
Finance and Implementation

IMPLEMENTATION



The previous chapters have presented a plan for development of the airfield and terminal area at Hemet-Ryan Airport. This chapter addresses how this plan might be implemented. The first section of this chapter summarizes the assumptions that underlie the recommendations contained in this plan. Next, the Capital Improvement Program is presented and funding sources available for its implementation are presented. In the latter part of this chapter, environmental concerns, particularly noise, will be addressed.

PLAN ASSUMPTIONS

There are numerous explicit and implicit assumptions that shaped the forecasts and designs presented in this plan. Future interpretation of this plan should consider these assumptions. If future conditions do not match these assumptions, the plan's recommendations should be reexamined. The key plan assumptions are listed in the sections that follow.

Community Context

- The recreational build out of the Eastside Reservoir will continue as planned.
- Encroachment from the north, east and south will continue around the airport.
- AB 2776 (Airport Noise Disclosure) will be continually implemented.
- No closure of any nearby airports will occur: Banning, French Valley, Riverside Municipal, March, Flabob, Corona, Perris or Redlands.
- March and other airports, such as Ontario, will capture commercial and cargo aviation activity.
- Appropriate land acquisition and land use decisions will be made to enable all airport operations to continue.
- Hemet and the San Jacinto Valley will continue to grow, and its economy will diversify
- Warren Road and Stetson Avenue will be realigned by others

Airfield

- No further security mandates will be required from the TSA.
- California Division of Forestry fire attack base will close
- Sailplane operations will continue. They may decline in the near term, but will grow over long term.
- There will be limited additional development of fixed base operations.
- Recreational flying will continue to be the dominant aviation use.
- Sailplane operations are only viable if some version of the multi-runway system is retained. Some form of accommodation with the FAA and Division of Aeronautics will be defined that permit sailplane operations to continue.
- A precision instrument approach will not be developed
- There will be little growth in helicopter operations

Transient Aircraft Use

- Transient operations by turboprops and jets will increase due to links with new businesses in the area. Most of the business jet operations are expected to originate within California, especially southern California.

- The jets will principally be those in the 20,000 to 30,000 pound range. The new class of small jets is expected to be a significant proportion of the jets using Hemet-Ryan Airport.
- Growth in use for business-related flights will be constrained unless the runway is extended.

Implementation

- Funding from the FAA will continue through the planning period.
- Airport development, including the runway extension, will be shaped by environmental constraints, but will be implemented as scheduled.

CAPITAL IMPROVEMENT PROGRAM

The proposed 20-year Capital Improvement Program for Hemet-Ryan Airport is set forth in Table 5A. Project locations are shown in Figure 5A. The listed projects include both proposed improvements, as described in previous chapters, and recommended major maintenance work for the airfield and building area pavement. The total investment over the next 20 years would be approximately \$5.8 Million. Required matching funds would total almost \$660,000. If full state participation occurs, Riverside County's contribution would be a bit over \$360,000.

The project costs listed in the Capital Improvement Program represent order-of-magnitude estimates in 2003-dollar values and include design engineering and other related costs and contingencies. The estimates are intended only for preliminary planning and programming purposes. More detailed engineering design and, in some cases, market analyses should be performed before proceeding with the projects.

CAPITAL FUNDING SOURCES

There are a variety of resources from which funding and financing for general aviation airport facilities and improvements can be obtained. These resources include federal grants, bonds, airport sponsor self-funding, and private investment.

