

**NOT FOR PUBLICATION
UNTIL RELEASED BY THE
HOUSE COMMITTEE
ON ARMED SERVICES**

STATEMENT BY

BRIGADIER GENERAL JEFFREY SCHLOESSER

DIRECTOR, ARMY AVIATION TASK FORCE

OFFICE OF THE DEPUTY CHIEF OF STAFF, ARMY G-3/5/7

BEFORE THE HOUSE ARMED SERVICES COMMITTEE

TACTICAL AIR AND LAND FORCES SUBCOMMITTEE

UNITED STATES HOUSE

ON US ARMY UNMANNED AERIAL VEHICLE (UAV) PROGRAMS

09 MARCH 2005

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CHAIRMAN WELDON, MR. ABERCROMBIE AND DISTINGUISHED MEMBERS OF THE SUBCOMMITTEE, I AM PLEASED TO BE HERE TODAY TO DISCUSS THE ARMY'S PROGRESS IN OUR UNMANNED AERIAL VEHICLE, OR "UAV," PROGRAMS. I WELCOME THIS OPPORTUNITY TO TESTIFY BEFORE YOU AND APPRECIATE THE CONTINUED AND ONGOING SUPPORT AND GUIDANCE OF THIS COMMITTEE AS ARMY UAVS MATURE AND EXPAND THEIR ROLE IN ENABLING THE JOINT FORCE.

WE'VE NOW BEEN IN SUSTAINED COMBAT IN IRAQ FOR TWO YEARS THIS MONTH. SINCE MY PREDECESSOR, MAJOR GENERAL JAMES D. THURMAN, BRIEFED YOU ONE YEAR AGO THIS WEEK, THE ARMY'S UAV CAPABILITIES HAVE CONTINUED TO IMPROVE IN RESPONSE TO WAR FIGHTING REQUIREMENTS AND EMERGING TECHNOLOGIES. WE HAVE DRAMATICALLY INCREASED THE LEVEL AND SOPHISTICATION OF UAV SUPPORT TO OUR COMMANDERS IN COMBAT. ALL FOUR ARMY UAV SYSTEMS-- RAVEN,

SHADOW, HUNTER AND I-GNAT-- HAVE CONTRIBUTED TO THE GLOBAL WAR ON TERROR, LOGGING OVER THIRTY-THREE THOUSAND, FIVE HUNDRED FLIGHT HOURS IN TOTAL. OUR OPERATORS HAVE GAINED SIGNIFICANT EXPERIENCE AND ARE MORE SKILLED AND ADEPT AT THEIR PROFESSION. LIKEWISE, COMMANDERS AND STAFFS ARE MORE ATTUNED TO THE CAPABILITIES OF OUR SYSTEMS. COMMANDERS ARE FINDING UAVS MORE USEFUL, EASIER TO MANAGE AND TASK, AND UAV PRODUCTS MUCH MORE ACCESSIBLE AND UNDERSTANDABLE. THAT SAID, NOT A SINGLE COMMANDER IN IRAQ OR AFGHANISTAN WILL TELL YOU THAT HE OR SHE IS SATISFIED WITH THE AMOUNT OF AVAILABLE UAV SUPPORT. COMMANDERS AT ALL LEVELS TELL US THAT THEY NEED MORE ACCESS TO UAV CAPABILITY, FROM THE TACTICAL TO OPERATIONAL LEVEL. TO MEET THIS REQUIREMENT, THE ARMY WILL CONTINUE TO INVEST IN UAV CAPABILITIES, FOCUSING ON THE UEx OR DIVISION AND BELOW AS WE SUPPORT ONGOING OPERATIONS. SIMULTANEOUSLY, WE BELIEVE THAT UAVS WILL PLAY AN EVEN GREATER ROLE IN ENABLING LAND COMBAT IN THE FUTURE. THEREFORE, WE ARE SEEKING TO PROJECT FUTURE FORCE REQUIREMENTS AND POTENTIAL CAPABILITIES, WHILE INVESTING WISELY IN UAV PLATFORMS AND ORGANIZATIONS FOR OUR MODULAR AND FUTURE COMBAT SYSTEM- EQUIPPED FORCES OF THE FUTURE. MY FOCUS THEREFORE IS TO UPDATE YOU ON OUR CURRENT SUPPORT TO COMMANDERS IN COMBAT, AS WELL AS TO DESCRIBE OUR WAY AHEAD AS WE SEEK TO CAPITALIZE ON WHAT UAVS CAN BRING TO THE FUTURE FORCE.

