

## *Program Biography*

Eugene Kranz

Eugene “Gene” Kranz is a trailblazer, an engineer, a best-selling author and an inspiration.

The Toledo native and 1951 graduate of Central Catholic High School is perhaps best known for his determination in the face of potential tragedy during the Apollo 13 space mission. The immortal words that characterized the crucial mission on the ground – “Failure is not an option” – are attributed to Kranz.

Kranz’ love of country and exploration was forged after his mother opened her home to borders, many of whom were young men in the United States Armed Forces. His fascination with flight led him to Parks College of Saint Louis University, where he earned a bachelor of science degree in aeronautical engineering in 1954.

Commissioned in the U.S. Air Force later that year, he became a pilot of high performance aircraft and served as a flight test engineer at Holloman Air Force Base. His response to an advertisement for engineers in *Aviation Weekly* was the impetus for his journey into history.

Kranz’ involvement in Project Mercury and Project Gemini gave him a central position in the National Aeronautics and Space Administration’s pioneering space exploration program. In 1962, he became branch chief for Flight Control Operations and assumed flight director duties for all Project Gemini missions. His job: “Train, plan and provide the remote site teams and systems engineers and procedures personnel for Mission Control.”

Kranz’ steady, stoic demeanor became his trademark. Those in Mission Control when Neil Armstrong became the first person to set foot on the moon during Apollo 11 recall that Kranz allowed 15 seconds of celebration, then ordered all personnel back to their stations, lest an emergency befall the spacecraft. His remarkable leadership during the successful retrieval of the Apollo 13 crew has been documented in several mediums, including the feature film “Apollo 13,” Kranz’ book, *Failure is Not an Option*, a New York Times bestseller published in 2002, and a cable miniseries, “From the Earth to the Moon,” among others.

Before retiring from NASA with 37 years of federal service, Kranz was responsible for more than 6,000 employees and an annual budget of approximately \$750 million.

Now a motivational speaker who still uses his pilot's wings, Kranz is the recipient of several prestigious awards: co-honoree, Presidential Medal of Freedom; distinguished member, Senior Executive Service; AIAA Lawrence Sperry Award; AAS Spaceflight Award; Gilruth Award, and FNASA Foundation's Rotary National Award for Space Achievement's National Space Trophy, to name a few.

*UNIVERSITY OF TOLEDO COMMENCEMENT – SPEECH*

JOHN F. SAVAGE ARENA

SATURDAY MAY 8, 2010, 930 AM

THANK YOU MS. SUMMONS FOR GENEROUS INTRODUCTION.

I THANK THE UNIVERSITY OF TOLEDO FOR THE PRIVILEGE OF ADDRESSING THIS YEARS GRADUATING CLASS.

WHILE TOURING YOUR CAMPUS YESTERDAY I COULD FEEL THE ENERGY OF THE FACULTY AND STUDENT BODY DRIVING THE GROWTH OF TOLEDO UNIVERSITY AS A MAJOR FORCE IN THE ACADEMIC AND PROFESSIONAL WORLD.

FOR EXAMPLE ...LAST FRIDAY, BILL GERSTENMAIER, A 1981 MASTERS GRADUATE IN MECHANICAL ENGINEERING FROM TOLEDO UNIVERSITY ... RECEIVED THE NATIONAL SPACE TROPHY... ONE OF THE HIGHEST CIVILIAN AWARDS IN OUR WORK.

TODAY'S GRADUATION IS A CELEBRATION OF EXCELLENCE AND OF ACHIEVEMENT...ONE THAT IS JOYOUSLY SHARED BY FACULTY, PARENTS, SPOUSES AND FRIENDS.

COMMENCEMENT SEASON EACH YEAR REPRESENTS THE CONTINUING RENEWAL OF THE STRENGTH OF OUR PEOPLE AND OF OUR CIVILIZATION.

FOR YOU, OUR HONORED GRADUATES, IT IS THE DEFINING MOMENT THAT MARKS THE PASSAGE TO THE NEXT PHASE OF YOUR LIFE.