		Estimated Costs (in 2003 dollars)			
		Total	Federal	State	County
Short-Range Projects (within 5 years)					
1.	Box Hangar Taxilane Construction (Phase I)	\$110,000	\$99,000	\$4,950	\$6,050
2.	Taxiway A Seal Coat	\$85,000	\$74,700	\$3,735	\$4,565
3.	Runway 5-23 Seal Coat and Runway 23 PAPI installation	\$260,000	\$234,000	\$11,700	\$14,300
4.	Runway 5 PAPI installation	\$155,000	\$136,800	\$6,840	\$8,360
5.	Taxiway D Reconstruction and Edge Light Installation	\$105,000	\$94,500	\$4,725	\$5,775
6.	Southwest Apron Partial Reconstruction and Security Lighting	\$215,000	\$193,500	\$9,675	\$11,825
7.	Whittier Road Slurry Seal	\$16,000	\$14,400	\$720	\$880
Subtotal		\$946,000	\$846,900	\$42,345	\$51,755
Mid-Range Projects (approximately 5 to 10 years)					
8.	R/W 5-23 Extension, Blast Pad Construction & Road Demolition	\$1,810,000	\$1,627,200	\$81,360	\$99,440
9.	Runway 5-23 PAPI Relocation	\$30,000	\$26,100	\$1,305	\$1,595
10.	Sailplane Runway Grading	\$380,000	\$342,000	\$17,100	\$20,900
11.	T-Hangar Taxilane Construction (Phase II)	\$210,000	\$182,700	\$9,135	\$11,165
12.	Southeast Apron Slurry Seal	\$35,000	\$28,800	\$1,440	\$1,760
13.	Central Apron Seal Coat	\$125,000	\$112,500	\$5,625	\$6,875
14.	East Hangar Area Seal Coat	\$100,000	\$88,200	\$4,410	\$5,390
15.	Taxiway D Seal Coat	\$8,000	\$7,200	\$360	\$440
16.	Southwest Apron Joint Seal	\$25,000	\$18,900	\$945	\$1,155
17.	Whittier Road Slurry Seal	\$16,000	\$14,400	\$720	\$880
Subtotal		\$2,739,000	\$2,448,000	\$122,400	\$149,600
Long-Range Projects (10 to 20 years)					
18.	Box Hangar Taxilane (Phase II)	\$110,000	\$99,000	\$4,950	\$6,050
19.	T-Hangar Taxilane Construction (Phase III)	\$85,000	\$74,700	\$3,735	\$4,565
20.	Fee Simple Land Acquisition (26 acres)	\$450,000	\$405,000	\$20,250	\$24,750
21.	Approach Protection Easement (14 acres)	\$155,000	\$137,700	\$6,885	\$8,415
22.	Southeast Apron Reconstruction	\$310,000	\$279,000	\$13,950	\$17,050
23.	Central Apron Slurry Seal	\$90,000	\$78,300	\$3,915	\$4,785
24.	East Hangar Area Slurry Seal	\$70,000	\$61,200	\$3,060	\$3,740
25.	Taxiway A Slurry Seal	\$60,000	\$53,100	\$2,655	\$3,245
26.	Runway 5-23 Slurry Seal	\$205,000	\$184,500	\$9,225	\$11,275
27.	Taxiway D Slurry Seal	\$6,000	\$5,400	\$270	\$330
28.	Southwest Apron Total Reconstruction	\$1,250,000	\$1,125,000	\$56,250	\$68,750
29.	Whittier Road Reconstruction	\$130,000	\$115,200	\$5,760	\$7,040
30.	Box Hangar Taxilane Seal Coat (Phase I)	\$5,000	\$3,600	\$180	\$220
31.	T-Hangar Taxilane Seal Coat (Phase II)	\$9,000	\$7,650	\$383	\$468
Subtotal		\$2,935,000	\$2,629,350	\$131,468	\$160,683
TOTAL		\$6,620,000	\$5,924,250	\$296,213	\$362,038

Note: Projects within each phase are not ordered chronologically

Source: Mead & Hunt (June 2003)

