GOOD MORNING. I AM HERE TO TELL YOU ABOUT A NEW AGENCY OF THE UNITED STATES CONGRESS. SOMEONE HAS CALLED THIS AGENCY THE LOOK BEFORE YOU LEAP AGENCY. ITS NICKNAME IS OTA, WHICH IS SHORT FOR OFFICE OF TECHNOLOGY ASSESSMENT. BECAUSE I AM OTA'S DIRECTOR, WHAT I THINK THE EFFECT OTA WILL ALMOST CERTAINLY HAVE ON THE QUALITY OF LIFE IN AMERICA IS NECESSARILY BIASED. SO, INSTEAD OF GIVING YOU MY OPINION, I SHALL QUOTE A REMARK THAT KENNETH CLARK MADE ON ANOTHER TV PROGRAM SEVERAL WEEKS AGO. THIS ERUDITE MEMBER OF THE BRITISH PEERAGE IS KNOWN EVERYWHERE FOR HIS STUDIES OF GENIUS IN TIMES PAST -- PAINTERS, SCULPTORS, WRITERS, MUSICIANS, GENERALS, ADMIRALS, EXPLORERS, STATESMEN. ON THE TV BROADCAST JUST MENTIONED, LORD CLARK CONFESSION DIFFICULTY IN FINDING COMPARABLE GENIUS IN THOSE SAME FIELDS OF
ENDEAVOR NOWADAYS. HE EXPLAINED THAT GENIUS NOW IS GOING INTO SCIENCE AND TECHNOLOGY. IF HE IS CORRECT, AND I BELIEVE HE IS, IT CAN MEAN ONLY ONE THING: SCIENCE AND TECHNOLOGY ARE, AND, FOR AT LEAST THE REMAINDER OF THIS CENTURY, QUITE LIKELY WILL BE THE STRONGEST FORCES IN DETERMINING THE QUALITY OF OUR LIVES.

FOR OUR PURPOSES, LET US BRING OUR THOUGHTS BACK TEN YEARS. AT THAT TIME, SCIENCE AND TECHNOLOGY WERE ALREADY POWERFUL INFLUENCES IN AMERICAN SOCIETY. THE WHITE HOUSE, INDEED THE WHOLE EXECUTIVE BRANCH OF THE GOVERNMENT, RECOGNIZED THE OPPORTUNITY USED THAT POWER, AND IT WAS DIFFICULT TO JUDGE HOW WISELY THE PEOPLE OF AMERICA SOMEHOW BECAME ALARMED AND BEGAN TO TRANSMIT THEIR CONCERN THROUGH THEIR ELECTED REPRESENTATIVES IN THE UNITED STATES CONGRESS. THAT PUBLIC FORUM, IN TURN, BECAME SENSITIVE TO THE NEED FOR A RELIABLE ALARM SYSTEM TO ALERT PEOPLE TO NEW TECHNOLOGICAL DEVELOPMENTS THAT COULD IMPROVE THEIR LIVES, AND, WHEN NEEDED, TO TRIGGER ACTIONS MIGHT BE NECESSARY TO CORRECT IN ADVANCE ANY ADVERSE EFFECTS THAT MIGHT ARISE FROM SUCH INNOVATIONS.