WE ARE HERE TODAY TO APPLAUD YOUR ACCOMPLISHMENT.

YOU OWE MUCH TO YOUR TEACHERS, YOUR PARENTS AND THE MANY OTHERS WHO HAVE BROUGHT YOU TO THIS POINT ON YOUR JOURNEY.

HOWEVER, YOU HAVE REACHED THIS MILESTONE IN YOUR LIFE THROUGH YOUR OWN SWEAT AND TOIL.

IT IS YOU WHO HAVE DONE THE WORK AND WON THE PRIZE ... AND SO WE CELEBRATE YOU TODAY.

THE EDUCATION YOU HAVE RECEIVED IS ONE OF YOUR MOST ENDURING ASSETS ...

**TREASURE IT, SHARE IT AND INVEST IT WELL.**

NOW THAT YOU HAVE REACHED THIS GOAL, IT IS TIME TO SET NEW GOALS ...

YOU SHOULD ALWAYS BEAR IN MIND...

THE TRAGEDY IN LIFE DOES **NOT** LIE IN **NOT** REACHING YOUR GOAL....

THE TRAGEDY OF LIFE LIES IN HAVING **NO** GOAL TO REACH.

IT IS UP TO YOU TO TAKE CHARGE AND DIRECT THE COURSE OF YOUR LIFE TO THE FUTURE...

**NO ONE WILL DO IT FOR YOU.**

TODAY YOUR FUTURE MAY SEEM UNCERTAIN, HOWEVER YOUR DRIVE TO ACHIEVE YOUR ACADEMIC GOAL

INDICATES THAT YOU POSSESS THE ENERGY, THE IMAGINATION, AND THE ABILITY TO SURMOUNT ANY OBSTACLES YOU MEET ALONG THE ROAD.

IN MY LIFETIME AS AN ENGINEER, AVIATOR AND IN SPACE I HAVE WORKED CLOSELY WITH THOUSANDS OF YOUNG COLLEGE GRADUATES.

YOUTH IS THE ENERGY FOR SPACEFLIGHT... OUR WORK IS IN AN UNFORGIVING AND HIGH RISK ENVIRONMENT.

WE SELECT NEW MEMBERS FROM COLLEGE GRADUATING CLASSES .... JUST LIKE YOURSELVES.

WE THEN PROVIDE AN ADDITIONAL 3-5 YEARS TRAINING

TO FURTHER EXPAND THEIR KNOWLEDGE OF SCIENCE, ENGINEERING, AND TECHNOLOGY

AND APPLY THEIR NEW SKILLS AS AN INSTRUCTOR, CONTROLLER, TRAJECTORY DESIGNER OR SYSTEMS ENGINEER.

I REGULARLY MEET WITH OUR NEW TEAM MEMBERS TO GAUGE THEIR PROGRESS, PROVIDE ENCOURAGEMENT... AND LISTEN TO THEIR CRITIQUE

MY JOB IS TO IGNITE THEIR PASSION... AND TO FOCUS THEIR ENERGIES TO THEIR NEW RESPONSIBILITIES AND PREPARE THEM FOR

**THE TIME WHEN THE FATE OF THEIR MISSION IS ON THE LINE... AND THEY ARE THE ONES POSITIONED TO TAKE ACTION.**

I AM BULLISH ON YOUNG PEOPLE... VIRTUALLY ALL OF MY LIFE HAS BEEN WITH THE YOUNG BECAUSE AVIATION AND SPACE IS A YOUNG PERSONS ARENA.

THE DAY WHEN MY TEAMS ANSWERED JIM LOVELLS CALL ... "HOUSTON WE HAVE A PROBLEM" ... MY MISSION CONTROL TEAMS WERE IN THEIR MID 20'S... FLIGHT DIRECTORS MID 30'S.

RESPONSIBILITIES ARE ASSIGNED EARLY IN THEIR CAREER TO CONTROLLERS...

DURING TRAINING THEY LEARN OF THEIR INNER SELF AND THE BOUNDARY OF THEIR ABILITIES.