TABLE 5A

Capital Improvement Program

Hemet-Ryan Airport

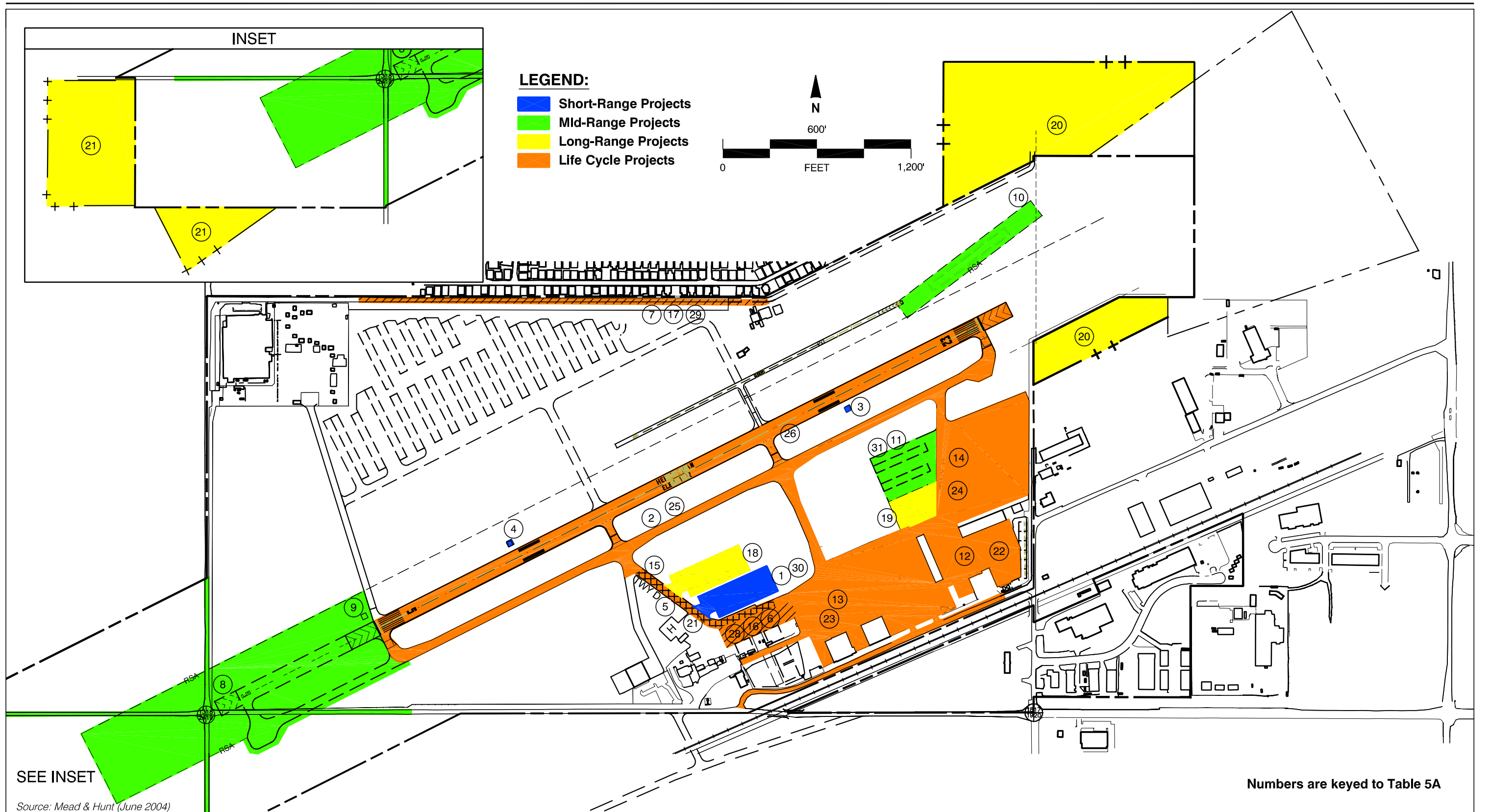


Figure 5A

Capital Improvement Program Hemet-Ryan Airport

Federal Aviation Grants

Currently, the most common source of federal aid for airport facilities is the Airport Improvement Program (AIP) administered by the FAA. Reauthorized in 2000, the current AIP is the latest evolution of a funding program originally authorized by Congress in 1946 as the Federal Aid to Airports Program (FAAP).

