

Board Report:

Emergency Repairs to Runway 2-20 at Westfield-Barnes, Cold In-place Recycling at Southbridge & STEM Education Updates

Monday June 17, 2019

Presented to:

■ Board of Directors

Presented by:

■ Aeronautics Division

➤ Dr. Jeff DeCarlo

Emergency Repairs to RW 2-20 at Westfield - Barnes Regional Airport



- In 2014, the main runway at Westfield - Barnes Regional Airport was rehabilitated by replacing the center section of the bituminous asphalt runway with cement concrete
- Severe winter weather in 2019, caused the asphalt adjacent to the concrete to “heave” leaving the Airport with no other choice than to declare the outer 50% of the Runway unusable until repaired
- While the runway is closed for construction, the Air National Guard (ANG) Alert Mission will be relocated to Westover Metropolitan Airport
- Westfield-Barnes, working with MassDOT and the ANG issued a contract to a local contractor to perform the required maintenance. Pavement repairs will be completed in the last two weeks of June

Cold-in-place Asphalt Recycling (CIR) at Southbridge Municipal Airport

- The Aeronautics Division is exploring effective ways to lower costs by using alternative construction methods such as Cold-In-Place Recycling
- CIR is used to restore and reuse existing materials by reducing the amount of offsite materials needed
- CIR can correct deficiencies such as rutting, and fatigue (alligator) cracking, and minor corrections to the profile of the taxiway
- When combined with a thin asphalt overlay, the life of resulting surfaces can be extended by up to 10 years
- This environmentally-friendly process requires minimal heat during rejuvenation of the asphalt material resulting in a decrease in the amount of energy required to produce the final product

STEM Education Updates:

Westfield Technical Academy Graduates First Class of new Aircraft Maintenance Technicians

- Westfield Technical Academy (WTA) becomes the third high school in the United States to offer a four-year FAA -certified Aviation Maintenance Technician (AMT) program
- The AMT program is comprised of three parts; General, Airframe & Powerplant and utilizes both lecture and hands on training in labs and on aircraft to meet FAA requirements
- Upon successful completion of the program, students will be qualified as certified airframe and powerplant (A&P) mechanics ready to begin a highly-sought after career in aviation
- The aviation industry has identified a worldwide shortage of aircraft mechanics for the foreseeable future and WTA's AMT program fills a very real workforce need in the local area



STEM Education Updates:

2019 Logan Aviation and Maritime STEM Expo

- The “Expo” introduced over 2,100 students from 42 Greater Boston middle & high schools to career opportunities available in the transportation industry
- The Division provided hands-on aircraft flight training simulations for the students to test their piloting skills
- The Drone Support Team demonstrated some of the many real world capabilities these applications provide
- Students tested virtual reality headsets to experience how artificial intelligence can enhance drone operations
- The “Expo” offered students a chance to meet industry professionals working in STEM career fields
- Teachers and students were excited about future career pathways and considered the event a huge success

