V. INFRASTRUCTURE ELEMENTS

1 AIRPORT

1.01 Introduction

THE CITY OF Ukiah owns and operates the 165 acre municipal airport. The airport has been in the same location for the last fifty years, and the City has committed to keeping the airport in this location. To support this, the City has initiated an Airport Master Plan effort using funds from the Federal Aviation Administration (FAA) and California Department of Transportation (Caltrans). Since 1986, the City has expanded the Airport Runway Protection Zone, placed an emphasis on commercial and industrial development around the airport, and improved facilities at the airport.

There are no scheduled air carriers operating from the airport, although there are significant private and charter aircraft activities, delivery services, and the Department of Forestry and Fire Protection attack center. The airport and its operations are given a valued place as a major community resource.

The Airport Element spells out the needs of the airport and the surrounding lands in order to ensure a viable airport well into the future.

Airports are vital in the modern world. Not only do airports provide passenger service and carry packages and mail, but in rural areas airports also play a critical role in emergency response for fires, air ambulance, and search and rescue. Operations through airports save lives and protect property. Airports are good for business and bring in revenues to a community.

Ukiah's quality small community landing field was built in 1942 for the military. The runway was reconstructed to a length of five thousand feet in 1955. There are instrument approaches which permit landings in poor weather. The Ukiah Municipal Airport has on the field a Flight Service Station administered by the Federal Aviation Administration which reports current and forecasted weather, accepts flight plans, and assists in emergency search and rescue operations, all functions vital to the flying public.

The current adopted Airport Master Plan was adopted in the early 1970s. The City is in the final steps of adopting a new Plan for the airport. Recent State legislation requires each county have an Airport Land Use Commission in order to provide for appropriate land use around all public use airports in California. Mendocino County established an Airport Land Use Commission in 1993.

1.02 Summary of major findings

1.02.01 Operations

There are a number of crucial operations at the airport including the California Department of Forestry for fire protection and aerial support; the Mendocino County Sheriff and other law

enforcement agencies base their air equipment at the facility; air ambulance services use the field routinely; and there is also substantial commercial activity from cargo carriers including Federal Express and United Parcel Service.

1.02.01(A) Fire Protection operations

The effectiveness of aircraft for fire fighting is well understood. Reinforcement of this belief was demonstrated in 1987 in the Mendenhall fires in Mendocino County and in October 1991 in the Oakland hills. Without tankers and spotters, the devastation and cost in both fires would have been far worse. The California Department of Forestry and Fire Protection maintains an air attack base in Ukiah. Two air tankers and a spotter plane are stationed at the Ukiah airport during the summer and autumn months. They provide an immediate response in case of brush or structure fire in the area. On average, CDF fights over 200 fires each year from this base. CDF also provides some $90,000 in annual revenues to the City due to its presence. The Department contracts with a private pilot to function as a cooperative spotter making flights from the Ukiah Airport over surrounding areas to watch for fires. Positive sightings are relayed back to CDF for fire fighting action.

1.02.01(B) Emergency Services

Medical flights are routinely conducted to and from Ukiah by fixed wing aircraft and by helicopter. The helicopters generally travel directly to the hospital but often take on fuel at the airport. There are about 75 such flights each year. Additionally, airplanes routinely deliver medical supplies, blood and plasma for use in hospitals.

The Mendocino County Sheriff's Air Squadron has responsibility for nearly four thousand square miles of territory. The squadron serves the public by searching for downed aircraft, lost hikers, and victims of accident or crime. At least two training missions and about six actual search and rescue operations are conducted each year from the airport, using ten aircraft.

1.02.01(C) Law enforcement and public service

Air patrols search for marijuana gardens and are used for highway traffic surveillance. Pacific Gas & Electric Company's patrol plane, which checks for gas leaks, routinely uses the airport. The FAA Flight Service Station briefs pilots, takes weather observations, accepts flight plans, and participates in search operations for lost or missing aircraft. The California Air Resources Board contracts with local pilots to perform air quality monitoring flights during burn seasons.

