# HOWE AND HOWE TECHNOLOGIES:

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2015-2016

# HOWE AND HOWE RESUME AND ASSOCIATES

Proven track record with the following Organizations and Government Officials:

- **Senator Collins (ME)**
- **Senator Snowe (ME)**
- **Senator King (ME)**
- **Chief R. David Paulison (Former FEMA Director)**
- **Massachusetts Fire Academy**
- **Portland International Jet Port**
- **Paramount Pictures**
- **Warner Bros**
- **Discovery Channel**
- **Military Channel**
- **Science Channel**
- **NBC**
- **US ARMY RDECOM**
- **US ARMY ARDEC**
- **US ARMY CERDEC**
- **JIEDDO**
- **PM Assured Mobility Systems**
- **PM IED-Defeat**
- **US Army TARDEC**
- **US Army Test and Evaluation Command**
- **Air Force Research Lab**
- **Universal Pictures**
- **Mattel**

# HOWE AND HOWE TECHNOLOGIES

## HH Abbreviated History

In 2003 and post 911, while working full time (Geoff – Plant Manager, Mike – Financial Advisor), the twins decided they would try and do their part and help the US military fight terrorism. Ripsaw was first transformed into a remote control platform and consequently turned fully automated with GPS and obstacle avoidance capabilities. Team Ripsaw with no financial backer and very limited resources was entered into the DARPA Grand Challenge where it ranked 41st out of approximately 167 teams. Ripsaw became one of three teams that were invited to the DC Auto Show to showcase its technology. This exposure eventually lead to multimillion dollar contracts with the US Army, ARDEC and JIEDO for full size and midsize IED defeat robotic platforms. Ripsaw MS1 was named "Invention of the Year 2009" by Popular Science Magazine and acquired its highly acclaimed front cover.

At this time the twins also starred in their own reality show "Howe and Howe Tech - Howe and Howe Tech Black Ops Brothers" and broke the Discovery Channel viewership premier record. This record remained unbroken until reality hit "Gold Rush". In May of 2009, Senator Snowe formed a letter of Congressional Recognition for Howe and Howe Technologies which was read to President Obama upon the Senate floor. In 2010 Howe and Howe Technologies landed in the Guinness Book of World Records for world's smallest tank. From 2010-2012 Howe and Howe Technologies primed full-size unmanned ground vehicle robotic IED defeat US Army contract "Red Shirt". From 2012-2013, Howe and Howe Technologies primed mid-sized walk behind robotic IED defeat US Army contract "Pointman". In 2012, Ripsaw was named the official "Joe Tank" and starred in Paramount's hit Hollywood movie "G.I. Joe Relation".

In 2013 Howe and Howe Tech was awarded 6 patents for the Ripsaw suspension design. From 2013 to current, Howe and Howe Tech is priming mid-sized UGV weaponization US Army contract "Ramp". In 2015, Ripsaw EV1 appears in Mad Max's blockbuster Fury Road as the only high speed tracked vehicle platform. Since its inception in 2006, Howe and Howe Technologies Inc. has grossed over 16 million dollars and been instrumental in acquiring over 40 million dollars for research entities such as ARDEC and TARDEC. Throughout the years Howe and Howe Tech has clearly made a fantastic name for itself but the real value to any future UGV program rests firmly within the brothers themselves. From working 100 hours a week to their extreme competitiveness that proved invaluable when testing next to Lockheed and GD robots at Aberdeen, Mike and Geoff Howe have always overachieved and plan to never stop.

Discovery CHANNEL

Sc science channel

MILITARY CHANNEL™



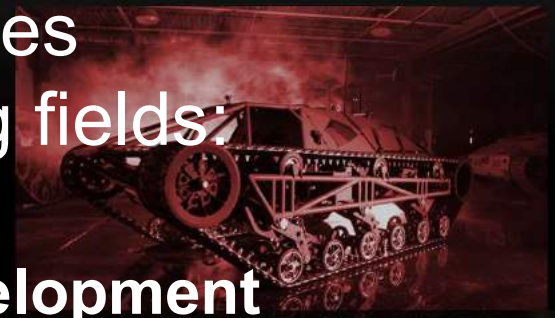

# HOWE AND HOWE TECHNOLOGIES: MISSION

To provide an innovative, outside the box approach to design and fabrication and to deliver unparalleled products and services unmatched by industry competitors.

