



NISSSC
NATIONAL INSTITUTE OF
SCIENCE, SPACE & SECURITY CENTERS

EVENT: *National Homeland Defense Foundation
Symposium VI*

ORGANIZER: *NATIONAL HOMELAND DEFENSE
FOUNDATION*

DATE: *OCTOBER 29, 2008*

TITLE: *NISSSC PRESENTATION – “UNLOCKING THE
POTENTIAL”*

SPEAKER: *Michael B Perini, Executive Director*

(AS DELIVERED)

THANK YOU CHANCELLOR. THAT WOULD HAVE BEEN AN
INTRODUCTION THAT MY FATHER WOULD HAVE WRITTEN
AND MY MOTHER WOULD HAVE BELIEVED – SHORT AND
TO THE POINT!

IT IS AN HONOR AND PRIVILEGE TO BE HERE TODAY.

A SPECIAL THANKS TO DON ADDY FOR HIS VISION AND
PERSONAL DEDICATION AND FOR HIS GREAT TEAM OF

PARTNERS AND VOLUNTEERS IN HOSTING ANOTHER WORLD CLASS SYMPOSIUM.

THERE IS NO MORE IMPORTANT WORK THAN PROTECTING OUR NATION. THIS ENDEAVOR IS A COLLABORATIVE PROCESS – IT INVOLVES ALL OF US AS IS THE THEME FOR TODAY – CIVILIAN AND MILITARY.

THE AMERICAN PEOPLE EXPECT US TO GIVE IT OUR BEST...TO WORK TOGETHER AS A TEAM OF TEAMS TO SAFEGUARD OUR NATION’S AIR, LAND AND SEA LANES.

SYMPOSIUMS LIKE TODAY’S HELP US DO OUR JOBS BETTER BY BUILDING RELATIONSHIPS.

BY SHARING INFORMATION.

BY DISCUSSING THE WAY AHEAD AND ADDRESSING POTENTIAL CHALLENGES.

LT GEN METZ, TOLD US YESTERDAY THAT “THE WORLD IS CURRENTLY IN A PERIOD OF PERSISTENT CONFLICT.”

I KNOW YOU ALL AGREE THERE IS NO SECOND PLACE WHEN IT COMES TO HOMELAND DEFENSE.

SECURING THE FUTURE OF LIBERTY, THE FOUNDATION’S VISION HAS A SPECIAL MEANING TO US AT NISSSC AND WHY WE AGREED TO BE ONE OF THEIR KEY PARTNERS THIS YEAR.

I WANT TO SPEND THE NEXT FEW MINUTES SHARING WITH YOU HOW NISSSC IS HELPING SECURE OUR HOMELAND.

A QUICK REVIEW OF HISTORY. THE ATTACKS OF SEPTEMBER 11TH LED TO SIGNIFICANT CHANGES, AS WE ALL KNOW, IN FEDERAL GOVERNMENT AND DEPARTMENT OF DEFENSE ORGANIZATIONAL STRUCTURES, INCLUDING THE MERGING OF THE UNITED STATES SPACE COMMAND AND U.S. STRATEGIC COMMAND AND THE CREATION OF U.S. NORTHERN COMMAND.

IN 2002, THE AIR FORCE OFFICE OF SCIENTIFIC RESEARCH (AFOSR) IDENTIFIED FUNDING TO ADDRESS “THE IMPACT OF FUTURE TECHNOLOGICAL ADVANCES, AND RELATED RESEARCH THAT IMPACTS BOTH GROUND AND SPACE-BASED NETWORK AND INFORMATION SECURITY.” AS A RESULT, THE ORIGINAL NISSC, OR THE NETWORK INFORMATION AND SPACE SECURITY CENTER – WE HAD TWO S’S IN THOSE DAYS -- WAS CREATED AT UCCS WITH THE HELP OF SOME GREAT LOCAL LEADERS AND THE COLORADO DELEGATION.

