

Yeager Airport Emergency Infrastructure Project



View of the collapsed Runway Safety Area on March 12, 2015

**Revised
March 31, 2017**

Executive Summary

Yeager Airport plays a vital role in the regional economy, causing over **\$174 Million per year in economic impact and over 1,800 full time equivalent jobs**. This plan for improvements to the airport infrastructure includes fifteen items of high importance that will set Yeager Airport up to be an even greater economic engine that will help fuel further economic development in the region by increasing connections to the world economy.

As a result of the March 2015 collapse of the runway safety area, it is necessary to rebuild. Now is the time to make sure Yeager Airport is rebuilt with FAA standard 1,000 feet long runway safety areas and a needed runway extension. By providing the necessary infrastructure investments the airport can be in a position to attract air cargo and additional airline service. The location of air cargo facilities allows local companies better supply chain solutions and makes the region more attractive for businesses seeking to locate here. With a new Customs facility, the airport would be able to handle nonstop international cargo flights.

As mitigation to the impacts on Coonskin Park from a runway extension, a multi-sports athletic complex, miracle field, and other improvements could be made. The improvements will lead to thousands of out of state visitors leading to additional hotel and restaurant jobs and a steady stream of park revenue.

Improving and expanding an existing economic asset in the region will cause ripple effects throughout the local economy. **This plan would generate approximately 7,900 jobs** including direct, indirect, and induced. Overall, these improvements will result in Yeager Airport creating more regional economic impact while making the area easily connected to the world economy.



The Runway Safety Area on Runway 5 before and after the collapse

Safety Projects

Item 1: Interim Runway 5 Safety Area Improvements (\$14 Million)

- **Immediately install an Engineered Materials Arresting System (EMAS) bed and move Runway 5 end to lengthen available landing distance as an interim measure until runway construction is completed. Restore navigational aids (Instrument Landing System & Precision Approach Path Indicator (PAPI) to restore vertical guidance and prevent undershoots on Runway 5.**
- Improves safety from current conditions
- Move paint markings, navigational aids and lighting to correspond with new runway end location
- Reduces current operational impacts as a result of the 2015 collapse to airlines, military, and business aviation users



Item 2: Runway Extension and Construction of Standard Runway Safety Areas (\$175 Million)

- The March 2015 collapse (500,000 cubic yards of engineered fill) of the Federal Aviation Administration (FAA) required and funded runway safety area and Engineered Materials Arresting System (EMAS) has led to operational and economic impacts such as weight penalties for aircraft and the inability of some airlines to serve the airport
- The collapse has led to a loss of runway safety area below FAA standards
- The airport must comply with FAA required standard runway safety areas (1,000 feet at each runway end)

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- The runway needs to be extended to meet the operational needs of civilian and military aircraft

The collapse of the FAA required and funded engineered fill for the Runway Safety Area and EMAS led to flooding of a



neighborhood, evacuations, and destruction of a church and house.

Item 3: Airfield Taxiway/Runway Rehabilitation (\$20 Million)

- Rehabilitation of pavement, lighting, paint, and drainage control is needed for the airfield
- To meet new FAA safety requirements several taxiway areas need removed and/or rebuilt



U.S. Army helicopters frequently utilize Yeager Airport



U.S. Marine Corps & Navy T-45 jets use Yeager Airport for training and refueling

Item 4: Construction of new air traffic control tower and terminal radar approach control (TRACON) (\$12 Million)

- The Air Traffic Control Tower is 67 years old and is one of the older towers in the nation
- The FAA is closing the Huntington and Clarksburg TRACON facilities and will merge them into Charleston or another city, which will make operations more efficient
- Yeager Airport already has modern FAA air traffic equipment making it an ideal location for consolidation of air traffic control functions for the region
- This will lead to better radar and GPS coverage and increased safety for aircraft

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The circa 1950 air traffic control tower is seen with a U.S. Navy E-2C in the background



A pair of U.S. Coast Guard C-130's sit on the West Virginia Air National Guard ramp during a hurricane evacuation

Item 5: Replace antiquated approach lighting tower on Runway 23 with MALSR approach lighting system and upgraded instrument landing system to Cat II (Costs incorporated in runway extension item)

- Current approach lighting system tower was built in 1961, sits approximately 200 feet high, and extends almost 3,000 feet into Coonskin Park, a local county park.
- The FAA has notified the Airport the lighting tower is at the end of its useful life and needs to be replaced
- Upgraded instrument landing system will make the airport more attractive to air cargo operators and airlines while making the airport safer to use



A West Virginia Air Guard C-130 flies over the approach lighting tower that spans approximately 3,000 feet in length

Item 6: Build new combined airport operations and maintenance facility (\$15 Million)

- There are pieces of maintenance equipment parked outside that need to be indoors
- Need additional maintenance bays for parking maintenance and snow removal equipment and to conduct repairs
- Build a collocated Operations Department facility with Airport Response Coordination Center (ARCC), Emergency Operations Center, and Badging & Training Office
- Provides standalone facility away from the terminal for emergencies and continuity of operations



U.S. Air Force C-17 taking off from Yeager Airport. The C-17 is a frequent visitor and the Airport is used as a staging area for FEMA during disasters.