THEY ALSO LEARN OF THEIR TEAMMATES... THE FRAGILE NATURE OF LIFE... AND THE VAGARIES OF HIGH TECHNOLOGY.

AS I LOOK AT YOU THIS MORNING I SEE THE SAME ENERGIES, TALENT AND STRENGTH THAT I HAVE SEEN IN MY TEAMS FOR ALMOST 50 YEARS

YOU... **LIKE MY CONTROLLERS SEE THE WORLD AS IT CAN BE.**

YOUR STRENGTH, OPTOMISM, AND INITIATIVE ALWAYS CARRIES YOU WHEN YOU FACE CHALLENGES.

**THIS IS YOUR POWER... IT IS THE POWER OF YOUTH.**

FOR A FEW MOMENTS ... LET ME ADDRESS THIS GRADUATING CLASS AS I WOULD SPEAK TO A NEW GROUP OF CONTROLLERS

I WELCOME YOU TODAY TO THE RANKS OF MISSION OPERATIONS.

OUR RESPONSIBILITY IS SIMPLY TO "TAKE ALL ACTIONS NECESSARY FOR CREW SAFETY AND MISSION SUCCESS."

DURING A MISSION THERE IS NO HIGHER AUTHORITY... THERE IS NO AMBIGUITY ... NO EQUIVOCATION.

OUR WORLD IS ONE OF “GO” OR NO GO”

YOUR TRAINING WILL BE AGGRESSIVE...AT TIMES YOU MAY SIMPLY OVERWHELM YOU SO I OFFER YOU THE FOUR GUIDELINES THAT WILL IMPROVE YOUR CHANCE FOR SUCCESS IN YOUR NEW ENVIRONMENT.

## **1. KNOW YOURSELF,**

**KNOW WHO YOU ARE AND WHAT YOU STAND FOR.** IN MISSION CONTROL THIS IS THE MOST CRITICAL THE CHALLENGE YOU WILL FACE.

INTEGRITY MUST BE AT THE CORE OF YOUR BEING AS A CONTROLLER... IT IS AT THE CENTER OF ALL RELATIONSHIPS THAT YOU WILL ESTABLISH.

INTEGRITY ENGENDERS TRUST AND TRUST IS THE FOUNDATION FOR ALL ACTIONS YOU WILL UNDERTAKE.

IT IS AT THE HEART OF THE TEAM YOU WILL JOIN.

INTEGRITY IS EXPECTED IN ALL DEALINGS, TASKS, AND YOUR REALTIONS WITH OTHERS.

TO KNOW YOURSELF IS TO BE AT PEACE WITH YOUR DECISIONS ...AND THE CONSEQUENCES ACTIONS YOU WILL TAKE.

## **2. LEAVE YOUR EGO AT THE DOOR.**

YOUR EGO IS YOUR ENEMY.

EGO CLOUDS DECISIONS, STIFLES CONVERSATIONS... IT INTERFERES WITH EFFECTIVE ACTIONS.

FREQUENTLY YOU WILL BE CHALLENGED ON YOUR KNOWLEDGE, DECISION PATH, AND YOUR TECHNICAL SKILLS BY YOUR INSTRUCTORS AND YOUR TEAMMATES.

YOUR TRAINING WILL TAKE YOU TO THE BOUNDARIES OF YOUR KNOWLEDGE.

- IF YOU DO NOT HAVE AN ANSWER OR ARE IN DOUBT SAY SO.
- IF YOU NEED HELP OR MORE TIME ... ASK FOR IT.
- IN MISSION CONTROL WE PRACTICE RUTHLESS HONESTY. IT IS OUR EXPECTATION OF YOU AND YOUR EXPECTATION OF ALL THOSE AROUND YOU.

QUIET CONFIDENCE, ABSOLUTE PREPARATION, AND THE RESPECT FROM YOUR TEAM MEMBERS ARE KEY TO YOUR PERFORMANCE.

