



ASPC – MDO Video/Script

Thur, 18 Jul 19, 0910-0940

General Dave Goldfein

Air Force Chief of Staff

- **THANK YOU FOR THAT INTRODUCTION AND HELLO EVERYONE.**
- **IT IS GREAT TO BE BACK AMONG FRIENDS AND LIKE-MINDED AIRMEN IN MY 4TH AIR & SPACE POWER CONFERENCE SINCE BECOMING THE 21ST CHIEF OF STAFF.**
- **AND CAN I JUST SAY ... YOU ALL ARE AGING QUITE NICELY!**
- **AND THANK YOU **SIR STEPHEN** FOR HOSTING THIS UNPARALLELED GATHERING OF LEADERS OF OUR WORLD'S AIR AND SPACE FORCES.**
- **CONGRATULATIONS ON A JOB EXTREMELY WELL DONE IN THIS, YOUR LAST, CONFERENCE.**
- **I BELIEVE I CAN SPEAK FOR YOUR FELLOW AIR CHIEFS WHEN I**

SAY YOU CAN PASS THE BATON TO WIGGIE NEXT WEEK WITH SATISFACTION, AND A COMFORTING SENSE OF CLOSURE ON ALL THE INITIATIVES YOU LAID OUT YESTERDAY. WELL DONE!

- **MY TOPIC TODAY ... AND THE TOPIC OF THIS CONFERENCE ... MULTI DOMAIN OPERATIONS ... REFLECTS THE SIGNATURE LABOR OF MY TENURE AS CHIEF.**
- **A JOURNEY MANY OF US BEGAN TOGETHER FOUR YEARS AGO TO IMPROVE OUR ABILITY TO OPERATE SIMULTANEOUSLY ACROSS MULTIPLE DOMAINS TO OVERWHELM OUR ADVERSARIES.**

- **UNTIL THE FIRST PANEL DISCUSSION YESTERDAY, I WOULD ALSO HAVE SAID “SEAMLESSLY” ... BUT ON REFLECTION, I**

HAVE TO AGREE WITH **DR SCHAKE** THAT “SIMULTANEOUSLY”
WHILE MANAGING INEVITABLE SEAMS IS A BETTER
CHARACTERIZATION OF MULTI-DOMAIN OPERATIONS. THANK
YOU FOR THAT **KORI**.

- I CAN REPORT TO YOU TODAY THAT THE U.S. AIR FORCE HAS
MADE SOME PROGRESS.
- WE CREATED A NEW OFFICER CAREER FIELD FOCUSED ON
MULTI-DOMAIN COMMAND AND CONTROL AND ITS'
RELATIONSHIP TO OPERATIONAL WARFARE.
- WE STOOD UP A SHADOW OPERATIONS CENTER AT NELLIS AIR
FORCE BASE WHICH ALLOWS US TO EXERCISE AND
EXPERIMENT WITH MULTI-DOMAIN WARFIGHTING CONCEPTS.
- RECENTLY OUR VICE CHAIRMAN, **GENERAL PAUL SELVA**
SELECTED IT AS THE CENTER FOR EXPERIMENTATION OF NEW

**MULTI-DOMAIN COMMAND AND CONTROL ... CONCEPTS FOR
THE ENTIRE JOINT FORCE.**

- **TO TURN THOSE CONCEPTS INTO REALITY, WE STOOD UP A
WARFIGHTING INTEGRATION CENTER IN THE PENTAGON TO
HELP DESIGN A FUTURE MDO FORCE AND MAKE THE HARD
CHOICES ABOUT FUTURE INVESTMENTS.**
- **CHOICES THAT GO BEYOND TRADE OFFS BETWEEN
PLATFORMS, SENSORS, AND WEAPONS ... AND INSTEAD BUILD
INTEGRATED SYSTEMS THAT ALLOW US TO CLOSE KILL CHAINS
AT A SPEED OUR ADVERSARIES CAN NEVER COUNTER.**
- **AND IN MY OPINION, MULTI-DOMAIN COMMAND AND CONTROL IS
THE MOST CRITICAL ELEMENT OF ACHIEVING FUTURE VICTORY
THROUGH MULTI-DOMAIN OPERATIONS.**
- **BUT WHILE THE IDEA MAY BE POWERFUL, IT CAN ALSO BE
QUITE CHALLENGING TO VISUALIZE HOW WARFARE COULD**

UNFOLD SIMULTANEOUSLY ... AT SPEED AND SCALE ... ACROSS MULTIPLE DOMAINS.