The AIP is based upon a user trust fund concept, allocating aviation-generated tax revenues for specified airport facilities on a local matching share basis. The program currently provides for 90% federal participation and 10% local participation on eligible airport projects in California.

Under the AIP, there are both *entitlement* and *discretionary* grants. There are two types of entitlement grants in the current program. General aviation airports can qualify for up to \$150,000 annual entitlement. Commercial service airports in the “Primary” category qualify for large entitlement grants based upon the volume of passengers enplaned at the airport in the prior year. Discretionary grants are awarded on a competitive basis, based upon need. As a general aviation airport, Hemet-Ryan airport qualifies for the \$150,000 annual entitlement and discretionary funding. The current authorization will expire at the end of the 2003 fiscal year. Current indications are that the next authorization bill will be substantially the same as the current one.

State Aviation Grants

The State of California operates a grant program similar in concept to the Federal AIP program. All grants are awarded on a competitive basis. Grants are judged using a numerical weighting scheme. As with the Federal program, priority is given to projects that enhance safety. Due to the state’s financial crisis, new grants are not currently (June 2003) being awarded. However, the program has not been cancelled, and grants are expected to be awarded once the state’s financial situation makes this feasible.

State Annual Grant

General aviation airports, such as Hemet-Ryan, are eligible to receive a \$10,000 annual grant. These funds can be used for airfield maintenance and construction projects, as well as airfield and land use compatibility planning. It is possible to accumulate these funds for up to five years.

State Loan Program

The Caltrans Division of Aeronautics also administers a revolving loan program. Loans are available to provide funds to match AIP grants or develop revenue-producing facilities (e.g., aircraft storage hangars).

Other Grant Programs

Airport projects can also sometimes qualify for grant funding from nonaviation sources. Although not commonly available, airports have received grants from a variety of federal and state programs, including: economic development, community development, and rural infrastructure.

Bonds

Bond funds are a potential source of revenue to support development of larger projects. Given the high underwriting costs and relatively small size of most of Hemet's projects, it is not anticipated that bonds would be used. However, it is may be possible to participate in bonds being issued by Riverside County or a regional agency. It is more likely that bond funds would be used to construct revenue-producing facilities, such as hangars.

Airport Sponsor Self-Funding

At general aviation airports the size and character of Hemet-Ryan, airport sponsor self-funding is principally provided by a combination of airport-generated income and retained earnings. These funds are often used to finance airport improvements that are not grant eligible, and the local matching share for grants-in-aid. Use of this source is the simplest, and often most economical method, because direct interest costs are eliminated.

Private Investment

Private sector investment is an important source of funding for some types of airport improvements. At Hemet-Ryan Airport, private funding is most likely to be used to construct aircraft storage hangars and fixed base operator facilities. Private investment is also the most likely source for aviation-supporting uses, such as a restaurant.

The most common sources of funding for private sector development are commercial lending institutions and insurance companies. In the case of private development on public lands, these types of financing may be difficult and expensive to obtain because the

borrower can encumber only the improvements as loan collateral. It is essential that agreements be reached with the tenants that provide for adequate airport revenues and facility development, while encouraging private investment and satisfying tenants' borrowing requirements. Specifically, the lease term should be sufficient to allow reasonable investment amortization over the period of the agreement.

Those capital expenditures that are most appropriately constructed with private funds have been excluded from the list of proposed capital projects identified in the *Master Plan* (see Table 5A).

ENVIRONMENTAL CONSTRAINTS

Development projects for Hemet-Ryan Airport will occur within the regulatory structure of the State of California and the United States federal government. Both levels of government have environmental regulations that must be considered. This section is intended to identify potential constraints to implementation of the project identified in this plan. Only those factors that might potentially limit proposed development are presented.

