

COLUMBUS AFB, MS UTILITY SYSTEM DESCRIPTIONS

General: Columbus AFB has three on-base runways and one runway at the auxiliary field at Shuqualak. The base is located on 4,903 acres including easements and right-of-way for runway approach and the drainage ways off-base. There are 171 buildings and 735 family housing units.

Columbus AFB Auxiliary Field, Shuqualak, MS

Columbus AFB Auxiliary Field is located in Noxubee and Kemper counties in eastern Mississippi, two miles south of Shuqualak and approximately 46 miles south of Columbus, MS. The airfield is in a rural area surrounded by woodlands, forest land, and farmland and was built by the Navy in 1961 as an off-site installation of Naval Air Station, Meridian. Designated Outer Landing Field (OLF) Alpha, it saw little use until Columbus AFB began to use it in 1970. Final transfer of the OLF Alpha to the Air Force was effected in 1990 and the name was changed to Columbus AFB Auxiliary Field.

System Descriptions: The following is provided only to give an approximation of the size, scope and general description of the system(s). Any numbers should only be used for estimating purposes. The following system parameters are approximations:

The base size is about 4,410 acres. This includes 170 buildings and 412 family housing units. The off-base sites are about 1,080 acres total in size.

Electrical Distribution: The 13,200 volt distribution system consists of 5 distribution feeders. Capacity of utility owned supply substation: 30 MVA. Base peak demand approximately 10 MVA, with approximate annual consumption 43,000,000 kWh. The primary overhead distribution is approximately 300,000 linear feet; the primary underground distribution is approximately 135,000 linear feet. Residential usage is approximately 25%; commercial/industrial usage approximately 75%.

Natural Gas Distribution: The natural gas system consists of approximately 150,270 LF of plastic pipe of diameters ranging from 4" down to ¾". It was installed during the period 1995 through 1996. There is no cathodic protection system. Natural gas is delivered to the base via a 4" steel main at 75psig. It is reduced in pressure by government owned regulators to 20psig. The annual natural gas consumption is 90,912 MCF.

Potable Water Distribution: The overall usage: 0.45 million gallons per day (mgd). Primary distribution: approximately 78,150 lineal feet of ductile iron and PVC water mains. Piping ranges up to 16-inch. There are 222 fire hydrants. A new water pumping station was completed in 1999. It includes a 50,000-gallon underground clearwell and three vertical turbine pumps, each rated at 500 gpm, 82 psi, 40 Hp. A small well serves the off-base site of Shuqualak.

Sanitary Wastewater Collection: Flow rate is estimated at 0.35 mgd. It is a gravity system consisting of approximately 180,054 lineal feet of pipe (vitrified clay, asbestos cement, and PVC). Sizes range from 4-inch through 12-inch. There are four sewage lift stations. A septic system serves the off-base site of Shuqualak.

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