing, setting the stage for a range of highly problematic challenges to law, ethics, and morality.

Consequences of how we kill

As WILPF noted in its statement on Tuesday, the tools we use to commit violence can determine the form of that violence. Some weapons facilitate certain attacks that might otherwise be impossible. In addition, the choice of what we use to kill each other, how we kill each other, has meaning in itself. These choices are affected by and affect our social relations. When it comes to autonomous weapons, the key factor is about delegating the function and responsibility of targeting, attacking, and killing to machines. What might this permit or result in that other weapons might not? How might this affect our social relations?

The use of weapons operating without meaningful human control—without a human being substantively involved in the selection of targets for and making legal judgements on each individual attack—could lead to the expansion of the concept of an attack, as noted by Richard Moyes of Article 36 in his presentation to the meeting. It could lead to the expansion of the battlefield as armed drones already have done. It could lead to the targeting, death, or injury of people without due process or feasible precautions.

In terms of social relations, autonomous weapons would undermine equality and justice between countries and people. The features that might make autonomous weapons “attractive” to higher income, technologically advanced countries looking to preserve the lives of their soldiers push the burden of risk onto the rest of the world. As with armed drones, the deployment of autonomous weapons would not likely, in any near future, result in an epic battle of robots, where machines fight machines. They would be unleashed upon populations that might not have defences against them, that might not be able to detect their imminent attack, and that might have no equivalent means with which to fight back. They would be weapons of power, dominance, inequality, and othering.

Autonomous weapons would complete the separation of the body and mind from the battlefield and the process of dehumanisation of warfare. Algorithms would replace violent masculinities to create some kind of perfect killing machine. Turning men and women into warfighters has tended to require breaking down their sense of ethics and morals and building up a violent masculinity that is lacking in empathy and glorifies as strength a violent physical domination over others who are portrayed as weaker. Autonomous weapons would be the pinnacle of a fighting force stripped of the empathy, conscience, or emotion that might hold a human soldier back.
Editorial, continued

Defining our instruments of killing

These consequences of autonomous weapons and autonomous warfare provide a backdrop to the issue of defining these weapons and our control over them. But like much else in the world, definitions are about politics and power. Some states appear to wish to define away autonomous weapons, treating them as systems that might never exist while they pursue the technologies that exactly fit the conception of a weapon operating without meaningful human control.

As presenter Wendell Wallach of the Yale Interdisciplinary Center for Bioethics argued, it seems like some delegations are making the matter of definitions more complex and problematic than it actually is. After three years of discussions on autonomous weapons, studies by UN agencies, non-governmental organisations, international organisations, and states themselves, as well as examples of semi-autonomous systems already in operation, we have a very clear picture of what a lethal autonomous weapon system would be. As Mr. Moyes said in his presentation, a basic working definition could be “weapon systems with elements of autonomy operating without meaningful human control.”

When it comes to meaningful human control, an equally clear definition presents itself. Mr. Moyes outlined four key elements required for meaningful human control:

1) Predictable, reliable, transparent technology;
2) Accurate information for users on the outcome sought, the technology, and context of use;
3) Timely human judgment and action, and potential for timely intervention; and
4) Accountability to a certain standard.

As Article 36’s paper for the session points out, “Whilst consideration of these key elements does not provide immediate answers regarding the form of control that should be considered sufficient or necessary, it provides a framework within which certain normative understandings should start to be articulated, which is vital to an effective response to the challenge posed by autonomous weapons systems.”

A few states have different approaches. The United States defines LAWS as weapon systems that, “once activated, can select and engage targets without further intervention by a human operator,” but which “is designed to allow commanders and operators to exercise appropriate levels of human judgment over the use of force.” It is not clear where it thinks the boundaries would lie in terms of the necessary levels of human judgement for an individual attack to be permissible. The US argued there is no “one size fits all” standard for human control and that “flexible policy standards” are necessary.

This approach raises some serious concerns about flexibility, lack of common standards, and whether or not any control will be applied over individual attacks. These concerns are critical to understanding what it is that states are limited by in terms of their deployment of weapon systems that have the risks and consequences outlined in this article, in presentations of experts, and in many studies and papers over the years.

