4

Building Area Development

OVERVIEW

The building area of an airport encompasses all of the airport property not devoted to runways, major taxiways, required clear areas, and other airfield-related functions. This chapter examines the factors that affect the siting of future building area facilities at Hemet-Ryan Airport and alternative ways of accommodating projected demand. The focus is on providing direction for the appropriate expansion and use of the core building areas of the airport. The various design issues associated with Hemet-Ryan Airport are discussed in the sections that follow. The *Building Area Plan* enclosed with the *Master Plan* report presents the recommended layout of facilities for these areas.

It should be recognized that there are two distinct building areas on the airport. The principal building area is located south of Runway 5-23. It fronts on Waldon Weaver Road. Most of the airports facilities are located on the south side. All aircraft storage hangars, fueling facilities, several fixed base operators, a restaurant and the fire attack base are located on this side of the airfield. The second building area is located on the north side of the airfield. This second building area is devoted solely to sailplane and ultralight activities. Facilities on this side include several fixed base operators and parking areas for sailplanes and their storage boxes.

Design Factors

Many factors influence the planning and, later, the development decisions associated with Hemet-Ryan's principal building area. Most of these factors can be grouped under five basic headings:

- **Demand** — The demand for additional building area facilities at Hemet-Ryan Airport is forecast to be significant over the next 20-year planning period. As documented in Chapter 2, the number of based aircraft is forecast to increase by more than 35% by 2020, from the current 247 aircraft to 335 aircraft.

  About 45% of the aircraft currently based at Hemet-Ryan Airport are single-engine, piston-powered aircraft. During the winter seasonal peak, about half of the based aircraft are sailplanes. However, the airfield sees use by the full spectrum of aircraft: piston twins, turboprops, corporate jets, and helicopters. As the city of Hemet and the San Jacinto Valley continue to expand their economy, it is anticipated that the airport will see increasing use by turboprops and jets.

  Sailplane operations have greater potential for variance over the 20-year planning period. The majority of based sailplanes are only based at the airport during the prime winter season. So every year, these sailplane owners must decide where to base for the season. This introduces potential for dramatic changes in their number in a short period.

  Demand for new fixed base operator leaseholds is expected to be limited. However, significant land remains available for new leaseholds on both the north and south sides of the airfield.

Taxiway — A defined path, from one part of an airport to another, selected or prepared for the taxiing of aircraft.

Taxilane — The portion of the aircraft parking area used for access between taxiways, aircraft parking positions, hangars, fixed base operators, etc.

- **Setback Distances** — The interior boundary of the airport building areas is determined in large part by the necessary setback distances from the nearest runway and taxiways. Based upon design criteria discussed in the preceding chapter, the following design criteria are recommended:
  - A minimum of 500 feet from the centerline of Runway 5-23 to buildings in both the north- and south-side building areas.
  - A minimum of 400 feet from the centerline of Runway 5-23 to parked aircraft in the south-side building area.
  - A minimum of 125 feet from the centerline of Runway 4-22 to parked aircraft in the north-side building area.
  - A minimum of 66 feet from the centerline of taxiways to fixed or movable objects.

- A minimum of 130 feet from a taxilane centerline to the face of large box hangars (90 foot or greater depth).
- A minimum of 37.5 feet from a taxilane centerline to the face of a small box hangar (50 foot depth).
- A minimum of 32.5 feet from a taxilane centerline to the face of hangars intended to accommodate small, single-engine aircraft.

The building areas at Hemet-Ryan Airport are subdivided into distinct areas designed to accommodate aircraft with particular wingspan. Each area's wingtip clearance is based upon FAA design standards in Advisory Circular 150/5300-13 (Change 6).

- **Existing Facilities** — Although additional rehabilitation is planned on some of the wooden hangars, the facilities in the building area are capable of continued use throughout the 20-year time horizon of this plan. If fire attack operations are relocated, the retardant tanks are expected to be relocated. However, the buildings would remain and could be utilized for other purposes. The circulation pattern and general layout of the south-side building area is expected to remain unchanged.