HOPEFULLY, OTA CAN BE THAT EARLY WARNING SYSTEM. ESTABLISHED BY ACT OF CONGRESS, OTA HAS BEEN FULLY FUNDED AND OPERATIONAL FOR JUST OVER A YEAR. IT IS RUN BY TWELVE MEMBERS OF CONGRESS; SIX DEMOCRATS, SIX REPUBLICANS; SIX FROM THE SENATE, SIX FROM THE HOUSE. SENATOR KENNEDY OF MASSACHUSETTS WAS ITS FIRST CHAIRMAN —
AND, BECAUSE THE CHAIRMANSHIP CHANGES WITH EVERY CONGRESS, ITS PRESENT CHAIRMAN IS CONGRESSMAN TEAGUE OF TEXAS. THE VICE CHAIRMAN -- AND THIS INDICATES THE BI-PARTISAN NATURE OF THIS NEW AGENCY -- IS A REPUBLICAN, SENATOR CLIFFORD CASE OF NEW JERSEY. THIS CONGRESSIONAL BOARD, WORKING WITH THE COMMITTEES OF THE CONGRESS, HAS DETERMINED OTA'S PRIORITIES TO INCLUDE: FOOD; ENERGY; MATERIALS RESOURCES; THE OCEANS; HEALTH; TRANSPORTATION, AND INTERNATIONAL TRADE. THOSE ARE SUBJECTS ON JUST ABOUT EVERYBODY'S LISTS, ESPECIALLY THOSE OF CONGRESSIONAL MEMBERS WHO ASK THAT THE SOCIAL, POLITICAL AND ECONOMIC IMPLICATIONS AND EFFECTS OF TECHNOLOGICAL APPLICATIONS BE EXAMINED AS A PART OF EACH OTA ASSESSMENT. THIS WORK IS THEN UNDERTAKEN ASSOCIATED BY THE OFFICE OF THE DIRECTOR, THROUGH THE USE OF INTERNAL STAFF, PUBLIC PANELS, INDIVIDUAL CONSULTATION, CONTRACTUAL ARRANGEMENTS, AND -- AS WIDE A PUBLIC INVOLVEMENT AS POSSIBLE.

BROAD RANGE OF CONCERN ABOUT VARIOUS PROSPECTS AND PROBLEMS RELATED TO TECHNOLOGY HAS BEEN DEMONSTRATED IN THE MORE THAN 50 CONGRESSIONAL ASSESSMENT REQUESTS ALREADY SUBMITTED TO OTA. THUS FAR, THE OFFICE HAS NOT BEEN ABLE TO ADDRESS ALL OF THE SUBJECTS THAT HAVE BEEN RAISED, BUT IN THOSE AREAS WHERE WORK HAS GONE FORWARD, THERE HAVE BEEN SOME SIGNIFICANT SUCCESSES. DIVERSIFIED OTA HAS DEMONSTRATED THAT IT CAN MOBILIZE A BODY OF EXPERTISE AND PRODUCE BALANCED, OBJECTIVE AND TIMELY ANALYSES -- FREQUENTLY IN THE FACE OF TIGHT CONGRESSIONAL DEADLINES.

IN THE ENERGY AREA, WE ALL RECOGNIZE THAT THERE HAS BEEN AN ENERGY CRISIS; THAT, AS A NATION, WE ARE SEEKING ALTERNATIVE ENERGY SOURCES AND RESOURCES; THAT WE MUST DEVELOP AN OVERALL ENERGY POLICY CAPABLE OF MEETING FUTURE NEEDS AND DEMANDS. WE ALL ARE AWARE THAT BOTH INTERNATIONAL AND DOMESTIC FACTORS BEAR
UPON THE ENERGY PROBLEM -- A POINT BROUGHT HOME MOST VIVIDLY TO
MOST OF US SOME MONTHS BACK WHEN WE HAD TO WAIT IN LONG LINES TO
GET GASOLINE.

AS A RESULT, A WIDE-VARIETY OF ENERGY TECHNOLOGIES ARE NOW
UNDERGOING INTENSIVE EXAMINATION AT ALL LEVELS OF GOVERNMENT. THESE
INCLUDE THE RECOVERY OF OIL FROM SHALE FORMATIONS AND FROM BENEATH
THE OCEAN FLOORS; PROCESSES FOR THE GASIFICATION AND LIQUEFACTION OF
COAL, PRACTICAL MEANS FOR HARNESSING SOLAR, GEOTHERMAL AND WIND
ENERGY, FURTHER ADVANCES IN THE NUCLEAR FIELD SUCH AS THE BREEDER-
REACTOR AND, EVENTUALLY, THE FUSION PROCESS. MANY OF THESE TECHNOLOGIES
OFFER GREAT PROMISE. INHERENT IN MANY OF THEM ARE GREAT DANGERS. THE
PUBLIC IS DEMANDING, AND THE GOVERNMENT IS SEEKING, A POLICY THROUGH WHI
SUFFICIENT SUPPLIES OF ENERGY WILL BE ASSURED WITH DUE REGARD FOR
SAFETY, FOR THE PROTECTION OF THE ENVIRONMENT, AND FOR KEEPING DOWN
THE COST TO THE CONSUMER.