- **AND JUST AS IMPORTANT, TO VISUALIZE WHERE WE NEED TO GO TOGETHER AS AIR AND SPACE CHIEFS TO BUILD THE INTEGRATED AND NETWORKED FORCE WE WILL NEED TO DETER ... AND IF DETERRENCE FAILS ... TO FIGHT TOGETHER AND WIN.**
- **SO TODAY I WANT TO HAVE A LITTLE FUN. MY STAFF HAS WORKED UP SOME VIDEO ILLUSTRATIONS I HOPE WILL SHOW WHAT'S NEW AND WHY THIS IS IMPORTANT ... AND GIVE US ALL A COMMON VISUALIZATION OF WHERE WE ARE GOING.**
- **SO, LETS PARTY!**

[BEGIN SCRIPTED REMARKS – PLAY VIDEO FROM 0:03 TO 0:14]

- **THIS IS NOT JUST ABOUT THE DOMAINS YOU SEE BUILDING IN THE VIDEO HERE... LAND, SEA, AIR, SPACE, CYBER, AND**

UNDERSEA...

- NOR IS THIS JUST ABOUT EXECUTING OPERATIONS ACROSS THESE DOMAINS ... WE ACTUALLY ALREADY DO THAT NOW.
- WHERE WE ARE GOING IS USING DOMINANCE IN ONE DOMAIN OR MANY ... BLENDING A FEW CAPABILITIES OR MANY ... TO PRODUCE MULTIPLE DILEMMAS FOR OUR ADVERSARIES IN A WAY THAT WILL OVERWELM THEM.
- WHERE WE ARE GOING, I BELIEVE, WILL CHANGE THE CHARACTER OF MODERN WARFARE. BUT LET ME ANCHOR THAT ASSERTION IN A BRIEF REFERENCE TO THE PAST – THE IMAGE OF THE CHURCH SPIRE ON THE RIGHT. THE OLD NORTH CHURCH IN BOSTON, MASSACHUSETTS.
- TWO WEEKS AGO WE CELEBRATED OUR INDEPENDENCE, AND IT'S NOT LOST ON ME THAT IF WE HADN'T PREVAILED ... I'D BE

WEARING A DIFFERENT UNIFORM ... BUT SPEAKING THE SAME LANGUAGE WITH A DIFFERENT ACCENT!

- A FAMOUS STORY OF OUR REVOLUTIONARY WAR IS THAT OF **PAUL REVERE** WARNING THE COLONISTS OF THE ADVANCE OF BRITISH FORCES, INTENT ON SEIZING A STORE OF WEAPONS IN CONCORD, MASSACHUSETTS.
- THERE WERE ONLY TWO AVENUES OF APPROACH FROM BOSTON—BY LAND OR BY SEA ... IN FACT, THE ONLY TWO DOMAINS OF HUMAN CONFLICT FOR CENTURIES.
- THE COLONISTS WATCHED, WAITING TO SIGNAL WHETHER THE BRITISH FORCES ADVANCED BY LAND OR BY SEA. THE PLAN WAS TO HANG ONE OR TWO LANTERNS IN THE OLD NORTH CHURCH TOWER TO SIGNAL WHICH DEFENSE THEY WOULD MOUNT.
- “ONE IF BY LAND ... TWO IF BY SEA”.
- THAT NIGHT TWO LANTERNS WERE HUNG AND THE AMERICAN

COLONISTS MASSED THEIR FORCES IN DEFENSE.