WE HAVE RESPONDED TO THE RAPIDLY ADAPTING THREAT ENVIRONMENT IN IRAQ WITH INCREASED FIELDING OF MORE CAPABLE SYSTEMS AT ALL ECHELONS. FOR EXAMPLE, IN RESPONSE TO ATTACKS ON UNIT PATROLS IN THE FORM OF AMBUSHES, MORTARS, ROCKETS, AND TO ATTACKS ON THE INFRASTRUCTURE, THE ARMY FIELDED THE RAVEN SMALL UAV. THE RAVEN IS AS A BEYOND LINE OF SIGHT COLLECTION CAPABILITY EMPLOYED AT THE PATROL, PLATOON AND COMPANY LEVEL. EACH RAVEN SYSTEM IS COMPRISED OF THREE BATTERY-POWERED AIR VEHICLES AND A GROUND CONTROL STATION. THE ENTIRE SYSTEM IS CARRIED IN A RUCKSACK, AND IS CAPABLE OF BETWEEN SIXTY AND NINETY MINUTES OF FLIGHT PER AIR VEHICLE. CURRENTLY, ONE HUNDRED, SIXTY-FOUR SYSTEMS ARE IN IRAQ AND SEVEN ARE IN AFGHANISTAN, WITH MORE TRAINING AND DEPLOYING UNITS RECEIVING SYSTEMS WEEKLY.

FOR THE ARMY, AS WELL AS THE SOLDIERS AND COMMANDERS ON THE GROUND, THE RAVEN IS A SOLID SUCCESS STORY. THE RAVEN IS A RELATIVELY INEXPENSIVE AIR PLATFORM THAT PROVIDES COMMANDERS AT THE COMPANY LEVEL THE ABILITY TO SEE BLOCKS AHEAD IN A CITY, OVER ROOFTOPS OF HOUSES OR BUILDINGS AND ON THE OTHER SIDE OF A TERRAIN FEATURE. THE RAVEN AIR VEHICLE BROADCASTS VIDEO BACK TO THE CONTROL STATION AND ALSO THROUGH REMOTE VIDEO TERMINALS TO COMMAND POSTS WITHIN A TEN-KILOMETER RADIUS.

THE SYSTEM IS SIMPLE TO OPERATE. WITH UNDER TWO WEEKS OF TRAINING, A COOK, MECHANIC, ARTILLERYMAN, OR ANY DESIGNATED SOLDIER CAN LAUNCH, RECOVER AND OPERATE THE RAVEN. WE HAVE BEEN TRAINING RAVEN OPERATORS IN THEATER, PRIOR TO COMMENCING COMBAT OPERATIONS. WE ARE TRANSITIONING THIS IN-THEATER UNIT TRAINING TO TRAINING UNITS IN THE UNITED STATES PRIOR TO THEIR DEPLOYMENT. WE WILL PROCURE THIRTY SYSTEMS ABOVE THE ORIGINAL PURCHASE OF ONE HUNDRED, EIGHTY-FIVE SYSTEMS FOR UNIT TRAINING WITH THE COMBAT TRAINING CENTERS IN CALIFORNIA, LOUISIANA AND GERMANY FOR USE BY UNITS IN THEIR MISSION REHEARSAL EXERCISES PRIOR TO DEPLOYMENT. THIS YEAR, THE ARMY WILL ALSO FIELD THE RAVEN TO THREE DIVISIONS WHICH ARE PREPARING TO RETURN TO THEATER—THE 101ST AIRBORNE (AIR ASSAULT), THE 10TH INFANTRY DIVISION AND THE 4TH INFANTRY DIVISION.