CO-LOCATED IN COLORADO SPRINGS WITH THE U.S. AIR FORCE SPACE COMMAND AND USSPACECOM, NISSC WAS WELL-POSITIONED TO SERVE AS A SYNTHESIS AND INTEGRATION ELEMENT FOR A BROAD RANGE OF ACADEMIC AND DOD INFORMATION AND SPACE-RELATED ISSUES.

FURTHERMORE, THE NISSC RELATIONSHIP WITH USSPACECOM, -- BEFORE THE MERGER WITH USSTRATCOM -- SERVED AS A STRONG CATALYST FOR CREATING THE PARTNERSHIP WITH USNORTHCOM THAT RESULTED IN A COMPREHENSIVE

HOMELAND DEFENSE PROGRAM TO SUPPORT THIS EMERGING AND CRITICAL MISSION AREA FOR DOD AND OUR NATION.

ONE INDUSTRY LEADER SAID RECENTLY, THERE IS A... “WAR FOR TALENT” FOR SKILLED PROFESSIONALS.

WE KNOW THAT THERE ARE NOT ENOUGH PEOPLE IN THE PIPELINE. THERE IS NOT ENOUGH BASIC AND APPLIED RESEARCH IN HOMELAND DEFENSE AND SECURITY.

WELL, I CAN'T SPEAK FOR OTHERS, BUT WE AT UCCS AND NISSSC ARE DOING OUR PART TO FILL THE GAP – TO EDUCATE, TO HELP YOUR RECRUITMENT CHALLENGES AND CONDUCT RESEARCH.

UCCS HAS A WELL-ESTABLISHED REPUTATION AS A UNIVERSITY WITH THE VISION FOR GRADUATING STUDENTS WHO MEET MARKETPLACE SKILLS AND DEMANDS ON A GLOBAL SCALE. OUR ENGINEERING SCHOOL, FOR EXAMPLE, WAS RECENTLY RATED IN THE TOP TEN BY *U.S. NEWS AND WORLD REPORT*.

ESTABLISHING AN INSTITUTE WITH MULTI-DISCIPLINARY CENTERS THAT FOCUS ON PROBLEM SOLVING AT FEDERAL, STATE AND LOCAL LEVELS WAS A PRUDENT, LOGICAL NEXT STEP AS UCCS STRIVES TO BE AMERICA'S REGIONAL RESEARCH UNIVERSITY.

SO, IN 2005, THE NATIONAL INSTITUTE OF SCIENCE, SPACE AND SECURITY CENTERS (THE CURRENT NISSSC – WITH THREE S'S)

WAS ESTABLISHED TO BETTER FOCUS ON DEVELOPING AND IMPLEMENTING SOUND ACADEMIC AND RESEARCH DELIVERABLES IN THE SCIENCE, SPACE AND SECURITY DISCIPLINES.

NISSSC'S PURPOSE IS TO UNLOCK THE POTENTIAL FOR COLLABORATION IN SCIENCE, SPACE AND SECURITY—TO LINK OR TIE IT ALL TOGETHER.

WE ARE PROUD TO BE AN INTEGRAL PART OF THE FRONT RANGE. AND, THE GREAT NEWS IS THAT WE ARE BUILDING ON OUR DEEP ROOTS IN THE SOUTHERN COLORADO REGION.

WITH A BUILT-IN "REACH BACK" CAPABILITY ALONG THE ROCKY MOUNTAIN TECHNOLOGY CORRIDOR WE ARE IN A UNIQUE LOCATION TO HARNESS THE EXPERTS IN COLORADO AND HAVE OPERATIONALIZED OUR INSTITUTE.

WE USE A MULTI-DISCIPLINE APPROACH TO PROVIDE REALISTIC SOLUTIONS TO COMPLEX PROBLEMS AND REPLICATION MODELS FOR A HOST OF APPLICATIONS PLUS EDUCATIONAL SERVICES QUITE LITERALLY THAT GO FROM KINDERGARTEN TO SPACE.