Biological

An analysis of potential biological constraints was prepared in December 2000 specifically for the *Airport Master Plan Update* for Hemet-Ryan Airport. The complete document is included as Appendix C. This analysis included both fieldwork and review of published data. Based upon this research, the following conclusions can be drawn:

- Wetlands and other waters of the United States may be present in areas that would be affected by development proposed in this plan. Wetland delineations will need to be conducted to determine if the low areas meet the formal criteria defined in the Clean Water Act.
- Potential habitat exists on the airport for several rare plants known to exist in the vicinity. Focused field surveys should be conducted to determine if any of the following plants exist in areas that would be affected by proposed airport development:
 - San Diego ambrosia (*Ambrosia pumila*)
 - San Jacinto Valley crownscale (*Artiplex cronata* var. *notatior*)
 - Thread-leaved brodiaea (*Brodiaea filifolia*)
 - Spreading navarretia (*Navarretia fossalis*)
 - California orcutt grass (*Orcuttia californica*)

- The potential vernal pools may constitute potential habitat for two species of fairy shrimp:
 - Riverside fairy shrimp (*Streptocephalus woottoni*)
 - Vernal pool fairy shrimp (*Branchinecta lynchi*)
- The airport also contains potential habitat for the burrowing owl (*Athene cunicularia hypugea*). Although this species is not protected by either the state or federal Endangered Species Act, it is offered some protection under other elements of the California Fish and Game statutes. A field survey is recommended to determine whether the species is present.

Noise Effects

Integrated Noise Model Inputs

- The number of operations by aircraft type or group.
- The distribution of operations by time of day for each aircraft type.
- The average takeoff profile and standard approach slope used by each aircraft type.
- The amount of noise transmitted by each aircraft type, measured at various distances from the aircraft.
- The runway system configuration and runway lengths.
- Runway utilization distribution by aircraft type and time of day.
- The geometry of common aircraft flight tracks.
- The distribution of operations for each flight track.

Noise is often described as unwanted or disruptive sound. Because of its routine, everyday occurrence, it is usually perceived as the most significant adverse impact of airport activity. This section will evaluate the noise effects of implementation of the master plan.

A pure sound is measured in terms of: its magnitude, (often thought of as loudness) as indicated on the decibel (dB) scale; its frequency, (or tonal quality) measured in cycles per second (hertz); and its duration, or length of time over which it occurs. To measure the noise value of a sound or series of sounds, other factors must also be considered. Airport noise is particularly complex to measure because of the widely varying characteristics of the individual sound events and the intermittent nature of these events' occurrence.

In an attempt to provide a single measure of airport noise impacts, various cumulative noise level metrics have been devised. The metric most commonly used in California is the Community Noise Equivalent Level (CNEL). This measure is similar to the Day-Night Average Sound Level (DNL or L_{dn}) metric is used elsewhere in the United States. The results of CNEL calculations are normally depicted by a series of contours representing points of equal noise exposure in 5 dB increments. Key factors involved in calculation CNEL contours are noted to the left.

Noise contours were prepared using the FAA's Integrated Noise Model (Version 6.0c). Aircraft operations from Runway 5-23, tow plane operations in the sailplane area, and Sheriff's helicopter operations were modeled. The results are presented in Figures 5B and 5C. Figure 5B presents the noise contours for the current activity level. Noise contours for 2022 are presented in Figure 5C. These contours assume that Runway 5-23 has been extended to 5,300 feet. Noise model inputs are presented in Appendix A.

Federal guidelines suggest that all land uses are acceptable outside of the 65 CNEL contour. However, this standard was established with major metropolitan areas in mind. With Hemet-Ryan's lower ambient noise levels, it is appropriate to consider noise effects outside of the 65 CNEL contour. Given its location in a suburban-rural setting, a 60 CNEL contour has been used. This is consistent with the standard used in the *Comprehensive Airport Land Use Plan (1992)*.

Currently most of the 60 and 65 CNEL contours fall within airport property. Both contours extend beyond airport property to the northeast and east. The 65 CNEL contour lies 100 feet beyond the property line, and the 60 CNEL contour 400 feet both to the northeast and east.

