Remarks by David Traynham
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YEAR 2000 INTERNATIONAL AIRPORT NOISE SYMPOSIUM
FEBRUARY 14, 2000

Summary of Presentation

The presentation highlights past successes in our national efforts to control aviation noise around airports, and discusses further steps needed, both nationally and internationally, to mitigate noise. It outlines the progression of Federal involvement in aviation noise abatement, from the beginning of the jet age when noise was first recognized as a problem and a potential limiting factor in aviation growth, through the successful completion of the Stage 2 phaseout of large commercial jets at the end of 1999. It discusses Federal actions beginning with the 1976 Aviation Noise Abatement Policy, which provided a roadmap for addressing noise through improved technology and effective compatible land use planning, major Acts such as ASNA and ANCA, and development over the years of funding sources for noise compatibility planning and implementation around airports. Initiatives that will help to mitigate aviation noise in the future are also discussed, including a joint research program by FAA/NASA to identify noise-reducing technologies for subsonic jets, and ICAO/CAEP efforts which seek to develop a next-generation noise standard, or "Stage 4". Finally, the presentation stresses the importance of community involvement in developing effective compatible land use planning strategies. Noise, as well as other issues such as air emissions, have and will continue to be a potential limitation on aviation growth, but with the commitment of FAA and industry, and vigorous involvement by local communities and the interested public, the solutions that result from these efforts can be beneficial to aviation, the flying public, and the communities around airports alike.

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GOOD MORNING! I WOULD FIRST LIKE TO THANK THE UNIVERSITY OF CALIFORNIA AT BERKELEY, INSTITUTE OF TRANSPORTATION STUDIES, AND THE NATIONAL CENTER OF EXCELLENCE IN AVIATION OPERATIONS RESEARCH FOR INVITING ME TO SPEAK TO YOU TODAY. WITH THE BEGINNING OF A NEW CENTURY UPON US, IT SEEMS FITTING TO LOOK BACK ON OUR ACCOMPLISHMENTS IN THE FIELD OF AVIATION THIS PAST CENTURY–AVIATION'S FIRST CENTURY. IT'S HARD TO BELIEVE THAT AVIATION HAS BEEN A PART OF OUR NATIONAL LIFE FOR NEARLY 100 YEARS NOW, EVER SINCE THE WRIGHT BROTHERS MADE THEIR FIRST FLIGHT AT KITTY HAWK IN 1903. THE NATIONAL AIR AND SPACE MUSEUM, JUST DOWN THE STREET FROM MY OFFICE AT THE FAA, PUTS INTO PERSPECTIVE A STUNNING HISTORY OF ACHIEVEMENTS IN AVIATION–SHOWCASING TREASURES FROM THE ORIGINAL WRIGHT BROTHERS FLYER, TO LINDBERGH'S "SPIRIT OF ST. LOUIS" TO, MOST RECENTLY, THE GONDOLA THAT CARRIED AN INTERNATIONAL TEAM ON THE FIRST NONSTOP BALLOON FLIGHT AROUND THE WORLD. EACH STOOD FOR INNOVATION AND BOLD ACTION IN ITS TIME, AND EACH SERVED TO DRAW ATTENTION TO THE EXCITEMENT AND PROMISE OF AVIATION.

BUT WITH THESE ACCOMPLISHMENTS, AND THE BENEFITS WE HAVE ALL COME TO APPRECIATE AS TECHNOLOGY HAS ADVANCED AND ACCESS TO AVIATION SERVICES HAS IMPROVED OVER THE YEARS, HAVE COME NEW CHALLENGES UNFORESEEN BY THOSE WHO FIRST TOOK TO THE SKIES A CENTURY AGO. ADDRESSING AVIATION'S IMPACTS ON THE ENVIRONMENT–NOISE, AIR QUALITY, AND THE PROTECTION OF WILDLIFE AND OUR NATURAL RESOURCES–IS BUT ONE OF THESE CHALLENGES.

RECOGNITION OF AVIATION'S ENVIRONMENTAL IMPACTS, AND THEIR POTENTIAL FOR LIMITING AVIATION GROWTH, HAS EVOLVED ALONGSIDE THE INDUSTRY ITSELF. WITH THE BEGINNING OF COMMERCIAL JET SERVICE IN THE 1950S, AIR TRAVEL BECAME FASTER, MORE EFFICIENT, AND MORE WIDELY AVAILABLE TO THE PUBLIC. BUT WITH IT CAME AN ESCALATION IN THE IMPACTS OF NOISE AROUND THE NATION'S AIRPORTS. IN RESPONSE, CONGRESS IN 1969 GAVE FAA THE RESPONSIBILITY FOR REDUCING NOISE THROUGH THE REGULATION OF AIRCRAFT DESIGN AND CERTIFICATION, AND SOON AFTERWARD FAA LAUNCHED ITS LONG-TERM PROGRAM FOR CONTROLLING AIRCRAFT NOISE AT ITS SOURCE. IN 1976, FEDERAL RECOGNITION OF THE NOISE PROBLEM WAS MANIFESTED IN THE FAA AND DEPARTMENT OF TRANSPORTATION'S AVIATION NOISE ABATEMENT POLICY. SINCE IT WAS ISSUED, THE 1976 POLICY HAS SUCCESSFULLY GUIDED OUR EFFORTS,