OUR YOUNG SOLDIERS ARE AMAZINGLY ADEPT AT EXPLOITING THIS CAPABILITY. IN AFGHANISTAN, SOLDIERS DEPLOYED THE RAVEN WHEN THEY LEARNED OF A POSSIBLE AMBUSH ON A PARTICULARLY DANGEROUS STRETCH OF ROAD. WITHOUT ENDANGERING A SINGLE SOLDIER, THEY WERE ABLE TO OBSERVE INSURGENTS EMPLACING IMPROVISED EXPLOSIVE DEVICES FOR COMMAND DETONATION ON A PART OF THE ROAD THAT TRAVERSED A NARROW PASS. BASED ON THE RAVEN'S REAL-TIME VIDEO, THE UNIT LEADERS DETERMINED THE ENEMY POSITION WAS TOO STRONG FOR A GROUND ASSAULT AND ORDERED AN AIR STRIKE ON THE AMBUSH

SITE. IN IRAQ AS WELL, SOLDIERS FREQUENTLY FLY RAVENS IN ADVANCE OF THEIR PATROLS THROUGH AREAS WHICH ARE KNOWN FOR IED EMPLACEMENT AND AMBUSHES. THE FREQUENT RAVEN OVERFLIGHTS SEEMS TO DETER IED PLACEMENT AND ANTI-COALITION ACTIVITY. IN JUST OVER A YEAR OF SUPPORT TO OPERATION IRAQI FREEDOM, THE ARMY HAS PROGRESSED FROM TWENTY-FIVE SYSTEMS TO ONE HUNDRED SIXTY-FOUR SYSTEMS IN THEATER AND FLOWN OVER TEN THOUSAND, THREE HUNDRED THIRTY-THREE TRAINING AND MISSION SORTIES, LOGGING JUST SHORT OF FIVE THOUSAND FLIGHT HOURS.

ANOTHER SUCCESS STORY IS THE FIELDING OF THE ARMY SHADOW TACTICAL UAV SYSTEM. EACH SHADOW SYSTEM IS COMPRISED OF FOUR AIR VEHICLES, TWO GROUND CONTROL STATIONS, WITHIN A PLATOON OF TWENTY SOLDIERS AND TWO OFFICERS. OVER THE PAST YEAR, THE ARMY IMPROVED SHADOW UAV SUPPORT TO BATTALIONS, BRIGADES AND DIVISIONS THROUGH IMPROVED AIRSPACE TRAINING, UPGRADED TECHNOLOGY AND INCREASED STANDARDIZATION OF BOTH TRAINING AND OPERATIONS. TODAY, SHADOW UNITS TIED INTO Q-THIRTY-SIX COUNTER-BATTERY RADARS QUICKLY RESPOND TO INBOUND MORTARS AND ROCKETS BY FLYING OVER THE IMPACT POINT ON AN OUTBOUND AZIMUTH IN ORDER TO LOCATE THE INSURGENTS. THEIR INTEGRATION INTO GROUND OPERATIONS AND FLEXIBLE RESPONSE CAPABILITY MAKES THEM THE RECONNAISSANCE, SURVEILLANCE AND TARGETING ACQUISITION (OR RSTA)

SYSTEM OF CHOICE FOR ADDRESSING THE AREAS THAT AREN'T COVERED BY OTHER ASSETS AT THE BRIGADE LEVEL. THE ARMY CURRENTLY MAINTAINS NINE PLATOONS IN THEATER AT THE BRIGADE COMBAT TEAM LEVEL. OF THE NINE PLATOONS, EIGHT PLATOONS SUPPORT DIVISIONAL UNITS AND ONE PLATOON SUPPORTS A SPECIAL OPERATIONS TASK FORCE. THIS PROVIDES THE THEATER WITH A TOTAL OF THIRTY-SIX SHADOW AIRCRAFT AND EIGHTEEN GROUND CONTROL SYSTEMS.