Switzerland has suggested another approach, which focuses on tasks rather than control. It describes LAWS as “weapons systems that are capable of carrying out tasks governed by IHL [international humanitarian law] in partial or full replacement of a human in the use of force, notably in the targeting cycle.” The Swiss delegation argues that it is premature to draw a line between acceptable and unacceptable systems.

This definition sets up a broad category for consideration of weapon systems that might include existing systems. The approach also emphasises that the term lethal should not be used to limit discussion to anti-personnel systems. This approach is not incompatible with an emerging picture at the CCW in which the requirement for meaningful human control would represent the boundary between a permissible weapon system and one that would be unacceptable. This emerging understanding of LAWS or fully autonomous weapon systems as weapons operating without meaningful human control has potential to greatly simplify debate in the future.

The bottom line

As Article 36 argued in its statement on Tuesday, “ensuring human control over individual attacks—and specifically delineating what is necessary in this regard—is a basic requirement if we are to uphold the structure and effectiveness of IHL as it stands.” Autonomy in weapon systems “poses a fundamental challenge to the body of law that human societies have set out to restrain the use of violent force based on the principle of humanity.” In our work here at the CCW, we have “a choice to recognize and respond to this challenge or to abandon the law as it stands.”

When we talk about autonomous weapons we must acknowledge the broader, moral and ethical concerns; the consequences for war and society of developing weapons that delegate life and death to machines; and the choices we have in preventing a future in which we have abandoned the principles and laws of humanity in favour of mechanised, de-humanised violence.
EVENT: HOW TO DEFINE AUTONOMY

Erin Hunt | Mines Action Canada

This event attempted to take stock of where the international discussion is at in regards to the work on autonomous weapon systems. The Chair, Dr. Frank Sauer of the International Committee for Robot Arms Control and Bundeswehr University Munich, started the discussion by recognising that autonomy has been a cornerstone of the lethal autonomous weapon systems (LAWS) talks at the Convention on Conventional Weapons.

The first speaker, Professor Lucy Suchman from International Committee for Robot Arms Control and Lancaster University, expanded on her comments made earlier in the morning in plenary. She began with distinguishing human autonomy from machine autonomy. Human autonomy presupposes broad and open-ended competencies, which translates to situational awareness in military parlance. Prof. Suchman argued that even if autonomy is narrowed down to distinction it is still too complex for machine autonomy. Machine autonomy needs specific conditions for action set in advance and there is no definition of non-combatant that could be used to create an algorithm for distinction. Prof. Suchman also outlined the distinction between autonomy and automatic. She also discussed how arguments ensuring reliability in the automation of nuclear weapon systems apply to lethal autonomous weapon systems, namely the impossibility of assuring reliability under actual conditions of use. For Prof. Suchman the defining question is whether discrimination capabilities can be programmed into weapons systems reliably.

Dr. Marcel Dickow from the German Institute for International and Security Affairs spoke next and introduced the Multidimensional Autonomy Risk Assessment in Weapons Systems (MARA) research project. MARA started with questions of what is autonomy and what are its implications. Dr. Dickow stated that MARA was not an attempt to create a general definition of LAWS but to create an instrument to facilitate testing definitions and enhance scientific exchange. The project looked at risks related to international humanitarian law, international stability, and ethics. Dr. Dickow outlined the five categories on types of risk used in MARA: physical characteristics, armament, information processing or situational awareness, human relevance, and exposition (risk of hacking).

The third speaker, Kelley Sayler of the Center for New American Security, shared the results of the organisation’s Defining Autonomy project. Ms. Sayler outlined three conceptions of autonomy found in the discussion around autonomous weapon systems. The first conception concerned the command and control relationship between humans and machines; the second conception focused on the level of complexity in the machine; the third conception looked at the function being automated. Ms. Sayler shared the proposed definitions of autonomy, which combine aspects of the conceptions focusing on the command and control relationship and on critical functions.

The final speaker was Steve Goose of Human Rights Watch and the Campaign to Stop Killer Robots. Mr. Goose spoke to the idea of meaningful human control. He reiterated that definitions are not a prerequisite for moving forward or starting negotiations. Definitions are usually the last to be agreed upon as they are what decides how strong the law will be and what is covered by the law. Mr. Goose shared the Campaign’s view that a prohibition on fully autonomous weapon systems and the need for meaningful human control are two sides of the same coin. He stressed that meaningful human control is needed over critical combat functions particularly targeting and engagement in individual attacks.