Noise contour inputs for 2022 include:

- Activity level increases (described in Chapter 2).
- Shift in mix of aircraft types to larger aircraft (described in Chapter 2).
- Extension of Runway 5-23 by 985 feet to a length of 5,300 feet (described in Chapter 3).

Under the forecast assumptions listed above, the 2022 noise contours show a noticeable change only to the southwest. The forecast 60 CNEL contour will extend about 1,500 southwest of the intersection of Warren Road and Stetson Avenue. All of this area lies within airport property, except for a strip that will lie within a future right-of-way for Warren Road. Proposed property acquisitions northeast and east of the present airport boundary will encompass most of the area that lie within the 60 CNEL contour.

Cultural Resources

A records search was conducted by the Eastern Information Center of the California Historical Resources Information System. The results of the search were summarized in a letter dated April 29, 2003 (see Appendix D):

Our information indicates that no cultural resources have been recorded within the boundaries of the project area, and that the project area has not been examined for cultural resources.

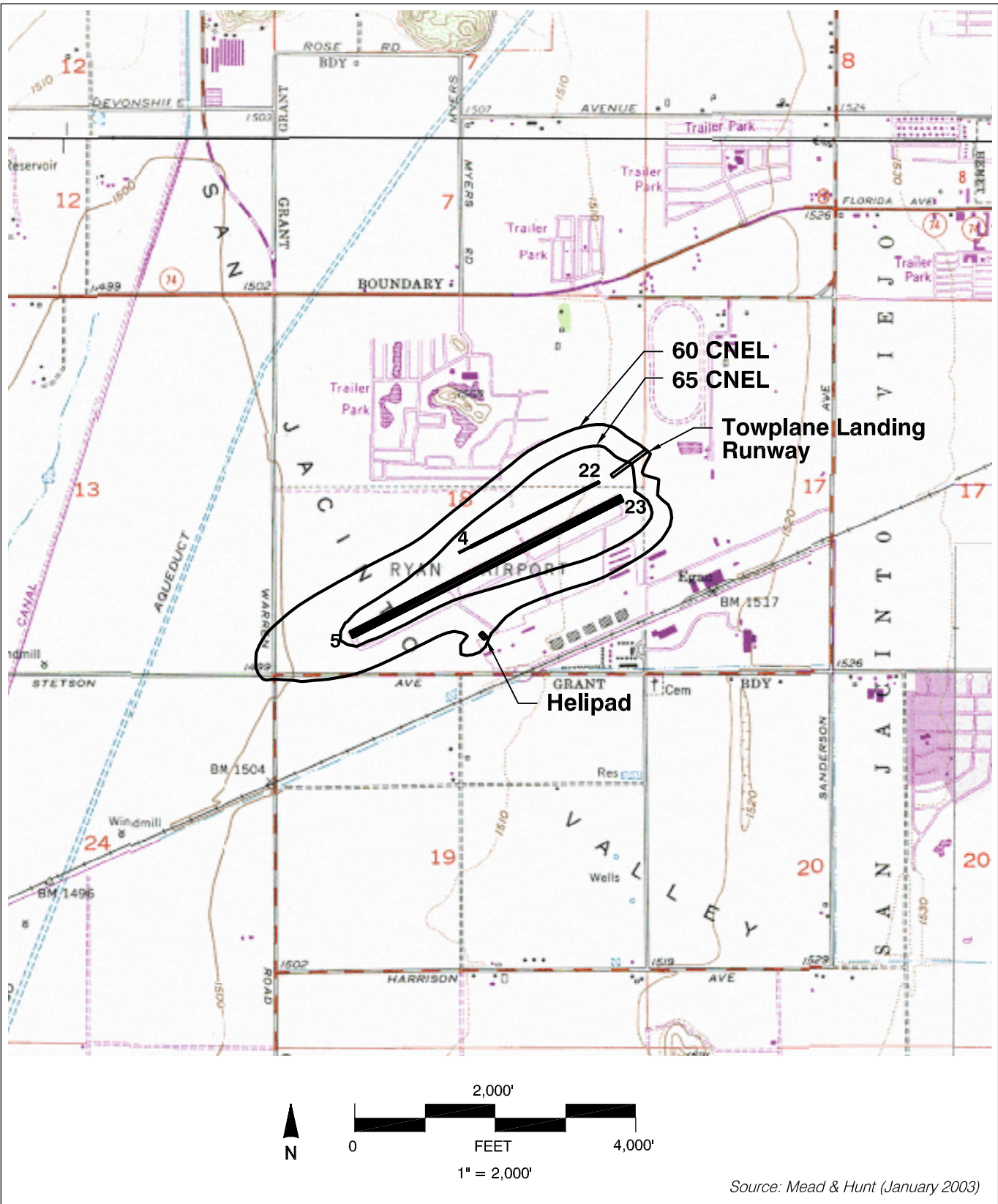


FIGURE 5B

Noise Contours - 2002
Hemet-Ryan Airport

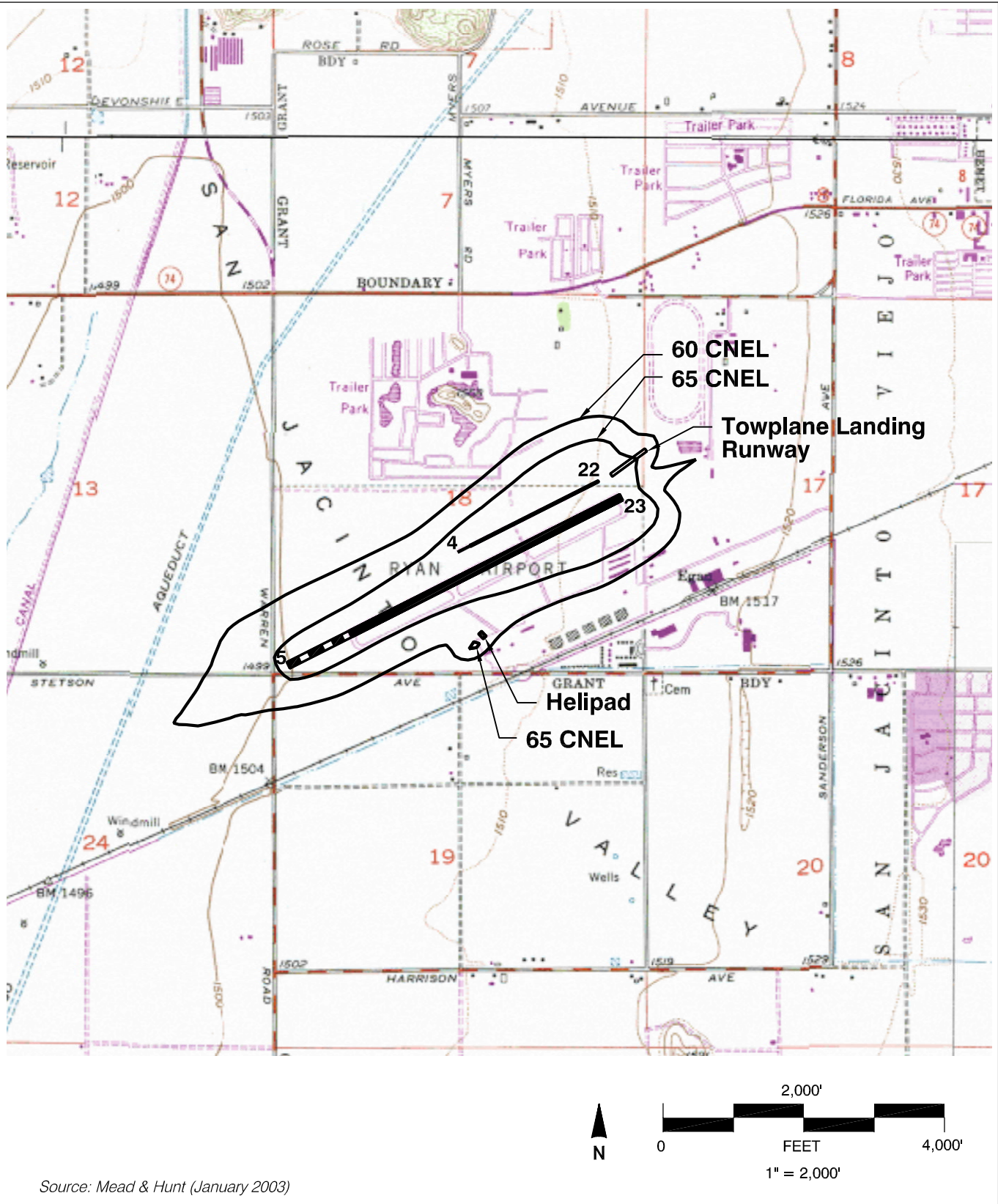


FIGURE 5C

Noise Contours - 2022
Hemet-Ryan Airport

The report concluded that:

“Based upon the information reviewed, cultural resources may be present within the boundaries of the project area and further study is recommended.”

“Given the historic role of Hemet-Ryan Airport, there is the potential that the remaining older hangars might be judged to be historic. This could complicate future use of these structures, but would be unlikely to limit the development projects identified in this plan.”