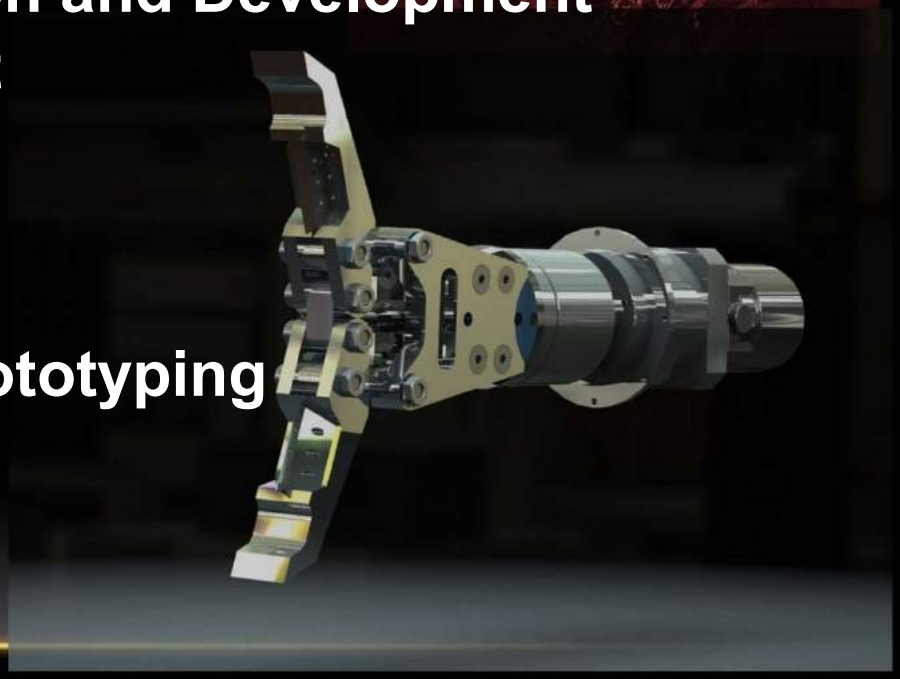
The Howe and Howe Technologies Team strives to provide the world's most capable vehicle platforms and reliable service/support to it's clients. By utilizing state of the art engineering tools, certified materials and MILSPEC components, Howe and Howe Tech provides rapid delivery of custom vehicles, robotic platforms and fabricated goods that not only meet, but exceed all expectations.

# HOWE AND HOWE TECHNOLOGIES: CORE COMPETENCIES

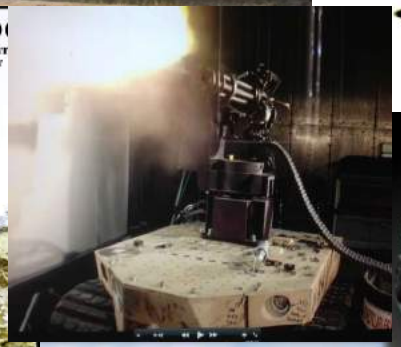
Howe and Howe Technologies provides products and services in the following fields:



- **World Class UGV Production and Development**
- **Research and Development**
- **Design Services**
- **Engineering Services**
- **Fabrication Services**
- **Rapid Development and Prototyping**



# AN EVOLUTION OF INNOVATION



# ROBOTICS/UGV IN THE MILITARY/GOV. THEN, NOW AND TOMORROW

The following statements are professional opinions from the Howe and Howe Technologies Company. These opinions are based on situational facts, professional undisclosed statements, professional contacts, general UGV insider knowledge and professional foresight.

-Military UAV technology has been around for nearly a generation. UGV technology in the Military on the other hand is new and only been in true development for about 10 years. The real start for UGV technology was kicked off by the DARPA Grand Challenge 2004. While some smaller programs may have started before hand (SWORD SYSTEM), it was the DARPA Grand Challenge that pushed the need to further this technology in the Military. Howe and Howe Technologies has been involved with UGV technology since the beginning when they entered The DARPA Grand Challenge 2005.

-UGV technology has had a great start from 2004-2009. Many DOD departments from all levels were investing considerable R&D capital into all sorts of platforms, designs and requirements. Howe and Howe did very well in these initial years. They provided the Ripsaw platform in the MS series (full-size) configuration to ARDEC, TARDEC, JIEDDO and RDECOM. Configurations included, weaponization, IED Defeat and “lighten the load”.

-Initially the DOD sought weaponization, but with public pushback (primarily garnered from the UAV Weaponization/Preditor), most departments looked into breaking into the market with “Less Than Lethal” technology. This technology morphed into IED defeat, “Lighten the load”, and Recon based systems.

# ROBOTICS/UGV IN THE MILITARY/GOV. THEN, NOW AND TOMORROW

-Like the weaponization trend, true autonomy was cut short initially as well. Many labs and R&D firms tried integrated autonomy before the technology was ready, but moreover before the public was ready. This caused the DOD to require unmanned technology with “Man in the loop” and lessen the need for a truly autonomous robotic solution. These remote systems have tested well to date and has provided the Military with very viable systems. To this day, most autonomy efforts are still in R&D phase and not ready for real integration into the ranks of Military technology as a field-able system. It is estimated that a true autonomous robotic solution is still many years out. Some say 10 or more years. Howe and Howe has developed autonomous systems (DAPRA 2005), but understanding the real needs of the DOD Howe and howe focused primarily on the platform. Howe and Howe is interested in producing technology **TODAY** and focus on “field-able technology”. H&H has found that funding is in technology that can be fielded today or tomorrow, not technology that can be hypothetically fielded 2020. Note: When an autonomy package in tested and certified for fielding, all of HH platforms can be autonomous with a simple integration effort.

-From 2009-2013 UGV R&D efforts took their largest hit. Compiled with the draw down of the two wars, a new Administration, DOD cuts, and Sequestration many UGV Companies disappeared and great technology and institutional knowledge were lost or shelved. However, Howe and Howe was not only able to survive, but also produce the world’s most affective UGV technology called the “RS-1” Series, or Robotic Solution-1. This solution is mid-sized. Large enough to manipulate and tow, but small enough to fit into the rear of a pickup truck bed. The RS1 was also specifically designed to become the world’s first robotic modular system. Simply put, the base systems are all the same, but it is designed so any type of apparatus can be fitted to the unit. This provides the end user with a robotic solution that can be a fire fighter, assault system, ballistic shield, recon and any other system you can think of that fits the base requirements of the RS-1 Base.