THE ARMY IS SEEKING TO MAKE IMPROVEMENTS IN SHADOW TRAINING AND OPERATIONAL STANDARDIZATION. OUR ARMY AVIATION BRANCH IS APPLYING MORE AVIATION SAFETY EMPHASIS, STANDARDIZATION AND OVERSIGHT OF TRAINING, PLANNING, MAINTENANCE AND OPERATIONS INTO UAV COMMUNITY, SEEKING TO CREATE A SAFER OPERATING ENVIRONMENT FOR ALL AIRSPACE USERS. THIS LAST YEAR WITNESSED A REDUCTION IN SHADOW MAJOR AND MINOR ACCIDENTS AND THE TREND CONTINUES TO IMPROVE. THE ARMY AVIATION COMMUNITY IS ALSO APPLYING LONG-STANDING RECONNAISSANCE, SURVEILLANCE, AND TARGET ACQUISITION (RSTA) EXPERIENCE TO SHADOW OPERATIONS, AS WELL AS TO OUR OTHER UAV PLATFORMS. THE RESULT IS THAT UAVS ARE BETTER TIED INTO GROUND MANEUVER OPERATIONS, MORE AVAILABLE TO MANEUVER COMMANDERS, AND MORE SUCCESSFUL IN LOCATING AND IDENTIFYING TARGETS. TO DATE, ARMY SHADOW PLATOONS HAVE LOGGED OVER TWENTY-ONE THOUSAND TWO HUNDRED FLIGHT HOURS AND OVER FIVE

THOUSAND THREE HUNDRED SORTIES IN SUPPORT OF OPERATION IRAQI FREEDOM.

THE HUNTER UAV SYSTEM IS THE LONGEST OPERATING UAV IN THE ARMY. THE HUNTER COMPANY HAS SIX AIR VEHICLES AND FOUR GROUND CONTROL SYSTEMS AND TOTALS FORTY-THREE SOLDIERS AND FIVE OFFICERS. ARMY INNOVATIONS TO THIS SYSTEM OVER THE LAST YEAR ARE BOTH TECHNOLOGICAL AND PROCEDURAL, AND DESIGNED TO IMPROVE HUNTER CAPABILITY IN THEATER. THE ARMY PROJECT MANAGER FIELDDED EXTENDED CENTER WINGS TO BOOST FLIGHT HOURS FROM EIGHT TO TWELVE PER MISSION SORTIE, AND PROVIDED ADDITIONAL IMPROVED ELECTRO-OPTICAL/ INFRA-RED PAYLOADS, AN ADDITIONAL GROUND CONTROL STATION, ADDITIONAL GROUND SUPPORT EQUIPMENT, AN ADDITIONAL GROUND DATA TERMINAL (CONTROL ANTENNA), TWO SPARE AIR VEHICLES (FOR USE IN THEATER ONLY), MORE EFFICIENT COWLINGS AND UPGRADES TO EMPLOY THE VIPER STRIKE WEAPON SYSTEM.

ON THE PROCEDURAL SIDE, THE RECENTLY RE-DEPLOYED HUNTER COMPANY APPLIED THE IMPROVED TRAINING PROCEDURES AND STANDARDIZATION I MENTIONED WHEN DISCUSSING SHADOW, AS WELL AS ENHANCED AVIATION MAINTENANCE PROCEDURES AND THE LESSONS LEARNED FROM OIF ONE. AS A RESULT, THE COMPANY WAS THE FIRST IN UAV COMBAT SUPPORT TO MAINTAIN FULL MAINTENANCE READINESS FOR

THE ENTIRE ROTATION WITHOUT LOSING A SINGLE AIR VEHICLE OR ENGINE. AS A RESULT, THE COMPANY FLEW MORE HOURS THAN BOTH OF THE PREVIOUS COMPANIES IN OIF ONE COMBINED AND MAINTAINED LONGER AVERAGE SORTIES. THE COMPANY'S LEADERSHIP ALSO APPLIED OIF ONE RECONNAISSANCE LESSONS FROM OH-58D KOWA WARRIORS AND UNITED STATES MARINE CORPS UAVS TO THEIR AIRCREW TRAINING PLAN.

