

HILL FIELD, DEPOT SUPPLY EXPANSION WAREHOUSE  
(HILL FIELD, BUILDING 840)  
(HILL FIELD, PROPULSION/FLIGHT & WAREHOUSE)  
(HILL FIELD, BUILDING E-137)  
7513 5th Street  
Layton Vicinity  
Davis County  
Utah

HAER No. UT-85-AC

HAER  
UTAH  
6-LAY.V,  
2 AC -

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

**HISTORIC AMERICAN ENGINEERING RECORD**  
Rocky Mountain System Support Office  
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P.O. Box 25287  
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**Location:** 7513 5th Street, Hill Air Force Base, Layton Vicinity, Davis County, Utah

**UTM:** 12-417490-4551110

**Date of Construction:** 1943

**Architect:** U.S. Army Corps of Engineers - Salt Lake City District

**Builder:** Unknown

**Present Owner:** Hill Air Force Base

**Present Use:** Propulsion/Flight Warehouse

**Significance:** This Depot Expansion Warehouse accommodated crucial storage activities at the Ogden Air Depot/Ogden Air Materiel Command (OOAMA, Hill Field/Hill Air Force Base) during and after World War II. During this time, part of the base's primary mission was to receive, store, and supply air materiel. This building provides particularly vivid images of the processes involved in the storage and issue of general supplies to the U.S. Army Air Corps in support of the Pacific and European theaters of military operation during World War II. In addition, it contributes to a deeper understanding of the early development of the U.S. Army Air Corps, a branch of the Army which eventually became the U.S. Air Force. Hill Field was one of only two air depots established in the United States during the tumultuous years immediately preceding World War II.

**History:** Building 840, the Depot Expansion Warehouse, was a primary warehouse facility at the Ogden Air Depot/Ogden Air Materiel Command (OOAMA, Hill Field/Hill Air Force Base) during and after World War II. Several warehouses were constructed in the vicinity of Building 840 in the 1940s to relieve storage pressure on warehouses closer to the flight line (like Buildings 5 and 100). During the early years of these massive "800-Zone" warehouses, they stored items that were sorted by Federal stock numbers and organized by class/type.

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The first shipment of supplies was received at Ogden Air Depot in January 1941 and was followed by additional shipments in February and March. By May 1941, Ogden Air Depot was receiving an average of 20 train carloads of material per day. The "800-Zone" Depot Expansion Warehouses had not yet been completed, and all available warehouse space was soon filled to capacity. Many overflow supplies were hauled by truck to a leased warehouse in Bountiful, and material that could be stored safely outdoors under tarpaulins covered over 500,000 square feet. A desperately needed 1,000,000 square feet of additional warehouse space was expected to be completed in October. Building 840 was completed in February 1943, and provided approximately 216,000 square feet of indoor storage space. As fast as warehouses could be completed, they were filled with supplies.

The December 1941 attack on Pearl Harbor brought a more intense flood of supplies to Ogden Air Depot as military goods were brought inland as a precaution against possible coastal bombing. Because of the shortage of indoor storage space, even more items were stacked outdoors and covered with tarpaulins.

No packing lists or shipping tickets were attached to the packing cases, so items could not be identified without unpacking them. Since the shipping crates were stored outside, they were not unpacked unless absolutely necessary. Several unsuccessful attempts were made to obtain the original packing lists from the manufacturers who shipped the materials.

Most available personnel on the Base were processing incoming aircraft, so few workers were available to catalog the incoming supply shipments. Only 16 of 1700 employees in the Depot Supply division had more than one year of experience with supply operations. To complicate matters further, most of the people who aided in the work had never seen aircraft parts like ailerons (movable flaps that were mounted to the wings of airplanes), or superchargers (compressors used to supply high pressure air to engine cylinders), which were prevalent among the incoming supplies. Thus many items could not be readily identified or cataloged, even when they were unpacked. Requests for items listed as "not in stock" were often present, but the items could not be issued because they had not been identified, inspected, or recorded.

Aircraft repair quotas set by Air Command were rarely met in the beginning months of World War II because needed materials were often difficult to procure, and the majority of special tools were unobtainable. Without other options, many of these items were designed and manufactured on the Base. As the war progressed, these obstacles began to subside. A shortage of special parts, tools, equipment, and adequate working space continued to present challenges, but in gradually reduced proportion. Many items continued to be manufactured by the depot shops as the needs for them became sufficiently urgent.