PROVIDING A ROADMAP FOR ADDRESSING NOISE THROUGH IMPROVED TECHNOLOGY, REFINEMENTS IN OPERATIONS, AND IDENTIFYING SPECIFIC ROLES FOR EACH PLAYER IN ACHIEVING AVIATION NOISE COMPATIBILITY—FROM MANUFACTURERS, TO OPERATORS, TO INDIVIDUAL CITIZENS, TO GOVERNMENTS AT ALL LEVELS.

IN 1979 CONGRESS ENACTED THE AVIATION SAFETY AND NOISE ABATEMENT ACT; WHICH FAA IMPLEMENTED WITH THE FAR PART 150, AIRPORT NOISE COMPATIBILITY PROGRAM. THIS PROGRAM PROVIDES A COMPREHENSIVE PROCESS FOR IDENTIFYING CURRENT AND FUTURE NOISE PROBLEMS AROUND AIRPORTS, AND FOR DEVELOPING NOISE COMPATIBILITY PLANS AND IMPLEMENTATION PROGRAMS TO RESOLVE THEM. PART 150 ESTABLISHES STANDARD NOISE METHODOLOGIES AND UNITS; ESTABLISHES THE INTEGRATED NOISE MODEL (INM) AS THE STANDARD NOISE MODELING METHODOLOGY; IDENTIFIES LAND USES WHICH NORMALLY ARE COMPATIBLE OR NONCOMPATIBLE WITH VARIOUS LEVELS OF AIRPORT NOISE; AND PROVIDES FOR VOLUNTARY DEVELOPMENT OF NOISE EXPOSURE MAPS AND NOISE COMPATIBILITY PROGRAMS BY AIRPORT OPERATORS.

THE 1979 ACT ALSO PROVIDED FOR FUNDING OUT OF THE AVIATION TRUST FUND FOR PREPARING NOISE EXPOSURE MAPS AND IMPLEMENTING NOISE COMPATIBILITY

PROGRAMS. THE FEDERAL AIRPORT IMPROVEMENT PROGRAM, OR AIP, WAS ESTABLISHED IN 1982, AUTHORIZING FUNDING FOR AIRPORT DEVELOPMENT AND PLANNING, INCLUDING NOISE COMPATIBILITY PLANNING AND IMPLEMENTATION UNDER ASNA. SIMILARLY, THE AVIATION SAFETY AND CAPACITY ACT OF 1990 ESTABLISHED PASSENGER FACILITY CHARGES, OR PFC'S, AND AUTHORIZED THEIR USE FOR NOISE COMPATIBILITY PROGRAMS AND AIRPORT DEVELOPMENT PROJECTS. THROUGH FY 1999, SOME 195 AIRPORT NOISE COMPATIBILITY PROGRAMS HAVE BEEN APPROVED BY THE FAA, THEIR DEVELOPMENT FUNDED IN PART BY $49.9 MILLION IN AIP FUNDS AND $6.4 MILLION IN PFC FUNDS. ADDITIONALLY, THROUGH FY 1999 SOME $2.5 BILLION [$2,501,500,000] IN AIP FUNDS AND OVER $1.8 BILLION [$1,862,800,000] IN PFC FUNDS WAS COMMITTED TO IMPLEMENTATION OF NOISE PROJECTS, SUCH AS, HOME PURCHASES, RELOCATIONS, AND SOUND INSULATION TREATMENTS.

SINCE THESE EARLY EFFORTS, WE HAVE MADE GREAT STRIDES IN REDUCING NOISE IMPACTS ON THE PUBLIC, PRIMARILY THROUGH ADVANCEMENTS IN AIRCRAFT TECHNOLOGY. THE OLD STAGE 1 707S GAVE WAY TO QUIETER STAGE 2 AIRCRAFT, AND EVEN QUIETER STAGE 3S FOLLOWED SOON AFTERWARD. THE AIRPORT NOISE AND CAPACITY ACT OF 1990, OR ANCA, MANDATED THE PHASEOUT OF LARGE CIVIL STAGE 2 TURBOJETS BY DECEMBER OF 1999, AND WITH ITS SUCCESSFUL

COMPLETION OUR JET FLEET IS FAR QUIETER TODAY THAN IT HAS EVER BEEN IN THE PAST. COMMERCIAL JETS PRODUCED TODAY ARE 20 TO 30 DB QUIETER THAN THE ORIGINAL 707S—OR TO THE HUMAN EAR, ONE-FOURTH AS LOUD.

