


SUGGESTED TALKING POINTS FOR  
SENATOR ROBERT DOLE FOR  
TRIP TO HUNTSVILLE, ALABAMA

-- AMERICANS ARE DEEPLY SADDENED BY THE LOSS OF THE CHALLENGER AND ITS CREW. IT WAS A PERSONAL LOSS TO ALL OF US BUT PARTICULARLY TO THE DEDICATED MEN AND WOMEN DIRECTLY INVOLVED IN SHUTTLE PROJECTS AT NASA AND THE MARSHALL SPACE FLIGHT CENTER. GRIEF OVER THE LOSS OF THE CHALLENGER 7 WILL BE WITH US ALWAYS, BUT THE BEST TRIBUTE WE CAN MAKE IS TO FLY AGAIN AND CONTINUE THE NATION'S SPACE ENDEAVOR.

-- THE CREW OF CHALLENGER WAS DEDICATED AND BRAVE AND SO MUST NASA AND MSFC BE AS THEY FACE THE FUTURE. I KNOW THAT THE PEOPLE OF THE MARSHALL SPACE FLIGHT CENTER ARE FULLY DEDICATED TO CORRECTING ALL PROBLEMS ASSOCIATED WITH THE ACCIDENT AND PRESSING AHEAD TO REAP THE BENEFITS OF SPACE EXPLORATION FOR ALL MANKIND.

 -- AS DEVASTATING AS THE CHALLENGER LOSS WAS IT SHOULD NOT BE ALLOWED TO BLUR NASA'S PAST ACCOMPLISHMENTS, SO MANY OF WHICH HAVE FILLED THE NATION WITH PRIDE AND PROVIDED PRACTICAL BENEFITS OF TECHNOLOGICAL BREAKTHROUGHS.

-- IN TWENTY FIVE YEARS, THE MARSHALL CENTER HAS MADE MAJOR CONTRIBUTIONS TO MANKINDS' MARCH INTO SPACE: TWO MERCURY REDSTONE LAUNCHES, 32 SATURN LAUNCHES INCLUDING 9 LUNAR MISSIONS, THREE SKYLAB MISSIONS, THREE HIGH ENERGY ASTRONOMY OBSERVATORIES, AND 24 SUCCESSFUL SPACE SHUTTLE LAUNCHED.

-- MARSHALL HAS ALSO BEEN RESPONSIBLE FOR SOME OF THE MOST REMARKABLE ACCOMPLISHMENTS IN SPACE INCLUDING THE LAUNCH VEHICLE AND SPACECRAFT FOR THE FREE WORLD'S FIRST UNMANNED SATELLITE, THE LAUNCH VEHICLE FOR THE FREE WORLD'S FIRST MANNED SPACECRAFT, THE LAUNCH VEHICLES THAT SENT MAN TO THE MOON, THE WORLD'S ONLY MANNED LUNAR SURFACE VEHICLE, THE WORLD'S FIRST MANNED SPACE STATION (SKYLAB) AND ITS MANY EXPERIMENTS, MATERIALS PROCESSING EXPERIMENTS IN SPACE, PROPULSION SYSTEMS FOR THE WORLD'S FIRST SPACE SHUTTLE, AND A VERSATILE BUT REUSABLE MANNED LABORATORY (SPACELAB).

-- SUCH A RECORD OF SUCCESS CAN ONLY BE ATTRIBUTED TO THE HARD WORK, DEDICATION AND INTEGRITY OF MARSHALL MANAGEMENT AND THE CENTER'S WORK FORCE. THERE MAY HAVE BEEN ERRORS IN JUDGEMENT ALONG THE WAY, BUT IT WAS ALWAYS FOREMOST IN THE MIND OF MARSHALL MANAGERS TO GIVE THEIR VERY BEST TO AMERICA'S SPACE VENTURE.