# ROBOTICS/UGV IN THE MILITARY/GOV. THEN, NOW AND TOMORROW

-2014-Current has seen a huge shift in the re-engagement of UGV technology in the Military. With new wars possibly emerging, a new Administration to take affect 2016 and the proof that the UAV technology is affective, the DOD is starting to look for real UGV solutions again. Only this time they are looking for field-able solutions that have been through years of testing and integration. The DOD looks to field these new systems at an unprecedented rate. UGV technology is coming and it is coming quickly. HH has been and is ready now! With the tested and quantifiable background for all systems, to the world wide name recognition, HH is poised to take the leading role in the new Military UGV programs.

-The NIE is a large scale, live fire (blanks) T&E that is being conducted Summer/Fall of 2015. It has been stated (but not officially) that the NIE will be the location that the DOD looks for their next UGV technology. It has also been stated (but not officially) that if tech is not seen in the NIE it is a very good chance that unseen tech will not be a "player" in the near future.

-Bottom line: UGV technology will play a large role in the near future in the U.S. DOD. There will be billions spent in the next 5-10 years to field the next generation UGV (Mechanized Assisted War-fighter). A few companies have been preparing for this eventuality.

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

Howe and Howe has been designing, fabricating and testing elite UGV technology for nearly a decade. This testing and evaluation cost roughly 20-30 million dollars, solely monetized by the US Defense Department. This extensive/founding database has positioned Howe and Howe as one of the foremost leaders in current UGV technology. These include, IDRs, FDRs, TDPs, SARs, and DVTs generated by the US DOD, other Gov. Agencies and H&H. What follows is a very high-level and general R&D/T&E description. These slides only depict major R&D/T&E efforts. Many smaller (but just as important) efforts are left out of this presentation. A few of these R&D efforts may not have official reports, but HH has gained a vast amount of institutional knowledge i.e., (The Peacemaker and G.I Joe Ripsaws) for example. Detailed reports for all other R&D/T&E are housed at HH, ARDEC, TARDEC, RDECOM and JIEDDO.

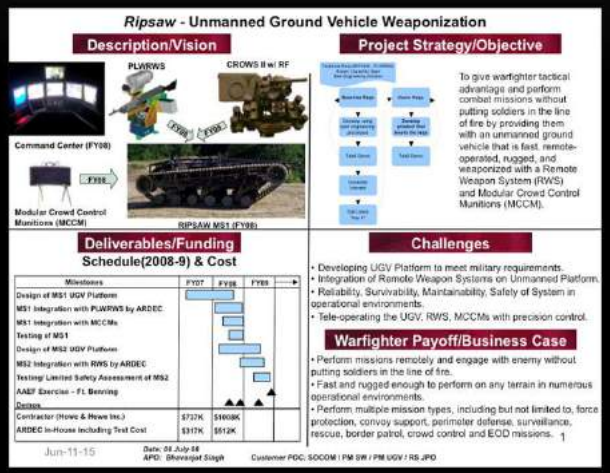
Important Note: Many H&H, MS and RS series units have have been purchased outright by the DOD. The DOD currently tests and utilizes these platforms for many other programs that H&H does not have knowledge of or data rights to.

## High-Level Program DOD R&D/T&E

Slide 12-16 -2006-2009 Ripsaw MS1 “UGV Weaponization” (ARDEC SOCOM)
17-23 -2008-2011 Ripsaw MS2 “UGV Weaponization” (ARDEC, RDECOM, Aberdeen)
24-32 -2010-2012 Ripsaw MS4 “RED SHIRT” (ARDEC JIEDDO)
33-35 -2010-2011 Ripsaw, EV1 (PeaceMaker) “Mad Max Fury Road”, Paramount Pictures
36-39 -2010-2013 Riptide (HH Funded)
40-42 -2011-2012 Ripsaw, EV1 “G.I. Joe Retaliation” (Hero Vehicle), Warner Brothers
43-46 -2012-Current Ripsaw MS3 Weaponization “RAMP” (ARDEC)
47-51 -2012-Current RS1 Thermite (HH Funded, DHS T&E), In Production World Wide
52-59 -2012-Current RS1 D2 Disruptor “POINTMAN” (JIEDDO ARDEC TARDEC)
60-63 -2013-Current RS1 G2 Gremlin ‘NIE” T&E (ARDEC, TARDEC, ARMY High Command)
64-70 -2013- Current RS-1 SWATBOT (HH Funded, DHS Safety Cert)
71-72 -2013-Current Ripchair, (HH Funded, T&E), In Production World Wide (Philanthropy)
73-74 -2015-Current Ripsaw EV2, (HH Funded, T&E), In Production World Wide

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

## Ripsaw MS1 Unmanned (2006-2009)




Ripsaw MS1 R&D/T&E
-2008 Senator Collins/RDECOM
-2008 SOCOM
-2008 ARDEC
-2009 ARDEC (Dragon Tail)
-2009-2010 Aberdeen First Full-size UGV Safety Testing
VTI/SAR

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2008 Senator Collins/SOCOM Demo

-2008 ARDEC T/E

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2008 ARDEC Orlando Science Conference / FOX News
Vice Chief Army General Chiarelli
-2009 Ripsaw MS1 Popular Science, Invention of the year


# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2009 ARDEC Dragon Tail T&E

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2009 Ripsaw MS1 ARDEC Aberdeen SAR, DVT, EMI

Ripsaw MS1 successfully climbed 60% Grade Slope

Ripsaw MS1 successfully traversed bridge gap up to 49"