1.02.01(D) Commercial Operations

Commercial activity important to the entire community occurs at the airport. United Parcel Service flies in three times each business day to deliver and take out packages. Federal Express has two flights each day as does Ameriflight, another air package service. In addition to packages and important papers, bank checks, property title reports, films for processing, blood, and government documents are all flown in and out of the Ukiah airport. As a whole, commercial companies have more than 1,800 flights each year of service into or from the Ukiah airport. While actual corporate revenues are not made public, it is estimated that over half a million dollars is generated by these three businesses.[1] Federal Express Corporation is totally dependent on the airport since all of its three thousand packages per week come in

[1]Ukiah Airport Manager Don Bua and Growth Management Steering Committee member/Airport Citizen Advisory Committee liaison Rudy Light, 1991.

and go out by air. The local office employs sixteen people, and without the airport, these jobs would not exist.

Other corporate activity is also dependent upon the airport. Louisiana Pacific flies its jet in several times weekly and Retech Corporation hangars a twin engine airplane. Revenues to these companies are increased by their efficient use of airplanes. Pacific Gas and Electric Company, Pacific Bell Telephone Company, and Georgia Pacific Corporation all fly their airplanes to Ukiah regularly. There are four charter services to carry passengers around. There is one aerial spray operation, critical to agricultural industries, including the pear and grape growers.

The Santa Rosa Airporter bus service uses the airport as a pickup and drop off point for its four times daily service to San Francisco International Airport. Hertz and Thrifty rental car companies maintain franchised offices at the airport. Both operations bring in direct sales tax and license revenues to the City.

A less tangible but no less important benefit is the role the airport plays in attracting business to locate here. The airport gives the Ukiah valley a competitive edge over many cities. It is also the key to the development of the Airport Industrial Park located adjacent to the airport. As it develops with industry, the tax base is increased and jobs are created. The airport is important to many businesses and is a factor in their locating where they do.

1.02.01(E) Pilots and Planes

The needs of the business and recreational pilots are met. About one hundred planes are based here, and the hangar fees alone bring in $107,000 to the city each year. Flight instruction is given by five operators.

1.02.02 Community Role of Airport

1.02.02(A) Fiscal Impact of the Airport

There are 48 jobs currently on the airport property with a payroll approaching $700,000. In addition to these, there are about one hundred jobs generated indirectly by the airport's presence. The airport has the potential of attracting business, especially with the offering of a nearby industrial park.

The budget for the airport is over four hundred thousand dollars. Revenues are generated from fuel sales ($250,000), hangar rents ($107,000), the Federal Aviation Administration ($14,000), ground rent to businesses ($19,000) and smaller amounts from other sources.[2] Airport revenues can increase in the future by providing more hangars. Land is currently rented to a nursery and to a construction firm and there is still some space available in the airport for further rentals and increased revenues.

1.02.02(B) Recreation and community activities

Each year the three area Lions Clubs sponsor the Ukiah Air Show. In 1991 over eight thousand people attended and more than twenty thousand dollars was raised for charitable purposes. This event is by far the most popular and well-attended single event of the year in this community. The Air Show draws people from throughout northern California, including Humboldt, Lake and Sonoma Counties.

[2]City of Ukiah budget, Fiscal Year 1992, Account 600.

1.02.02(C) Safety

Safety is an issue at airports because a crash event can be catastrophic. Over the last decade there have only been four accidents in the vicinity, and none with serious property damage or loss of life to people on the ground. Three did result in pilot deaths. There has never been a mid-air collision in Ukiah.

