

BRIEF HISTORY

The County of Santa Clara involved itself in aviation studies as early as 1946 when the County Planning Commission prepared "Master Plan of Airport." The actual development of airports did not start until 1960 with H. K. Friedland's airport study which clearly outlined the local needs of general aviation.

In 1961, following the recommendation of the Friedland Report, Palo Alto Airport was leased for a period of 25 years. The lease was later re-negotiated and a revised lease was signed in 1967 for a period of 50 years. Reid-Hillview Airport was acquired in 1965. With the cooperation of the Federal Aviation Administration and the Division of Aeronautics of the State, both Palo Alto and Reid-Hillview developed rapidly during the late 1960's and early 1970's.

The site of South County Airport was adopted in 1968. The County started to acquire the property in 1969 and completed acquisition of the basic airport site in 1971. Anticipated federal aid of at least 80% for the acquisition did not materialize and instead the County had to settle for State of California aid in the amount of 50%. With this purchase, the County exhausted most of the available funds and had very little left for the development of any airport project. The airport system therefore, has struggled to live on a bare bones budget and on a self-supporting basis for several years.

AIRPORT ENTERPRISE POLICY

At its inception the airport system did require some local tax dollars from the General Fund to match with Federal and/or State aid. Now, however, the airport facilities generate enough revenue to be self-supporting.

REVENUE	<u>1978-79</u>	
1. Aircraft Parking & Storage		\$327,224.00
2. Lease Income from FBO's		62,532.00
3. Lease Income from Terminal & Other Spaces		69,154.00
4. Gasoline Meter		57,800.00
5. Other Miscellaneous		<u>8,500.00</u>
		\$525,210.00
Prior Year Fund Balance		<u>52,303.00</u>
	Total	\$577,513.00

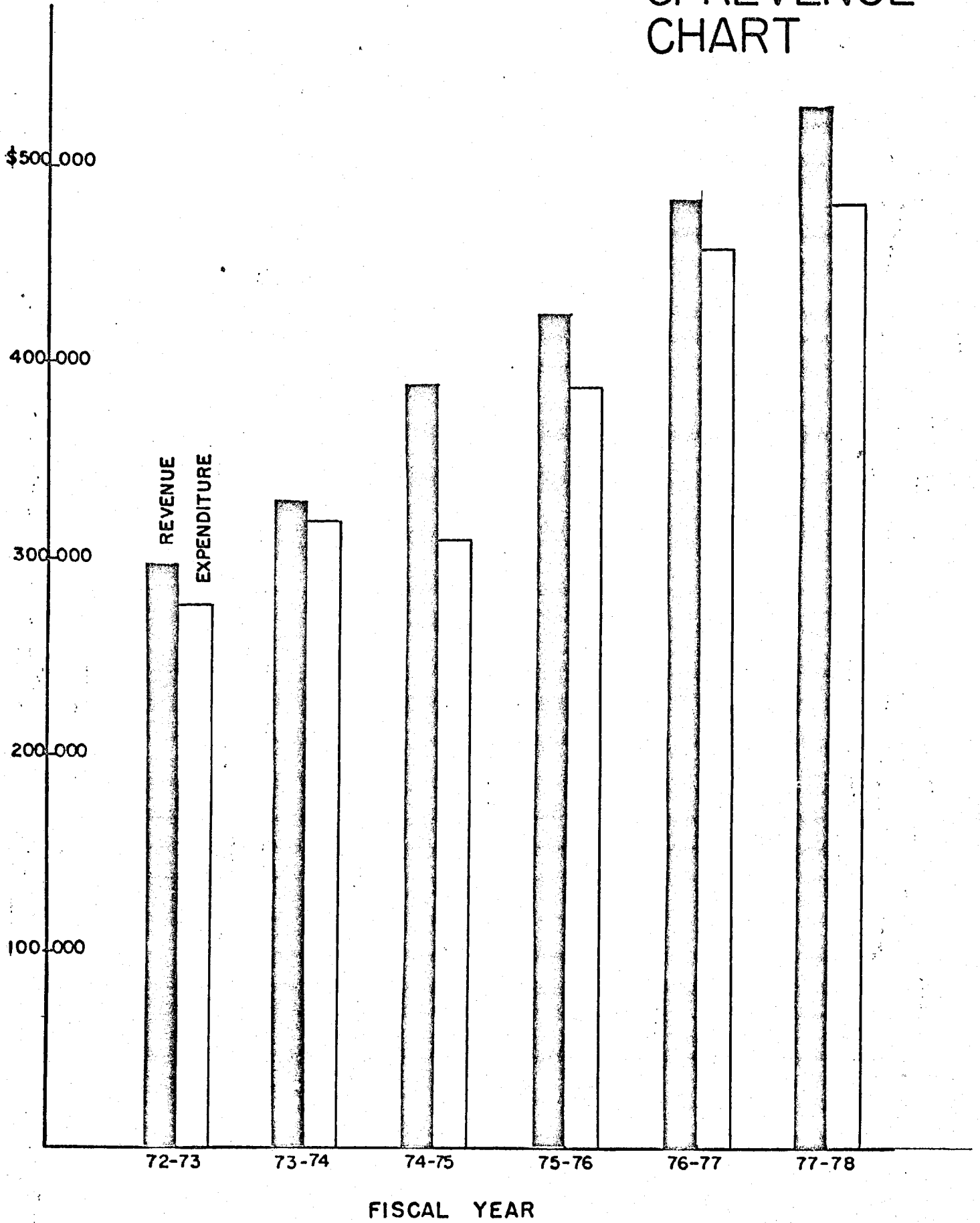
OPERATION EXPENSES

1. Salaries & Employee Benefits	\$272,212.00	
2. Service & Supplies	248,282.00	
3. Fixed Assets	2,200.00	
4. Reserves	<u>54,819.00</u>	
	Total	\$577,513.00

It should be noted from the balance carried over from 1977-78 and the reserve for 1978-79 that the Enterprise Fund is now prepared to match dollars whenever State or Federal grants become available.

Expenditures and revenues of recent years are shown in a chart on the following page.

EXPENDITURE & REVENUE CHART



The Airport Enterprise Fund receives an annual grant of \$5,000 per airport from the state aviation fuel tax under a program known as the California Airport Aid Program or CAAP annual grant. The grant may be accumulated no more than three years and its use is limited to capital improvement projects. Due to these limitations, it is very difficult to identify meaningful projects.

The definition of "Capital Improvement Project" was finally expanded in CAAP 1977 regulations to include slurry sealing. Because of the change, the county airport system can now more easily use the CAAP annual grant money.