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

## Ripsaw MS2 Unmanned (2008-2011)

Ripsaw MS2 R&D/T&E
-2008 R&D ARDEC
-2009 Ft Hood “Robotics Rodeo” ARDEC, RDECOM
-2009 “Prelude to the Dream” Accession Command, ARDEC
-2010 “All American Bowl” Host/Demo Accession Command, ARDEC
-2010 SAR DVT Aberdeen, ARDEC
-2010 Sparks Roller Integration, DTV, General Oates, ARDEC

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2009 Ripsaw MS1/MS2 Ft Hood “Robotics Rodeo” T&E  General Lynch

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2009 Ripsaw MS2 MS1 “All-American Bowl” Driven by General Justice



# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2009 Ripsaw MS2 Aberdeen T&E, SAR, EMI

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

Ripsaw MS2

-2010 Ripsaw MS2 “Prelude To The Dream
driven by Darrel Waltrip, Tony Stewart


# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2010 Ripsaw MS1/MS2 ARDEC Aberdeen, Rocket/Smoke T&E

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2010 Ripsaw MS2 Sparks Roller ARDEC T&E, General Oates Commissions the MS4 Fleet IED Defeat,  JIEDDO, RDECOM

Picatinny Arsenal

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Highlights

Date: October 13, 2010

**Firepower Conference addresses IED defeat concerns, technologies**

*By Tracy Robillard*
*Picatinny Public Affairs*

PICATINNY ARSENAL, N.J. - Picatinny was host to a national group of engineers, first responders, and industry and defense leaders during the 35th Annual National Defense Industrial Association (NDIA) Firepower Conference here Sept. 28.

Army Lt. Gen Michael L. Oates, director of the Joint Improvised Explosive Device Defeat Organization (JIEDDO), was the keynote speaker at the conference, which focused on Combating Terrorism and Countering Improvised Explosive Devices (IEDs).

Army Lt. Gen Michael L. Oates, director of the Joint Improvised Explosive Device Defeat Organization (JIEDDO) gets a hands-on look at the Ripsaw - a remotely operated, weaponized vehicle designed to provide IED defeat capability - during his visit to Picatinny Arsenal Sept. 28. U.S. Army photo by Kristina Nicos.

Oates also toured several labs on the arsenal to view how technologies are developed here to help warfighters combat IEDs in Afghanistan.

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

**Ripsaw MS4 "RED SHIRT" Unmanned (2010-2013) Commissioned by General Oates, JIEDDO**

Ripsaw MS4 R&D/T&E
-2011 Aberdeen T&E, SAR
-2011 White Sands, T&E, EMI
-2011 Ft. Leonard Wood, ATEC, T&E
-2012 Yuma, SF Training Sparks Roller
-2012 Yakima, SF Training Parks Roller
-2012 Ft. Roberts, SF Training Sparks Roller, Wingman
-2012 Ft. Benning, Soldier Training, Sparks Roller
-2013-Current ARDEC, T&E, Training/Demo

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2011 Ripsaw MS4 Aberdeen T&E, SAR

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2011 Ripsaw MS4 White Sands T&E, EMI

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2011 Ft. Leonard Wood, ATEC, T&E Communications and Control Testing (no testing pictures available)

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2012 Yuma, SF Training Sparks Roller

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2012 Yakima, SF Training Parks Roller

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2012 Ft Roberts, SF training Sparks Roller, Wingman Op

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2012 Ft. Benning, Solider Training, Sparks Roller

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013-Current  ARDEC, T&E, Training/Demo

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

**-2010-2011 Ripsaw, EV1 (PeaceMaker) “Mad Max Fury Road”, Paramount Pictures**


Ripsaw EV1 R&D/T&E
-2010-2011 Ripsaw EV1, HH, T&E Test Facility
-2011 Ripsaw EV1, HH, Paramount On-Location In Australia For Film

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2010-2011 Ripsaw EV1, HH, T&E Test Facility (High Speed)

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2011 Ripsaw EV1, HH, Paramount On-Location In Australia For Film

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

**Riptide (Amphibious Ripsaw) 2010-2012 HH Funded and Tested**

Riptide R&D/T&E
-2010 Terrestrial Testing, HH
-2010-2011 Hydro Testing, HH
-2012 Ocean Beach Landing Testing, HH, ARDEC unofficial T&E

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2010 Terrestrial Testing, HH

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2010-2011 Hydro-Testing, HH

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2012 500 Meter Offshore Ocean Beach Landing Testing, HH, ARDEC unofficial T&E

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

**-2011-2012 Ripsaw, EV1 "G.I. Joe Retaliation" (Hero Vehicle), Warner Brothers**

Ripsaw EV1 R&D/T&E

-2011 Ripsaw EV1, HH, T&E Test Facility

-2011-2012 Ripsaw EV1, HH, Warner Brothers On-Location In New Orleans For Film

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2011 Ripsaw EV1, HH, T&E Test Facility (High speed)