CONGRESS HAS CALLED UPON OTA TO PERFORM SEVERAL TASKS IN THE
ENERGY AREA, INCLUDING A TECHNOLOGY ASSESSMENT OF SYSTEMS WHICH MIGHT
CONVERT SOLAR ENERGY INTO ELECTRICITY TO MEET THE NEEDS OF COMMUNITIES
OF UP TO 100,000 POPULATION. THIS STUDY IS EXAMINING SEVERAL METHODS
OF SOLAR ENERGY CONVERSION, AS WELL AS ADDITIONAL POSSIBILITIES
FOR UTILIZING THE SUN'S ENERGY IN THE HEATING AND COOLING OF BUILDINGS.
WHEN THIS ASSESSMENT IS COMPLETE, WE WOULD EXPECT TO BE ABLE TO MAKE
USE OF ITS FINDINGS IN MEASURING AND EVALUATING OTHER PROPOSED SOLAR
ENERGY TECHNOLOGIES, AND THE TIME FRAMES WITHIN WHICH THEY CAN BE
EXPECTED TO BECOME ECONOMICALLY FEASIBLE, FROM THE RELATIVELY-NEAR
FUTURE TO OR BEYOND THE END OF THE 20TH CENTURY.
However, most people who live along our nation's coasts are aware that the government wishes to expedite drilling for oil far beyond the three-mile limit. OTA already is assisting the Congress in determining what leasing arrangements are best for assuring that outer continental shelf oil and gas exploration and development will be conducted in a manner that best serves our national interests. The information which OTA has presented to Congress about oil-leasing alternatives was developed, in part, through an assessment project begun last fall, which is addressing the specific consequences of technological developments, including oil drilling, off the coasts of New Jersey and Delaware.

The objectives of OTA's New Jersey-Delaware study are to provide Congress with the best possible answers to questions of fundamental importance: How much oil is actually out there, and how much of it can reasonably be recovered with available technology? What alternative recovery methods are available, and how can we assure that our technology is applied in a manner that will best protect the environment? How will the adjacent coastal lands and the people who reside there be affected, and what steps should be taken to protect their interests? How can the affected publics best be informed of the potential benefits and risks that can be expected to accompany offshore oil development?

The oceans, of course, are just one part of the national energy picture. A brand new federal agency to take a comprehensive approach to the development of national energy resources has just been formed.
THIS IS THE ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION, GENERALLY REFERRED TO AS "ERDA". THE CONGRESS HAS BEEN ANXIOUS TO EXAMINE THE EARLY PLANS AND PROPOSALS OF THIS VITAL NEW AGENCY, AND OTA HAS BEEN CALLED UPON TO ASSIST IN THAT EXAMINATION BY PROVIDING INDEPENDENT EXPERTS TO REVIEW THE INITIAL ERDA BUDGET SUBMISSION. OTA WAS THEN ABLE TO PROVIDE CONGRESS WITH ISSUE PAPERS AND INTERROGATORIES BASED ON QUESTIONS RAISED BY THE ERDA BUDGET. IN THE AFTERMATH OF THIS REVIEW PROCESS, A HOUSE COMMITTEE HAS VOTED TO AUTHORIZE ADDITIONAL FUNDS FOR RESEARCH IN ENERGY CONSERVATION AND FOR SOLAR AND GEOTHERMAL ENERGY DEVELOPMENT.