  Three of the four structures in the north-side building area will need to be relocated when Whittier Road is extended, regardless of the alignment ultimately selected. Sufficient space is available southwest of their present location to reestablish the buildings and associated facilities.

- **Accessibility** — An important design consideration is the ease of access to individual portions of the building areas from both the taxiway system and public roads. At Hemet-Ryan Airport, Taxiways B, C, and D provide adequate access to the south-side building area. No new taxiways are needed to serve the south side.

  The north side does not currently use formal taxiways or taxilanes in its operations. Due to the unique operational requirements of sailplanes, none are needed. However, if storage hangars for powered aircraft or fixed base operators serving powered aircraft were developed on this side of the airport, a partial parallel taxiway would need to be created.

Direct public vehicular access is provided principally through two gates. An electronically controlled gate on Cawston Avenue provides access to the storage hangars. A manual gate at the west end of Waldon Weaver Road provides access to the transient apron. A third gate can be accessed from Stetson Avenue through the fire attack base. This is a manual gate that also provides access to the transient apron. Both manual gates are padlocked at night. It is desirable for box hangars, particularly larger box hangars, and new fixed base operators to have vehicle access that does not require visitors to enter the airfield. This enhances both safety and security.

- **Development Staging** — Another important factor in the preparation of a building area plan is the timing of future development. The object is to have a plan that is cost effective and flexible enough to changes in the type and pace of facility demand. The plan must also make sense at each stage of development. Sometimes, the desired location for facilities in the short-term may conflict with the optimum long-range plan.

  The County has recently completed reconstruction of the transient apron. As a part of this project, existing portable hangars were relocated to areas adjacent to the T-hangars.

  It is anticipated that there will be demand for a range of hangar sizes: T-hangars, small box hangars, and large box hangars. The design of the building area will enable each size of hangar to be constructed independently; they do not require other development as a precursor to their implementation. The timing of construction of additional aircraft storage hangars and fixed base operator facilities will be dependant upon demand. It is not proposed that any facilities be built speculatively. Additionally, it is recommended that the County not construct large box hangars or facilities for fixed base operators. These are typically much more likely to become vacant than small box hangars and T-hangars.

PRINCIPAL BUILDING AREA FEATURES

Aircraft Storage and Parking

The forecasts prepared as part of this master plan update indicate that demand will exist for up to 68 additional aircraft by the year 2020. All of the future demand is contingent upon hangar availability.

Hangars

There are 79 T-hangars and small box hangars, 43 portable hangars, and 3 large hangars on the south side of the airport. There are three hangars on the north side of the airport. The majority of these hangars are privately owned buildings on ground leases. Riverside County owns approximately half of the hangars, including the three largest hangars and five rows of T-hangars. Currently there is a waiting list for hangars.

As noted earlier, it is anticipated that demand for additional aircraft storage hangars will continue throughout the 20-year planning period. The continued availability of reasonably priced hangars is essential to growth at the airport.

Four banks of T-hangars with 50 units can be sited across Taxiway B from the existing T-hangars. The eastern half of the newly reconstructed apron is designed to accommodate nine T-hangar units and eight small box hangars. The fixed base operator's leasehold can accommodate seven to ten small box hangars (50 foot square). Sites for four large box hangars (90 foot square and larger) can be accommodated west of the transient apron. Two units could be constructed now; the other two could be constructed only if the fire attack base is decommissioned.

There are extensive areas in which additional hangars could be constructed. The open area between Taxiways C and D could hold 75 to 100 T-hangars or small box hangars. The north side of the airfield could accommodate over 250 additional hangars without compromising sailplane operations. Additional space for large box hangars is available west of Taxiway E.

