

## Washington Airport

**Size:** totals 729 acres, of which the landing area is 450 acres, shore line 304 acres and the "made land" area (see below) is 425 acres.

**Runways:** North-South ( prevailing wind direction) 6885 feet. NE-SW, 4892 ft. NW-SE, 5210 ft. W-E, 4100 ft. N-S and NW-SE each 200 ft wide, others 180 ft. wide. Total paved area, including runways, aprons, taxi strips, etc., is 677,000 square yards. Approaches to these runways from the eight different directions are so clear that a landing angle of 40 to 1 is possible. Provision has been made for the installation of parallel runways in the future. At the south end of the airport provisions have been made for a seaplane base.

**Location:** Three and a half miles from down-town Washington (hotels, govt buildings, etc.), or about 20-30 minutes by car or cab. On Mount Vernon Highway, which was moved to give airport greater area ( can be seen in photos). On the land of the airport are the ruins of an old Alexandria home- stead of pre-Revolutionary days. The place belonged to the Curtis children, adopted by George Washington. Also on the airport land is a building of the Bureau of Public Roads, used as a lab., which is now used as CAA office.

**Construction:** As can be seen from the photos, Gravelley Point really was an island. When the first dredge and cranes commenced work on 11/19/38 the first job was to build a dike around what was to be the eventual border of the airport. The bottom of the Potomac River contains large and valuable gravel deposits. These were located, sucked up, piped to inside the dike, and the stuff was allowed to dry in the sun. The runways were dug and the best gravel was poured into them. The runways were piled up to 20 ft. above river level. Settling was so little that runways were paved six months after work began ( usually takes 2 years, or 4 times as long). Each side of each runway is bordered by a grass strip 100 ft wide. During the construction of the airport, particularly the dredging operations, motorists were fascinated by tremendous spouts of mixed silt and gravel pouring from the spouts of the pipes ( large enough to allow a man to pass through them).

**Layout:** Accomodation for 1000 cars, to be increased to 5000. Ample parking areas. Cabs and buses available for transportation to DC. Mail trucks, etc., have separate entrance through a building. Seven hangars planned, one finished and five under construction. Total plane storage space in these six hangars: 5 1/2 acres. On each end of field large hangar with arched roof flanked on both sides by flat-topped hangars. Between all hangars and on the ends of hangar groups are shops 2-stories high. All Hangars 193 feet deep. Center hangars 229 ft wide. others 181 ft. wide. All doors 30 ft. high, and center hangar doors have extra hinged section which will allow the passage of planes up to 45 ft. in height. Clear opening on large hangars 229 ft., 176 ft on small hangars. Doors developed by engineers of Public Buildings Administration, of special intercommunicating type. Doors powered by 10 hp motors ( electric). Doors ride on rails under which are pits containing cables to activate doors. Arrangement of cables causes doors to be entirely open or entirely closed at same time. Operator rides on "leading" door, holding controls which in the event of an emergency permit him to stop the movement of the doors instantly. Special sprinkler system in hangars, thermostatically controlled, capable of automatically pouring 5000 gallons of water a minute on fire.

Gasoline storage capacity, half-million gallons. Piped from ends of field to

conditioning hoses, telephone lines, pneumatic tubes (for written messages) etc.

**Traffic control:** Includes flight progress board, similar to brokers' electric boards, on which the position of each flight is progressively indicated by lights. Essential information on each flight automatically appears at provided windows on the board. 20 teletype machines used for sending and receiving weather information. "Mirador" has special provisions for weather men: curved construction with small revolving domes at each end, through which theodolite observations are made. Provision also for use of balloons to ascend to upper levels and automatically report conditions by radio (reception in Mirador). Also usual 2-way radio tower to plane. Lights also used to control traffic. Each runway end has two neon signs, a green arrow and a red "X". Taxi strips equip with blue lights, visible only from ground, which lead pilot to proper loading platform (from runways). Runways bordered in lights. All other lights are extinguished, so pilot sees only runway he is to use (except, of course, boundary lights). Each runway has automatic electric smokepots at each end to indicate direction of surface wind. Light panel in control tower duplicates field. Tower of special design with special green glass walls at angle outward preventing reflection of light both day and night. Also removes actinic rays (prevents sunburn).

Cost of airport: \$16,064,762.00. Estimated annual operating cost: \$300,000.60. Guaranteed income from concessions for first year \$396,000.00 (guarantee plus %). In addition to this, there will be an income from spectators on promenades, from parking lots, etc. On field side or terminal will be 20ft wide promenade 525 ft long. Back of it, on each side of central waiting room, will be enclosed promenades 12x140 ft. Promenade on second floor 21x137 ft. Side walls of main enclosed promenades of 8ft glass panels. LaGuardia Field income from spectator admissions 1940 \$140,000.00. Two dining rooms, one indoor, one outdoor, each accommodate 325 people at a time. So constructed that entire field and Wash skyline clearly visible to diners.

Govt depts cooperating in construction of airport: Public Works Administration, Army engineers, Public Lands Administration, Works Progress Adm., and Public Buildings Administration. Airport in use since early February on those occasions when weather closed smaller Wash airport in. Skeleton staffs of airlines have moved in.

Literally thousands of pictures showing details of every stage of construction available free.