- **THE NATURE OF THAT CONFLICT OVER TWO CENTURIES AGO IS LITTLE DIFFERENT FROM THE NATURE OF CONFLICT TODAY. WAR IS STILL A CONTEST OF STRATEGY AND WILL.**
- **BUT THINK OF HOW THE CHARACTER OF CONFLICT HAS CHANGED.**
- **IMAGINE PREPARING FOR AN ENEMY OFFENSIVE ACROSS MULTIPLE DOMAINS, AT DIFFERENT LOCATIONS AND TIMES ... OR WORSE ... ALL AT ONCE!**
- **ONE IF BY LAND, TWO IF BY SEA ... THREE IF BY AIR, FOUR IF BY SPACE, FIVE IF BY CYBER ... SIX ... EIGHT ... TEN IF WE CAN CONVERGE OUR JOINT AND COALITION CAPABILITIES AT THE TIME AND PLACE OF OUR CHOOSING.**
- **THIS IS WHERE WE ARE GOING.....BUT LET ME MAKE THE CASE**

FOR WHY IT INVOLVES ALL OF US GATHERED HERE TODAY ...
PARTNERS AND ALLIES.

[PLAY VIDEO FROM 0:14 TO 0:36, PAUSE 2]

- FIRST ... WE ARE SEEING THE INTERNATIONAL ORDER AND THREATS CHANGE. WHILE WE STILL NEED TO MAINTAIN CAMPAIGN MOMENTUM AGAINST VIOLENT EXTREMIST ORGANIZATIONS ... THE WORLD IS SHIFTING TOWARDS NEW ACTORS AND MORE COMPLEX THREATS ...
- AS WE HEARD YESTERDAY, STATE COMPETITION HAS RETURNED AND IS TAKING ON NON-TRADITIONAL FORMS SUCH AS MALIGN INFLUENCE IN THE INFORMATION ENVIRONMENT AND “LITTLE GREEN MEN” ACTING AS PROXIES.
- SECOND ... WITHIN THIS COMPLEXITY ... THE FUTURE OF OUR ECONOMIC, INFORMATION, AND SECURITY INTERESTS ARE BECOMING INCREASINGLY INTERTWINED.
- AND THIRD ... WE ARE ALL WRESTLING WITH THE

ACCELERATING ADVANCE OF TECHNOLOGY ... A FACT THAT INTRODUCES BOTH NEW CHALLENGES AND NEW OPPORTUNITIES.

- **SO WE'RE ALL INVESTING IN A WIDE ARRAY OF TECHNOLOGIES WHICH WILL PLAY KEY ROLES IN HOW WE ADVANCE OUR COMBAT LETHALITY.**
- **BUT ... MODERNIZATION IS NOT DEFINED SOLELY BY HARDWARE; IT REQUIRES CHANGE IN THE WAYS WE ORGANIZE, TRAIN, DEVELOP ... AND THEN EMPLOY FORCES.**
- **VICTORY IN FUTURE COMBAT WILL DEPEND LESS ON INDIVIDUAL CAPABILITIES, AND MORE ON THE INTEGRATED STRENGTHS OF A CONNECTED NETWORK AVAILABLE FOR COALITION LEADERS TO EMPLOY.**
- **AND AS AIR COMPONENT COMMANDERS OF THE WORLD ...**

CFACC'S ... WE ARE UNIQUELY POSITIONED TO INTEGRATE DOMAINS AND CAPABILITIES ... AND WE ARE OFTEN THE ONE'S TASKED TO PULL IT ALL TOGETHER.

- **AN INTEGRATED AND COLLABORATIVE APPROACH IS CENTRAL TO UNLEASHING THE POTENTIAL OF MULTI-DOMAIN OPERATIONS.**
- **LETS PICK UP OUR STORY THERE ...**

[PLAY VIDEO FROM 0:36 TO 1:18, PAUSE 3]

- **SO WHAT'S NEW? ... AS I SAID, OUR PLATFORMS TODAY ALREADY WORK CROSS-DOMAIN. WE HAVE WEAPONS AND AIRCRAFT THAT ARE GUIDED BY SPACE ... AND GROUND UNITS THAT ARE NETWORKED TO AIR PLATFORMS ...**
- **WHAT I'M TALKING ABOUT IS A FULLY NETWORKED FORCE WHERE EACH PLATFORM'S SENSORS AND OPERATORS ARE CONNECTED.**
- **NOT BY POINT TO POINT CIRCUITS, BUT IN A MESH NETWORK**

THAT IS HIGHLY RESILIENT AND SELF-HEALING.