The following discussion was detailed, engaging a number of states as well as members of civil society. Questions focused on the application of the various understandings of autonomy presented by the speakers and on definitions.
The News in Brief is not a comprehensive summary of all statements. It highlights positions on a few critical issues covered during plenary discussions.

**General debate**

**Meaningful human control (MHC)**

- UNIDIR underlined that discussions about autonomy will center around what level of human control we want to have over tools of violence.
- The ICRC highlighted the notion of human control as the overarching issue in this debate.
- Article 36 stressed that MHC over attacks is basic requirement to uphold the structure of law as it stands.
- Mines Action Canada (MAC) cautioned that delegating death to machines has many serious implications for real world.
- WILPF argued that relinquishing meaningful human control to machines has implications for the form and nature of warfare as well as social relations, including by replacing violent masculinities with dehumanising algorithms.
- CNAS reiterated autonomy must be bounded to ensure failures do not lead to catastrophic consequences.
- Poland strongly supports the concept of meaningful human control over weapons as key to CCW discussions.

**The way ahead**

- ICRC suggested examining existing weapon systems and autonomy in their critical functions to help determine the boundaries of what is acceptable.
- AAR Japan, Article 36, Human Rights Watch (HRW), International Committee for Robot Arms Control (ICRAC), MAC, PAX, WILPF, and the Nobel Women’s Initiative called for a preemptive ban of LAWS.
- Article 36, HRW, MAC, WILPF, and Nobel Women’s Initiative called for the establishment of a GGE. HRW suggested this group meet for four weeks in 2017.
- MAC, WILPF suggested the group to have a mandate to negotiate a legally-binding instrument prohibiting lethal autonomous weapon systems.
- ICRAC stressed that a ban on LAWS would not hamper civilian applications and development of robotics.

**Towards a working definition of LAWS**

**Part One**

- Gro Nystuen reviewed existing arms control and disarmament regulations and their different approaches to definitions. She categorized these into groups of those without any definition, those that describe certain aspects or key features, those that look at the weapons effects, and those that focus on the identified use of the weapon. Sometimes references to existing rules of IHL or other international law and their provisions provide the basis for the definition. However in most cases the definition is one of the last issues to be settled during negotiations.
- Chris Jenks focused on critical functions and called on states to define what would render a weapons system unacceptable. That might not provide the solutions for the challenges of defining LAWS, however it might narrow the discussion to a manageable framework.
- Lucy Suchman reviewed autonomy as situational awareness in human computer interactions. One important military rule requires the ability of situational interpretation, of which distinction is one element. In her research she could not find empirical evidence of scientific progression of situational awareness of systems. Therefore as situational awareness is required for the adherence to the IHL principles of distinction, that raises doubts regarding the feasibility of LAWS to be adherent to IHL.
- Wendell Wallach elaborated on the concept of predictability and how it affects considerations of LAWS. There is some unpredictably inherent in LAWS, which could together with machine learning pose some challenges, as the retesting of systems that are constantly learning is impossible.
- New Zealand, Brazil, Pakistan, Ireland welcomed the compliance based approach introduced in the Swiss working paper.
- NZ cautioned against focusing on technical characteristics.
- G. Nystuen agreed and suggested looking at functions rather than technical objects for defining LAWS.
- Italy thought selection and targeting could be such critical functions.
- NZ agreed with Nystuen that it is unusual to have a detailed definition as a first step, but member states could benefit from a common working definition.
News in brief, continued