-- MARSHALL PEOPLE ARE CONTINUING TO GIVE THEIR VERY BEST THIS TIME TO CORRECT ANY FAILURE, SOLVE ANY PROBLEM, AND ANY



DEMAND NECESSARY TO ENSURE OUR COUNTRY'S SAFE RETURN TO SPACE AND REKINDLE IN AMERICA THE PIONEERING SPIRIT OF THE CHALLENGER 7.

-- TO CARRY THESE THINGS OUT MARSHALL NEEDS THE SUPPORT OF THE COMMUNITY, THE LEADERS IN GOVERNMENT AND THE COUNTRY TO ASSURE THE EARLIEST PRACTICABLE RESUMPTION OF THIS NATION'S SPACE PROGRAM.

#### SPECIFIC MARSHALL PROGRAM

##### (1) SPACE STATION

-- DESPITE THE RECENT TROUBLES EXPERIENCED BY OUR SPACE PROGRAM THE FUTURE LOOKS VERY BRIGHT FOR NASA AND THE MARSHALL SPACE FLIGHT CENTER. THE MOST IMPORTANT NEW PROGRAM FOR MARSHALL, AND FOR NASA AS A WHOLE, IS THE SPACE STATION. THUS FAR, FUNDING FOR THE PROGRAM HAS BEEN ADEQUATE BUT WE MUST ENSURE THAT THE NECESSARY FUNDING LEVEL IS MAINTAINED SO THAT THE INITIAL OPERATING CAPABILITY OF THE SPACE STATION CAN TAKE PLACE IN THE EARLY 1990s.

SPACE  
STATION

-- A PERMANENTLY MANNED SPACE BASED FACILITY WILL ENSURE UNITED STATES LEADERSHIP IN SPACE FOR MANY YEARS TO COME. NOT ONLY WILL THIS FACILITY ENHANCE OUR COUNTRY'S SCIENCE AND APPLICATION PROGRAMS, IT WILL ALSO ENCOURAGE DEVELOPMENT OF CAPABILITIES FOR FURTHER COMERCIALIZATION OF SPACE AND

STIMULATE ADVANCED TECHNOLOGIES. THE SPACE STATION, HIGHLIGHTED BY A COMBINATION OF A MANNED STATION AND UNMANNED RESEARCH PLATFORMS IN LOWER ORBIT, WILL BE THE KEY ELEMENT IN THE COMMERCIAL DEVELOPMENT OF SPACE.

-- THE SPACE STATION HAS BEEN SLATED FOR A NEW START IN 1987 AND I FULLY SUPPORT THIS INITIATIVE. MARSHALL SPACE FLIGHT CENTER HAS APPROXIMATELY ONE-THIRD OF THE PROGRAM WHICH IS WELL JUSTIFIED BY MARSHALL'S HISTORY AND THE CADRE OF ENGINEERS AND SCIENTISTS CURRENTLY LOCATED HERE. WE NEED TO MAKE SURE THAT THE MOMENTUM IS CONTINUED ON THE SPACE STATION TO ENSURE A NEW START IN 1987.

(2) FOURTH ORBITOR

-- I ALSO BELIEVE THAT NASA SHOULD, AS SOON AS POSSIBLE, BEGAN PRODUCTION OF A FOURTH ORBITOR TO REPLACE THE CHALLENGER. THE SPACE SHUTTLE IS THE NATION'S PRIMARY LAUNCH VEHICLE AND LONG LAUNCH DELAYS WILL MEAN THAT IMPORTANT COMMERCIAL, GOVERNMENT AND SCIENTIFIC PAYLOADS WILL BE DELAYED. WE HAVE COME TO DEPEND ON THE ROUTINE ACCESS TO SPACE THAT THE SHUTTLE PROVIDES US AND ON THE IMPORTANT DUTIES ONLY IT CAN PERFORM. NASA, WITH THE SUPPORT OF CONGRESS, SHOULD MOVE QUICKLY TO CORRECT THE PROBLEMS WHICH RESULTED IN THE SHUTTLE ACCIDENT AND GET THE SHUTTLE PROGRAM MOVING AGAIN. HOWEVER, PRODUCTION OF THE FOURTH ORBITOR SHOULD NOT COME AT THE EXPENSE OF THE 1987

*SPACE SHUTTLE*



NEW START FOR THE SPACE STATION. I BELIEVE BOTH PROGRAMS SHOULD CONTINUE SIMULTANEOUSLY.