- **THEY'RE NOT JUST CONNECTED EITHER. THEY'RE PART OF A COMMAND AND CONTROL SYSTEM THAT AUTOMATICALLY PAIRS THE RIGHT SENSORS TO THE RIGHT TARGETS.**
- **FUSING DATA FROM ALL PLATFORMS AND SENSORS ... IDENTIFYING AND REFINING TARGETS AUTOMATICALLY ... AND ALLOCATING WEAPONS TO TARGETS ...**
- **ALLOWING US TO CONVERGE EFFECTS IN A SYNCHRONIZED AND SIMULTANEOUS MANNER.**

[PLAY VIDEO FROM 1:18 TO 1:28, PAUSE 4]

- **SO LET'S PLAY THIS OUT IN AN IMAGINARY WORLD.**
- **HERE IS OUR SCENARIO. GAMMA REPUBLIC IN THE CENTER IS AN ADVERSARY WITH EXPANSIONIST CLAIMS TO A PEACEFUL NATION IN THE SOUTH, ALPHA LAND.**

[PLAY VIDEO FROM 1:28 TO 1:34, PAUSE 5]

- ALPHA LAND IS BLESSED WITH RICH NATURAL RESOURCES AND A DEEP WATER PORT, BOTH OF WHICH THE GAMMA REPUBLIC HAS LONG DESIRED.
- IN ORDER TO ASSERT ITSELF AS A REGIONAL LEADER, THE GAMMA REPUBLIC HAS MILITARIZED AN ISLAND OFFSHORE FROM WHICH THEY CAN THREATEN MARITIME COMMERCE.
- THEY'VE ALSO PLACED INTEGRATED AIR DEFENSE SYSTEMS ON THE BORDER OF ALPHA LAND TO CHALLENGE ACCESS.

[PLAY VIDEO FROM 1:34 TO 2:09, PAUSE 6]

- [SLOW] BUT THE STORY BEGINS NOT WITH AN OUTRIGHT ASSAULT, BUT WHEN DISASTER STRIKES ...
- A MASSIVE EARTHQUAKE ROCKS ALPHA LAND ... CAUSING DEVASTATION TO THE LOCAL INFRASTRUCTURE.
- LOCAL EMERGENCY SERVICES SPRING TO ACTION, BUT ARE

OVERWHELMED BY THE AMOUNT OF DAMAGE AND NEED FOR ASSISTANCE.

- **WITH LOCAL AND THE NATIONAL GOVERNMENT UNABLE TO DEAL WITH THE CRISIS ...THEY MAKE A FORMAL REQUEST FOR INTERNATIONAL RELIEF.**
- **EMBEDDED IN THIS DISASTER IS AN OPENING FOR BAD ACTORS TO TAKE ADVANTAGE OF A WEAKENED NEIGHBOR ...**

[PLAY VIDEO FROM 2:09 TO 2:40, PAUSE 7]

- **AND INTO THIS CHAOS ... UNDER THE GUISE OF HUMANITARIAN RELIEF ... PROXY FORCES FROM THE GAMMA REPUBLIC MOVE INTO ALPHA LAND.**
- **MISINFORMATION IS SPREAD ABOUT THREATS TO THOSE WITH GAMMA LAND CULTURAL TIES.**
- **UNDER THIS PRETEXT, CONVENTIONAL GAMMA LAND UNITS ... SHOWN AS RED STICK FIGURES ... INVADE ALPHA LAND.**

- AFTER THE INVASION, THEY LAY CLAIM TO CRITICAL RESOURCES, PORTS, AIRPORTS, AND LAND RESULTING IN THE DISPLACEMENT OF OVER 10,000 CIVILIANS WHO BECOME REFUGEES FLOODING INTO NEIGHBORING BETALAND.
- THERE'S AN INTERNATIONAL OUTCRY AND A MILITARY COALITION IS FORMED TO RETAKE ALPHA LAND.