WHILE ENERGY IS OF CENTRAL IMPORTANCE TO MOST OF THE ESSENTIALS, AS WELL AS THE AMENITIES, BY WHICH WE MEASURE THE QUALITY OF OUR LIVES, IT IS BY NO MEANS THE ONLY FACTOR IN WHICH TECHNOLOGY PLAYS A DOMINANT ROLE. MATERIALS RESOURCES OF ALL KINDS ARE ESSENTIAL TO OUR ECONOMY, AND CONGRESS HAS ASKED OTA TO ASSESS FOUR MAJOR POLICY QUESTIONS IN THIS FIELD, RANGING FROM REUSE AND RECYCLING TO THE ESTABLISHMENT OF NATIONAL STOCKPILES OF KEY COMMODITIES TO INSURE AGAINST SHORTAGES.

FOR THOSE OF US WHO LIVE IN METROPOLITAN CENTERS, THE CONGESTION OF OUR PRESENT MODES OF LOCAL TRANSPORTATION IS AN INCREASINGLY VEXING PROBLEM. CONGRESS HAS ASKED OTA TO HELP IT IN EXAMINING MASS TRANSIT TECHNOLOGIES WHICH MIGHT PROVIDE FASTER, MORE EFFICIENT, AND MORE CONVENIENT TRANSPORTATION FOR CITIZENS IN OUR CITIES.

FOOD AND NUTRITION ARE MATTERS OF FOREMOST CONCERN DOMESTICALLY, AS WELL AS INTERNATIONALLY. OTA HAS A MAJOR ASSESSMENT UNDER WAY FOR CONGRESS DEALING WITH IMPROVED WAYS TO PROVIDE THE INFORMATION NEEDED TO SET FOOD AND NUTRITION POLICY. IN HEALTH, OTA HAS PROVIDED CONGRESS A REPORT DEALING WITH METHODS TO ASSURE THE QUALITY OF PRESCRIPTION DRUGS.
IN SUMMATION, LET ME SAY THAT WHATSOEVER SUCCESS OTA HAS BEEN
ABLE TO ENJOY THIS YEAR STems FROM THE WHOLEHEARTED COOPERATION AND
ASSISTANCE WHICH HAS BEEN FORTHCOMING FROM THE TECHNOLOGICAL COMMUNITY
-- FROM INDUSTRY, THE ACADEMIC WORLD AND OTHER GOVERNMENT AGENCIES --
AS WELL AS FROM CONCERNED LAYMEN, REPRESENTING THE DIVERSE INTERESTS
-OF ORDINARY CITIZENS AND WORKERS. THE CONGRESS, FOR ITS PART, HAS
CLEARLY RECOGNIZED THE NEED TO BETTER EMPLOY TECHNOLOGY TO SERVE THE
PURPOSES OF OUR DEMOCRATIC SOCIETY.

OTA'S ROLE IS TO PROVIDE AN EARLY WARNING SYSTEM TO INSURE
THAT THE RIGHT QUESTIONS ARE ASKED ABOUT THE EFFECTS OF TECHNOLOGY,
SO THAT THE RIGHT ANSWERS MAY BE OBTAINED. IN SEEKING THIS OBJECTIVE,
WE HOPE THAT ALL OF US CAN BETTER UNDERSTAND, AND BETTER UTILIZE,
TECHNOLOGY IN IMPROVING THE QUALITY OF LIFE ON THIS FRAGILE PLANET.

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OUR DEMOCRATIC SOCIETY WORKS BEST WHEN

THERE IS A RECOGNIZED RELATIONSHIP BETWEEN
PUBLIC EDUCATION AND THE CHOICES WE MAKE.

IF IN CONGRESSIONAL DEBATE THAT.Linq CAN
BE IMPROVED, IF PEOPLE CAN UNDERSTAND BETTER
WHAT THE PROBLEMS ARE, WHAT OPTIONS AND
ACTIONABLES ARE AVAILABLE, WHY A COURSE
ACTION HAS BEEN TAKEN, THERE WILL PROBABLY BE
MORE SUCCESS IN WHAT WE DO, AND FAILURES WILL BE BETTER UNDERSTOOD.