BUT DESPITE THESE IMPROVEMENTS, PEOPLE WHO LIVE IN THE COMMUNITIES AROUND AIRPORTS CONTINUE TO VIEW AIRCRAFT NOISE AS A SIGNIFICANT ANNOYANCE IN THEIR DAILY LIVES–IN FACT, THE NUMBER OF NOISE COMPLAINTS SEEMS TO HAVE INCREASED OVER THE YEARS, EVEN AS AIRCRAFT HAVE BECOME QUIETER. AND EVEN AS THE NUMBER OF PEOPLE EXPOSED TO SIGNIFICANT AIRCRAFT NOISE AROUND AIRPORTS HAS DECLINED DRAMATICALLY–FROM 7 MILLION IN THE 1970S TO AROUND 600,000 TODAY–THE ENVIRONMENTAL EFFECTS WHILE SMALLER DO CONTINUE. THE REASONS WHY ARE NOT DIFFICULT TO UNDERSTAND. TODAY WE HAVE MORE DAILY FLIGHTS, MORE AND LARGER AIRPORTS AND RUNWAYS, AND A PUBLIC WITH INCREASING SOPHISTICATION ABOUT ENVIRONMENTAL ISSUES, AND AN EVER-INCREASING EXPECTATION OF A CLEAN HEALTHY LIVING ENVIRONMENT. FOR THOSE REASONS, EVEN THOUGH THE STAGE 2 PHASEOUT AND OUR OTHER EFFORTS TO DATE HAVE BEEN SUCCESSFUL, THIS IS NO TIME TO REST ON OUR LAURELS. PUBLIC REACTIONS TO NOISE IMPACTS STYMIE OUR USE OF THE CAPACITY, OR THE DEVELOPMENT OF NEW CAPACITY, TO SOME DEGREE AT VIRTUALLY EVERY ONE OF

OUR AIRPORTS. THIS WILL CONTINUE UNTIL WE REALLY GET AHEAD OF THE PROBLEM.

WE MUST ACCEPT THE FACT THAT THE GOALPOSTS WILL CONTINUE TO MOVE ON US, BUT NOT LOSE SIGHT OF OUR OBJECTIVE TO REDUCE SIGNIFICANT AIRCRAFT NOISE FOR AS MANY PEOPLE AS POSSIBLE. OUR ENVIRONMENTAL PROGRAM IS ABSOLUTELY CRUCIAL TO ENSURE THAT AVIATION INFRASTRUCTURE AT AIRPORTS CAN EXPAND TO ACCOMMODATE AVIATION'S INEVITABLE GROWTH.

AGGRESSIVE STEPS ARE BEING TAKEN TO ADVANCE AIRCRAFT NOISE REDUCTION TECHNOLOGIES TO THE NEXT LEVEL. BEGINNING THIS YEAR THE NATIONAL BUSINESS AIRCRAFT ASSOCIATION WILL ADMINISTER A VOLUNTARY NON-ADDITION PROGRAM AMONG ITS MEMBERS, AND NBAA HAS PLEDGED TO ELIMINATE OPERATIONS OF STAGE 1 AIRCRAFT BY THE YEAR 2005. WITH REGARD TO LARGE JETS, NEW NOISE ABATEMENT TECHNOLOGIES ARE EXPECTED TO HIT THE MARKETPLACE IN THIS DECADE. A JOINT FAA/NASA RESEARCH PROGRAM IS CURRENTLY WORKING TO IDENTIFY TECHNOLOGIES THAT WILL REDUCE SUBSONIC JET NOISE BY 6 TO 10 DB RELATIVE TO 1992 TECHNOLOGY—ALMOST HALF AS LOUD. CONTINUED FEDERAL DIRECTION AND LEADERSHIP ON NOISE ABATEMENT TECHNOLOGY RESEARCH WILL BE CRUCIAL IF WE HOPE TO GO FURTHER. FAA WILL CONTINUE TO LOOK FOR WAYS TO REDUCE COMMUNITY IMPACTS WITH NOISE

ABATEMENT DEPARTURE PROCEDURES, WHERE THEY ARE FEASIBLE AND CONSISTENT WITH THE HIGHEST STANDARDS OF SAFETY AND SYSTEM EFFICIENCY.