Air Force One operating at Yeager Airport. The 89th Airlift Wing and other military units frequently train at the airport.

National Security

Item 7: Expand Air National Guard ramp and make ramp improvements (\$10 Million)

- Base for C-130's of the 130th Airlift Wing of the WV Air Guard
- WV Army & Air National Guard Headquarters is located at the base
- The Airport is used as a FEMA staging area during emergencies
- Airport used frequently by all military branches for vital training flights and fuel stops
- The runway extension increases the quantity and variety of military aircraft that can use West Virginia's uncongested training airspace while operating from the Air National Guard installation at Yeager Airport. A minimum 8,000 feet runway allows the airport to accept nearly any Air Force mission in the future. A longer runway combined with leveling of the hill in Coonskin Park will allow heavy weight departures from Yeager Airport to destinations outside the Continental United States without having to stop for fuel.



Tractor trailers stage on the West Virginia Air National Guard ramp during disaster relief operations

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- Expanding the Air National Guard ramp onto Taxiway D will allow for another row of aircraft parking. Taxiway connectors should be built to connect each row of parking directly to Taxiway A, eliminating the need for an inner perimeter taxiway. Improvements could be made to the ramp to allow for deicing at any location.
- The Airport serves as an emergency evacuation location for Navy and Marine Corps during hurricanes. If the general aviation area is expanded, it will reduce hurricane evacuation parking and there will be a need for additional military ramp space. The Air National Guard base has been used for hurricane evacuations by other government agencies and as a base of operations for Air National Guard rescue assets staged to respond to East coast storms.
- The Airport is in a close proximity to other military units and training centers
 - 35th Civil Support Team (Weapons of Mass Destruction)
 - Joint Interagency Training & Education Center
 - Southern WV assault strips and training areas



Tractor trailers staging for FEMA sit on the ramp with West Virginia Air National Guard C-130's

Item 8: Replace aging security equipment to protect national aviation system from threats and breaches. (\$9 Million)

- Replace perimeter fencing, add intrusion detection systems, add barrier systems at vehicle gate entrances to prevent breaches onto the runway and Air Guard base
- Replace aging security cameras and hardware while expanding coverage



Yeager Airport based C-130 of the West Virginia Air Guard

Economic Development

Item 8: Coonskin Park Improvements (\$20 Million)

- Construct a multi-sports athletic complex including a miracle field and other park improvements to mitigate impacts of runway extension into Coonskin Park
- Athletic complex will help make the park sustainable and attract thousands of out of state visitors and bring tourism to our region

Item 9: Expand the general aviation ramp area and build air cargo and maintenance facilities (\$28 Million)

- In accordance with airport master plan expand the general aviation ramp area and infrastructure by developing approximately 15 acres of flat land and construct air cargo and aircraft maintenance hangars
- Expand State of West Virginia Aviation Department hangar
- Build a consolidate fuel farm within the perimeter fence
- Air cargo facilities will be used to support existing factories and warehouses and ones that will be built at the Rock Creek Industrial Park in Boone County
- The availability of air cargo facilities will make the region more attractive for prospective factories, distribution centers, and industrial sites that have time sensitive supply chain needs

Item 10: Construct Customs facility for international arrivals (\$2 Million)

- Customs current operates without a facility which presents officer safety concerns and does not meet Federal standards

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- Business aviation, air cargo, and the military could use the new facility which will make the region more attractive to international businesses

Sustainability

Item 11: Install solar panels (\$20 Million)

- In accordance with a recent sustainability study and engineering project, install solar panels at the airport to provide 100% of electricity needs

Item 12: Replace 67-year-old terminal building with a new terminal building (\$50 Million)

- The current terminal building opened in August 1950 and has been added onto several times
- A new building will allow for a needed security screening checkpoint, replacement aging jet bridges, rebuild of restrooms, and modern facilities that will provide sustainability for the next 60+ years

Item 13: Rehabilitate airport access roads (\$20 Million)

- Repave, fix drainage, stabilize, widen and add lighting to Airport Road and Eagle Mountain Road
- Add truck lane for tractor trailers going to the Airport
- Extend Eagle Mountain Road around the back of the general aviation area to connect with the Air Guard base

Total Estimated Costs --- \$ 395 Million