During the month of June 2008, a Super-tug was involved in a Runway Incursion. At the time of the incident, the Super-tug was towing a Boeing 777 loaded with approximately 88,000 gallons of aviation fuel. The Super-tug was unable to stop at a hold position marking and the Super tug crossed the hold line marking into the path of an MD-80, revenue flight, on landing roll out. The pilot of the MD-80 took extreme evasive measures to avoid a collision and a potentially catastrophic event was avoided.

A follow up Investigation of this Runway Incursion involved the FAA’s Airports Division, Aviation Safety Division, Accident Investigation Division and an FAA FAAST Team. Some preliminary findings of the incident are noted below and the investigation of the incident is on going.

A. There is no evidence of a standard for vehicle operator training program for operators of Super-tugs nor is there a specific licensing requirement for Super-tug operators.

B. There was some anecdotal reporting about a “governor” device to restrict the speed of the Super-tugs, but this information does not appear to be universal and other information suggests this speed-limiting device is not installed as first reported.

C. Boeing Aircraft recommends a person man the aircraft’s brakes at all times when the aircraft is being towed, however, they warn that braking from the aircraft may cause damage to the nose gear. Consequently, some air carriers have elected not to have a brakeman in the cockpit even as a preventive measure for emergency situations.

D. There have been several potential surface incidents where Super-tugs are not seen by air traffic controllers or pilots operating other aircraft. The Super-tugs have a very low profile and may need to be painted, marked or illuminated more distinctly to enhance visibility.

E. Super-tug operations in hours of darkness and low-visibility have raised serious safety concerns. Some Super-tugs have auxiliary power units (APU) units for illuminating the aircrafts collision beacon and wing tip lighting and many tugs are not
equipped with this additional power source. Large aircraft under tow by Super-Tugs may not be sufficiently illuminated and ATC has reported aircraft under tow (by a Super-tug) may not be recognized for its size, unrecognizable at all from certain angles and in some instances caused ATC to take quick actions to avoid a safety incident.

F. Some Super-tugs may be too wide to safely operate on standard airport perimeter roads. In fact, it is reported that a common practice is to move the Super-tugs, without an aircraft in tow, across the airport movement areas for repositioning. This practice is inconsistent with the FAA’s philosophy of keeping these areas clear of vehicular traffic. According to part 139.329(b) the airport operator is responsible to establish and implement procedures for the safe and orderly access to and operation in, movement areas and safety areas by pedestrians and ground vehicles, including......by an employee, tenant, or contractor.

The investigation into this Runway Incursion and operations of Super-tugs on part 139 airports is of the highest safety concern to the FAA. The Aviation Safety Division is working on a Constructed Dynamic Observation Report (ConDOR) under the Air Transportation Oversight System (ATOS) to advise part 121 air carriers of the FAA’s concerns regarding the safety operation of Super-tugs at busy air carrier airports.

The Airports Division highly recommends certificated airport operators meet with each part 121 air carrier, or contractor, utilizing Super-tugs, to insure a safety risk management approach is being implemented to address the potential safety concerns posed by the operation of Super-tugs at part 139 certificated airports.

__________________ ____________________ 07/1/08
Michael W. Brown, Manager DATE
Airport Safety and Operations Division AAS-300

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