[PLAY VIDEO FROM 2:40 TO 2:46, PAUSE 8]

- THIS IS THE FIRST SET OF SIMULTANEOUS MILITARY ACTIVITY THAT YOU'LL SEE.
- MULTI-DOMAIN OPERATIONS DESIGNED AND CHOREOGRAPHED TO OVERWHELM THE ADVERSARY WITH MULTIPLE DILEMMAS.

[PLAY VIDEO FROM 2:46 TO 2:52, PAUSE 9]

- IT IS ORCHESTRATED SIMULTANEOUS MANEUVER WITH AIR, LAND, SEA, SPACE AND CYBER FORCES.

[PLAY VIDEO FROM 2:52 TO 3:04, PAUSE 10]

- **FIRST ... U.S. AND COALITION ASSETS EMPLOY SPACE AND UNDERWATER SENSORS TO TRACK GAMMA SUBMARINES AND SURFACE VESSEL POSITIONS.**
- **ADVERSARY POSITIONS ARE DETECTED AND COMMUNICATED SYSTEM TO SYSTEM — WEAPON AND TARGET PAIRING ASSIGNMENTS ARE DONE AUTOMATICALLY USING MACHINE TO MACHINE COMMUNICATIONS AND ARTIFICIAL INTELLIGENCE.**
- **THOSE WEAPON-TARGET PAIRS ARE ASSIGNED ... ALLOCATED ... AND APPROVED BY THE JOINT TASK FORCE COMMANDER.**
- **WE'LL START WITH THE UNDERWATER FIGHT ...**

[PLAY VIDEO FROM 3:04 TO 3:33, PAUSE 11]

- **[SLOW TO STICKS MOVING] AS AIRMAN WE ARE USED TO SEEING THE WORLD THROUGH A HEAD'S UP DISPLAY ... SO I ASKED THE TEAM FOR A PERISCOPE VIEW! ...**

- **URNS OUT IT'S REALLY NOT ALL THAT DIFFERENT. [PAUSE]**
- **THE POINT IS ... OUR AIRMEN NEED TO UNDERSTAND HOW TO INTEGRATE NAVAL CAPABILITIES IF WE ARE TO DESIGN AND LEAD JOINT CAMPAIGNS.**
- **IN THIS SCENARIO, UNDERWATER THREATS ARE ELIMINATED ... ENABLING FRIENDLY SURFACE VESSELS TO PUSH FURTHER IN TO SUPPORT OPERATIONS IN OTHER DOMAINS ...**

[PLAY VIDEO FROM 3:33 TO 4:06, PAUSE 12]

- **SIMULTANEOUSLY, AN UNMANNED AIRBORNE SYSTEM ... OR UAS ... IS SURVEILLING THE GAMMA REPUBLIC ISLAND TO LOCATE AND FIX KEY MILITARY ASSETS.**

- **[FAST] CUED BY SUB-SURFACE AND SPACE ASSETS, A BOMBER TARGETS THE FINAL GAMMA REPUBLIC SUBMARINE GUARDING THE ISLAND ... WHILE A SURFACE NAVAL COMBATANT ENGAGES THE INTEGRATED AIR DEFENSE BATTERIES WITH PRECISION WEAPONS ... AND AIR ASSETS STRIKE THE SURVEILLANCE RADARS.**
- **THIS COMBINED AND SIMULTANEOUS EFFORT OPENS SEA-LANES AND ENABLES FURTHER COALITION INGRESS INTO ALPHA LAND.**

[PLAY VIDEO FROM 4:06 TO 4:26, PAUSE 13]

- **AT THE SAME TIME, ABOVE THE EARTH ... COALITION SPACE SENSORS ARE NETWORKED TOGETHER TO GET NEAR-CONTINUOUS GLOBAL COVERAGE.**
- **THEY DETECT TWO GAMMA REPUBLIC SATELLITES MANEUVERING INTO POSITION DIRECTLY BELOW AND ADJACENT TO FRIENDLY COMMUNICATIONS SATELLITES.**

- WHILE THEY ARE SHOWING HOSTILE INTENT, NEITHER GAMMA REPUBLIC SATELLITE HAS TAKEN OFFENSIVE ACTION ...YET.

