

- **Wake Turbulence program** (Information contained in Pre-Read Briefing) No discussion by ATPAC members.

The Wake Turbulence Program's focus is safely improving capacity in the NAS. The program is built around three solution sets. The first set is procedural changes only, with some of the changes requiring a controller display aid. These changes would be allowed where measured data could be used to build the safety case to simply change air traffic operational procedures, without the need of new meteorological sensors or other technology based solutions. Second will be procedural changes built upon the data that continues to be collected and adding in specific meteorological conditions and simple technology solutions. Third will be the most complex solutions requiring significant meteorological and or technology inputs to achieve the additional capacity.

1st Solution Set – 7110.308 - The Wake Turbulence Program along with the Terminal Services Unit developed and, received regulatory approval of a rule change, to allow simultaneous dependent staggered 1.5nm ILS approaches to runways separated by less than 2500 feet. There were 5 airports initially approved for the procedure: SEA (34C/L, 16C/R), CLE, STL, PHL, and BOS. Three additional airport runway pairs projected to be added to the current 5 airports. They are EWR, MEM and SEA (34C/R, 16C/L). Discussions are continuing with EWR, TRACON, Continental and airport concerning startup of 7110.308 departure operations. Based on Aviation Stakeholder input, the ATO COO began a Task Force to focus on SFO. Analysis is currently underway to ascertain the viability of 7110.308 at SFO and what changes to the NAS are required to affect the change. Additionally, a change was identified for EWR's effort to implement 7110.308. This change to leader/follower is currently being submitted through the applicable organizations.

2nd Solution Set – WTMD (Wake Turbulence Mitigation for Departures) WTMD, another Closely Spaced Parallel Runways (CSPR) project incorporates existing meteorological data and a simple technology solution to achieve additional departure capacity at 10 departure capacity constrained airports. A WTMD Operational Demonstration Prototype system is being developed by AJT-14 (Terminal field Operational Support) for 1 year operational trails at IAH, SFO and MEM. WTMD use by IAH is scheduled to begin in the 2nd quarter of CY2011, with SFO and MEM starting at six month intervals following IAH. After the 1 year trails, a decision will be made whether to continue fielding the WTMD capability. Due to difficulties in establishing TELCO lines, the IAH effort has slipped and it is anticipated that 3rd Quarter of 2011 will be the earliest the system will be installed at the ATCT.

2nd Solution Set – WTMA (Wake Turbulence Mitigation for Arrivals) is another project being developed in the 2nd Solution Set. The project is collecting data and developing the concept definition for WTMA. This effort expands on the procedures-only solutions to include more types of aircraft and the number of CSPRs that can realize increased arrival capacity in less than visual conditions. This project expands on the technology and meteorological data used by WTMD to address the longer planning horizons and larger airspace with reduced separation that is necessary for the arrival solution. During CY10, the Automated Terminal Proximity Alert (ATPA) capability was expanded using prototype coding to address controller situational awareness needs for dependent instrument approaches to CSPR. ATPA will likely be the controller decision support tool to be used in connection with WTMA arrival operations.

3rd Solution Set - Additionally the Wake Turbulence program is supporting a R&D project for single runway departures called CREDOS (Crosswind-Reduced Separation for Departure Operations) with the European community. CREDOS involves longer term research and development activities. Also included in this third set is a single runway arrival solution. European development continues with safety and benefit assessments being developed.

The Wake Re-Categorization project is an international effort undertaking a re-categorization of current wake categories. This is a multi-phased effort which is seeking capacity gains in each phase and has application in all three solution sets. A matrix of the new categories was delivered to ICAO and then briefed in November 2010 to a wake standards working group formed by ICAO. Safety and benefits documentation will be briefed in April to the ICAO working group. This will contribute to a global harmonization of wake categories. Due to the budget issues, the FAA could not support travel to brief the ICAO Wake Turbulence Study Group during April. The meeting was held without the FAA in attendance and the information was forwarded to the Group. We are currently in the process of addressing the comments provided back from the package sent to ICAO.

During CY2010, the FAA approved and implemented a revision to its current wake separation standards that places all Boeing 757 aircraft in the same wake separation category. Work is continuing by international groups in reviewing the wake separations associated with the Airbus 380 and in developing the wake separations to be associated with the new Boeing 747-8 series aircraft.

During 1st quarter CY2011, the Wake Program, working with AVS, Boeing, and ATO-Terminal developed a Safety Risk Management Document (SRMD) for the introduction of the new B787 series 8 and 9 aircraft into commercial service. The B787 has been undergoing flight test and is scheduled for EIS in late CY2011. The SRMD was processed through the system and the separation standard was placed into the 7110.65 for use by Air Traffic.