

1.0 INTRODUCTION

1.1 PURPOSE AND GOALS OF THE INVESTIGATION

JMA (John Milner Associates, Inc.) conducted archeological data recovery excavations at the Airpark East (7K-C-431) and Airpark West (7K-C-382) sites prior to proposed improvements to the Delaware Airpark, located in Cheswold, Kent County, Delaware (Figures 1-5). This work was conducted for R.A. Wiedemann & Associates, Inc. on behalf of the Delaware River and Bay Authority (DRBA), the Delaware Department of Transportation (DelDOT), and the Federal Aviation Administration (FAA). The purpose of these investigations was to mitigate adverse effects of construction and thereby meet the federally mandated requirements of a “no adverse effect” determination for the project, whereas the goal was to archeologically document and recover a wide variety of artifacts, features, and samples to provide as complete a picture of the sites’ prehistoric occupants as possible.

The overall framework for this study is the Airport Master Plan and an Environmental Inventory for acquisition and expansion of the airport. The Airpark is subject to FAA permitting and oversight; accordingly, the proposed improvements fall within the jurisdiction of Section 106 of the National Historic Preservation Act of 1966, as amended. The archeological research was conducted under the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (National Park Service 1983), as well as guidelines specific to the State of Delaware, including *A Management Plan for Delaware's Prehistoric Cultural Resources* (Custer 1986a; also Custer 1994), the *Management Plan for Delaware's Historical Archaeological Resources* (De Cunzo and Catts 1990), and the *Delaware Statewide Comprehensive Historic Preservation Plan* (Ames et al. 1987). The archeological investigations were also conducted in accordance with the Delaware State Historic Preservation Office guidelines (Delaware State Historic Preservation Office 1993, 1997).

Field work for the archeological data recovery excavations at the two sites was conducted from April through July, 2006.

1.2 PROJECT HISTORY AND BACKGROUND

JMA conducted an archeological background study across an initially defined Delaware Airpark project area (Siegel et al. 2001) and a Phase I archeological identification survey across the subsequently defined area of potential effects (APE) (McVarish and Siegel 2004). The Phase I survey resulted in the identification of seven new sites and the relocation of one previously documented site (Figure 4). Four of the sites consisted of small scatters of chipped-stone artifacts and fire-cracked rocks (Sites 7K-C-427, 7K-C-428, 7K-C-429) that yielded no temporally sensitive artifacts, and Site 7K-C-430 that produced a jasper Levanna point (Woodland II period).

Three other sites identified during the Phase I survey produced moderately large and diverse assemblages of artifacts spanning the Early/Middle Archaic, Late Archaic, Terminal Archaic, Early Woodland, and possibly Middle Woodland periods, corresponding to the Archaic through Woodland I periods in Delaware’s cultural chronology (Sites 7K-C-382, 7K-C-431, and 7K-C-432). Datable upland lithic scatters with diverse assemblages of artifacts are not well known for this portion of Delaware. As such, these kinds of sites are important for augmenting the understanding of settlement patterns dating to specific periods in prehistory. Finally, Site 7K-C-426 was a farmstead that was occupied from the mid-nineteenth to the early twentieth century.

Following the completion of the Phase I survey, JMA concluded that Sites 7K-C-427, 7K-C-428, 7K-C-429, 7K-C-430 were not eligible for listing in the National Register of Historic Places (NRHP), and as such no further work was recommended for these sites. In contrast, JMA recommended that Sites 7K-C-382, 7K-C-431, 7K-C-432, and 7K-C-426 were potentially eligible for listing in the NRHP because of the archeological information that each of them might contain regarding regional prehistory or history. Accordingly, Phase II archeological investigations were conducted at each of these four sites between October and December 2003 (Siegel et al. 2004). JMA concluded that 7K-C-432, although exhibiting good integrity of archeological deposits, was not NRHP-eligible based on the small site size as well as the low artifact density and narrow range of artifact classes that were present, which indicated a limited number of activities and perhaps few occupations at the site. Conversely, the Phase II evaluations at 7K-C-382 and 7K-C-431 (now referred to as the Airpark West and Airpark East sites, respectively), as well as at 7K-C-432, a mid-to late-nineteenth-century owner-occupied agricultural dwelling, led to JMA's conclusion that all three were significant archeological resources eligible for listing on the NRHP under Criterion D.

The Airpark East site (7K-C-431) was identified through Phase I surface collection survey of newly plowed agricultural fields. One hundred twenty-four prehistoric artifacts were recovered, prompting the Phase II evaluation of the site (McVarish and Siegel 2004:32). The Phase II investigations involved the excavation of nine 1x1-meter excavation units spread systematically and broadly across the site area (Siegel et al. 2004:9). The site boundary was altered slightly and, as before, the integrity of the deposits appeared good.