[PLAY VIDEO FROM 4:26 TO 4:40, PAUSE 14]

- AT THIS POINT IN THE LAND CAMPAIGN, THE COALITION IS NOW HIGHLY MOBILE BUILDING THE ENEMY TARGET DECK.
- WHILE THE ADVERSARY ASSETS IN SPACE WERE MANEUVERING, FAR BELOW COALITION SPECIAL OPERATIONS UNITS SECURED KEY TERRAIN ... ENABLING AN AMPHIBIOUS ASSAULT TO TAKE OVER THE PORT AND RECAPTURE THE AIRPORTS.
- THEIR COMMUNICATIONS RELY ON THREE SATELLITES. TWO COALITION SATELLITES REPRESENTED IN GREEN AND ONE U.S. SATELLITE IN BLUE.

[PLAY VIDEO FROM 4:40 TO 4:54, PAUSE 15]

- **[SLOW] SUDDENLY, A U.S. SATELLITE LOSES EFFECTIVE COVERAGE ... REDUCING THE ABILITY TO COMMUNICATE WITH FORCES IN THAT AREA.**
- **JAMMING IS SUSPECTED BUT NOT CERTAIN. THE FOG AND FRICTION OF WAR IS PART OF THIS STORY TOO ...**

[PLAY VIDEO FROM 4:54 TO 5:02, PAUSE 16]

- **ONCE JAMMING IS IDENTIFIED, AN ALERT GOES OUT ON THE COMMAND NET FOR ALL SENSORS AVAILABLE TO DETECT AND GEOLOCATE THE JAMMING SOURCE.**
- **THE COALITION WORKS TO IDENTIFY THE SOURCE OF INTERFERENCE BY MONITORING THREATS IN THE CYBER DOMAIN, AS WELL.**
- **SO THE COMMAND AND CONTROL NET ORCHESTRATES SPACE, AIR, AND LAND SENSORS TO REFINE THE POSSIBLE EMITTER ESTIMATES IN TIME FOR AN UNMANNED ASSET OVERFLIGHT.**

[PLAY VIDEO FROM 5:02 TO 5:10, PAUSE 17]

- **THE SYSTEM CUES A UAV THAT HAS A SENSOR WHICH PROVIDES A POSITIVE ID ...**
- **ONCE IT CONFIRMS THE THREAT LOCATION, THE COMMAND AND CONTROL SYSTEM PAIRS A NEARBY ARTILLERY UNIT TO DESTROY THE TARGET.**
- **AIR, LAND, SEA, AND CYBER OPERATIONS OCCURING SIMULTANEOUSLY TO ACHIEVE OBJECTIVES.**

[PLAY VIDEO FROM 5:10 TO 5:17, PAUSE 18]

- **HOWEVER, U.S. AND COALITION SATELLITES REMAIN JAMMED. THE MULTI-DOMAIN FIGHT CONTINUES.**
- **THE ON-ORBIT SYSTEMS WE SAW EARLIER PERCHED NEXT TO OUR SATELLITES ARE NOW SUSPECTED AS THE SOURCE OF INTERFERENCE.**

- TO ELIMINATE THAT THREAT, A FURTHER MULTI-DOMAIN RESPONSE IS PLANNED AND EXECUTED. LET'S SEE HOW THE OPERATION UNFOLDS ...