- India suggested this inclusion of a “CCW specific definition, in context of its objectives and purposes”.
- UK suggested redefining of MHC function and the operator of the system as human machine interaction, an intelligent partnership.
- UK thought it too soon to ban something that cannot be clearly defined and IHL would be sufficient.
- Canada asked what levels of risk might be acceptable for robot activities, if they would differ to that of human or human-machine action.
- L. Suchman explained that one crucial factor in discussing risk is accountability for actions. While humans are not infallible, they can be held accountable for their actions unlike machines.
- France explained that a LAWS definition should include the ability of the system to move in terrestrial or maritime surroundings autonomously, select targets and fire without human supervision, and to be able to adapt to its environment. It also noted that total autonomy, where a weapon lacks link with the human deployer, would go against the operational control of a commander.
- In responding to a question by Russia, G. Nystuen highlighted the examples of the Mine Ban Treaty and the Convention on Cluster Munitions, where the definitions in the treaties are the definitions elaborated at the last moment.
- Italy feared that a preemptive ban could hamper technological development of civilian applications of robotics.
- Italy was inclined to retain MHC as important element of the discussion of LAWS and thought HC to be a variable on a continuous scale.
- Switzerland suggested defining AWS as “weapon systems that are capable of carrying out tasks governed by IHL in partial or full replacement of a human in the use of force, notably in the targeting cycle.” Further, states should not exclusively refer to LAWS as other AWS are relevant to compliance with IHL and could pose ethical or other challenges.
- India suggested including a “CCW specific definition, in context of its objectives and purposes” to the list of definitions.
- Pakistan thought AWs should be defined as lethal and autonomous. Focusing on MHC definitions only would not appropriate.
- Japan understood fully AWS as those without MHC in crucial functions.
- Cuba reiterated that both FAWS and semi-AWS should be considered by the CCW.
- Ireland reminded participants that the CCW is a weapons-specific convention and that a working definition could be the basis for addressing LAWS or FAWS.
- L. Suchman saw a definition to be emerging around the basic idea that a weapon system’s critical functions such as the identification, selection, or engagement of targets should be under human control.

Part Two

- Anja Dahlman presented research indicators based approach to definitions, looking at autonomy and human supervision. To approach a working definition of LAWS, she suggested looking at MHC together with quantitative indicators as guidelines for the interpretation.
- Richard Moyes defined key elements of MHC to be predictable, reliable, transparent technology; accurate information for the user on the outcome sought, the technology, and context of use; timely human judgment and action as well as potential for timely intervention; and accountability to a certain standard. Without the affirmation of the need for human control, autonomy will expand the term “attack” to facilitate more use of force. Further he suggested LAWS be defined as weapon systems with elements of autonomy operating without MHC.
- Merel Ekelhof reviewed the targeting process and its different stages and highlighted that even if LAWS were to execute some critical functions, humans would still have to be involved at other stages of the process, e.g. formulate overall goals and gather intel.
- Dan Saxon elaborated on the approach of human judgment in considering a definition. In addition to looking at IHL, he also suggested reviewing situations where human rights law, in particular the use of lethal force in a law enforcement context, might be important to look at.
- Sierra Leone again was encouraged that states were no longer looking only at one particular type of weapon but at traits of weapons. With that in mind, the Ambassador cautioned that any if not all of the existing systems could, increasing their technological capabilities, could become LAWS. Sierra Leone thought that problematic functions in this context include the selection of targets and initiation of violent force.
- The UK questioned R. Moyes’ statement that autonomy would lead to the broadening concept of attack.
News in brief, continued

- In response, R. Moyes explained that while certain functions may be precise, given that autonomy is potentially linked to wider areas of operation, that might lead to conceptualising attack in a wider sense.
- The US delivered a statement on appropriate levels of human judgment and its national practices when reviewing new weapon systems. It cautioned that there is no one size fits all for human judgment as systems vary greatly.
- In responding to a question by Colombia about human fallibility, D. Saxon stressed that unlike humans, machines cannot be held accountable. Therefore, he underlined, states need to decide how much responsibility and authority they want to or not delegate to machines, e.g. for decisions in war time.
- M. Ekelhoff called for clarifications of critical functions as even a process such as target selection encompasses different tasks.
- D. Saxon warned against the use of swarm technology and asked states how far this technology should be allowed to go.

In response, R. Moyes explained that while certain functions may be precise, given that autonomy is potentially linked to wider areas of operation, that might lead to conceptualising attack in a wider sense.

