



Maryland Department of the
Environment

FACTS ABOUT: MARTIN STATE AIRPORT

SITE LOCATION

The Martin State Airport site is situated on approximately 747 acres of land just east of the Middle River area of Baltimore. The site is bounded by Wilson Point Road and Stansbury Creek to the west, Eastern Boulevard to the north, the Maryland Air National Guard (MANG) to the northeast, Frog Mortar Creek to the east, and the Middle River to the south.

SITE HISTORY

The Martin Aircraft Company initially occupied 1260 acres of the site area in 1929 and was primarily involved in the design, manufacture and testing of aircraft. From the 1930s to the 1950s, Martin Aircraft Company personnel allegedly used a sand pit located under the present Taxiway Tango to dump spent battery acid, acid-type strippers, and other acidic solutions, in addition to dredge spoils and construction debris. In 1956, a second pit was constructed adjacent to Frog Mortar Creek and the first filled when the main runway and Taxiway Tango were extended.

In 1975, the Maryland Aviation Administration (MAA) purchased the 747 acres now referred to as Martin State Airport. Of the remaining 513 acres originally owned by the Martin Aircraft Company, the MANG (MD-310) occupies 175 acres and the Lockheed Martin Corporation occupies 338 acres.

In July 1985, a Site Complaint was issued by the Maryland Department of Health and Mental Hygiene, Waste Management Administration after an aerial flyover indicated the presence of approximately two hundred 55-gallon drums containing hazardous substances improperly stored behind one of the facility's maintenance buildings. They were removed in late 1985.

On July 1, 1991, four corroded drums were uncovered by a trenching machine during the installation of an electrical cable adjacent to Taxiway Tango. The drums, which contained dried zinc chromate paint, were subsequently removed and properly disposed of by MAA.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

A 1989 Preliminary Assessment conducted by the Maryland Department of the Environment (MDE) concluded that the major areas of concern were the disposal pits used during the World War II era. Since the site was regulated by the Resource Conservation and Recovery Act Program at the time of the Preliminary Assessment, and no sign of waste disposal was apparent, the site was designated as "No Further Remedial Action Planned" by the U.S. Environmental Protection Agency (EPA).



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After the four drums were discovered in 1991, MAA hired Handex to conduct a geophysical survey in the area where they were found. The study verified the presence of numerous anomalous zones indicating possible buried metal.

In May 1994, a Preliminary Site Investigation was prepared by Maryland Environmental Services for MAA. This study showed the groundwater to be contaminated with trichloroethene (92,000 µg/L) and other chlorinated solvents, as well as lead, mercury, and cadmium. Subsequent investigations have shown that the soil is contaminated with metals and chlorinated solvents. Later studies shown that separate phase petroleum product exists in some areas, and confirms that the groundwater is also heavily contaminated with chlorinated solvents.

In January 1997, MDE determined that further work was needed and met with MAA to discuss those requirements. In addition to MAA, other additional parties responsible for contamination at the site were identified.

MDE tested the only known residential well near the site for volatile organics in August 1998. The well is located across Frog Mortar Creek from the site. No volatile organic compounds were detected.

In 1999, MDE conducted a Site Survey to reassess the status of those sites that were previously designated No Further Remedial Action Planned by EPA. The Site Survey concluded that further action is required by MDE and that EPA should archive the site.

Lockheed Martin has taken the lead in conducting further investigation at the site. In 1999, Lockheed Martin sampled the monitoring wells and found high levels of gasoline, diesel, and chlorinated hydrocarbons in the groundwater.

In May 2000, during excavation of test pits, Lockheed Martin's contractor uncovered what appeared to be four pieces of unexploded ordnance. The Army's Explosive Ordnance Division investigated the items and found that they were unfused, unarmed, and contained inert material.

Between December 2001 and December 2002, Lockheed Martin conducted further delineation of the lateral extent of chemicals in near-surface groundwater at the four source-areas of concern. In addition, deep multi-level monitoring wells were installed at two locations to characterize the site geology and vertical extent of groundwater impacts. The data collected during the groundwater investigation indicate that volatile organic compounds and metals are present in the groundwater above groundwater standards.

Lockheed Martin conducted additional groundwater investigation and modeling activities between July 2003 and March 2004. The purpose of this investigation was to fully delineate and characterize the chemical plumes at the site and perform groundwater modeling. The investigation identified three primary groundwater-plumes. Plume 1 originated in the Drum Area; Plume 2 originated in the Petroleum Hydrocarbon and Pond #1 Area; and Plume 3 originated from the Taxiway Tango median area. The three



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plumes are moving from west to east toward Frog Mortar Creek and have commingled to form a single contiguous area of groundwater contamination in the eastern portion of the site.

STATUS

From September 2007 to the present, Lockheed Martin continues to delineate and characterize the chemical plumes as part of its effort to support the development of remedial alternatives. In 2011, Lockheed Martin proposed an Interim Remedial Action to contain contaminated groundwater in the Dump Road Area. The proposed Interim Remedial Action will provide containment designed to prevent off-site movement of contaminated groundwater and provide for sufficient treatment capacity for future expansion to include treatment of source areas of contamination in the Dump Road Area.

In addition to the ongoing groundwater investigation, Lockheed Martin has evaluated the Strawberry Point area at Martin State Airport. In September 2008, Lockheed Martin completed its Phase II investigation of the area and discovered only the presence of low levels of low levels of volatile organic compounds, polynuclear aromatic hydrocarbons, and metals in the soils. In general, the concentrations of metals appear consistent with local background.

Based on the three-phased study submitted to the MDE in 2009, remediation of sediment or surface water in Frog Mortar Creek was not anticipated. However, ongoing sampling of surface water conducted in July 2010 detected unexpectedly higher levels of contaminants than previously detected.

Beginning in 2011 and in coordination with MDE, a quarterly surface water sampling program was started to: 1) establish whether sampling results might vary, and if so, whether seasonal or other influences such as tides or depths at which samples were taken might affect findings; and 2) to determine whether existing conditions might pose risks to recreational users of the area or to the environment. The 2011 sampling data have shown a range of results over time, with the highest concentrations found following the thaw of ice and near the airport shoreline in March 2011. The samples were taken in 3 locations in lines perpendicular to the shore, at the water's edge, at 50 feet and at 100 feet from the shore.



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