[PLAY VIDEO FROM 5:17 TO 6:00, PAUSE 19]

- OUR PRIMARY TARGET IS THE OPTICAL SPACE SENSING STATION ... THE RED ICONS IN THE TOP LEFT OF GAMMA REPUBLIC.
- THIS IS THEIR PRIMARY SOURCE FOR SURVEILLING SPACE ACTIVITY AND CONTROLLING SATELLITES.
- SO THE NET IS ENABLED ... ALLOWING ASSETS TO COMMUNICATE ... FUSING SENSOR DATA AND ALLOWING SHOOTERS TO ACT WITH INITIATIVE.
- HERE WE SEE THE STRIKE PACKAGES INGRESS GAMMA REPUBLIC ELIMINATING TARGETS OF OPPORTUNITY ... A SAM SITE ... AND AN ENEMY CONVOY IDENTIFIED BY THE FRIENDLY SOF ELEMENT

- **AND THEY CONTINUE THEIR DRIVE TO THE TARGET AREA ...
CONDUCTING A SIMULTANEOUS STRIKE ON THE FIXED
SATELLITE CONTROL TARGETS.**

[PLAY VIDEO FROM 6:00 TO 6:50, PAUSE 20]

- **SO, NETWORKED MULTI-DOMAIN SENSORS MATCHED WITH 5TH
GENERATION AIR POWER FUNDAMENTALLY CHANGES OUR
POSTURE IN SPACE.**
- **WITH GAMMA'S GROUND-BASED SPACE SENSORS SEVERELY
DAMAGED ... AND THEIR SATELLITE COMMAND AND CONTROL
CENTER DESTROYED ... OUR COALITION AND U.S. SYSTEMS ARE
THEN ABLE TO EXECUTE A SYNCHRONIZED MANEUVER TO
EVADE THESE ON-ORBIT JAMMERS WITHOUT BEING FOLLOWED.**
- **AFTER THAT MANEUVER, WE'RE ABLE TO RESTORE
COMMUNICATIONS BACK TO THE GROUND FORCES ENGAGED IN
THE FIGHT AND ALLOW A FULLY NETWORKED FORCE TO
CONTINUE THEIR CAMPAIGN IN THE GAMMA REPUBLIC.**

- **MULTI-DOMAIN OPERATIONS. USING DOMINANCE IN ONE DOMAIN OR MANY ... BLENDING A FEW CAPABILITIES OR MANY ...TO PRODUCE MULTIPLE DILEMMAS FOR OUR ADVERSARIES.**
- **WHILE THE NATURE OF WARFARE REMAINS CONSTANT, THE CHARACTER OF WAR IS CHANGING.**
- **AND IF YOU ARE AN AIRMAN WHO IS PASSIONATE ABOUT COALITION WARFIGHTING ... AND THE INCREASINGLY IMPORTANT ROLE OF AIR AND SPACE SUPERIORITY ... IT IS A GREAT TIME TO BE A MEMBER OF OUR NATION'S AIR FORCES.**
- **IF WE'VE DONE OUR JOBS RIGHT AS CHIEFS ... ORGANIZING, TRAINING, AND EQUIPPING OUR SERVICES FOR MULTI-DOMAIN OPERATIONS ... AND DEVELOPING THE LEADERS NEEDED FOR THIS FUTURE FIGHT ... OUR AIRMEN WILL EXCEL AT MULTI-DOMAIN OPERATIONS BECAUSE WE WILL HAVE BUILT IT INTO EVERY EXERCISE SCENARIO AND WARGAME.**

- AND PERHAPS OUR ADVERSARIES WILL WATCH HOW WE ARE OPERATING AND TAKE PAUSE.
- THE AGE OLD MATH EQUATION OF DETERRENCE HAS NOT CHANGED SINCE THE BEGINNING OF MANNED CONFLICT. IT IS CAPABILITY X WILL ... AS PERCEIVED BY THE ADVERSARY.
- SO IF WE ARE SUCCESSFUL AT CAUSING OUR ENEMIES TO PAUSE AND QUESTION WHETHER THEY CAN ACHIEVE THEIR POLITICAL OBJECTIVES ... PERHAPS THAT IS WHAT WINNING LOOKS LIKE IN THE AGE OF HYBRID WARFARE.
- MAYBE ... JUST MAYBE IN THIS SCENARIO ... GAMMA REPUBLIC LIKE LEADERS OF THE FUTURE WILL THINK TWICE BEFORE THEY ACT.
- SO HERE ARE SOME SEEDS I WANT TO PLANT WITH YOU ON THIS, MY LAST AIR POWER CONFERENCE:
- [**SEED 1**] OUR MULTI-DOMAIN OPERATIONS TRAINING AND EDUCATION CAN NOT BE A PICK-UP GAME.