THE DAY YOU NEED HELP ...TRUST YOUR TEAM TO GIVE YOU HAND.

WHEN YOU LEAVE YOUR EGO AT THE DOOR YOU WILL FIND THAT YOUR LEARNING IS EASIER AND FASTER.

YOUR PERSONAL RELATIONSHIPS WILL DEVELOP INTO TRUE FRIENDSHIP, AND RESPONSIBILITIES WILL COME YOUR WAY.

### **3. THE TEAM IS YOUR LIFELINE.**

TEAMWORK IS CENTRAL TO YOUR TRAINING AND EVERY TASK YOU WILL PERFORM IN MISSION CONTROL.

SUPPORTING YOU IN THE CONTROL ROOM IS A STAFF THAT REACHES TO THOSE WHO DESIGNED, TESTED AND LAUNCHED YOUR SPACECRAFT.

GET TO KNOW EACH INDIVIDUAL PERSONALLY, DEVELOP THEIR TRUST AND WHEN YOU NEED THEM THEY WILL STAND BY YOU.

MY FINAL WORDS IN JULY 1969 AS WE PREPARED TO TAKE NEIL ARMSTRONG AND BUZZ ALDRIN TO THE MOONS SURFACE WERE...

” WE CAME INTO THIS ROOM AS A TEAM AND WE WILL LEAVE AS A TEAM”

THAT DAY DEMANDED SPLIT SECOND TIMING, AND CRITICAL DECISIONS BY MANY CONTROLLERS....

AT THE TIME OF THE LANDING WE HAD ONLY 17 SECONDS OF FUEL REMAINING.

WE WERE COUNTING DOWN TO A RISKY LAND OR ABORT DECISION.

### **MY TEAM WAS MY LIFELINE**

### **4. “FAILURE IS NOT AN OPTION!”**

“RES GESTA PAR EXCELLANTIUM ....ACHIEVEMENT THROUGH EXCELLENCE IS OUR MOTTO.

OUR PASSION FOR ALL WE DO PROVIDES THE EMOTIONAL ENERGIES WE NEED TO EXCEL

TO EXCEL YOUR SKILLS MUST BE SHARP

YOU MUST BE READY AND EAGER TO ACCEPT EVERY CHALLENGE. YOUR JUDGMENT OF THE HIGHEST ORDER.

YOU MUST ALWAYS BE AT THE TOP OF YOUR GAME MENTALLY, PHYSICALLY AND EMOTIONALLY.

TO ACHIEVE THIS LEVEL OF PERFORMANCE YOU MUST HAVE A PASSION FOR YOUR WORK.

THROUGHOUT OUR LIFE WE ARE SHAPED AND INFLUENCED BY THOSE AROUND US.

IN MANY CASES THEY TAKE US ON THE PATH TO LEADERSHIP OR TO UNDERTAKE A GREAT CAUSE.

IN MY LIFETIME PRESIDENT JOHN F KENNEDY STATED .... WE CHOOSE TO GO TO THE MOON ... WE CHOOSE TO GO TO THE MOON IN THIS DECADE AND DO THE OTHER THINGS.”

MARTIN LUTHER KING SAID....”I SUBMIT TO YOU THAT IF A MAN HASN’T DISCOVERED SOMETHING HE WILL DIE FOR, HE ISN’T FIT TO LIVE”

THESE TWO GREAT LEADERS CREATED A PASSION THAT BEGAN TWO GREAT CRUSADES OF THE 60’S....

I WAS FORTUNATE VERY EARLY IN MY CAREER TO WORK FOR AN INDIVIDUAL WHO CREATED A PASSION THAT HAS CARRIED ME THROUGH LIFE...

HARRY CARROLL, MY FIRST FLIGHT TEST BOSS WAS A WWII BOMBER PILOT AND INVENTOR.

HARRY WROTE POETRY, WAS A DINER THEATRE ACTOR,

EAGLE SCOUT LEADER WHO LED THE GRAND PORTAGE CANOE TREK ALONG THE CANADIAN BORDER TO THE GREAT LAKES.