### (3) ORBITAL MANEUVERING VEHICLE

-- A SECOND IMPORTANT PROGRAM TO THE MARSHALL SPACE FLIGHT CENTER IS THE ORBITAL MANEUVERING VEHICLE WHICH IS NASA'S ONLY NEW START IN 1986. THIS IS A LOW EARTH VEHICLE WHICH WILL EXTEND THE SPACE SHUTTLE'S CAPABILITY AND PROVIDE AN ESSENTIAL ELEMENT TO THE SPACE STATION PROGRAM. THE OMV WILL PROVIDE THE CAPABILITY FOR DEPLOYING, RETRIEVING, REBOOSTING AND SERVICING SATELLITES IN ORBIT BEYOND THE REACH OF THE SHUTTLE AND THE SPACE STATION. MARSHALL IS RESPONSIBLE FOR THE DEVELOPMENT OF THE OMV AND IS CURRENTLY EVALUATING PROPOSALS LEADING TO THE SELECTION AND AWARD OF A CONTRACT. IT IS IMPORTANT THAT NASA GO FORWARD WITH A NEW START FOR THE OMV THIS YEAR AND A CONTRACT GET AWARDED. I WILL DO WHATEVER I CAN TO MAKE SURE THIS HAPPENS.

OMV

### (4) MATERIALS PROCESSING IN SPACE

-- I ALSO WANT TO MENTION ANOTHER PROGRAM WHICH IS OF VITAL IMPORTANCE TO MARSHALL AND TO THE FUTURE OF SPACE COMMERCIALIZATION, MATERIALS PROCESSING IN SPACE. MARSHALL HAS RESPONSIBILITY FOR MANAGING THIS PROGRAM. MATERIALS PROCESSING IN SPACE EMPHASIZES THE SCIENCE AND TECHNOLOGY OF PROCESSING MATERIALS IN A GRAVITY FREE ENVIRONMENT. THE

KNOWLEDGE GAINED FROM DOING MATERIALS PROCESSING EXPERIMENTS IN SPACE WILL CONTRIBUTE SIGNIFICANTLY TO OUR UNDERSTANDING AND APPLICATION OF GROUND BASE PROCESSES IN SUCH IMPORTANT AREAS AS METALS AND ALLOYS, GLASS AND CERAMICS, BIOTECHNOLOGY, COMBUSTION, ELECTRONIC MATERIAL AND FLUID DYNAMICS. ONE IMPORTANT PROGRAM BEING MANAGED BY MARSHALL IN CONJUNCTION WITH THE UNIVERSITY OF ALABAMA IS THE CRYSTALOGRAPHY EXPERIMENTS WHICH HAVE BEEN CONDUCTED ABOARD THE SHUTTLE AND COULD HOPEFULLY RESULT IN POWERFUL DRUGS TO FIGHT CANCER. ALSO, EXPERIMENTS HAVE BEEN HELD ABOARD THE SHUTTLE TO ISOLATE INSULIN PRODUCING BETA CELLS FROM PANCREATIC TISSUE THAT COULD LEAD TO A NEW DIABETES TREATMENT. CONGRESS SHOULD FULLY SUPPORT NASA'S MATERIALS PROCESSING PROGRAM BY PROVIDING ADEQUATE FUNDING OVER THE NEXT SEVERAL YEARS.