Air Quality

The volume of aircraft use is forecast to increase over the 20-year planning period. Growth in aircraft use will result in a parallel growth in automobile use. Both of these will cause an incremental increase in air pollutants attributable to airport operations. As most aircraft operations are linked to recreational use and occur on weekends, increases in automobile use will be less than for airports with greater links to business use. Construction activities will also create short-term increases in air pollution. Modeling will be required to quantify air quality impacts of Master Plan projects.

Hydrology

Much of the airport lies within the 100-year flood zone presented on the Federal Emergency Management Agency’s Flood Insurance Rate Map No. 060245-2025B. Although most of the airport lies within the 100-year flood zone, most of the existing building area falls within either the 100- to 500-year flood zone or is designated as being subject to “minimal flooding.” The flood zone designation will need to be addressed in site and building designs.

Environmental Review

Environmental review under the provisions of the California Environmental Quality Act will be required before this plan can be adopted. Based upon the available information, it is anticipated that a mitigated negative declaration would be needed to adopt this airport master plan.

Comprehensive Airport Land Use Plan

In 1992, the Riverside County Airport Land Use Commission (ALUC) adopted an updated *Comprehensive Airport Land Use Plan* for Hemet-Ryan Airport. The plan presents noise, safety and airspace policies for the airport. The safety zones in this plan were defined to encompass areas that are regularly overflown at and below traffic pattern altitude. Noise policies were linked to the 60 CNEL noise contour produced for the plan. Airspace policies were tied to the airspace surfaces defined in Federal Aviation Regulations Part 77.

Riverside County ALUC is currently (June 2003) in the process of updating the compatibility plans for all 13 public-use airports in the County. As part of the update of the compatibility plan for Hemet-Ryan Airport, it is recommended that the following modifications to the existing plan be considered:

- Incorporate the runway configuration shown in the new Airport Layout Plan. The key changes are planned reduction in the length of the sailplane runway and extension of the main runway.
- Revise the airspace policies to reflect the planned runway configuration.
- Either incorporate the forecast noise contours contained in this master plan or develop plausible longer-term noise contours.
- Retain the 60 CNEL contour from the 1989 (printed in 1992) *Hemet-Ryan Comprehensive Land Use Plan* as a benchmark for evaluation of future noise contours. Existing policies treat this contour as the basis for long-term noise compatibility. Given that this agreement was mutually accepted by Riverside County and the City of Hemet, it should be retained.
- Modify the safety zones to include the actual flight paths associated with all three of the sailplane-related runways/landing areas. The current plan addresses only operations on the paved sailplane runway (Runway 4-22), and does not accurately portray the flight paths on that runway.

