NSB REMARKS Public Service Award May 2007

THANK YOU VERY MUCH FOR THIS VERY SPECIAL AWARD AND FOR THE HONOR BESTOWED ON ME.

CONGRATULATIONS ARE DUE BOTH TO THE
SELECTION COMMITTEE AND TO THE NATIONAL
SCIENCE BOARD—AS, I BELIEVE, THEY HAVE
EXERCISED GOOD JUDGMENT!

I AM HUMBLED AND HONORED BY THIS AWARD

AND BY YOUR PRESENCE HERE THIS EVENING.

I AM THRILLED TO SEE SO MANY FAMILIAR FACES

AND TO ALSO MEET OTHERS WHO BELIEVE IN THE

MISSION OF NSF AND WHO CONVINCINGLY ADVOCATE ACHIEVING ITS GOALS.

I KNOW FROM MY SIX YEARS OF SERVICE AS NSF
ASSISTANT DIRECTOR FOR SCIENCE AND
ENGINEERING EDUCATION THAT NSF IS AMONG
THE VERY BEST AGENCIES IN OUR FEDERAL
GOVERNMENT.

MY EXPERIENCE AT NSF WAS RICH AND REWARDING.

I AM PROUD OF WHAT I AND MY STAFF DID TO
PROMOTE AND EXPAND NSF'S ROLE IN RESEARCH
AND IN EDUCATION.



I AM HAPPY THAT MEMBERS OF MY FAMILY AND CLOSE FRIENDS ARE HERE TONIGHT: MY WIFE JUNE..... AND MY DAUGHTER ELIZABETH.

ELIZABETH WILL GRADUATE FROM THE
UNIVERSITY OF WISCONSIN-MADISON NEXT
SUNDAY AND IN THE FALL SHE WILL ENROLL AT
MICHIGAN LAW SCHOOL.

MY SISTER AMAHL CAME ALL THE WAY FROM CALIFORNIA, BUT HER HUSBAND FRANK DRAKE DIDN'T.

FRANK IS THE FATHER OF SETI-THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE – I TRIED TO

TELL HIM THAT NO SIGNAL IS LIKELY TO COME TONIGHT.

HE SAID WHEN YOU DO RESEARCH YOU HAVE TO BE VIGIL!

MY SISTER MAHA AND HER HUSBAND VICTOR ARE HERE.

FROM MADISON, MY CLOSE FRIENDS GEORGE AND CANDY GIALAMAS AND MY COLLEAGUE FLEMING CRIM;

MY CLOSE FRIEND RANDY GUSCHL FROM THE
DUPONT CENTER FOR COLLABORATIVE RESEARCH
AND EDUCATION.

THANK YOU ALL FOR SHARING THIS HAPPY MOMENT IN MY LIFE.

VERY SPECIAL THANKS GO TO MY LONG TIME
COLLABORATOR AND FRIEND ROD SCHREINERWITHOUT HIM I WOULD NOT BE HERE TONIGHT.

I GRATEFULLY ACCEPT THE PUBLIC SERVICE

AWARD..... I CONSIDER IT TO BE A CHARGE TO

MAINTAIN MY EFFORTS TO ADVANCE SCIENCE AND

TO COMMUNICATE ITS VALUE TO THE GENERAL

PUBLIC.

I RESPECTFULLY REQUEST THE NATIONAL



SCIENCE BOARD TO CONSIDER ENABLING
RECIPIENTS OF THIS GREAT HONOR TO FURTHER
PURSUE THEIR CHARGE, AS APPROPRIATE.

ADVANCING KNOWLEDGE CAN BE DEEPLY REWARDING TO EVERYONE.

TO THE RESEARCHER.... AND ALSO TO OTHERS.....
AS ENLIGHTENMENT HELPS SATISFY PERSONAL
CURIOSITY.

AND ENLIGHTENMENT ALSO CAN LEAD TO INVENTIONS TO IMPROVE THE HUMAN CONDITION AND TO SERVE SOCIETY.

I URGE MY FELLOW SCIENTISTS TO COMMIT
THEMSELVES TO PROMOTING SCIENCE LITERACY.



SCIENCE LITERACY IS NECESSARY FOR THE DEMOCRATIC PROCESS TO WORK.

I MAKE A DISTINCTION BETWEEN SCIENTIFIC

LITERACY, EXPERTISE IN A PARTICULAR FIELD,

AND SCIENCE LITERACY, A BROAD APPRECIATION

AND UNDERSTANDING OF SCIENCE AND ITS

PRACTITIONERS, AND OF WHAT SCIENCE IS

CAPABLE OF ACHIEVING AND WHAT IT CANNOT

ACCOMPLISH.

SCIENCE LITERACY ENLIGHTENS AND ENABLES
PEOPLE TO MAKE INFORMED CHOICES, TO BE
SKEPTICAL, AND TO REJECT SHAMS, QUACKERY,



UNPROVEN CONJECTURE, AND TO AVOID BEING BAMBOOZLED INTO MAKING FOOLISH DECISIONS WHERE MATTERS OF SCIENCE AND TECHNOLOGY ARE CONCERNED.