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

**-2011-2012 Ripsaw EV1, HH, Warner Brothers On-Location In New Orleans For Film**

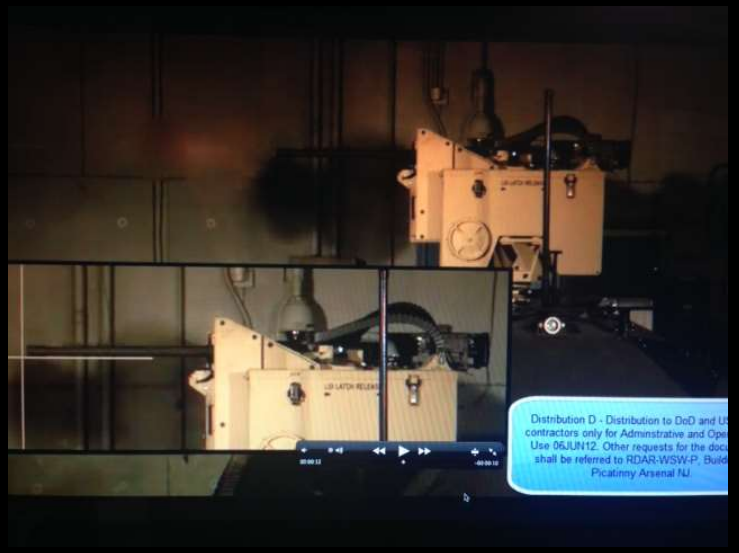
# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2012-Current, Ripsaw MS3 Weaponization “RAMP” (ARDEC)

-2013 Ripsaw MS3 Weaponized ARDEC, R&D/T&E
-2013- Ft. Dix ARDEC, TARDEC, Ft Dix “Ramp” T/E, Live Fire Unmanned *
-2013-Current, ARDEC Latest Weaponized Integration/Test/Demo Platform

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 Ripsaw MS3 Weaponized ARDEC, R&D/T&E

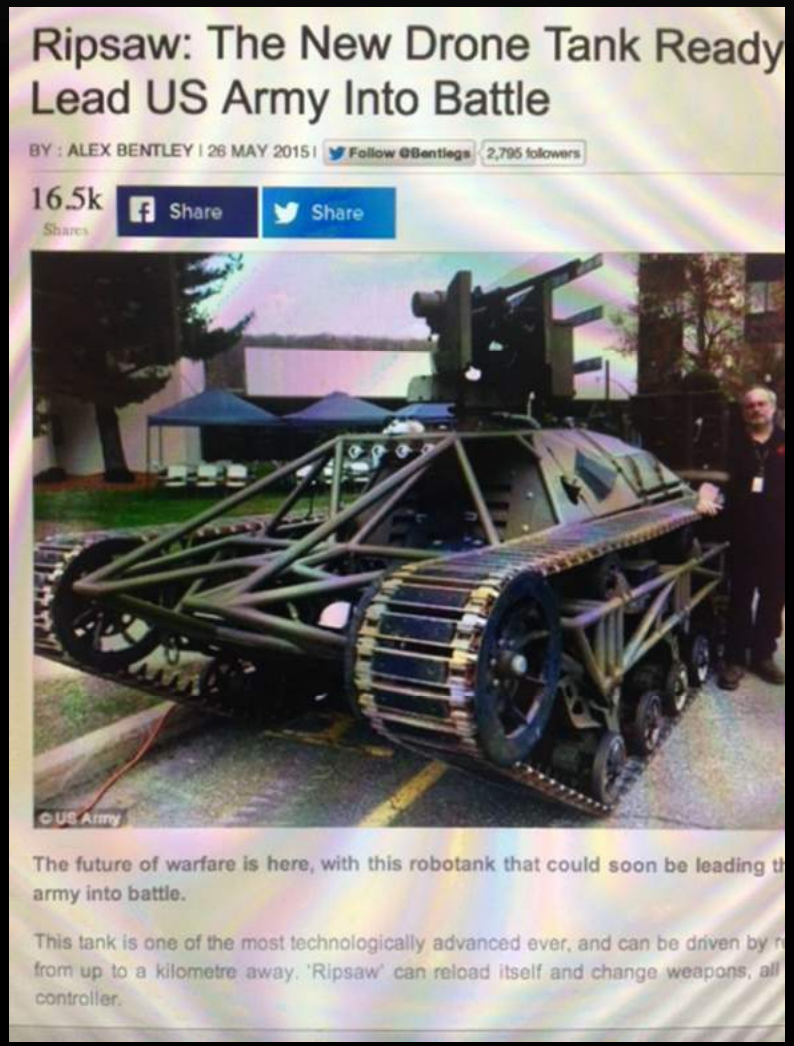



# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013- Ft Dix ARDEC, TARDEC, Ft. Dix “Ramp” T/E, Stationary & MOBILE Live Fire Unmanned * Unprecedented Live Fire Event!

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013-Current, ARDEC Latest Weaponized Integration/Test/Demo Platform



Ripsaw: The New Drone Tank Ready Lead US Army Into Battle

BY : ALEX BENTLEY | 26 MAY 2015 | Follow @Bentlegs 2,795 followers

16.5k Shares Share Share

© US Army

The future of warfare is here, with this robotank that could soon be leading th army into battle.

This tank is one of the most technologically advanced ever, and can be driven by r from up to a kilometre away. 'Ripsaw' can reload itself and change weapons, all controller.

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2012-Current RS1 Thermite (HH Funded, DHS T&E)

RS2-D2 “Disruptor” R&D/T&E

-2013 Thermite, HH, T&E

-2013 Thermite. HH, Former FEMA Director Paulison, Airport Disaster T&E, Portland Jetport

-2013-2014 Thermite, DHS, T&E

-2014-2015 Thermite, HH T&E, Production Sales International

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 Thermite, HH, T&E

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 Thermite, HH, Massachusetts Fire Academy, NSRDEC, Load

"This new innovative remote controlled firefighting vehicle has the potential to reduce firefighter injuries and fatalities. Whether tank farm fires, hazardous materials spills or radioactive incidents, this vehicle can easily go and maneuver to mitigate the incident while keeping our firefighters out of harms way."