A number of states have suggested that action around weapon reviews could constitute a basis for addressing the serious concerns raised by lethal autonomous weapon systems (LAWS). Attention to improving and widening the implementation of national-level legal reviews of new weapons, means, and methods of warfare under the framework of article 36 of Additional Protocol I to the Geneva Conventions, and states’ sharing of their procedures as several have proposed, is welcome and necessary. More prominence should be given to weapon reviews in national and international discussion on the relationship between society, technology, and violence. Nevertheless, weapon reviews are fundamentally insufficient to deal with LAWS for a number of reasons.

In a briefing paper released by Article 36 for this week’s discussions at the CCW (available at http://bit.ly/A36-CCW), we emphasise that multilateral agreement is essential in this area in order to provide clear boundaries for all states on technologies and practices that would fundamentally alter the use of force. Given their global implications, and the serious concerns expressed about them by states, international organisations, and civil society, decisions on the development of LAWS must not reside solely with states considering their acquisition—as an approach relying on weapon reviews ultimately would do.

Without international rules on the boundaries of what is acceptable in relation to human control and autonomy in the critical functions of weapon systems, national reviews constitute an inadequate response to LAWS: narrow interpretations and inconsistent outcomes of reviews across states, of which there is a high risk in this context, could lead to the introduction of unacceptable technologies. There is a lack of evidence that national weapon reviews have prevented the adoption of problematic weapon systems in the past.

The challenge of LAWS relates to the unprecedented shift in human control over the use of force that they would facilitate, rather than to specific weapon systems. National reviews may be too narrowly conceived in current practice to address the broad concerns raised by LAWS, including ethical, political, and legal issues beyond international humanitarian law. The lack of a multidisciplinary approach in many known national review procedures also means that the necessary expertise to understand and assess highly complex technical systems may not be present. More fundamentally, it would be inappropriate to delegate these far-reaching decisions away from multilateral discussions on to weapon reviewers. The CCW exists in recognition that national reviews will not always be sufficient to address specific concerns—this is why LAWS are on its agenda.

At 13.00 today in Conference Room XXIV, the Campaign to Stop Killer Robots is hosting a side event on ‘Transparency is Not Enough: Why a Preemptive Ban is Needed Now’, moderated by Ray Acheson of Reaching Critical Will. It will explore why measures short of a legally-binding instrument are insufficient to meet the challenges posed by LAWS. Thomas Nash will be discussing Article 36’s paper on weapon reviews and LAWS, as part of a panel with Miriam Struyk of PAX and Professor Peter Asaro of the International Committee for Robot Arms Control.

### CALENDAR OF EVENTS

<table>
<thead>
<tr>
<th>When</th>
<th>What</th>
<th>Where</th>
<th>Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-13:00</td>
<td>Challenges to IHL</td>
<td>Conference Room XVIII</td>
<td></td>
</tr>
<tr>
<td>13:10-14:50</td>
<td>Transparency is Not Enough</td>
<td>Conference Room XXIV</td>
<td>Campaign to Stop Killer Robots</td>
</tr>
<tr>
<td>15:00-18:00</td>
<td>Challenges to IHL</td>
<td>Conference Room XVIII</td>
<td></td>
</tr>
</tbody>
</table>
EVENT: PRIVATE SECTOR PERSPECTIVES ON THE DEVELOPMENT OF LAWS
Thomas Nash | Article 36

Germany and the World Economic Forum hosted a side event on private sector perspectives on the development of lethal autonomous weapons on Tuesday. Ambassador Biontino of Germany, chair of the expert meeting on autonomous weapons, introduced the event by suggesting that as technology develops in the civilian sphere influences military technology it is important to get perspectives from the private sector in this area. In his introductory remarks, Espen Barth Eide, who was a Minister of Defence and of Foreign Affairs in Norway and is Head of Geopolitical Affairs with the World Economic Forum, referred to this notion as a shift from ‘spin off’ to ‘spin in’. That is to say that rather than military technology developments having civilian applications, today civilian technology developments are leading to military applications. With developments happening at such a fast pace, new technologies are starting to combine in ways that cannot be envisaged, he said. This will continue in ways that go beyond any meaningful attempt to regulate it and so discussions on a regulatory framework will need to involve the private sector in order to be effective. This is the purpose of the World Economic Forum’s engagement in this field.