INTERNATIONALLY, OUR EFFORTS ARE FOCUSED ON DEVELOPING A NEXT-GENERATION AIRCRAFT NOISE STANDARD, OR "STAGE 4". A WORKING GROUP UNDER THE INTERNATIONAL CIVIL AVIATION ORGANIZATION'S COMMITTEE ON AVIATION ENVIRONMENTAL PROTECTION, OR "CAEP", HAS BEEN WORKING TO ASSESS THE PROSPECT OF FURTHER REDUCTIONS IN SUBSONIC JET NOISE LEVELS. THIS WORKING GROUP HAS IDENTIFIED SOME OPTIONS FOR MORE STRINGENT INTERNATIONAL NOISE STANDARDS. OTHER CAEP WORKING GROUPS ARE CURRENTLY ASSESSING THE COSTS AND BENEFITS OF THESE PROPOSALS AND WILL PRESENT THEIR FINDINGS AT THE NEXT MEETING OF CAEP IN JANUARY 2001. ONCE WE HAVE A STAGE 4 STANDARD, THE NEXT STEP WILL BE TO LAY OUT A WORKABLE IMPLEMENTATION PLAN. WE HAVE LEARNED A LOT FROM OUR PAST EXPERIENCE WITH ANCA, AND WILL RECOMMEND THAT ANY TRANSITION SCENARIO FOLLOW ANCA'S MODEL–NAMELY THAT OPERATORS BE ALLOWED FLEXIBILITY IN HOW THEY INDIVIDUALLY WILL MEET NEW STANDARDS, AND THAT STRONG CONSIDERATION BE GIVEN TO ECONOMIC EFFECTS ON THE EXISTING FLEET.

WE ARE ALSO WORKING TO RESOLVE THE ISSUE IN EUROPE OF HUSHKITTED STAGE 3 AIRPLANES. THE U.S. INDUSTRY HAS ADOPTED HUSHKIT TECHNOLOGY FOR MANY OF ITS OLDER AIRCRAFT (727S, DC9S, ETC.). THIS TECHNOLOGY BRINGS THE NOISE PROFILES OF OLDER AIRCRAFT INTO COMPLIANCE WITH THE MOST RECENT, MORE STRINGENT INTERNATIONAL STANDARD. ONCE MODIFIED, THE HUSHKITTED AIRCRAFT ARE RECERTIFICATED TO THE NEW STANDARD. THE EUROPEAN UNION (EU) HAS TAKEN LEGISLATIVE ACTION TO FREEZE THE NUMBER OF HUSHKITTED AIRCRAFT WITHIN THE EU AT THE 2000 LEVEL. THEIR ARGUMENT IS THAT THE NOISE PERFORMANCE OF HUSHKITTED AIRCRAFT FALLS SHORT OF MODERN AIRCRAFT THAT ARE BUILT TO CURRENT STANDARDS AND THAT THIS ACTION IS NECESSARY TO LESSEN THE NOISE NUISANCE FOR PEOPLE LIVING AROUND AIRPORTS.

THE ADMINISTRATION IS CONCERNED BY THE EU'S ACTION. THE UNILATERAL ACTION BY A STATE OR REGION TO SET INTERNATIONAL AVIATION STANDARDS OUTSIDE OF THE ACCEPTED INTERNATIONAL PROCESS SETS AN UNACCEPTABLE PRECEDENT. ICAO IS THE ONLY INTERNATIONALLY RECOGNIZED AND SANCTIONED BODY CHARGED WITH THE PROMULGATION OF INTERNATIONAL CIVIL AVIATION STANDARDS. FOR OVER 50 YEARS, INTERNATIONAL CIVIL AVIATION HAS THRIVED BECAUSE OF THE ADOPTION OF UNIFORM GLOBAL STANDARDS THAT PROVIDED A PREDICTABLE OPERATING ENVIRONMENT WITHIN WHICH LONG-TERM INVESTMENT

DECISIONS COULD BE MADE. ESTABLISHMENT OF REGIONAL STANDARDS IN THIS GLOBAL INDUSTRY UNDERMINES 50 YEARS OF PROGRESS.