The site, positioned along the 50-foot contour and overlooking a wetland to the north, yielded temporally distinctive artifacts indicating discontinuous occupations spanning the Middle/Late Archaic, Late Archaic, Early Woodland, and Middle Woodland periods, or to the Archaic and Woodland I periods in Delaware cultural chronology. No chronologically based spatial associations of artifacts were identified during the Phase II evaluation, and an example of a palimpsest assemblage was indicated. The density of artifacts was greater than in the Airpark West site, with a mean artifact count per excavation unit of 84. The largest quantity of artifacts was collected from units excavated in the center of the site. However, distributions of fire-cracked rock revealed two high-density and three moderately high-density areas dispersed across the length of the site, suggesting distinct areas for cooking and general heating activities. Nearly 300 artifacts were collected from subplowzone contexts, including both Middle Archaic (Morrow Mountain-like point) and Middle Woodland (Jack's Reef-like point, Hell Island pottery) occupations.

The Airpark West site (7K-C-382) was likewise identified through Phase I surface survey of newly plowed fields as well as by the excavation of a small number of shovel test units. A total of 133 historic and prehistoric artifacts were found, predominantly the latter. After the Phase I field work, the site was mapped as being two nearby but spatially distinct artifact loci and were referred to as 7K-C-382A and 7K-C-382B (McVarish and Siegel 2004:33). Twenty Phase II 1x1-meter excavation units were systematically spaced across the site areas to clarify site boundaries and integrity of deposits. The results led to the recognition that the two designated site loci were not warranted, and the site boundary was adjusted to reflect this; artifacts and fire-cracked rocks were found lightly scattered all across this sizable area (Siegel et al. 2004:5-6). Integrity of deposits was also deemed to be good.

Based on the Phase II excavations, the Airpark West site appeared to have been occupied discontinuously from the Early/Middle Archaic, possibly into the Late Woodland period. This time range corresponds to the Archaic, Woodland I, and possibly Woodland II periods in Delaware cultural chronology. The majority of the artifact assemblage was collected from the plowzone, although the southeastern portion of the site contained an intact subplowzone deposit. Generally, the

site was interpreted as representing a rather low-density distribution of artifacts covering an area of about one acre. Three spatial clusters of artifacts were identified, based on the locations of excavation units with 10 or more artifacts each in the plowzone. Except for an area in the southern portion of the site, no spatial partitioning could clearly be attributed to specific cultural occupations. The site was seen as a palimpsest assemblage resulting from numerous overlapping periods of use, which is the case for most shallow upland sites in the Eastern Woodlands. A small, approximately 570-square-meter area in the southern portion of the site produced all of the prehistoric pottery, one of which was possibly Mockley ware. It was proposed that if all of the pottery concentrated to this area was Mockley, then evidence of a small occupation associated with the Carey complex (Woodland I; 1,800–1,200 years BP) was indicated.

JMA recommended that if the sites could not be avoided by the proposed construction project, which they could not, Phase III data recovery excavations should be undertaken. The results of the Phase III investigations at the Airpark East and Airpark West sites are reported herein, whereas the results at 7K-C-432 will be included in a separate report.

Regarding personnel involved in the rather long and complex Delaware Airpark project, the Phase IA, IB, and II excavations and reporting of the Airpark East and Airpark West sites was conducted under the direction of Dr. Peter E. Siegel, Senior Project Manager/Principal Archeologist at JMA. In this, Dr. Siegel was assisted by Mr. Mark A. Tobias, JMA Project Archeologist. Dr. Siegel and Mr. Tobias also conducted the Phase III data recovery research design and excavations at the Airpark East and Airpark West sites. Shortly after completion of the excavations, both Dr. Siegel and Mr. Tobias departed JMA for other opportunities.

The data analysis and report preparation phases of the project were inherited by Dr. Robert G. Kingsley, Senior Project Manager/Principal Archeologist at JMA. Dr. Kingsley was ably assisted in these tasks by Mr. Tod L. Benedict, Project Archeologist; Mr. Matthew D. Harris, Principal Geospatial Analyst/Archeologist; Ms. Jennifer C. Ort, Assistant Archeologist; and Mr. Peter A. Leach, Project Archeologist/Geoarcheologist. Laboratory processing was overseen by Ms. Juliette J. Gerhardt, Laboratory Supervisor. Graphics production was capably handled by Ms. Sarah Jane Ruch, Senior Graphics Artist, and her staff.