THE APPLICATION OF TRADITIONAL RSTA TECHNIQUES AND REPORTING TO DIVISION AND CORPS-LEVEL SUPPORT OPERATIONS INCREASED THE EFFECTIVENESS OF THE HUNTER SYSTEM TO GROUND COMMANDERS. FOR EXAMPLE, DURING THE PERIOD OF THE FALLUJAH UPRISING, THE HUNTER COMPANY PLACED A GROUND CONTROL SET WITH THE 2ND ARMORED CAVALRY REGIMENT (2ACR) IN NAJAF. THE DIRECT-SUPPORT HUNTER CREW, WORKING WITH THE REGIMENTAL FIRE SUPPORT CELL, DISCOVERED INSURGENTS PREPARING AN AMBUSH ALONG THE PLANNED ROUTE OF INGRESS. THE REGIMENTAL COMMANDER ADJUSTED THE GROUND OPERATION ACCORDINGLY. THE PATROL FEINTED A DRIVE INTO THE CITY, RATHER THAN ENTERING NAJAF AS PREVIOUSLY PLANNED. THE INSURGENTS REACTED TO THE FEINT, OCCUPYING THE AMBUSH POSITIONS. THE HUNTER CREW GUIDED IN AN AC-130 GUNSHIP, AS WELL AS MORTAR AND APACHE FIRES, AND THEN CONFIRMED THE RESULTING DESTRUCTION OF THE INSURGENT AMBUSH AND TWO TWENTY-THREE MILLIMETER ANTI-

AIRCRAFT ARTILLERY PIECES, WITH NO LOSSES TO COALITION FORCES OR EQUIPMENT.

TO DATE, HUNTER HAS LOGGED OVER SEVEN THOUSAND, NINE HUNDRED FLIGHT HOURS AND OVER ONE THOUSAND, THREE HUNDRED, FIFTEEN SORTIES IN SUPPORT TO OIF, SPECIFICALLY. INCLUDING PREVIOUS TRAINING OPERATIONS AND COMBAT SUPPORT IN THE BALKANS, THE HUNTER HAS LOGGED OVER THIRTY THOUSAND HOURS OF UAV FLIGHT SUPPORT TO THE ARMY.

THE HUNTER IS ALSO THE ARMY'S FIRST ARMED UAV CAPABLE OF EMPLOYING LIVE ORDNANCE IN IRAQ. UNIT OPERATORS ARE UNDERGOING TRAINING THIS MONTH TO OPERATE THE VIPER STRIKE ATTACK MUNITION FROM THE HUNTER, DESIGNED TO GIVE COMMANDERS A PRECISION UAV ATTACK CAPABILITY WITH LOW COLLATERAL DAMAGE. THE SYSTEM IS NOT WITHOUT CHALLENGES, THE MOST NOTABLE OF WHICH IS THE LIMITED NUMBER OF PRODUCTION ROUNDS AVAILABLE TO TRAINING AND COMBAT OPERATIONS. THE ARMY IS WATCHING THE PROGRESS OF THE FIELDING AND TRAINING OF THIS NEW ROLE AND CAPABILITY CLOSELY.

AT THE CORPS LEVEL, THE ARMY SUPPLEMENTED THE ONE HUNTER COMPANY IN THEATER WITH A CONGRESSIONAL PLUS-UP PURCHASE OF THE IMPROVED GNAT, OR I-GNAT. THE I-GNAT IS AN L-MODEL PREDATOR

AIRCRAFT SIMILAR TO THOSE FLOWN BY THE AIR FORCE. THE ARMY OBTAINED THREE LYNX I SYNTHETIC APERTURE RADAR PAYLOADS AND A CLAW 1 ANALYST WORKSTATION FROM THE AIR FORCE BIG SAFARI PROJECT FOR USE WITH THE I-GNAT. THE I-GNAT AND LYNX I SYSTEMS ARE CONTRACTOR FLOWN AND MAINTAINED, BUT MISSION REPORTING, AIRSPACE COORDINATION AND MISSION OVERSIGHT ARE HANDLED BY SOLDIERS IN THE HUNTER COMPANY. THE LYNX 1 PAYLOAD SUPPORTED THE "IED BLITZ" PROGRAM FOR SEVERAL MONTHS IN A JOINT-SERVICE EFFORT TO LOCATE IMPROVISED EXPLOSIVE DEVICES. OUR CHALLENGES WITH USING THE LYNX 1 PAYLOAD TO LOCATE IMPROVISED EXPLOSIVE DEVICES INCLUDED THE FREQUENT CHANGES OCCURING ON THE GROUND IN THE AREAS OF INTEREST AND THAT THE PAYLOAD IS DESIGNED FOR USE ON LARGER AIRCRAFT WITH MORE ADVANCED STABILIZATION AND ACCURACY SYSTEMS. WITH IMPROVED AVIONICS FOR LOCATION ACCURACY AND WITH PAYLOAD STABILIZATION AND HEADING CORRECTION UPGRADES, THE LYNX I PROMISES TO BE A POWERFUL TOOL IN THE EFFORT TO LOCATE IMPROVISED EXPLOSIVE DEVICES. AS IT IS, THE PAYLOAD IS CURRENTLY VERY SUCCESSFUL IN CROSS-QUEING THE ELECTRO-OPTICAL / INFRARED PAYLOADS FOR WIDE-AREA RECONNAISSANCE SUCH AS PIPELINE, ROUTE, POWERLINE AND INFRASTRUCTURE RECONNAISSANCE.