Tiedowns

There are 37 tiedowns on the newly reconstructed apron at the west end of the south-side building area. On this apron, 10 tiedowns are nominally designated for transients. There are 25 additional tiedowns at the east end of the south-side building area. Both tiedown areas also have designated areas for larger aircraft. It is not anticipated that additional tiedown spaces will be needed.

On the north side of the airport, extensive areas have been designated for parking of sailplanes and their transport boxes. As the area is not paved, it can be readily expanded to meet changes in demand.

Fixed Base Operations

It is anticipated that the three large hangars and associated offices currently used for fixed base operations will continue to be used for this purpose throughout the 20-year planning period. There is limited potential for additional demand for new fixed base operator leaseholds. This demand can be accommodated in two ways. While the fire attack base remains operational, new fixed base operator leaseholds can be developed in either the area designated for two large box hangars near the transient apron or in the area west of Taxiway E. Buildings located in the area west of Taxiway E will need to remain clear of the AWOS clearance area. If the fire attack base closes, the base would be suitable for one or more fixed base operator leaseholds.

SUPPORTING FACILITIES

Aircraft Fuel Storage and Dispensing

Hemet-Ryan Airport supplies low-lead Avgas and Jet A fuel. A new storage and dispensing system was recently installed west of the transient apron near the fire attack base retardant tanks. Self-serve fueling is available 24 hours per day by credit card. The existing location is well sited to serve the airport through the 20-year planning period.

Aircraft Wash Racks

Four wash racks currently exist. All are located the southern perimeter of the building area, adjacent to Waldon Weaver Road. Each consists of a concrete pad with an associated hose bib. The wash rack most conveniently located for based aircraft is sited between the restaurant and Hangar 1 (the easternmost large hangar). It would be appropriate to construct a wash rack on the north side of the airfield.

Airfield Security

Events in the last year have dramatically increased public and agency concerns over aviation security. Although most attention is focused on airports with scheduled passenger service, all airports can expect security requirements to be increased. New guidance for general aviation airports has not yet been released. However, at general aviation airports such as Hemet-Ryan Airport, it is likely that the physical requirements for increased security will focus on controlling entry to the airfield.

The airport perimeter is completely fenced. Fencing is a mixture of chain link though the building area and cattle fencing in outlying areas. Two, wrought iron, electronically controlled gates, and numerous manually operated gates exist. Most of the manually operated gates remain locked except when the fixed base operator or county has a specific reason to open them. One manual gate on the south side is commonly left open during business hours. The entrance to the sailplane area is also left open.

It is possible that future guidance from the U.S. Transportation Security Agency or Federal Aviation Administration will seek to limit circumstances when gates providing access to an airfield are open and unmonitored. At Hemet-Ryan Airport, the best means of accomplishing this is to convert manual gates that are currently left open to electronically controlled gates. On the south side, this will only require modifying the one gate by retrofitting electronic controls. On the north side, the fence line will need to be extended to include the parking lot serving the fixed base operators. One electronically operated gate and other manually operated gates would then need to be added. The manually operated gates would need to be padlocked when not being actively used. It is not anticipated that other physical changes will be needed by Riverside County to meet future security requirements. Fixed base operators are likely to need to make both physical and operational changes. However, until new guidance is is-

sued, specific requirements for both the County and fixed base operators remain uncertain.

Automobile Access and Parking

Automobile access to the various areas on the airport is provided via Waldon Weaver Road, Cawston Avenue, Stetson Road, and Whittier Road. The future realignment of Stetson Road and Warren Road will not substantially alter the present circulation pattern. However, it may require those arriving from the west to change their general arrival route. No additional street access is needed to implement the master plan.

The reconstruction of Waldon Weaver Road improved the on-street parking for the fixed base operators on the south side. A 41-space off-street parking lot was also recently constructed adjacent to Waldon Weaver Road. Based aircraft owners typically park in their hangars or in unutilized areas at the ends of hangars. On the north side, a centrally located gravel parking lot provides convenient access to the fixed base operators. Informal parking is also available in the graded areas adjacent to the fixed base operators.