Other grant programs available for major construction and property acquisition are the Airport Development Aid Program (ADAP), administered by the Federal Aviation Administration, and the CAAP-Acquisition and Development Funds. For both of these funding sources we face keen competition from other airports.

The newly formed California Transportation Commission has now replaced the California Aeronautics Board as the governing board of CAAP and other transportation fundings. The effect of this change is somewhat uncertain since aeronautics funding is relatively minor compared to other transportation modes. We have, however, maintained a very close working relationship with the Division of Aeronautics to pursue the resource of State aid whenever feasible.

ADAP currently funds 90% of an eligible portion of a project, but its participation will be reduced to 80% for fiscal years 79-80 and 80-81. There is no indication on how the Congress will act in subsequent years.

In fiscal year 76-77 County airports received a grant of \$83,000 from ADAP for the Runway and Taxiway Lighting Reconstruction Project at Palo Alto Airport. We are now about to receive approximately \$240,000 for three parcels of land acquired in 1969-70 for South County Airport and we are continuing to seek reimbursement of approximately \$250,000 for three more parcels of South County Airport land.

If this land reimbursement money is received, we anticipate that a portion of it will have to be refunded to the State. We shall, however, seek to keep the money as a development grant for the construction of South County Airport. In the final reckoning, we anticipate that 90% of the price we originally paid for the South County Airport land will be reimbursed by ADAP and 5% by CAAP.

SAFETY - MAINTENANCE - OTHER IMPROVEMENTS

Improvements for safety, maintenance and other purposes have continuously taken place even through the years that the County Airport System has survived on a bare bones budget. By planning carefully and utilizing all available resources we have made steady progress in every respect.

Safety Projects Completed

1. Visual Approach Slope Indicator installed in Reid-Hillview Airport.
2. Chain Link Fence constructed at Palo Alto Airport, completing the County's portion of the fence project.
3. Wheelchair Ramp constructed for the Terminal Building at Reid-Hillview Airport.
4. Staircase reconstructed for the Terminal Building at Reid-Hillview Airport.
5. Beacon Towers modified to OSHA standard at Reid-Hillview and Palo Alto Airports.
6. Three more parcels acquired for the extension of clear zone at South County Airport.

Safety Projects in Progress

1. Reconstruction of Runway and Taxiway Lighting at Palo Alto Airport.
2. Installation of Security Gate at Reid-Hillview Airport.

3. Undergrounding of utilities at South County Airport.

Pending Safety Projects

1. Marking and Lighting of P.G.&E. Tower at Palo Alto Harbor.
2. Reconstruction of Lighting at Reid-Hillview Airport.
3. Widening of Taxi Ramp at south end of runway at Reid-Hillview Airport.

Maintenance Program

In 1975 we started a pilot project of slurry sealing at Reid-Hillview Airport to keep the existing paved area in good operating condition. The result of that project is very satisfying because the slurry seal is relatively low-cost, and covers a large area in a very short time with no loose rocks or dust to be kicked up by propellers. With careful quality control the surface should have a service life of about 8 years.

Since this pilot project we have tried to slurry seal one eighth of the total existing paved area every year. At this rate we will have an 8-year rotation program that will keep the existing pavement in good condition and minimize major repairs in the future.

The experience we gained from the slurry sealing at Reid-Hillview Airport led us into thinking that this method might

work at South County Airport as well. The runway and taxiway of South County Airport were originally constructed in 1972 with only two layers of chip sealing on compacted original ground. Since then it has been chip sealed once, in 1974. This surfacing has held up surprisingly well. We have, however, received numerous complaints about loose rocks and dust kicked up by propellers and this situation has kept many pilots away from South County Airport. A combined slurry seal project for Reid-Hillview and South County Airports has been awarded and it is expected to be completed prior to this summer. We are anxious to learn the results especially for the South County Airport.

The slurry seal projects in 1975 and 1976 were funded with Airport Enterprise money. Now, however, we plan to use the CAAP annual grant for this purpose.

The situation at Palo Alto Airport is entirely different. Due to uneven subsidence caused by the Bay mud upon which the Palo Alto Airport is based, slurry sealing will be of no use at all. A resurfacing project in November 1975 covered about 1200 feet of runway. In that project we had to fill in some low spots for six to eight inches and shave one to two inches from some high spots before applying the final layer of resurfacing. Another similar project is planned in F.Y. 1978-79 to cover the rest of the runway, utilizing accumulated CAAP annual grants.

Other Improvements

Reid-Hillview Airport

1. Noise Monitoring Equipment installed.
2. An additional plot of land next to the Little League park is being developed for an aircraft and parts wholesaler which will serve the existing FBO's but not compete against them.

Palo Alto Airport

1. Portable Noise Monitoring Equipment purchased.
2. A second Fixed Base Operator facility is now under construction. This will give some badly needed competition to the one and only FBO which has operated at Palo Alto for many years.
3. Temporary tiedowns added.

South County Airport

1. A temporary FBO is now operating South County Airport.
2. Thirty additional temporary tiedowns were added in 1977.
3. A Transit Terminal has been developed utilizing the extended clear zone north of San Martin Avenue.
4. A Road Operation yard will be developed also utilizing extended clear zone north of San Martin Avenue.
5. All new land developments within a one mile radius of the airport have dedicated airspace

easements to the County, thus insuring the healthy development of South County Airport.

Environmental Quality

In 1970, the California State Legislature passed legislation requiring that all airports in the State conform to State noise standards, with airport proprietors and local counties being responsible for enforcement of the standards at airports within their jurisdiction. The regulation became effective on December 1, 1970.

Shortly after enactment of this noise legislation, the Airport Land Use Commission of Santa Clara County was formed. The expressed function of the ALUC is to assist in the attainment of compatible land uses in the vicinity of airports through planning and zoning considerations.

All three County-run airports are within the limit of the State noise standard since all are restricted to the operation of non-jet general aviation aircraft.

We have applied extra efforts in continuously studying noise around Reid-Hillview Airport because of the adjacent area's dense development and the near-capacity air traffic. The knowledge we gain from Reid-Hillview will be of great value for the development of the other County airports.

Under State and Federal guidelines, estimated noise contour maps have been composed for all three County airports at their

ultimate development. A very sophisticated noise monitor system was installed at Reid-Hillview Airport to evaluate the accuracy of the estimated noise contour. The system has a computer terminal which records, analyzes and prints out noise information and is capable of handling seven different monitoring stations at the same time. So far we have only one monitoring station located at a very strategic spot -- on the tip of the estimated 65 CNEL noise contour. The actual reading from that station is constantly 63 to 64 CNEL. So, for now, any area having Reid-Hillview Airport-generated noise above 65 CNEL is within the publicly owned buffer zone. As for the future, the increase in traffic volume will have to be offset by new technology (quieter engines) and pilot cooperation.