NOW... WHY IS THIS IMPORTANT – TO MAINTAIN THIS TRACK OF UNDERSTANDING OF THE MINDSET OF TODAY'S CHILDREN?

LOOK AT MOST OF US IN THIS ROOM? I THINK I SEE A GRAY HAIR OR TWO, COUNTING MINE.

WHEN YOU LOOK AT THE CLASS OF 2012, FOR EXAMPLE, AND THEIR MINDSET, IT IS MUCH DIFFERENT THAN THAT OF THE FACULTY ABOUT TO PREPARE THEM TO BECOME THE LEADERS OF TOMORROW. STUDENTS ENTERING COLLEGE THIS FALL WERE BORN GENERALLY IN 1990. FOR THESE STUDENTS, SAMMY DAVIS JR, JIM HENSON, STEVIE RAY VAUGHAN AND FREDDY KRUEGER HAVE ALWAYS BEEN DEAD. IBM FOR THEM NEVER MADE TYPEWRITERS. I COULD GO ON. WE NEED TO STAY IN TOUCH WITH THE EMERGING GENERATIONS, AND WE AT THE INSTITUTE ARE DOING THIS TODAY IN A ROBUST WAY.

IT IS CLEAR TO THE NISSSC TEAM THAT THE INTEGRITY OF STAFF AND INSTITUTE DELIVERABLES IN RESEARCH AND EDUCATIONAL SERVICES IS CRITICAL AS WE MOVE FORWARD. WE HAVE SUPERB INTELLECTUAL PROPERTY IN DISCIPLINES RANGING FROM EMERGENCY RESPONDER MENTAL HEALTH TO CITIZEN RESILIENCY; AND SKILLED STAFF WITH REAL WORLD EXPERIENCES.

WE ALSO HAVE IN-DEPTH UNDERSTANDING OF THE MISSIONS, CAPABILITIES AND CULTURES OF MANY FEDERAL, STATE AND LOCAL AGENCIES THAT REQUIRE A CROSS-DISCIPLINARY APPROACH TO PROBLEM SOLVING.

CURRENCY IN RELEVANT TECHNOLOGY AND ACTIVITIES – PUBLIC AND PRIVATE, MILITARY, INDUSTRY -- BOTH DOMESTIC AND GLOBAL -- IS ALSO CRUCIAL AND WE HAVE IT IN-HOUSE.

AS A RESULT OF ALL THESE FACTORS, WE HAVE BECOME A RECOGNIZED LEADER IN SCIENCE, SPACE, AND SECURITY ENHANCING THE RESILIENCE OF OUR NATION AND BETTERING SOCIETY.

OUR BREAD AND BUTTER IS OUR LEADING-EDGE BASIC AND APPLIED RESEARCH. WE WILL BUILD A STATE-OF-THE-ART BLADE SERVER SYSTEM THAT WILL BE LOCATED IN THE NEW SCIENCE AND ENGINEERING BUILDING. THIS CAPABILITY IS HUGE FOR CLIENTS REQUIRING THIS KIND OF COMPUTER POWER TO SOLVE PROBLEMS IN CYBER SECURITY, INFORMATION ASSURANCE AND HOMELAND SECURITY.

MONDAY, WE ANNOUNCED AT THE EMERGING TECHNOLOGIES FORUM, HELD HERE AT THE BROADMOOR, SOME EXCITING RESEARCH ON ADAPTIVE CRYPTOGRAPHIC EMBEDDING THAT DEALS WITH BALANCING YOUR PERSONAL LIBERTIES AND THE NEED FOR SYSTEM SECURITY.

SUFFICE TO SAY, WE ARE DEVELOPING INNOVATIVE ENVIRONMENTS THAT NOURISH SCIENCE, SPACE, AND HOMELAND SECURITY DISCOVERIES. WE CONTINUE TO UNLOCK THE POTENTIAL IN THIS REGARD.