A Special Parts Control Unit (later renamed Expediting Branch) was established in February 1942 to anticipate, evaluate, and minimize shortages of goods that were needed to complete aircraft repair, winterization, and modification projects. Specialized sub-depots were placed within each division to optimize accessibility. All non-expendable material for the engineering shops was requisitioned to the General Supply Department through expeditors, who maintained follow-up on material that could not be readily furnished by the Supply Department. At first, each individual shop was represented by an expeditor who traced materials required for each job. This involved investigations into all classes of supplies, and resulted in considerable confusion and duplication. After a few months, each expeditor was assigned certain property classes for all projects, which was much more efficient.

As the shops became specialized, production increased, and more parts and materials were secured from sources off the Depot. Close coordination was needed between stock tracers in the General Supply Department and the Expediting Branch in order to have material availability information always on hand for each shop. Standard methods for obtaining (and maintaining) this information involved a "Kardex System" that gave perpetual figures on the number of reparable items received in the shops and those completed, both daily and cumulative. The Kardex indicated whether each item left the shop serviceable, reparable, or condemned.

In March 1945, corrosion control inspectors evaluated each storage bin in the Depot Expansion Warehouses. Bins containing items requiring corrosion treatment were tagged by the inspector with a white card marked "CTR." If a bin contained items which did not require corrosion treatment as well as items that did, the goods were separated. The storekeeper of each warehouse compiled a list of "CTR" material that was forwarded to the maintenance division, who retrieved the items from storage and treated them with corrosion preventative chemicals and then sealed them against condensation and oxidation.

During the 1950s and 60s, Hill Air Force Base supplied items to military installations world-wide, and these warehouses stocked over 1 billion pieces of 275,000 different items. Supply administrators continuously sought improved methods of operation that would increase efficiency and decrease labor demands. Project "WISE" ("Worldwide Implementation of Supply Economy") was implemented in 1950, which encouraged individual bases all over the world to develop and test methods of increased mechanization in warehouses.

In 1951, a new system to expedite the movement of freight from warehouses to packing and shipping points was initiated. Signs reading "yes" or "no" were placed outside the warehouses so truck drivers would know at a glance whether or not to stop or to proceed to the next point. Greater efficiency resulted, since trucks moved in a continuous circuit with no unnecessary stops.

During the 1960's, mechanization began to play an important role in these warehouses. A monorail system with periodic stations on both the ground and mezzanine levels of Buildings 810 and 820 serviced small items that were stored at overhead levels. A pierced planking runway contained anchors for bins that were stacked on the floor, and a plastic tray moved along the monorail and stopped at assigned stations. The monorail went up and down the height of the bins to retrieve and store the items of stock.

Also in the 1960s, a "Towveyor System" was placed on the floor that serviced all four Depot Expansion Warehouses (Buildings 810, 820, and the two buildings that later became Building 800). Track channels imbedded in the concrete floor allowed 300 carts to circulate throughout the four buildings. The tracks went underground between Buildings 810 and 820, and under the tracks to both ends of Building 800. The carts were linked to a chain that was pulled by a motor. Individual pin settings on the carts determined at which station each cart would stop. The "Towveyor System," an early innovator of mechanization, was designed and implemented by engineers in the 800-zone warehouse area of Hill Air Force Base.

### **General**

**Description:** Building 840 (180' x 1200') is a massive rectangular frame warehouse with broad loading docks. The exterior is clad in wood lap siding which gives the appearance that the building is covered with shingles. Both the east and west side elevations have an exterior wood sliding door. Each sliding door, approximately twenty feet tall (a conservative estimate), consists of two wooden tension cross brackets. Along the long elevations (north and south), there is a continuous concrete loading dock with several exterior sliding doors.

The interior is partitioned into five separate bays. Each bay is separated by a fire wall. The building is constructed entirely out of wood. Some locations on the interior have been modified to accommodate offices and other administrative functions. The wood trusses average a depth of approximately eight (8) feet.

The warehouse has a monitor roof structure with a very shallow pitch to allow for drainage. In the monitor section of the roof, there is a continuous row of fixed, sixteen-pane windows. An undetermined number of wood ladders provide access to the top part of the monitor roof, where there are also an undetermined number of globe-shaped metal vents. The roof eaves cantilever approximately fourteen (14) feet from the face of the building.