The VASI (Visual Approach Slope Indicator) system installed at the southern approach to Reid-Hillview Airport acts not only as a safety device but also as a noise reducer. When a pilot is making an approach to land he can find this VASI glideslope up to three miles away. Once he is in the right path he just follows the slope indicator until he touches down on the runway. Without the VASI, he might need to make several adjustments in the course of landing and create considerable noise in applying power from the engine to gain elevation.

Plans were made to install another VASI at the northern approach to Reid-Hillview but were later cancelled because of the time (1-1/2 years) and insurmountable paper work required just to transfer maintenance of the existing VASI to FAA. It

is mutually agreed that it will be much easier for the FAA to install the other VASI at a later date.

Other than the devices mentioned above, we have constantly passed out educational material to all the airport users through FBO's, Flight instructors, FAA towers and our own ground crew at the terminals. The latest printout is shown on the following pages.

Palo Alto Airport Traffic Patterns

WESTBOUND DEPARTURES
CROSS BAYSHORE FREEWAY
ABOVE 1500'

DUMBARTON AUTO BRIDGE

RAILROAD BRIDGE

RESIDENTIAL AREA

COOLEY LANDING

MINIMUM
ALTITUDE
1500'

GOLF COURSE

ENTER RWY 30

400 MSL

800 MSL

ENTER RWY 12

EMBARCADERO
ROAD

400 MSL

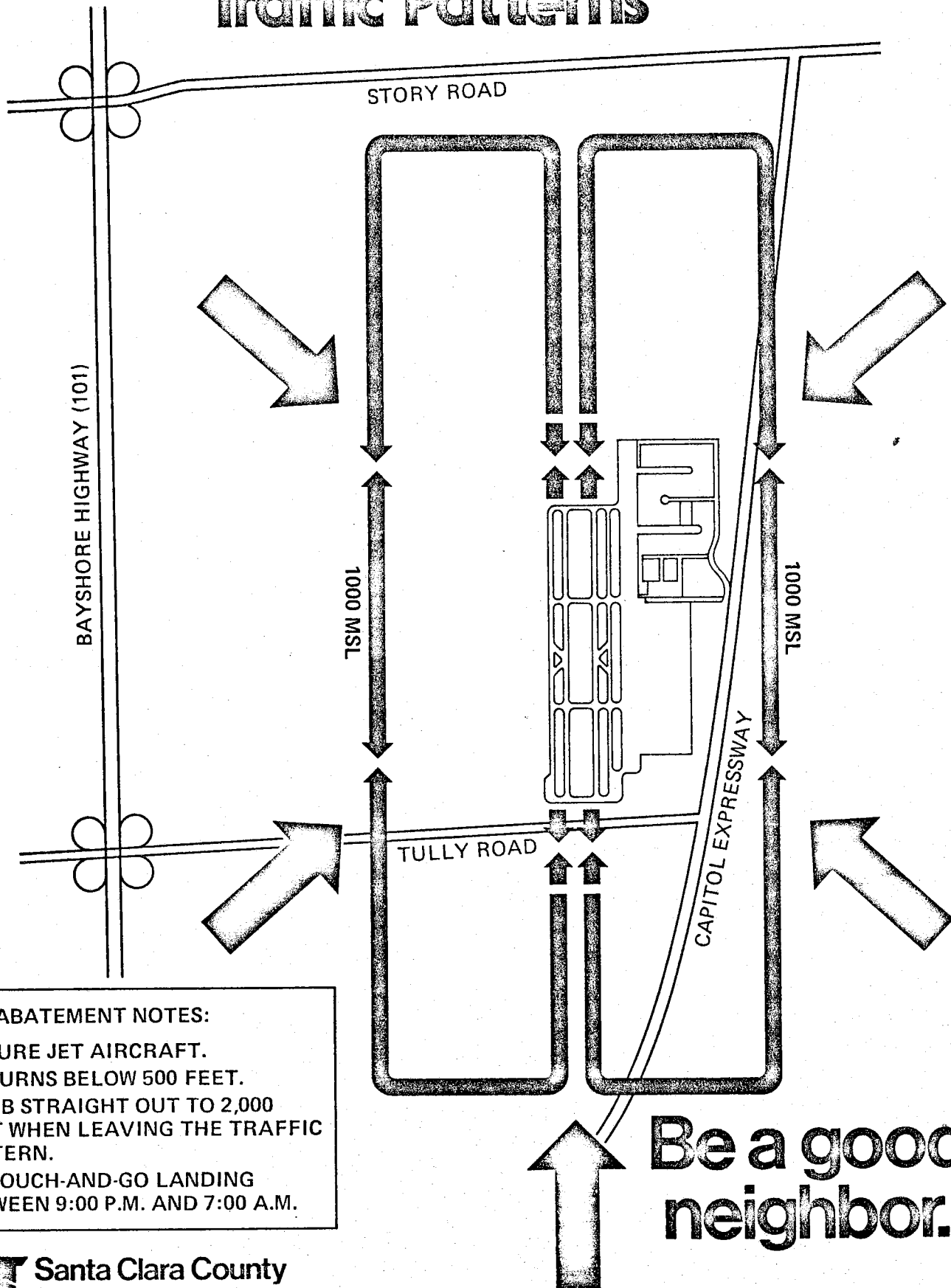
MINIMUM
ALTITUDE
1500'

NOISE ABATEMENT NOTE:
PILOTS MUST ALWAYS
AVOID LOW FLYING OVER
RESIDENTIAL AREAS.

Be a good neighbor.

 Transportation Agency
County of Santa Clara

Reid-Hillview Airport Traffic Patterns



NOISE ABATEMENT NOTES:

1. NO PURE JET AIRCRAFT.
2. NO TURNS BELOW 500 FEET.
3. CLIMB STRAIGHT OUT TO 2,000 FEET WHEN LEAVING THE TRAFFIC PATTERN.
4. NO TOUCH-AND-GO LANDING BETWEEN 9:00 P.M. AND 7:00 A.M.

MIDDLE AVENUE

South County Airport Traffic Patterns

NOISE ABATEMENT NOTES:

1. NO PURE JET AIRCRAFT.
2. NO TURNS BELOW 1000 FEET M.S.L.
3. STAY WEST OF FREEWAY UNTIL REACHING TURNING ALTITUDE.
4. NO TOUCH-AND-GO LANDING BETWEEN 7:00 P.M. AND 7:00 A.M.

