Yeager Airport - Runway 5

August 9, 2018
Due to ongoing legal proceedings regarding the Runway 5 Slope Failure at the Yeager Airport, we will not and cannot discuss the design, construction or any opinions regarding the causes of the Slope Failure.
• Yeager Airport was constructed in 1947

• Typical of most West Virginia construction, work involved cutting the tops off of three mountains and filling in the two valleys

• Original construction included two runways
  - RW 5-23 – 6,300’ x 150’
  - RW 15-33 – 4,300’ x 100’

• Runway 15-33 was closed in 2008 and converted to a taxiway to serve the General Aviation Area
This contour drawing shows the overall size of the original hills in comparison to the same occupied by Keesalighi Airfield, Community shows the same area of scale above. The original ridges of Coonskin Ridge were large.

Accurately drawn from original map by Louis Meek, assistant engineer, this drawing by Paul K. Jordan portrays the original profile of Coonskin Ridge as it appeared from the eastern approach. All heights indicated are “above sea level.” Note the gradual slope of the runway which extends over a mile in length. The inset drawing shows the great extent of the projecting hills and the area they occupied over and above the present runway level.
History of Yeager Airport

• Runway Safety Area requirements caused a need for a fill at the end of Runway 5
• Reinforced fill was selected with an Engineered Materials Arresting System (EMAS)
• An additional 500’ of runway length was added to RW 23 to extend the total runway length to 6,801’
• Project completed in 2008
• Project was touted as the largest reinforced fill in North America
EMAS Reinforced Fill Construction
Completed EMAS Installation
History of Yeager Airport

• In January 2010 a regional jet aborted takeoff and was successfully stopped by the EMAS
Problems Develop

• Crack noticed in 2013
• Southwest corner drops a few feet down from the rest of the fill
• Drops a couple of feet each day in early March 2015
Problems Develop
Day of Slope Failure
- Not easily explained
- Remaining sheared grid was a benefit
- Concerns about equipment/personnel safety
- Practical limitations of equipment reach vs. oomph
RW5 Design Team

Schnabel Engineering

ADCI
AIRPORT DESIGN CONSULTANTS INC

S & S ENGINEERS, INC.

Burns

L&B
Scope of Work

- Retaining Wall
- Embankment – Soil and Geofoam
- EMAS
- Airfield Lighting
- NAVAIDS
- Run-in Area Relocation
- Pavement Marking
- Erosion and Sediment Control
Project Concept Rendering
Construction Phasing – Maximum Equipment Height Profile
Monitoring System
Georgia
Maryland
New Jersey
New York
North Carolina
Pennsylvania
South Carolina
Tennessee
Texas
Virginia
Washington
Washington, DC