Chief R. David Paulison, former FEMA

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 Thermite. HH, Former FEMA Director Paulison, Airport Disaster T&E, Portland Jetport

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2014-2015 Thermite, HH T&E, Production Sales International

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

**-2012-Current RS1 D2 Disruptor "POINTMAN" (JIEDDO, ARDEC, TARDEC)**

RS1-D2 "Disruptor" R&D/T&E

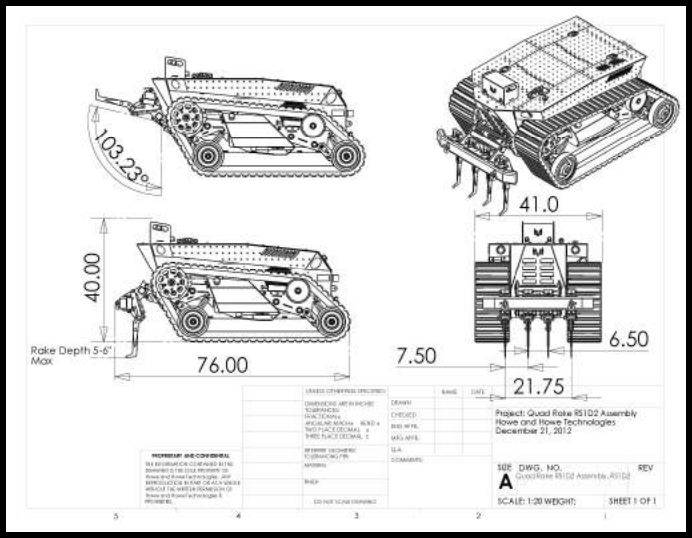
-2012 RS1-D2, ARDEC, TARDEC, T&E, DVT
-2012 RS1-D2, Aberdeen, EMI, T&E
-2013 RS1-D2, Yuma, ARDEC Mine Roller T&E, Desert/Heat
-2013 RS1-D2, Ft. Benning, ARDEC, SF training
-2013 RS1-D2, Aberdeen, ARDEC, IED Survivability
-2014 RS1-D2, ARDEC T&E, Live Fire
-2014-2015 RS1-D2, ERDEC, ARDEC, PC Roller T&E

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 RS1-D2, ARDEC, TARDEC, T&E DVT

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2012 RS1-D2, Aberdeen, EMI, T&E



# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 RS1-D2, Yuma, ARDEC Mine Roller T&E, Desert/Heat

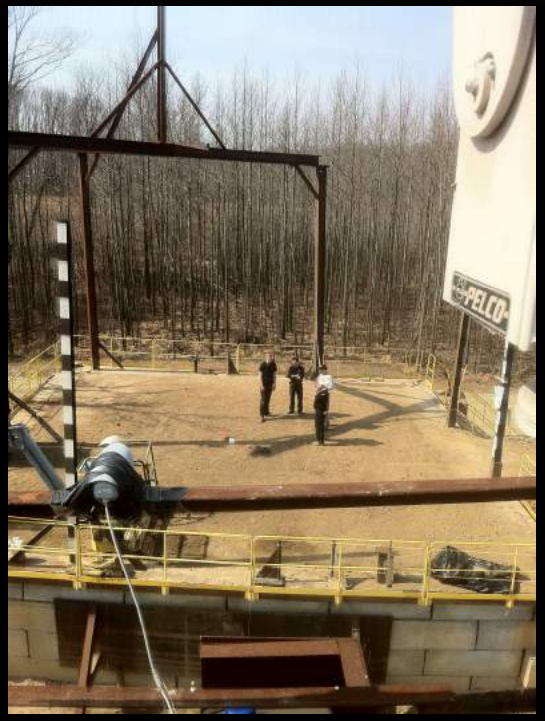
# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 RS1-D2, Ft. Benning, ARDEC, SF Training




# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 RS1-D2, Aberdeen, ARDEC, IED Survivability




# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2014 RS1-D2, ARDEC T&E, Live Fire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# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2014-2015 RS1-D2, ERDEC, ARDEC, PC Roller T&E

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

**-2013-Current RS1 G2 Gremlin 'NIE" T&E (ARDEC, TARDEC, ARMY High Command)**

RS1-D2 "Gremlin" R&D/T&E
-2013 RS1-D2, HH, ARDEC, T&E
-2014 RS1-D2, ARDEC, T&E, Live Fire
-2015 Current RS1-D2, ARDEC, TARDEC, RDECOM ARMY T&E Fall 2015 NIE *

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 RS1-D2, HH, ARDEC, T&E

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2014 RS1-D2, ARDEC, T&E, Live Fire


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# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2015-Current RS1-D2, ARDEC, TARDEC, RDECOM, ARMY, T&E Fall 2015 NIE *
(Crows RWS Integration Complete, Units ready, HH ready for FSR support)


# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

**-2013- Current RS-1 SWATBOT (HH Funded, DHS Safety Certification)**


RS1-"SWATBOT" R&D/T&E

-2013 RS1-SWATBOT, HH, Live Fire, Ballistics Testing, T&E

-2013 RS1-SWATBOT, HH, Southern Maine SRT Training

-2013 RS1-SWATBOT, HH, Portland Police, SRT, Facility Shooting Scenario, T&E

-2013 RS1-SWATBOT, HH, MA State Police, called in for Boston Bombing

-2014 RS1- SWATBOT, HH, York County EMS SRT, School Shooting Training at York High School

-2015- Current RS1-SWATBOT, HH SRT System, is 24hr "on-call" for SRT.