MORE WILL BE SAID ABOUT THIS INCREDIBLE SYNERGY IN OUR INSTITUTE BOOK THAT WE ARE WRITING TO BE AVAILABLE IN 2009.

I THINK IT IS ALSO IMPORTANT TO NOTE... WE ARE VERY INCLUSIVE IN OUR EFFORTS HAVING REGIONAL, NATIONAL AND RELATING TO THE THEME OF THIS CONFERENCE -- INTERNATIONAL COLLABORATION – YES, CANADA AND EUROPE AND SOON MAYBE IN THE PACIFIC THEATRE -- COLLABORATION WITH MORE THAN 55 NEIGHBORS AND PARTNERS IN ACADEMIA, GOVERNMENT, INDUSTRY AND THE PRIVATE SECTOR. WE WOULD ALSO LIKE TO WORK WITH MEXICO, AS IT MAKES SENSE TO DO SO.

THIS COMMUNITY WILL CONTINUE TO GROW AS SOLUTIONS DEVELOPED AT THE INSTITUTE AND CENTERS EXTEND ITS BOUNDARIES.

WE HAVE FOUR CENTERS AT THE INSTITUTE.

AS I MENTIONED EARLIER, CONTINUING TO SUSTAIN INTEREST IN ELEMENTARY THROUGH COLLEGE EDUCATION IN SCIENCE, TECHNOLOGY, ENGINEERING AND MATH AND TEACHER DEVELOPMENT IS CRITICAL FOR OUR NATION TO MAINTAIN ITS LEAD NOT ONLY IN HOMELAND SECURITY BUT IN ALL AVENUES THAT REQUIRE THESE DISCIPLINES.

THE CENTER FOR SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS EDUCATION (CSTEME) HAS DEVELOPED A VERY SUCCESSFUL PROGRAM THAT WILL SOON BE REPLICATED ON A NATIONAL LEVEL THAT WILL ALLOW FOR OUR NATION TO REGAIN THIS BATTLE SPACE IF YOU WILL, ON THE

INTELLECTUAL CAPITAL NEEDED IN HOMELAND DEFENSE/SECURITY. WE MAKE EDUCATION FUN! COOL! NEAT!!

THE CENTER FOR HOMELAND SECURITY (CHS), FOR EXAMPLE, IS PUTTING ON THE HD/HS CAREER SUMMIT TODAY – THE FIRST NATIONAL CONVERSATION THAT I KNOW OF -- AND HAS DEVELOPED A SERIES OF HOMELAND SECURITY/DEFENSE CERTIFICATES AND CONDUCTED NUMEROUS RESEARCH PROJECTS WITH USNORTHERN COMMAND AND OTHERS. WE WANT TO EXPAND CONTENT AND RESEARCH. WE THINK THAT THERE IS A REAL NEED TO EDUCATE FOLKS TO BE VISIONARIES IN THIS BUSINESS.

UCCS HAS A BACHELOR OF INNOVATION DEGREE THAT CREATES AN ENVIRONMENT WHERE CREATIVE SOLUTIONS ARE THE ONLY ONES ALLOWED. THIS DEGREE IS SO POPULAR, AND HAS HOMELAND DEFENSE RAMIFICATIONS THAT WE ARE LOOKING AT EXPANSION.

THE CENTER FOR SPACE STUDIES (CSS) IS PARTNERING WITH INDUSTRY, MILITARY, ACADEMIA AND GOVERNMENT AND IS OFFERING CERTIFICATES THAT ARE LEADING TO ADVANCED DEGREES. WE ARE PARTNERING ON A VERY EXCITING PROJECT WITH THE EISENHOWER CENTER FOR SPACE AND DEFENSE STUDIES, USAFA. IN ADDITION, CSS LEADS RESEARCH AND EDUCATIONAL PROGRAMS IN THE SPACE EDUCATION

CONSORTIUM WITH 12 UNIVERSITIES AND ACADEMIC INSTITUTIONS AND IS TIED VERY CLOSE TO THE HIP WITH AFSPC COMMAND AND ITS CURRENT AND FUTURE NEEDS IN CYBERSPACE AND OTHER PROGRAMS. HERE TO, WE ARE EXPANDING COURSE CONTENT AND RESEARCH.