Aviation accidents do occur. One national study demonstrated that fifty percent of accidents occur on the airport property or below the traffic pattern. The occurrences took place on the inbound or outbound tracks within forty-five degrees off the centerline of the runway. Nearly two-thirds of all accidents occur within one mile of the airport. Generally, accidents occur along the extended runway (the imaginary line along the center of the runway away from the airport) or below the traffic pattern itself. It is very rare to have an accident along side a runway. This is one reason why it is critical that the airport have a zone of safety extending from the ends of the runways and below the volume of space where the airplanes actually travel.

Explanation V.1–V Accidents involving aircraft, 1982-1991

In a nonfatal accident, an airplane lost power on takeoff, and the pilot found a safe landing site near the intersection of Highway 101 and Talmage Road. A fatal accident involved a pilot making an instrument approach in bad weather who flew into a hill three miles south of the city. The second fatal accident occurred when a pilot departed the airport in very poor weather, flew into the low clouds and apparently became disoriented and crashed near Calpella. Finally, an air tanker crashed into Red Mountain east of Talmage in Mill Creek Canyon carrying a full load of fuel and fire retardant.

The FAA is continually updating its standards to ensure the safety of people and property on the ground as well as to provide safe approaches and departures for aircraft. At the Ukiah airport, twin engine planes fly in literally everyday, and jets come in about one hundred times each year. For each runway, there are two areas to be considered off both ends of the runway. The first is an *Object Free Area* (OFA). This area is to have no structures on it (except those dedicated for the safe operation of aircraft). The second is a *Runway Protection Zone* (RPZ). The sizes of the OFA and the RPZ are determined by the size and speed of aircraft using the airport and by the presence or absence of instrument approaches.

The actual traffic patterns flown are to the east of the airport, except for instrument approaches which are generally conducted from the north, coming in aligned with Runway 15[3] and passing just east of State Street near Gobbi Street and onto the runway. Local ordinance requires a turn to the east shortly after takeoff (at an altitude of fifty feet and before the end of the pavement) to avoid either the downtown area with a northbound departure or a group of commercial and residential areas with a southbound departure. Typically, a plane departing Runway 33 to the north will climb aligned with the runway to an altitude of two hundred to four hundred feet and will turn to the east near Talmage Road while still climbing. Once beyond Highway 101, the pilot will be perhaps six to eight hundred feet above the ground and will turn to the desired course. A similar procedure is conducted southbound except there is a twenty degree turn to the left, which turns the aircraft easterly.

1.02.03 Airport opportunities

1.02.03(A) Long term issues and opportunities

[3]Airport runways are numbered with the degrees from north. Runway "15" means 150 degrees from north; Runway 33 means 330 degrees.

The Ukiah Airport is facing a challenge that is common across the United States. Survival of airports across the country is threatened by pressure from nearby development. Approximately twenty airports close down each year or are forced, usually unwillingly, to relocate (Refer to the examples in Explanation ?.?-? on page ?). One reason for this pressure on airport facilities is that airport land can be of great development value. The facility grounds and adjoining areas are normally flat. There is invariably good transportation to and from the airport so people like to settle nearby.

There is a legitimate land use conflict among competing users, whether residential, commercial, industrial or aviation. As development occurs near an airport and the density of development increases, citizens become alarmed because of perceived safety issues and irritated due to noise. When the density of development reaches a certain point, inevitably the citizens call for curtailment of operations or outright closure of the airport.

There has been discussion in the community suggesting that the present airport close and a new one be built southeast of Ukiah. Relocation of the airport is not advisable due to economic and safety considerations. The cost of planning, engineering, preparing environmental documents, and permitting an airport in the 1990s is substantial. The physical plant would be extraordinarily expensive. About 200 acres of land would have to be purchased at an approximate cost of $1 million. To construct a runway of suitable length and width and accessory taxiway all with the requisite strength would require at least fifteen to twenty million dollars.

When the City approved a master plan for the Airport Industrial Park, located east of the airport between Highway 101 and the railroad tracks, a conceptual extension of Airport Park Boulevard to Norgard Lane was shown. No engineering design or plans have ever been prepared for this extension. Should this be developed, the location of the road must be designed to ensure that it will not interfere with any state or federal regulations pertaining to airport operations. It is important to protect the full use of the proposed extension of the runway to the south.