#### CONCLUSION

-- LAST YEAR MARSHALL SPACE FLIGHT CENTER CELEBRATED ITS 25TH ANNIVERSARY. AS I NOTED EARLIER, IN ITS FIRST 25 YEARS MARSHALL HAS AMASSED A REMARKABLE RECORD OF SPACE RELATED ACHIEVEMENTS. UNDER THE LEADERSHIP OF DR. WERNER VON BRAUN MARSHALL HAS GREW FROM BEING STRICTLY A ROCKET PROPULSION DEVELOPMENT CENTER INTO AN IMPORTANT RESEARCH AND DEVELOPMENT CENTER. UNDER THE CURRENT CENTER DIRECTOR, DR. BILL LUCAS, MARSHALL HAS CONTINUED TO EXPAND ITS HORIZONS. I WANT TO CONGRATULATE THE MEN AND WOEN WHO HAVE BEEN A PART



OF THE MARSHALL CENTER FOR THE PAST 25 YEARS AND WHO HAVE CONTRIBUTED SIGNIFICANTLY TO MAKING AND MAINTAINING THE UNITED STATES THE WORLD LEADER IN SPACE.

STRATEGIC DEFENSE COMMAND

-- I STRONGLY SUPPORT THE STRATEGIC DEFENSE INITIATIVE WHICH IS, OF COURSE, AN AGGRESSIVE RESEARCH PROGRAM TO DETERMINE THE FEASIBILITY OF DEVELOPING STRATEGIC DEFENSES FOR THE UNITED STATES AND ITS ALLIES. WE MUST REMEMBER THAT THE SOVIET UNION HAS HAD AN ACTIVE BALLISTIC MISSILE DEFENSE DEVELOPMENT PROGRAM FOR MANY YEARS AND HAS AGGRESSIVELY PURSUED ADVANCED DEFENSIVE TECHNOLOGIES SUCH AS DIRECTED ENERGY WEAPONS. WHILE THE SOVIETS HAVE WAGED A PROPAGANDA WAR ON OUR SDI RESEARCH PROGRAM THEY HAVE PROCEEDED FULL STEAM AHEAD WITH THEIR OWN. EVEN THE HARSHTEST CRITICS OF SDI WILL CONCEDE THAT A SOVIET MONOPOLY IN THIS AREA WOULD BE BOTH DESTABILIZING AND A THREAT TO OUR DETERRENT CAPABILITY.

-- THE STRATEGIC DEFENSE COMMAND HERE IN HUNTSVILLE PLAYS AN EXTREMELY IMPORTANT ROLE IN THE SDI ORGANIZATION. FOR MANY YEARS THE ARMY'S BMD PROGRAM IN HUNTSVILLE HAS ADMINISTERED AND DIRECTED THE LONG-TERM BMD TECHNOLOGY BASE AND PROVIDED THE FOUNDATION FOR THE INITIAL ELEMENT OF A FUTURE LAYERED DEFENSE SYSTEM. THE SDI MUST TAKE A BALANCED APPROACH TOWARD BALLISTIC MISSILE DEFENSE BY STEPPING UP THE

PACE OF RESEARCH ON ADVANCED, LONG RANGED DEFENSE CONCEPTS SUCH AS DIRECTED ENERGY DEVICES WHILE CONTINUING WORK ON MORE MATURE, NEAR TERM BMD CONCEPTS. I FIRMLY BELIEVE THAT AN EVOLUTIONARY APPROACH TO STRATEGIC DEFENSE BY THE UNITED STATES REPRESENTS THE MOST RATIONAL AND STABLE PATH TO A REDUCTION IN OFFENSIVE NUCLEAR ARMS. IT IS VITALLY IMPORTANT THAT THE UNITED STATES MAINTAIN THE OPTION OF DEPLOYING A BMD SYSTEM OF RELATIVELY MATURE TECHNOLOGY WITHIN A DECADE.

-- I THINK IT PARTICULARLY IMPORTANT THAT THE ARMY BMD PROGRAM RECEIVE BUDGET PRIORITY, AS DIRECTED BY THE SENATE ARMED SERVICES COMMITTEE IN ITS REPORT ACCOMPANYING THE 1986 DEFENSE AUTHORIZATION BILL, TO ENSURE TIMELY COMPLETION OF THE TECHNOLOGY VALIDATION PROGRAMS AND INITIATION OF INTEGRATED FLIGHT TEST PROGRAMS THAT SUPPORT NEAR TERM DEPLOYMENT OPTIONS.