WE ALL KNOW THAT THE IMPACT OF EXTREME HUMAN EVENTS CAN BE TRAUMATIC. UNFORTUNATELY, THERE IS NOT A LOT OF ATTENTION PAID TO THIS ISSUE, BUT AS A RESULT OF THE TRAUMA, HEALTH AND HAZARDS CENTER (THHC), WE ARE SEEING A MUCH NEEDED FOCUS ON THE BEHAVIORAL DIMENSION OF PREVENTING, MITIGATING, AND RECOVERING FROM EXTREME EVENTS.

THHC IS PIONEERING RESEARCH IN TRAUMA PSYCHOLOGY, EMERGENCY RESPONDER MENTAL HEALTH, EFFECTIVENESS OF DISASTER WARNING AND RESPONSE SYSTEMS.

CLEARLY, NISSSC HAS A GROWING ROLE IN PROVIDING SOLUTIONS TO COMPLEX ISSUES AND MENTORING THE NEXT GENERATION. OUR RESEARCH, EDUCATION AND LEGISLATIVE INITIATIVES WILL HELP SHAPE THE FUTURE OF OUR NATION.....

WE VERY MUCH SAY THANKS TO AFOSR FOR THEIR SUPPORT AND MANY OF THESE INITIATIVES ARE A DIRECT RESULT OF THEIR FUNDING.

PUBLIC MEMBERSHIP IN THE INSTITUTE IS ON THE HORIZON FOR THOSE WHO WANT TO BE REGULAR PARTICIPANTS IN INSTITUTE SERVICES AND SHOW THEIR SUPPORT.

OUR VISION REQUIRES AN AGGRESSIVE TRAJECTORY THAT SEEKS WAYS TO CONTINUE TO UNLOCK THE POTENTIAL FOR COLLABORATION;

WE ARE DOING FASCINATING STUFF. I DON'T HAVE TIME TO MENTION ALL OF OUR NEW THRUSTS. CHECK OUT OUR WEBSITE WWW.NISSSC.ORG.

FINALLY, WE ARE STARTING EARLY IN THE EDUCATIONAL EXPERIENCES OF OUR CHILDREN AND FOLLOWING THEM THROUGH INTO COLLEGE.

REMEMBER, FOR THE YOUTH OF TODAY, WWW HAS NEVER STOOD FOR WORLD WIDE WRESTLING...

WE WANT TO WORK WITH ALL OF YOU. TO TAILOR EDUCATIONAL AND RESEARCH EXPERIENCES TO MEET YOUR RECRUITING CHALLENGES.

WE WANT TO BUILD AN AGENDA FOR PRIVATE AND PUBLIC SECTOR AND FOR GOVERNMENT POLICY MAKERS TO ADDRESS THE RULES AND PROCESSES FOR UNDERSTANDING THE NATION'S SCIENCE, SPACE AND SECURITY CHALLENGES.

WE ARE COMMITTED AND STAND READY TO SERVE AS *THE* INTEGRATOR FOR SUSTAINING A SPIRIT OF INNOVATION.

COME VISIT US.

WE WANT TO ENHANCE THE RESILIENCE OF OUR NATION AND
BETTER SOCIETY.

I WOULD BE GLAD TO DISCUSS ANY INSTITUTE ACTIVITIES
DURING THE BREAK.

TOGETHER, WE CAN UNLOCK THE POTENTIAL.

THANK YOU.