WITH THE SUPERIOR ELECTRO-OPTICAL/INFRARED PAYLOAD AND LONG MISSION LEGS OF TWENTY HOURS, THE I-GNAT IS A PROVEN AND WELCOMED

ASSET. IN ONE CASE, THE I-GNAT WAS ABLE TO LOCATE A MORTAR TEAM OUTSIDE BAGHDAD, TRACK THE INSURGENTS AS THEY FLED THE SITE AND MAINTAIN OVERWATCH IN ORDER TO GUIDE IN ARMED KIOWA WARRIOR HELICOPTERS THAT ELIMINATED THE INSURGENT THREAT. LIKE OUR OTHER ARMY UAVS THERE ARE MANY EXAMPLES OF THE I-GNAT'S EFFECTIVENESS IN IRAQ. IN THE PAST YEAR OF OPERATIONS IN SUPPORT OF OIF, THE I-GNAT HAS FLOWN OVER THREE HUNDRED THIRTY SORTIES, LOGGING OVER THREE THOUSAND, EIGHT HUNDRED FLIGHT HOURS IN ALMOST A YEAR OF SUPPORT TO OIF.

THE ARMY IS MAKING SEVERAL CHANGES TO BOTH THE EQUIPMENT AND UAV ORGANIZATIONS I HAVE DESCRIBED - ALL WITH THE PURPOSE OF ENHANCING THE SUPPORT TO COMMANDERS IN COMBAT. THE ARMY PLANS TO MODIFY THE SIZE OF THE SHADOW PLATOON, INCREASING THE NUMBER OF AIR VEHICLES FROM FOUR TO SEVEN, ADDING ANOTHER GROUND CONTROL STATION AND CONTROL ANTENNA, AND ADDING THIRTEEN ADDITIONAL SOLDIERS. WE ARE UPGRADING THE HUNTER AIR VEHICLES WITH HEAVY FUEL ENGINES, IMPROVED AVIONICS, VOICE OVER WIRE CAPABILITY, AND MAKING EXTENDED CENTER, WET FUEL WINGS STANDARD ISSUE. THROUGH CONGRESSIONAL PLUS-UPS, THE ARMY IS ALMOST DOUBLING THE CAPABILITY OF THE I-GNAT SYSTEM IN THEATER WITH THE ADDITION OF TWO, MORE CAPABLE I-GNAT AIRCRAFT AND AN ADDITIONAL GROUND CONTROL STATION. WE ARE ALSO INCREASING THE NUMBER OF

RAVEN SYSTEMS IN THE ARMY BY TWO HUNDRED, FORTY SYSTEMS BEYOND THE ORIGINALLY-PROCURED ONE HUNDRED, EIGHTY-FIVE SYSTEMS. WE PLAN TO FIELD THE “ONE SYSTEM” COMMON GROUND CONTROL SHELTER (GCS) FOR SHADOW, HUNTER AND OUR FUTURE EXTENDED RANGE / MULTI-PURPOSE (OR ERMP) UAV. THE ONE SYSTEM GCS AUTOMATICALLY DIGITIZES THE UAV PRODUCTS FOR FASTER DISSEMINATION AND PROVIDES FOR INTERCHANGEABLE CONTROL OF UAVS ACROSS THE BATTLEFIELD. WHILE WE DO NOT EXPECT TO PROVIDE COMMANDERS ALL THE UAV SUPPORT THEY COULD POSSIBLY WANT IN THE NEAR TERM, WE ARE MAKING GREAT STRIDES WITHIN THE CONFINES OF THE PRIORITIZED AVAILABLE RESOURCES.