MONTEREY HIGHWAY

LLAGAS AVENUE

MURPHY AVENUE

SAN MARTIN AVENUE

AVENUE

ENTER 45

EXISTING FBO

SOUTH VALLEY FREEWAY (US 101)

SYCAMORE AVENUE

1300 MSL

COLOMBET AVENUE

Be a good neighbor.

ENTER 45

CHURCH AVENUE

1000 MSL



Santa Clara County
Transportation Agency

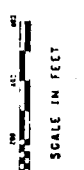
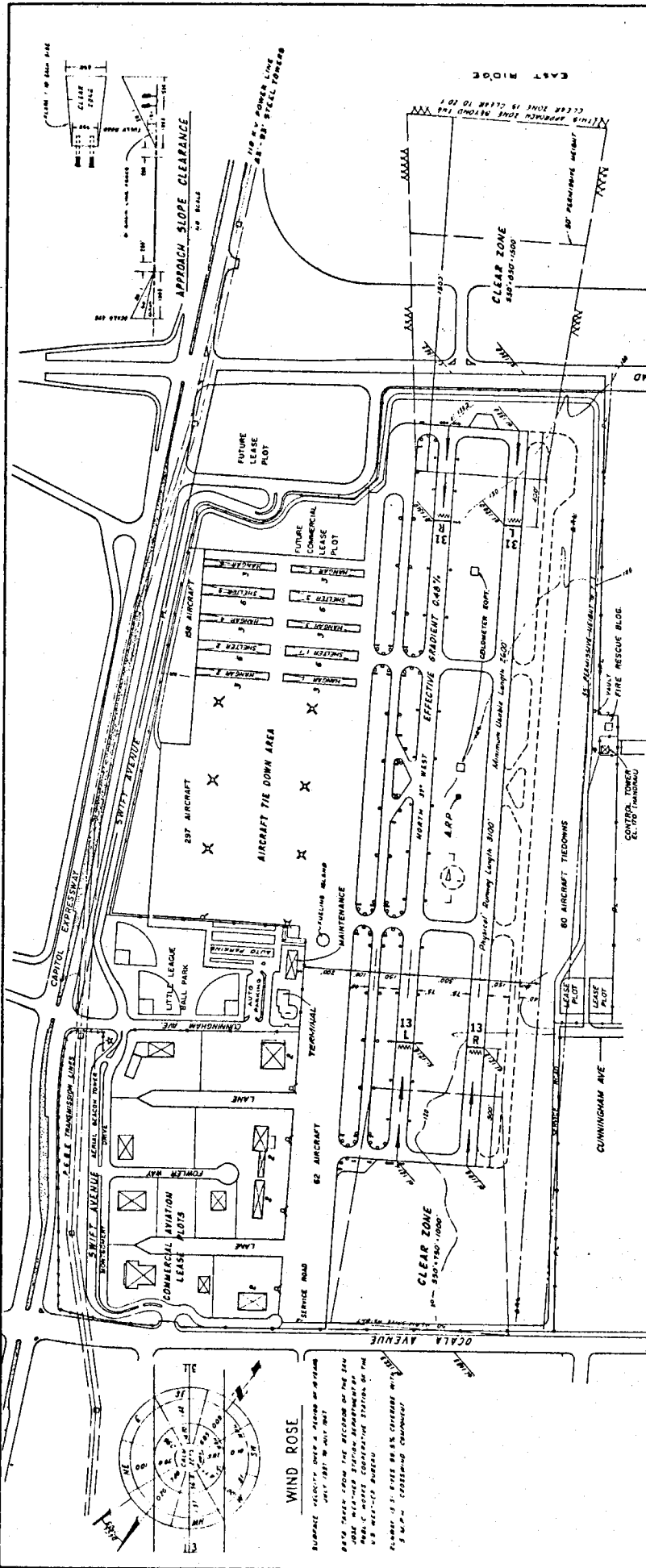
STAGE DEVELOPMENT

Airport Growth Projection

In 1959 H. K. Friedland made an original projection of the growth of general aviation. In 1966, when the General Aviation Plan of Santa Clara County was prepared, Friedland's projection was off by a large amount (725 based aircraft projected and 975 actual for the year 1966), so an adjusted projection was made based on the growth rate from 1959 to 1966. The growth projection is shown on the following page. The square dots plotted show the actual number of aircraft based in Santa Clara County including San Jose Muni, Reid-Hillview, Palo Alto, South County and Morgan Hill for the years 1975, 76 & 77. The rate of growth for these recent years has been the same as that between 1959-1966.

Also shown on the next two pages are the number of operations and the number of based aircraft for the three County-run airports in recent years. As the graph shows, the number of airport operations decreased significantly in 1973, the year of the oil embargo and energy shortage. Since 1974 the number of operations has made a steady climb, finally overtaking the previous peak of 1971.

The number of based aircraft in the three County-run airports showed a slower growth between 1971 and 1974 but has made a steep climb in the last few years. All these indicators show that local demand for airports outstrips the development of airport facilities.



SANTA CLARA COUNTY
 REID HILLVIEW AIRPORT
 SAN JOSE, CALIFORNIA
 COUNTY OF SANTA CLARA
 DEPARTMENT OF PUBLIC WORKS
AIRPORT LAYOUT PLAN

[Signature]
[Signature]
 SUPERVISOR OF AIRPORTS
 ENGINEER
 DATE: FEBRUARY 1958
 BY: J.P.P. DATE: 5-2-58
 SCALE: AS SHOWN

AIRPORT DATA

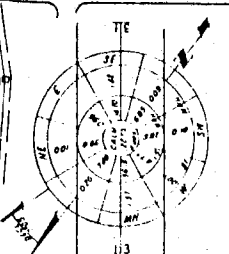
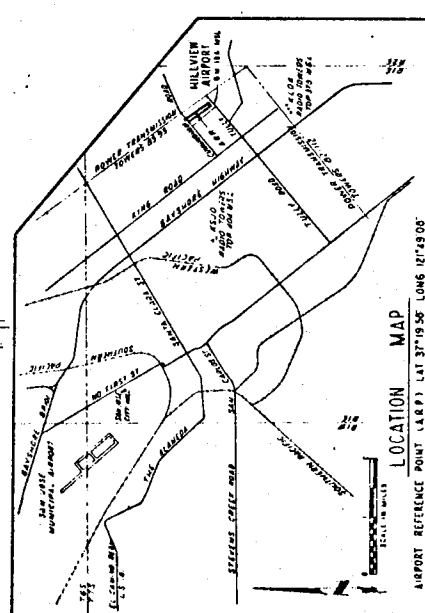
APPROXIMATE ELEVATION	215 M.S.L.	100' HGT.
APPROXIMATE GRID COORDINATES	4348000 6710000	100'
APPROXIMATE SURFACE AREA	1070 AC.	100'
APPROXIMATE PERCENTAGE GRADE	1.0%	100'
APPROXIMATE NUMBER OF PASSENGERS	1000	100'
APPROXIMATE NUMBER OF AIRCRAFT	100	100'
APPROXIMATE NUMBER OF AIRCRAFT	100	100'
APPROXIMATE NUMBER OF AIRCRAFT	100	100'