- WE HAVE TO BE LESS DOMAIN CENTRIC IN THE DEVELOPMENT OF OUR LEADERS.
- OUR AIRMEN ... ALL OF OUR AIRMEN ... MUST HAVE A WORKING KNOWLEDGE OF UNDERWAY OPERATIONS OF NAVAL ASSETS ...
- AND BE ABLE TO EXPLAIN THE LAND COMPONENT'S CORE DOCTRINAL CONCEPTS ... IF WE ARE TO LEAD FUTURE CAMPAIGNS AS JOINT AND COMBINED TASK FORCE COMMANDERS.
- [SEED 2] A SECOND AREA OF IMPORTANT WORK IS HOW WE LEVERAGE AUTOMATION AND ARTIFICIAL INTELLIGENCE TO ASSIST COALITION NETWORKING AND INFORMATION SHARING
- TOGETHER AS AIRMEN WE MUST DRIVE A CONSISTENT DEMAND SIGNAL TO OUR INDUSTRY TEAMMATES.

- DOES WHAT YOU ARE OFFERING CONNECT ACROSS THE NETWORK, DOES IT SHARE WITH ALLIES AND PARTNERS, AND DOES IT LEARN WITH ARTIFICIAL INTELLIGENCE AT THE TACTICAL EDGE?
- IT IS TIME FOR US TO FOCUS LESS ON THE TRUCK, AND MORE ON THE HIGHWAY.
- [SEED 3] THIRD, WE NEED TO CONTINUE TO DEVELOP THE FUTURE COMMAND AND CONTROL STRUCTURES REQUIRED IN A DATA-DENSE ENVIRONMENT AND DIGITAL AGE ... THIS IS A CULTURAL SHIFT FOR AIRMEN BECAUSE WE ARE TRADITIONALLY A "HARDWARE" FOCUSED FORCE ... BUT OUR FUTURE IS IN SOFTWARE.
- AT A RECENT MEETING WITH CEO'S OF CUTTING EDGE SOFTWARE COMPANIES I TOLD THEM I'M PRIVILEGED TO BE THE CHIEF OF SERVICE THAT IS A GARAGE START-UP ... BEGUN IN A BICYCLE SHOP IN DAYTON, OHIO WHEN TWO BROTHERS, **ORVILLE AND WILBUR WRIGHT** DARED TO DEFY GRAVITY.

- **SO WHAT I AM DESCRIBING AS MULTI-DOMAIN OPERATIONS MAY SEEM BOLD ... BUT I'D OFFER BOLDNESS IS IN OUR BLOOD AS AIRMEN.**
- **OUR ASYMMETRIC ADVANTAGE IS REPRESENTED IN THE LEADERSHIP IN THIS ROOM ... AND IN THE AIRMEN WE ARE PRIVILEGED TO LEAD. IT REQUIRES ALL OF US WORKING TOGETHER ON A COMMON CAUSE.**
- **FOR A SERVICE CHIEF, WE ALL WORK IN A WORLD OF AMBIGUITY, WHERE THE THREAT AND THE OPERATIONAL ENVIRONMENT ARE CONSTANTLY CHANGING.**
- **BUT THERE IS ONE GREAT TRUTH I BELIEVE WE CAN ALL AGREE ON.**
- **WE HAVE FROM THIS MOMENT UNTIL THE FIGHT STARTS TO GET OUR FORCES READY.**

- **LET'S TREAT EVERY DAY OF PEACE AS A BLESSING AND AN OPPORTUNITY TO FURTHER PREPARE OURSELVES AS ONE COALITION TEAM ... ABLE TO USE ALL DOMAINS ... AND ALL OF OUR CAPABILITIES TO FIRST DETER ... AND IF DETERRENCE FAILS ... TO FIGHT TOGETHER AND WIN.**
- **I LOOK FORWARD TO WORKING WITH EACH OF YOU ON THIS IMPORTANT JOURNEY.**
- **FIGHT'S ON!**