AS WE CONCENTRATE ON IMPROVING OUR TACTICAL UAV SUPPORT, WE ARE ALSO WORKING OUR MODULAR AND FUTURE FORCE REQUIREMENTS. THE ARMY EXTENDED RANGE MULTI-PURPOSE (OR ERMP) UAV SYSTEM REQUIREMENTS DOCUMENTS ARE CURRENTLY UNDERGOING JOINT STAFFING. THE INTENT FOR THE ERMP UAV IS FOR OPERATIONS AT THE UEx (DIVISION) AND BELOW LEVELS, OPERATED AND MAINTAINED BY THE UAV BATTALION OF THE MULTI-FUNCTIONAL AVIATION BRIGADE. WITH THE ERMP, THE ARMY DOES NOT SEEK TO DUPLICATE EFFORT OF THE AIR FORCE’S PREDATOR UAV SYSTEM. THE ERMP WILL BE PRIMARILY A RSTA PLATFORM, CAPABLE OF INTELLIGENCE COLLECTION, COMMUNICATIONS RELAY, ATTACK MISSIONS, AND MANNED-UNMANNED TEAMING. THE ARMY ERMP

WILL AUTO-LAUNCH AND RECOVER FROM WITHIN THE THEATER OF OPERATIONS AND WILL BE OPERATED BY SOLDIERS IN THEATER. THE ERMP UNIT WILL MOVE FROM DIRECT SUPPORT RELATIONSHIP TO DIRECT SUPPORT RELATIONSHIP ACROSS THE BATTLEFIELD, PROVIDING GROUND MANEUVER COMMANDERS THE ABILITY TO DIRECT THE UAV MISSION. THIS WILL GIVE THE ARMY AND GROUND COMMANDERS THE ABILITY TO TIE UAVS INTO GROUND AND AIR MANEUVER PLANNING AND OPERATIONS ON SHORT NOTICE WITH SHORT LEAD TIMES FOR TAKE OFF AND LANDING. THE ERMP WILL BE A HIGHLY CAPABLE SYSTEM WHICH MUST BE RESPONSIVE TO THE CHANGING REQUIREMENTS OF THE TACTICAL MANEUVER COMMANDER.

THE ARMY IS MAKING IMPROVEMENTS IN UAV AIRSPACE COMMAND AND CONTROL. UAVS DURING OIF ONE WERE NOT CONSISTENTLY INTEGRATED INTO THE AIRSPACE CONTROL MEASURES, CREATING EARLY CHALLENGES. WE ARE NOW PARTICIPATING IN THE SEVENTY-TWO-HOUR AIR TASKING ORDER CYCLE AND LAUNCHING IN COORDINATION WITH CLEARANCE FACILITIES THAT DE-CONFLICT AIRCRAFT VIA RADAR AND MULTI-USER INTERNET RELAY CHAT (MIRC) ROOMS.

THE ARMY, ALONG WITH OTHER SERVICES, IS SEEKING TO ADDRESS THE C-BAND FREQUENCY CONGESTION ISSUE EVIDENT SINCE OIF ONE. THE PROBLEM WITH THE AMOUNT OF C-BAND SATURATION IS THE RISK POSED TO UAVS FROM OTHER USER SYSTEMS, SUCH AS COMMERCIAL TELEVISION

OR MILITARY SIGNAL SYSTEMS. UAVS ARE FAR LESS LIKELY TO INTERFERE WITH EACH OTHER THAN THEY ARE TO EXPERIENCE INTERFERENCE FROM ANOTHER SOURCE OF RADIO EMISSION IN THE C-BAND RANGE. IN RESPONSE TO THIS PROBLEM, THE ARMY PLANS TO APPLY TACTICAL COMMON DATA LINK (OR TCDL) UPGRADES TO THE SHADOW. OVER THE NEXT FEW YEARS, WE PLAN TO FIELD TCDL TO ALL NEW SHADOW PLATOONS, THE I-GNAT AND THE ER/MP.