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 RS1-SWATBOT, HH, Live Fire, Ballistics Testing, T&E, 1000+ rounds, all caliber





# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

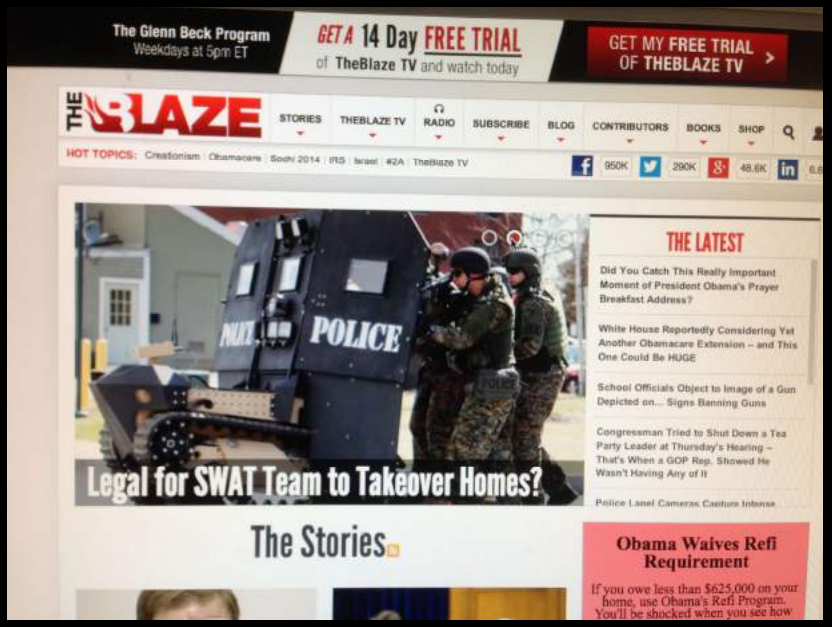
-2013 RS1-SWATBOT, HH, Southern Maine SRT Training

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013 RS1-SWATBOT, HH, Portland Police, SRT, Facility Shooting Scenario, T&E

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2014 RS1- SWATBOT, HH, York County EMS, SRT, School Shooting Scenario T&E



# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2014- Current RS1-SWATBOT, HH SRT System, is 24hr “on-call” for SRT., RS-1 SWATBOT has become Safety Certified by DHS “Anti-Terrorism by fostering Effective Technologies Act of 2002, 6 U.S.C. 441-444 (The Safety Act).” for use by any Domestic, Local, State or Federal Police Departments


U.S. DEPARTMENT OF HOMELAND SECURITY
DEVELOPMENTAL TESTING AND EVALUATION DESIGNATION
SAFETY ACT
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TM

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

**-2013-Current Ripchair, Paralyzed Persons Track Chair (HH Funded, T&E), In Production World Wide (Philanthropy)**

Ripchair 3.0- R&D/T&E
-2013-Current, Ripchair 3.0, HH, Continuous In-house T&E, Selling World Wide

# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

-2013-Current, Ripchair 3.0, HH, Continuous In-house T&E, Selling World Wide






# HH MILITARY/GOV TESTING AND EVALUATION HISTORY

**-2015-Current Ripsaw EV2, (HH Funded, T&E), In Production World Wide to High End Cliental**

Ripsaw EV2- R&D/T&E
-2014-Current, Ripsaw EV2, HH, Continuous In-house T&E, Selling World Wide

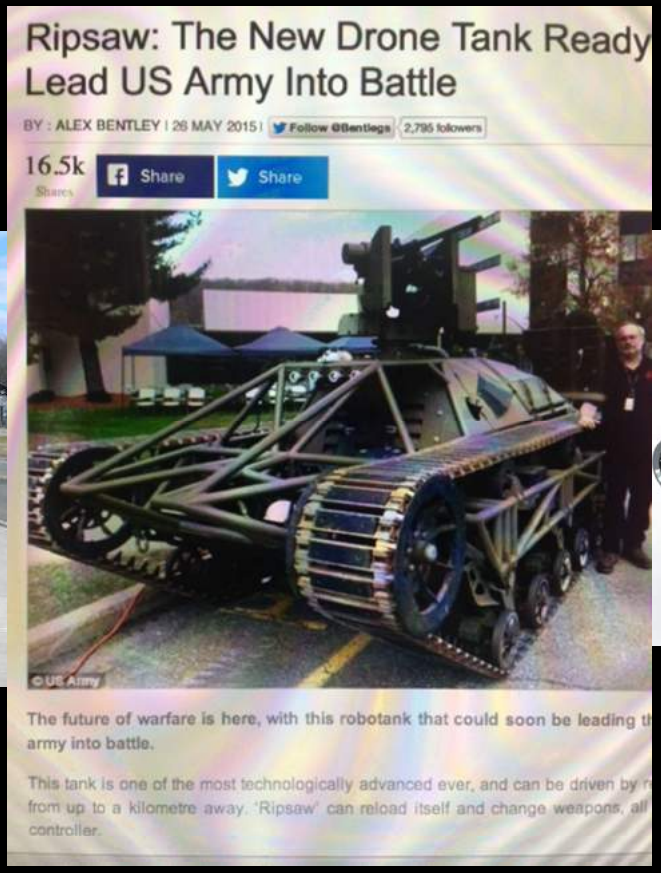
# HH MILITARY/GOV TESTING AND EVALUATION FUTURE

**-2015-Future (RS1-MS Series), HH, ARDEC, RDECOM, TARDEC, NIE T&E**

HH Future Military R&D/T&E
-2015-2016 MS3 Weaponized Platform, ARDEC, HH
-2015- 2016 RS1 “Gremlin” Weaponized, NIE, ARDEC, TARDEC, RDECOM, Big Army
-2015- 2016 RS1-Terramec “Lighten The Load”, NIE, ARDEC, TARDEC, RDECOM, Big Army
-2015-2016 RS1 “Gremlin” Super Low CG Unit (HH Funded)
-2016-2018 MS5 Development, HH Funded, Possibly Army Funded TBD)