The Ukiah airport needs the security of knowing that development around it and in its area of influence will be compatible with its operations and will not jeopardize its future. Once an airport is lost, there is no getting it back. It is far easier for a school, a residential subdivision, a commercial development or any other use involving dense public assembly, to find a new location than it is to move an airport.

The three major concerns of land use planning around an airport are as follows, summarized from the above findings: protection of the airspace to ensure safe flight operations; minimizing hazards on the ground in the event of a crash; and noise considerations (Division of Aeronautics, 1983). Given these factors, we see there is one all important feature, and that is density of development.

Density of use is the key to compatibility of land use near an airport. This overrides other factors such as noise generation from other sources, traffic congestion, degree of industrialization, safety and the like. Dense residential and commercial development are not suitable to be located close to an airport. Less dense development such as industrial and limited commercial will not only coexist with the airport, but each will enhance the other's function.

The State of California has published guidelines for acceptable densities in and around airports, the RPZ or Inner Safety Zone, and the Outer Safety Zone. For the Inner Safety Zone, no structures should be allowed, and a maximum allowed density at any time is 10 people per acre. In the Outer Safety Zone, there should be no more than 150 people in a building and no more than 25 people per acre. For land use not in structures, the maximum recommended limit is 50 people per acre.

In order to ensure the airport's long term community value, land use planning must be specific to the airport area. This planning may involve some restrictions to the use of the surrounding land for three reasons. Hodges and Schutt (1991) cite three, similar to those mentioned in the Airport Land Use Planning Handbook (Division of Aeronautics, 1983). The first is to avoid situations conducive to accidents, so there are height restrictions and required amounts of object free ground near the ends of runways. The second is for the protection of property and people on the ground, so control is put on the land use to limit density of people and buildings. The issues to be weighed are both the probability of an accident and the potential damage even if the probability of accident is very low. Finally, the land use is controlled so as to help the aircraft occupants survive a crash. Small airplanes have been successfully landed on an area as small as a football field.

1.02.03(B) Dual Jurisdiction of Land Use

An issue facing the Ukiah airport is the fact that it is owned by the City of Ukiah but is only partly surrounded by land under the city's jurisdiction. The land to the southwest, south and east (once past Airport Industrial Park and Highway 101) is all in the County. Regulations, ordinances and zoning differ to some extent so the land use in the airport's area of influence cannot be adequately planned for at this time without County cooperation. There is a need for common development standards between the City and County zoning codes in the airport area.

1.02.03(C) Mendocino County Airport Land Use Commission

California counties are required to appoint an Airport Land Use Commission (ALUC) to formulate a comprehensive plan for airports called an Airport Land Use Plan. The goal of this plan is to ensure that development in and around an airport is compatible with airport operations and that the public is protected from airport noise and crash hazards. The ALUC may include building height restrictions, allowable land uses, and determine building standards within the planning area of the airport.

The relationship between the Mendocino County Airport Land Use Commission and the City of Ukiah is established in State law. The Commission, although funded by the County, is an independent board consisting of seven members (two from cities, two from the County, two persons with aviation expertise, and one member of the general public). Within the parameters established in state law, the decisions of the Commission are final.

The Airport Land Use Plan is intended to provide guidance to the ALUC when it reviews land use plans and zoning regulations from cities and counties under its jurisdiction. The Commission has no authority over legally existing uses and no involvement with the operations of any airport. The Commission has review authority over new land uses within the airport area and the expansion of existing uses.

The City of Ukiah was awarded a grant from the Federal Aviation Administration in 1993 for the preparation of an Airport Land Use Plan. The Plan — completed by the City but not adopted as of the date of General Plan adoption — will be presented to the ALUC for its review. Until the land use plan is adopted, the ALUC has the authority to review projects within two miles of the airport — unless the Commission designates a differently sized area. The process for review, appeal, and recommendation are established in State law. While the ALUC has substantial review authority, there are procedures by which the City could modify or change a Commission action.