IN ADDITION TO IMPROVED, MORE RELIABLE CONTROL LINKAGE, THE ARMY IS WORKING TO PROVIDE BETTER PAYLOADS, BETTER SENSOR-TO-SHOOTER LINKAGE AND IMPROVED DISSEMINATION ARCHITECTURES. AT THIS POINT THERE IS NO COMMON NETWORK ARCHITECTURE. IT IS IN OUR BEST INTERESTS IN THE JOINT COMMUNITY TO DEVELOP AN ARCHITECTURE THAT SHARES DATA FROM PLATOON TO THEATER, INCLUDING A COMMON GROUND SYSTEM THAT CAN ACCESS DATA FROM ALL JOINT UAV SYSTEMS. WE ARE WORKING WITH THE OTHER SERVICES FROM WITHIN THE JOINT UAV OVERARCHING INTEGRATED PRODUCT TEAM TO ESTABLISH A JOINT DATA EXPLOITATION AND DISSEMINATION ARCHITECTURE FOR UAV FULL MOTION VIDEO AND REPORTING.

WE ARE ALSO IMPROVING SENSOR TO SHOOTER LINKAGE BY PUTTING VOICE OVER WIRE RADIOS ON BOARD THE HUNTER AND I-GNAT UAVS AND BY PUTTING LASER ILLUMINATORS AND DESIGNATORS ON ALL ARMY UAVS AT

THE SHADOW AND ABOVE LEVELS. VOICE OVER WIRE ALLOWS THE OPERATORS TO USE THE CONTROL LINK TO CONTACT OTHER GROUND AND AIR RADIO RECEIVERS WITHIN RANGE OF THE AIR VEHICLE. BY ADDING LASER ILLUMINATORS FOR DIRECTION AND LASER DESIGNATORS FOR WEAPONS GUIDANCE TO THE SHADOW AND ABOVE UAVS, WE CAN REDUCE THE TIME AND COORDINATION REQUIRED TO CONDUCT TARGETING OPERATIONS. ADDITIONALLY, THE ARMY IS REDUCING THE TARGET LOCATION ERROR, OR TLE, ON UAVS BY UPGRADING THE AVIONICS ON ALL UAV SYSTEMS.

FINALLY, THE ARMY IS TYING TOGETHER CURRENT OPERATIONS WITH EMERGING DOCTRINE AND TECHNOLOGIES, KEEPING FCS AS THE OBJECTIVE IN THE ONGOING UPGRADE AND ACQUISITION PROCESS. THE ARMY IS SHAPING THE REQUIREMENTS AND DOCTRINE OF THE FUTURE FORCE. THE G-8 OF THE ARMY, IN CONCERT WITH THE G-3 AND OTHERS, WILL HOST AN ARMY CAPABILITIES REVIEW THIS SUMMER FOCUSED ON TRANSITIONING FROM THE MODULAR UAV FORCE TO THE FUTURE FORCE.

IN CLOSING, UAV'S ARE A PROVEN, CRITICAL TOOL TO THE MODERN COMMANDER'S ABILITY TO CONDUCT INTELLIGENCE GATHERING, TO ENHANCE FORCE PROTECTION AND TO ACHIEVE ENHANCED SITUATIONAL AWARENESS AT ALL LEVELS, FROM COMPANY TO CORPS AND HIGHER. THE ARMY SEEKS TO IMPROVE OUR CURRENT UAV FORCE AS WE SUPPORT

AMERICA'S SONS AND DAUGHTERS IN COMBAT. WE ALSO SEEK TO IDENTIFY NEAR AND MIDTERM EMERGING UAV CAPABILITIES, MESHING THEM WITH MODULAR AND FUTURE FORCE REQUIREMENTS. WE IN THE ARMY SINCERELY APPRECIATE THE RESOURCES, GUIDANCE AND ASSISTANCE THAT YOU PROVIDE. THANK YOU FOR THIS OPPORTUNITY TO SPEAK ON THIS CRITICAL ISSUE, AND WE LOOK FORWARD TO YOUR CONTINUED SUPPORT, GUIDANCE AND ASSISTANCE. I AM READY TO ADDRESS ANY QUESTIONS YOU MAY HAVE AT THIS TIME.