SCIENCE LITERACY IS FOR EVERYONE –
SCIENTISTS, ARTISTS, HUMANISTS, ALL
PROFESSIONALS, THE GENERAL PUBLIC, YOUTH
AND ADULTS ALIKE.

BY SCIENCE LITERACY, I MEAN LITERACY IN
TECHNOLOGY, IN SCIENCE, AND IN MATHEMATICS.
AND SPEAKING OF LITERACY IN MATHEMATICS, I
AM SO PLEASED THAT "NUMBERS" IS ALSO BEING
RECOGNIZED TONIGHT.

I'D LIKE TO SHARE WITH A STORY THAT RELATES
TO MATHEMATICAL LITERACY.

IT'S A STORY ABOUT A STUDENT ATHLETE WHO
WAS HAVING TROUBLE MAINTAINING HIS
ELIGIBILITY AND HIS COACH WENT TO THE MATH
TEACHER AND SAID, "PLEASE GIVE MY STUDENT A
CHANCE TO MAINTAIN HIS ELIGIBILITY,
OTHERWISE, HE IS GOING TO GO OFF THE TEAM
AND WE WILL END UP NOT GOING TO A POST
SEASON TOURNAMENT."

THE TEACHER AGREED TO GIVE THE STUDENT A
SPECIAL TEST AND THE COACH ASKED, "MAY I
COME ALONG?" THE TEACHER SAID, "YES".



AT THE APPOINTED HOUR THE STUDENT AND HIS
COACH CAME TO THE TEACHER'S OFFICE AND THE
TEACHER PROCEEDED TO ADMINISTER A SPECIAL
EXAM.

THE FIRST QUESTION WAS, "WHAT IS THE SQUARE ROOT OF 16?" THE STUDENT SAID "4".

THE COACH IMMEDIATELY SAID, "OH, PLEASE GIVE HIM ANOTHER CHANCE, PLEASE GIVE HIM ANOTHER CHANCE!"

SOME TIME AGO I SHARED THIS SAME STORY
WITH A GROUP OF LAWYERS AND UNLIKE YOUR
REACTION, THERE WAS DEAD SILENCE.

ABOUT 23 SECONDS LATER, SOMEONE IN THE BACK
OF THE ROOM WAS HEARD CHUCKLING; HE HAD
TAKEN OUT HIS POCKET CALCULATOR......
WHEN I SPEAK OF LITERACY IN SCIENCE I MEAN
LITERACY FOR EVERYONE –LAWYERS, BUSINESS
PEOPLE, PROFESSIONALS, THE GENERAL PUBLIC—
YES, EVERYONE!

AS WE WORK HARD TO PROMOTE ADVANCING
SCIENCE AND ACHIEVING SCIENCE LITERACY WE
MUST ALSO ACCEPT THE AWESOME
RESPONSIBILITY TO BE <u>HUMANE</u> IN EVERYTHING
WE DO AND TO BE <u>HUMANITARIAN</u> IN OUR
PERSONAL AND COLLECTIVE BEHAVIOR.

I CLOSE BY READING WHAT IS INSCRIBED AT THE



STEEPLE OF ST. MARGARETS CHURCH IN GOTHA

(GERMANY.) THIS WAS WRITTEN IN 1784 AT THE

OCCASION OF THE CELEBRATION OF THE

PROGRESS OF THE 100 YEARS AFTER SIR ISAAC

NEWTON. THE AUTHOR IS NOT IDENTIFIED AND

THIS IS A FREE TRANSLATION FROM THE GERMAN:

"HATRED BORN OF DOGMA AND COMPULSION OF CONSCIENCE SINK AWAY; LOVE OF HUMANITY AND FREEDOM OF THOUGHT GAIN THE UPPER HAND.

THE ARTS AND SCIENCES BLOSSOM AND OUR VISION INTO THE WORKSHOP OF NATURE GOES DEEP.

ARTISANS APPROACH ARTISTS IN PERFECTION; USEFUL SKILLS FLOWER AT ALL LEVELS.

HERE YOU HAVE A FAITHFUL PORTRAIT OF OUR TIME.

LOOK NOT SO PROUDLY DOWN UPON US,.....BUT
RATHER RECOGNIZE FROM THIS PICTURE HOW
WITH COURAGE, STRENGTH, PERSEVERANCE AND
LOVE WE RAISED AND SUPPORTED YOUR
STANDARD.

DO THE SAME FOR THOSE WHO COME AFTER YOU...... AND REJOICE!"

LADIES AND GENTLEMEN, I THANK YOU DEEPLY
FOR THIS GREAT HONOR AND I ASK YOU TO ACT
ON YOUR CONVICTIONS TO ADVANCE SCIENCE



AND TO COMMUNICATE ITS VALUE TO THE GENERAL PUBLIC.

THANK YOU VERY MUCH.