1.03 General Plan goals, policies, and implementing programs

Goal AE-1: **Promote the Ukiah City Airport for the community's benefit both now and in the future.**

Policy AE-1.1: Recognize that the airport's vitality and growth help achieve the General Plan Vision.

Implementation Measure AE-1.1(a): Ensure that the airport is a part of the City's promotional efforts for economic development. [*Timeframe for completion:* Ongoing planning period ◆ *Measure applies to:* City ◆ *Agency/Department responsible:* Airport Department]

Goal AE-2: **Provide for long-term viability of the airport.**

Policy AE-2.1: Define the long-term growth boundaries for the airport.

Implementation Measure AE-2.1(a): Prior to the conclusion of the short-term planning period, identify parcels that may be of benefit to the airport, and encourage annexation actions to add the airport-related identified territories to the City's municipal limits. [*Timeframe for completion:* Short-term planning period ◆ *Measure applies to:* City ◆ *Agency/Department responsible:* City Council]

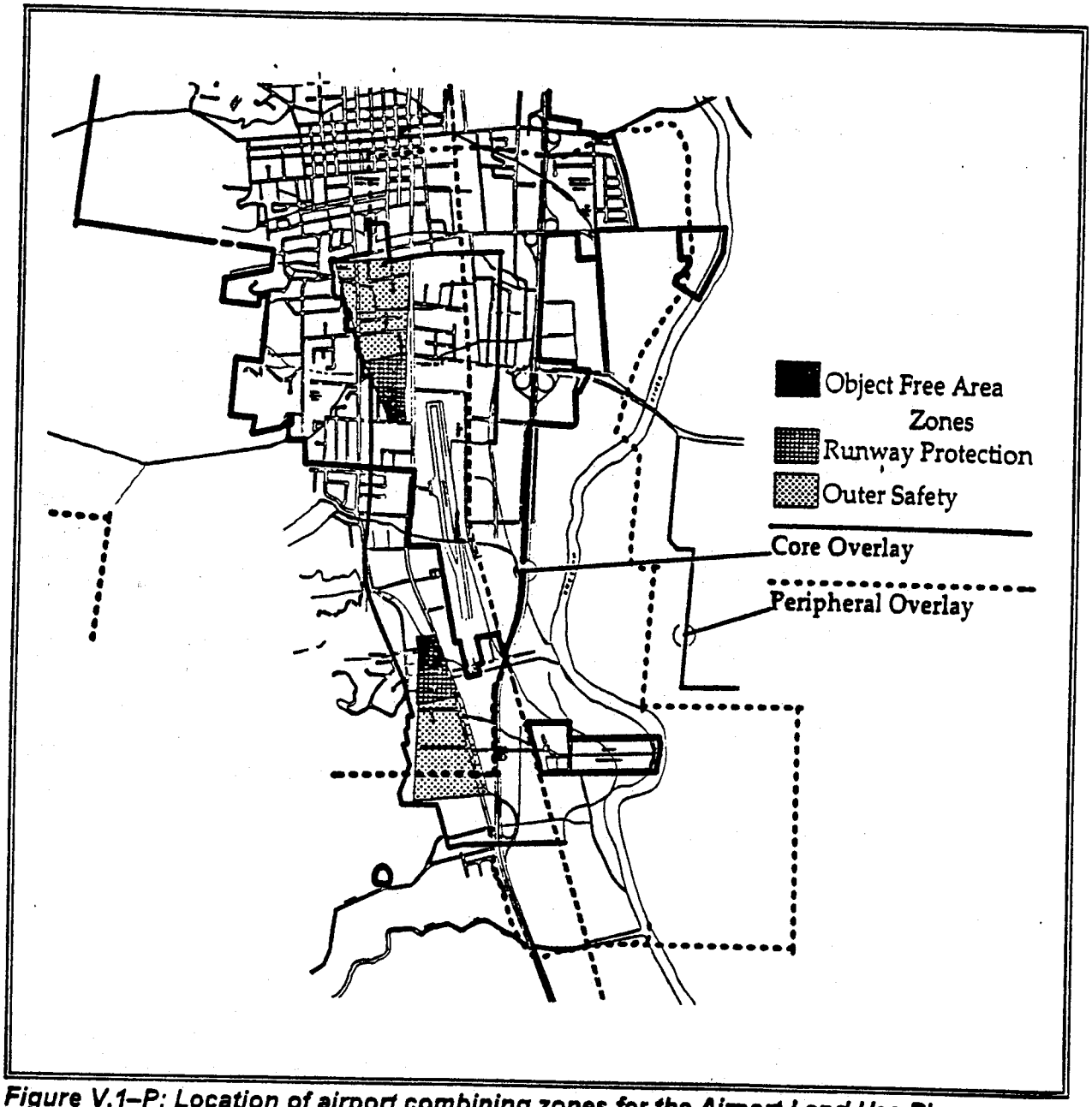

Figure V.1–P: Location of airport combining zones for the Airport Land Use Plan

Goal AE–3: **Establish uniform ordinances and regulations for land use in the airport's core and peripheral overlay zones.**

Policy AE–3.1: Work with the County to develop a similar or duplicate implementing code for development in and around the airport.

Implementation Measure AE–3.1(a): The Ukiah City Council shall adopt — and the Mendocino County Board of Supervisors shall be encouraged to adopt — zoning

ordinances in conformance with the Airport Land Use Plan which provide for identical classifications and uses in the same zones in those areas around the airport in the Core and Peripheral Overlays as shown in Figure V.1-P on page 8. [*Timeframe for completion:* Following adoption of the Airport Land Use plan in the short-term planning period ◆ *Measure applies to:* City and County ◆ *Agency/Department responsible:* City Planning Department, County Planning and Building Department]