RUNWAY DATA

EXISTING RUNWAY	100' WIDE	100'
EXISTING RUNWAY	100' WIDE	100'
EXISTING RUNWAY	100' WIDE	100'
EXISTING RUNWAY	100' WIDE	100'
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EXISTING RUNWAY	100' WIDE	100'

LEGEND

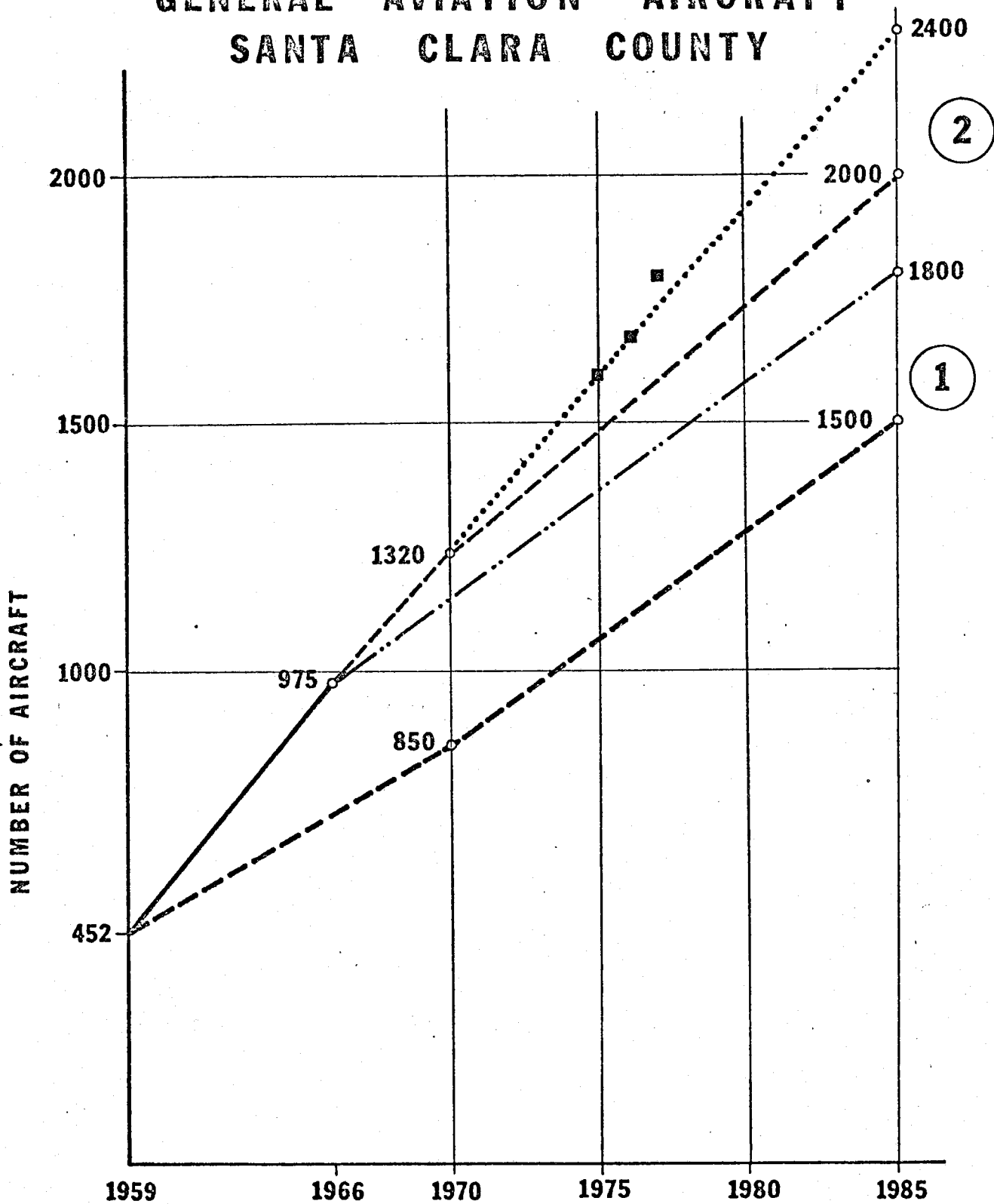
- APPROACH SLOPE CLEARANCE
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REVISIONS