AS THE RESULT OF MANY HIGH-LEVEL CONSULTATIONS, THE U.S. AND EU HAVE AGREED TO WORK JOINTLY TO ACCELERATE AND INTENSIFY EFFORTS TO REACH A NEW INTERNATIONAL NOISE STANDARD WORKING WITHIN THE ICAO FRAMEWORK. THE KEY TENETS FOR THE U.S. IN THE US/EU AGREEMENT ARE THAT THE EU REGULATION MUST BE WITHDRAWN, AND THAT WE MUST WORK TOGETHER WITHIN ICAO TO DEVELOP A NEW NOISE STANDARD THAT PROVIDES TIMELY NOISE RELIEF ALONG WITH AN APPROPRIATE LEVEL OF PROTECTION FOR THE EXISTING CHAPTER 3 FLEET OF AIRCRAFT.

BUT EVEN IF WE CONTINUE TO MEET OUR GOALS, AND THE PUBLIC'S EXPECTATIONS, FOR REDUCING AIRCRAFT NOISE AT THE SOURCE, NONE OF THESE EFFORTS WILL BE FULLY SUCCESSFUL WITHOUT VIGOROUS INVOLVEMENT AT THE RECEIVING END OF UNWANTED AIRCRAFT NOISE–AND BY THAT I MEAN LOCAL COMMUNITIES AND RESIDENTS WHO LIVE AROUND AIRPORTS. EFFECTIVE LAND USE PLANNING AND ACTIVE COMMUNITY INVOLVEMENT REMAIN CRITICAL TO NOISE ABATEMENT. OUR ACCOMPLISHMENTS SO FAR IN REDUCING THE NUMBER OF PEOPLE EXPOSED TO SIGNIFICANT AIRCRAFT NOISE WITH TECHNOLOGICAL INNOVATION–STAGE 3 AND THE

LIKE–WILL HAVE BEEN IN VAIN IF INADEQUATE LAND USE PLANNING ALLOWS DEVELOPMENT TO CREEP BACK TOWARD THE AIRPORT BOUNDARY. LAND-USE PLANNING MUST ACCOUNT FOR BOTH EXISTING NOISE AND THE AIRPORT'S GROWTH POTENTIAL–AND RESERVE NOISE-IMPACTED LANDS FOR USES THAT ARE COMPATIBLE WITH THE AIRPORT, BOTH NOW AND IN THE FUTURE. TOO OFTEN IN THE PAST, COMMUNITIES AND AIRPORTS HAVE WORKED AT CROSS-PURPOSES DUE, AS MUCH AS ANYTHING ELSE, TO A LACK OF COMMUNICATION AND INFORMATION ON NOISE COMPATIBILITY PLANNING. TO THIS END, THE FAA IS CURRENTLY DEVELOPING A TOOL KIT FOR AIRPORT COMPATIBLE LAND USE PLANNING, TO HELP FAA REGIONAL OFFICES, AIRPORT OPERATORS, AND LOCAL PLANNING ORGANIZATIONS TO COMMUNICATE EFFECTIVELY WITH THE PUBLIC AND INTERESTED GROUPS ON LAND USE PLANNING AROUND AIRPORTS.

ALTHOUGH NOISE HAS BEEN THE PREEMINENT ENVIRONMENTAL ISSUE FACING AVIATION IN THE PAST, AND IS LIKELY TO CONTINUE TO HINDER AVIATION GROWTH IN THE FUTURE, IT IS IMPORTANT THAT WE ALSO ADDRESS OTHER ENVIRONMENTAL CONCERNS. AIR EMISSIONS AND THEIR IMPACTS ON LOCAL AIR QUALITY ARE INCREASINGLY LIKELY TO IMPOSE LIMITATIONS ON AIR TRANSPORTATION GROWTH IN THIS CENTURY. IN RECOGNITION OF THE GROWING IMPORTANCE OF AVIATION AIR QUALITY ISSUES, AND AT THE URGING OF THE FAA'S OFFICE OF ENVIRONMENT AND

ENERGY, THE INSTITUTE OF TRANSPORTATION STUDIES WILL FOR THE FIRST TIME HOLD AN AIRPORT AIR QUALITY SYMPOSIUM LATER THIS WEEK.

THESE ARE COMPLEX ISSUES, BUT WITH THE COMMITMENT OF FAA AND INDUSTRY, AND VIGOROUS INVOLVEMENT BY LOCAL COMMUNITIES AND THE INTERESTED PUBLIC, WE CAN ARRIVE AT SOLUTIONS THAT WILL BE BENEFICIAL TO EVERYONE. MUCH WORK REMAINS TO BE DONE, BUT OUR HOPE IS THAT WE CAN APPLY WHAT WE HAVE LEARNED SO FAR, AND USE THE OVERLYING PHILOSOPHY THAT HAS BROUGHT SUCCESS IN REDUCING NOISE, TO EFFECTIVELY ADDRESS THESE ISSUES IN THE NEXT CENTURY. THANK YOU.

QUESTIONS?