Policy AE-3.2: Promote acceptable land uses for both city and county zones in the core and peripheral zone areas.

Implementation Measure AE-3.2(a): Adopt an ordinance creating an *Airport Overlay Zone* consisting of the Core Overlay and Peripheral Overlay in conformance with the Airport Land Use Plan.[4] [*Timeframe for completion:* Following adoption of the Airport Land Use Plan in the short-term planning period ◆ *Measure applies to:* City ◆ *Agency/Department responsible:* Planning Department]

Goal AE-4: Promote a "good neighbor policy" by the airport and its users.

Policy AE-4.1: Develop a Noise Control program

Implementation Measure AE-4.1(a): The City Airport Manager, with the assistance of the Airport Commission and interested members of the aviation community, shall develop a noise control plan. [*Timeframe for completion:* Short-term planning period ◆ *Measure applies to:* City ◆ *Agency/Department responsible:* Airport Department]

Implementation Measure AE-4.1(b): During the short-term planning period, a written plan for reducing noise impacts shall be prepared and presented for adoption. [*Timeframe for completion:* Short-term planning period ◆ *Measure applies to:* City ◆ *Agency/Department responsible:* Airport Department]

Policy AE-4.2: Identify common noise levels in and around the airport to identify "airport-specific" noise.

Implementation Measure AE-4.2(a): The City of Ukiah shall identify common noise levels around Ukiah, both near the airport and away from it, to determine the impact of the noise associated with aircraft operations on the community.

Implementation Measure AE-4.2(b): Ensure that regulations or noise reduction programs do not interfere with or reduce the effectiveness of the aerial tankers and other fire-fighting aircraft using the Ukiah Airport.

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[4]Core zones would restrict the types and densities of land uses within this overlay zone. The uses and restrictions would be enumerated in the land development code.