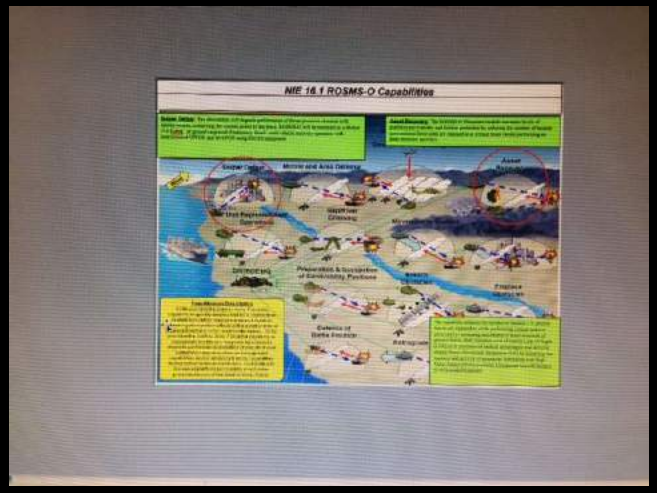
# HH MILITARY/GOV TESTING AND EVALUATION FUTURE

-2015-2016 MS3 Weaponized Platform, ARDEC, HH

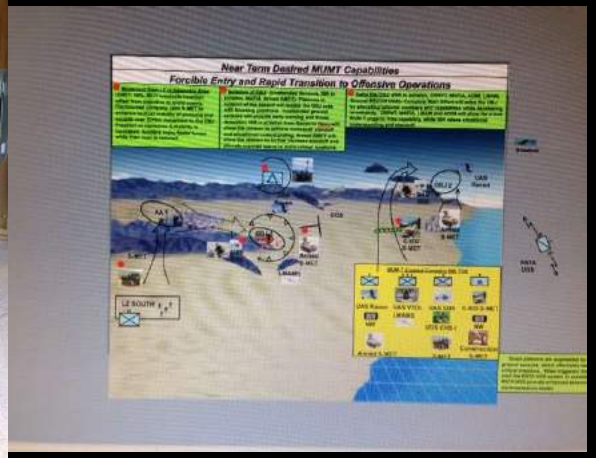

# HH MILITARY/GOV TESTING AND EVALUATION FUTURE

-2015- 2016 RS1 “Gremlin” Weaponized, NIE, ARDEC, TARDEC, RDECOM, Big Army (Ongoing Contract)



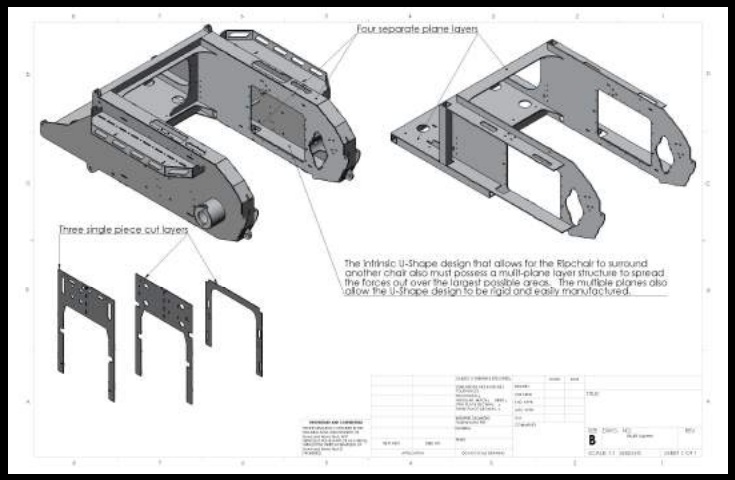
# HH MILITARY/GOV TESTING AND EVALUATION FUTURE

-2015-2016 RS1-Terramec “Lighten The Load”, NIE, ARDEC, TARDEC, RDECOM, Big Army  (Ongoing Contract)



# HH MILITARY/GOV TESTING AND EVALUATION FUTURE

-2015-2016 RS1 “Gremlin” Super Low CG Unit (HH Funded) Currently Under Development

# HH MILITARY/GOV TESTING AND EVALUATION FUTURE

-2016-2018 MS5 Development, HH Funded, Possibly Army Funded TBD)
Currently Under Development


# HOWE AND HOWE CURRENT IP/TDP/TRADEMARKS

**IP Intellectual Property of Value to Include Tech-Data Packages and Manufacturing Processes:**

1. **Ripsaw MS3**
2. **Ripsaw MS4**
3. **Ripsaw EV2**
4. **Riptide**
5. **Howe and Howe Tech High Torque Open Environment Proprietary Clutching System**
6. **Ripsaw Suspension System (6 Patents)**
7. **RS1**
    a. **Thermite**
    b. **SWATBOT**
    c. **Guardian**
    d. **Terramec**
    e. **Disruptor**
8. **RS2**
9. **Ripchair 3.0 (4 Provisional Patents Pending)**
10. **Bulldog Program**

# THANK YOU