Andrew Fursman, CEO of 1QBit, began his presentation with the point that technology progresses faster than the regulatory frameworks can keep up. He stressed that autonomous weapons are a proximate, rather than a far off development. Looking at existing developments such as binary classifiers that could categorise people as enemy combatant or not, there could be combinations of technological developments that lead to autonomous weapons with no predictability, meaningful human control, or human judgment. As he put it: “This is not a conversation about what might be possible in the future for a handful of advanced wealthy nations, it’s about what any one with $20,000 and the internet could do if they are motivated over the course of a few weeks.”

David Hyunchul Shim of the Korea Advanced Institute of Science and Technology provided some remarks relating to the use of autonomous functions in robots outside the military sphere. A helicopter developed out of concern that pilots may be irradiated while trying to douse the fires at the Fukushima nuclear power plant could have military applications in transport vehicles, he said. Much technology already incorporates automatic or autonomous functions, he said, recalling a recent incident in which he was driving his car and it stopped itself, when he was checking messages on his watch, saving his life.

Paul Scharre of the Center for a New American Security reflected on the dynamics between traditional defence companies and commercial companies, noting that unlike the 1960s, many of the basic developments in technology today come from the commercial rather than military sector. Apple, for example, has enough cash to buy half of all US defence companies today, he said. At the same time, there is still a lot of defence funding from DARPA or the Office of Naval Research to seed advanced research aimed at solving very difficult problems in robotics and computing. While technology companies may undertake projects in this area, they do not necessarily lead to military acquisitions and in some cases lead in fact to commercial applications. In any case, there is a need to understand where technology is going so that any regulation developed doesn’t hamper legitimate development.

Anya Kaspersen, Head of International Security at the World Economic Forum, introduced her work as examining the dark side of the fourth industrial revolution. The discussions in their project have gathered technology companies, social entrepreneurs, academics, government officials—many of whom had never met each other—to engage in a multi-stakeholder conversation. The weaponisation of cognitive computing is a $20b industry in 40 different countries, she noted, suggesting that this is very much a significant consideration in the private sector. The lack of a common platform, never mind a definition, has hampered collective discussions on the theme, though, with no common narrative at this point for what the problem is. Kaspersen noted that the role of the private sector may have been overlooked so far, sharing the experience of the prohibition on chemical weapons, in which private sector involvement helped advance the agenda, including in relation to implementation.

Reflecting on these presentations, Ambassador Biontino noted some key points from his perspective including that there is generally a civilian lead in developments driving towards autonomous weapons and that separate technological developments might lead to the emergence of autonomous systems in unpredictable ways. Biontino considered that the private sector might seek to apply ethical responsibility itself, without waiting for government regulation, by adopting standards of development in autonomous systems.

In the discussion that followed, participants from states, international organisations, and NGOs raised questions about: the unpredictability of the effects of technology as it develops; the way in which the private sector would react to an international regulation of autonomous weapons; and how a regulatory framework based on the requirement for meaningful human control (rather than specific technological parameters) might avoid the problems posed by rapidly developing technology and the perception that non-military aspects of technology might be hampered by such regulation.
The Campaign to Stop Killer Robots is pleased to invite you to a

**SIDE EVENT**

in the margins of the Convention on Conventional Weapons on

*Transparency is Not Enough*  
*Why a Preemptive Ban is Needed Now*

**Wednesday, 13 April 2016**  
13:00-14:30

Conference Room XXIV  
UN Palais des Nations, Geneva

*Sandwiches and refreshments will be provided*

Featuring:
- Mr. Thomas Nash, *Article 36*
- Ms. Miriam Struyk, *PAX*
- Prof. Peter Asaro, *International Committee for Robot Arms Control*

Moderated by Ms. Ray Acheson, *WILPF Reaching Critical Will*

This briefing will look at why initiatives that fall short of a legally-binding instrument, such as transparency measures and Article 36 weapons reviews represent an insufficient response to the challenges raised by fully autonomous weapons.

No RSVP required. For more information, please see: [www.stopkillerrobots.org](http://www.stopkillerrobots.org) or contact Ms. Mary Wareham at: Tel. (646) 203-8292, [wareham@hrw.org](mailto:wareham@hrw.org)