IN 1980 HE WAS THE OLDEST PERSON TO COMPLETE OUTWARD BOUND MOUNTAIN SURVIVAL.

IN RETIREMENT HE BECAME A DECKHAND ON BAREFOOT CRUISES ...

HARRY WAS A RENAISSANCE MAN....

HARRY TAUGHT PASSION... A COMMITMENT TO EXCELLENCE... A WILLINGNESS TO STEP UP TO EVERY CHALLENGE ...

HE TAUGHT US TO VOLUNTEER SO AS TO LEARN.

BY EXAMPLE HE INSPIRED US TO EXPAND OUR BOUNDARIES ... TO ACCEPT NO LIMITATIONS.

EACH DAY WITH HARRY WAS AN EXPERIMENT IN DISCOVERY... A TOTAL JOY.

WE DID NOT WANT OUR DAILY WORK TO END.

HIS FAVORITE QUOTE WAS FROM GEORGE BERNARD SHAW .... "WHEN I DIE I WANT TO BE ALL USED UP!"

HARRY DIED THIS PAST JANUARY... HIS INFLUENCE ON MY LIFE... AND ALL THOSE HE TOUCHED WILL LIVE FOREVER.

BURIED WITH HIM WAS A POEM HE WROTE AS A YOUNG BOMBER PILOT ..... "ISLANDS IN THE SKY"

AS YOU GRADUATES DEPART THIS ARENA TODAY...

**RESOLVE TO USE EVERY MOMENT OF YOUR LIFE TO ITS FULLEST MEASURE BY CULTIVATING YOUR INTELLECT AND REACHING EVER HIGHER...**

**IN EACH OF YOU IS A SPIRIT... SET IT FREE IN THE WORLD.**

YOU CAN ACHIEVE ALL THAT YOU SET OUT TO DO, AND THEN EVEN MORE.

LIFE IS NOT FOR THE TIMID...IT IS ONLY FOR THE BOLD AND COUREGEOUS.

SET FAR REACHING AND CHALLENGING GOALS....ONES THAT BORDER ON THE IMPOSSIBLE AND THEN DRIVE TO ACHIEVE THEM....

EACH OF YOU IS UNIQUE, BUT EACH OF YOU IS BY NATURE A BUILDER.

TODAY WE CELEBRATE THE EDUCATIONAL FOUNDATION OF OUR LIFE WHICH YOU BUILT HERE AT TOLEDO UNIVERSITY.

CONTINUE TO BUILD ON THIS FOUNDATION.

MAKE IT STRONG SO IT WILL ENDURE AND BENEFIT OTHERS.

AS YOU LEAVE HERE TODAY ...**GO** WITH A ROARING SENSE OF ELATION AND DETERMINATION ...



THAT YOUR LIFE'S WORK WILL BRING YOU JOY AND MAKE YOUR FAMILY,  
COMMUNITY AND THE WORLD A BETTER PLACE

I WOULD LIKE TO CLOSE WITH A FEW WORDS BY PRESIDENT JOHN F. KENEDY....

“OF THOSE TO WHOM MUCH IS GIVEN, MUCH IS REQUIRED,

AND WHEN AT SOME FUTURE TIME THE HIGH COURT OF HISTORY SITS IN  
JUDGMENT OF EACH ONE OF US,

RECORDING WHETHER IN OUR BRIEF SPAN OF SERVICE ...WE FULFILLED OUR  
RESPONSIBILITIES IN WHATEVER OFFICE WE MAY HAVE HELD....

WE WILL BE MEASURED BY THE ANSWERS TO FOUR QUESTIONS;

- WERE WE TRULY INDIVIDUALS OF COURAGE?
- WERE WE TRULY INDIVIDUALS OF JUDGMENT?
- WERE WE TRULY INDIVIDUALS OF INTEGRITY?
- WERE WE TRULY INDIVIDUALS OF DEDICATION?”

CONGRADULATIONS... I THANK YOU FOR ALLOWING ME TO SHARE YOUR  
SPECIAL DAY