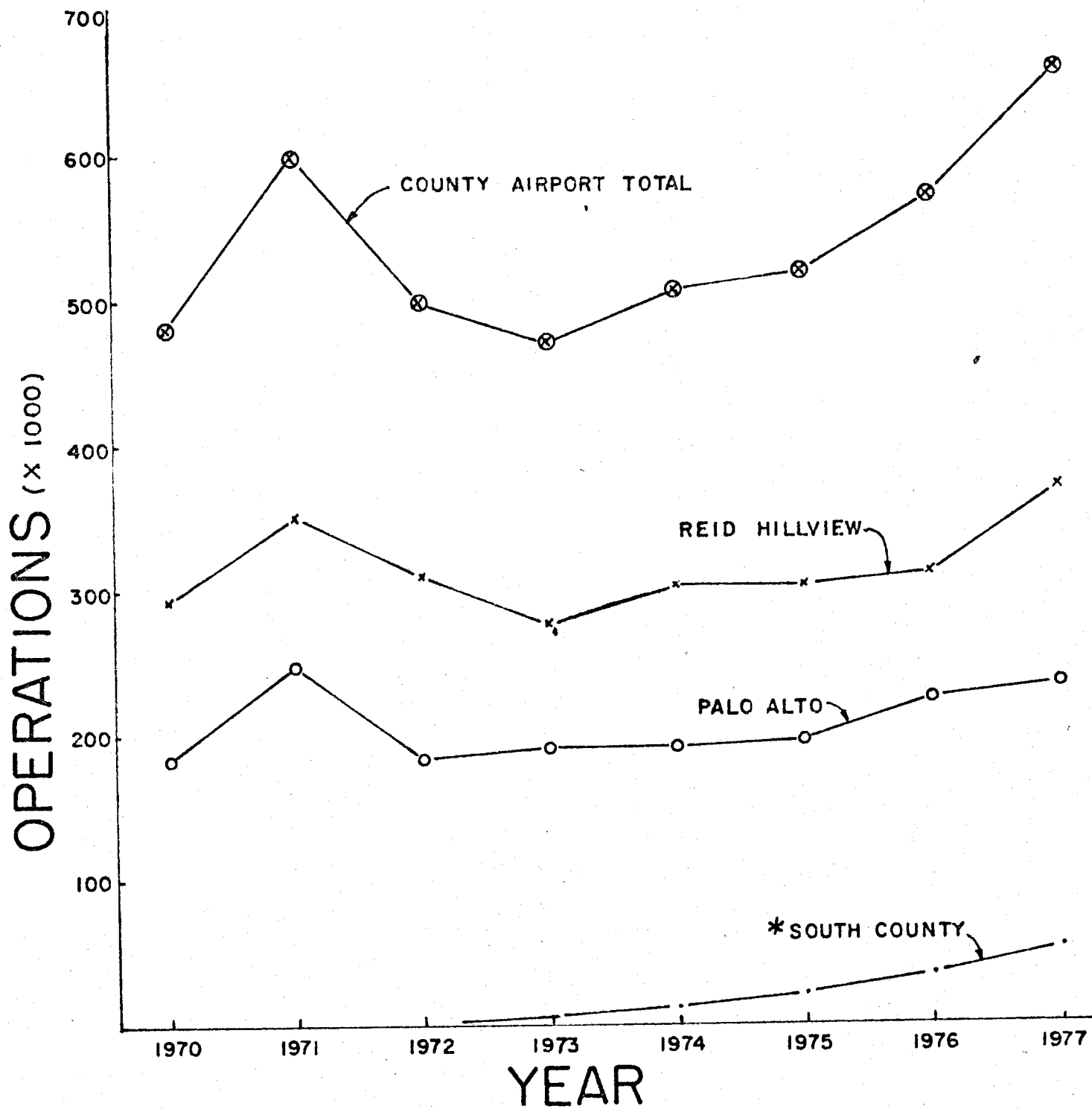
NO.	BY	DATE	REVISIONS
1	J.P.P.	5-2-58	...
2	J.P.P.	5-2-58	...
3	J.P.P.	5-2-58	...
4	J.P.P.	5-2-58	...
5	J.P.P.	5-2-58	...
6	J.P.P.	5-2-58	...
7	J.P.P.	5-2-58	...
8	J.P.P.	5-2-58	...
9	J.P.P.	5-2-58	...
10	J.P.P.	5-2-58	...

GROWTH OF GENERAL AVIATION AIRCRAFT SANTA CLARA COUNTY



(1) FRIEDLAND 1959 PROJECTION

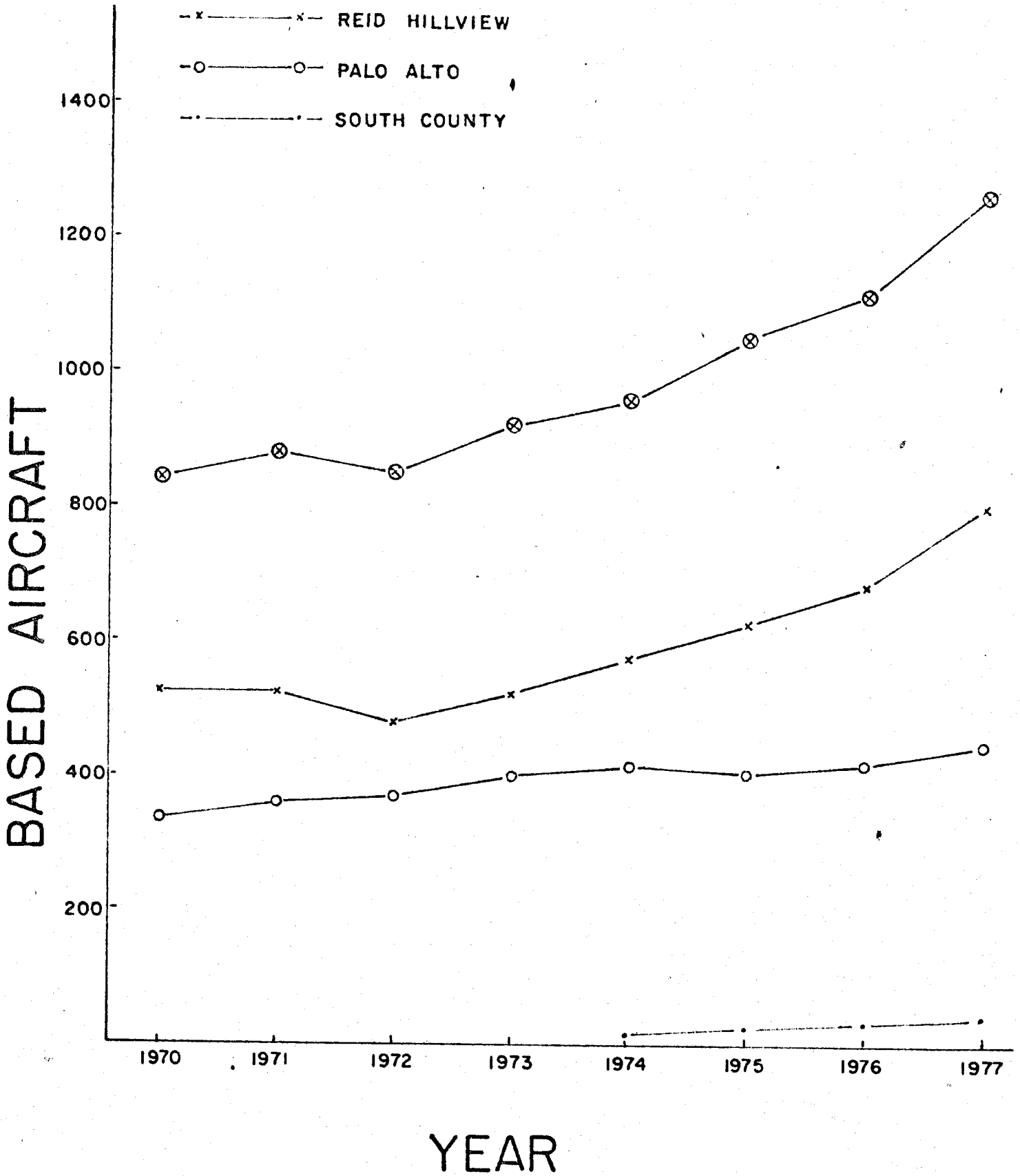
(2) REVISED 1966 PROJECTION



* EXTRAPOLATED FROM A WEEKLY COUNT IN SEPTEMBER 1977

- LEGEND -

- ⊗ COUNTY AIRPORT TOTAL
- x REID HILLVIEW
- o PALO ALTO
- SOUTH COUNTY



Major Development Projects

Future major development will depend on the funding schedules of ADAP and CAAP and the competition from other airports. Listed below are the projects currently scheduled:

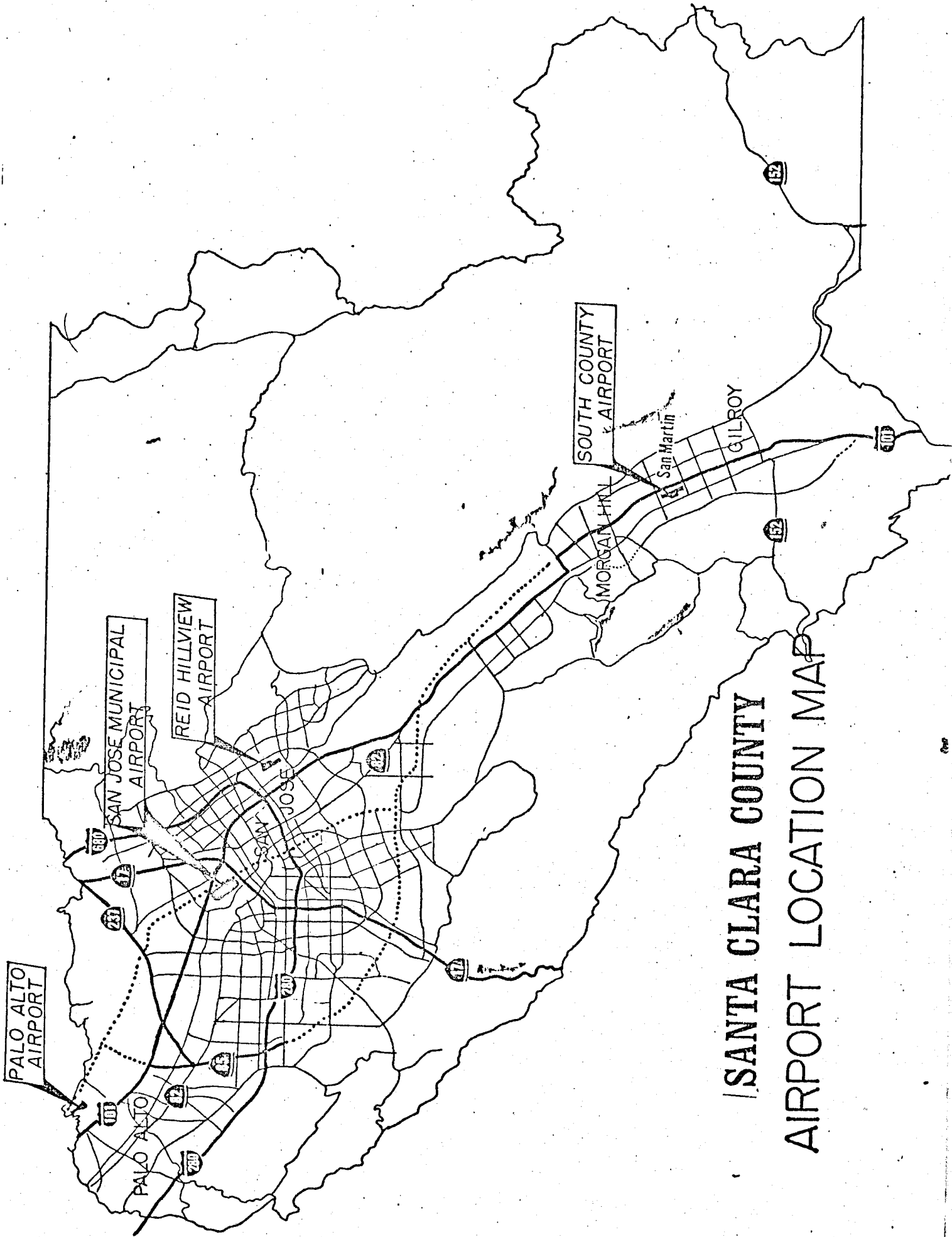
<u>Priority</u>	<u>Project Description</u>	<u>Cost</u>	<u>Fed/State</u>	<u>Local</u>
1	Widening Circular Taxiway and Tiedown Area Palo Alto Airport	500,000	450,000	50,000
2	Resurfacing Rwy, Txy & Apron Palo Alto Airport	300,000	270,000	30,000
3	Reconstruct Existing Levee Palo Alto Airport	480,000	432,000	48,000
4	Tiedown Area Lighting Palo Alto Airport	310,000	* 248,000	* 62,000
5	W. Rwy & Txy Ramps South County Airport	1,000,000	* 800,000	200,000
6	N. Tiedown Area South County Airport	900,000	* 720,000	180,000
7	Terminal & Parking Lot South County Airport	400,000 +(500,000)	* 320,000	80,000 +(500,000)
8	S. Tiedown Area South County Airport	1,600,000	*1,280,000	320,000
9	Terminal & Parking Lot Palo Alto Airport	300,000 +(500,000)	* 240,000	60,000 +(500,000)
10	E. Rwy & Txy Plus Ramps Palo Alto Airport	**580,000	* 464,000	116,000
11	Construct West Txy Reid-Hillview Airport	350,000	280,000	70,000

NOTE:

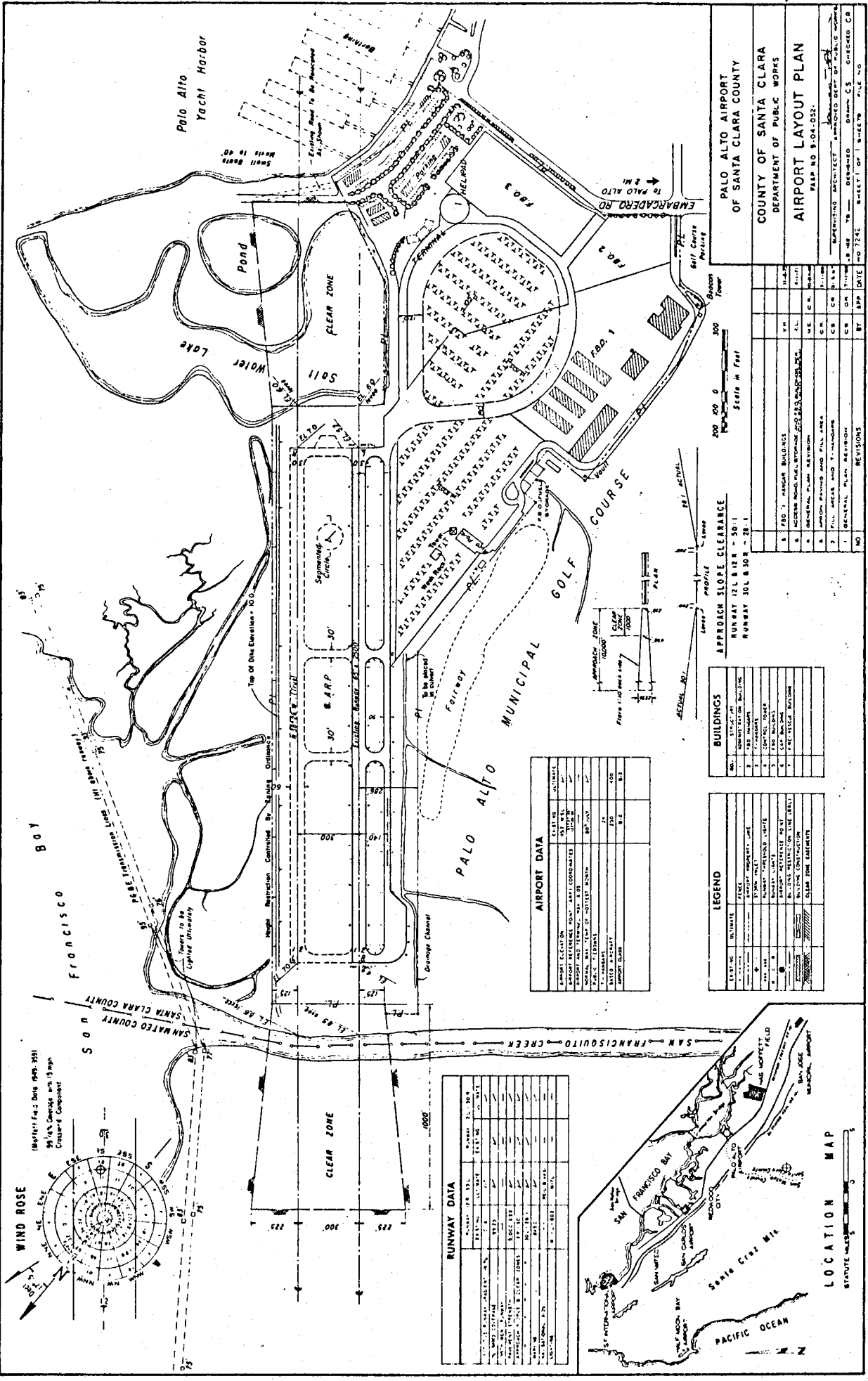
+ Additional money for Terminal Building

* Fed. contribution will be 80% after 1978; assume that the State will follow with the same percentage.

** Only if Project No. 3 is completed



SANTA CLARA COUNTY AIRPORT LOCATION MAP



WIND ROSE

(Source: F.A.C. Data 1940-1951)
91% An. Change with 15 mph
Constant Component

RUNWAY DATA

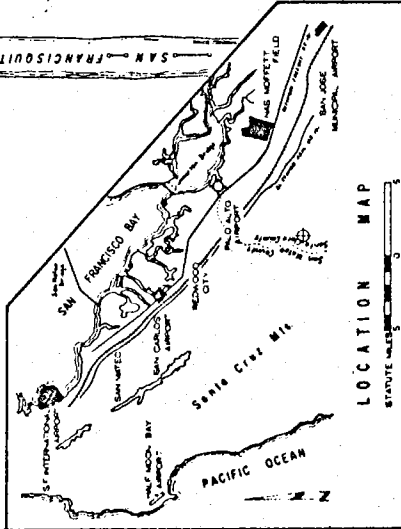
Runway	Length	Width	Surface	Grade	Remarks
12L/12R	1371'	60'	Asph	0.1%	Grade to be improved
30L/30R	1925'	60'	Asph	0.1%	Grade to be improved
A	300'	30'	Asph	0.1%	Grade to be improved

AIRPORT DATA

Location	Palo Alto, California
County	Santa Clara
Nearest City	Palo Alto
Nearest Airport	San Jose Municipal
Owner	Santa Clara County
Operator	Santa Clara County
Service	General Aviation
Base Elevation	1800'
Field Elevation	1800'
Surrounding Land Use	Residential, Agricultural

LEGEND

- EXISTING AIRPORT
- PROPOSED AIRPORT
- APPROACH CLEARANCE
- TERMINAL BUILDING
- APRON
- TAXIWAY
- HANGAR
- PARALLEL TAXIWAY
- PERPENDICULAR TAXIWAY
- GRASS FIELD
- ROAD
- RAILROAD
- UTILITY LINES
- DRY DITCH
- CREEK
- LAKE
- POND
- BOAT RAMP
- BOAT HOUSE
- RESTAURANT
- BAR
- LUNGEON
- CLUBHOUSE
- SWIMMING POOL
- TENNIS COURT
- PLAYGROUND
- BOAT HOUSE
- BOAT RAMP



REVISIONS

NO	REVISIONS	BY	DATE
1	GENERAL PLAN REVISION	CS	12/15/58
2	P.L. CORRECTION AND REVISIONS	CS	1/10/59
3	GENERAL PLAN REVISION	CS	3/10/59
4	APPROACH SLOPE CLEARANCE	CS	5/10/59
5	GENERAL PLAN REVISION	CS	7/10/59
6	GENERAL PLAN REVISION	CS	9/10/59
7	GENERAL PLAN REVISION	CS	11/10/59

BUILDINGS

No.	Description	Area (Sq. Ft.)	Volume (Cu. Ft.)
1	TERMINAL BUILDING	10,000	100,000
2	APRON	10,000	100,000
3	TAXIWAY	10,000	100,000
4	HANGAR	10,000	100,000
5	PARALLEL TAXIWAY	10,000	100,000
6	PERPENDICULAR TAXIWAY	10,000	100,000
7	GRASS FIELD	10,000	100,000
8	ROAD	10,000	100,000
9	RAILROAD	10,000	100,000
10	UTILITY LINES	10,000	100,000
11	DRY DITCH	10,000	100,000
12	CREEK	10,000	100,000
13	LAKE	10,000	100,000
14	POND	10,000	100,000
15	BOAT RAMP	10,000	100,000
16	BOAT HOUSE	10,000	100,000
17	RESTAURANT	10,000	100,000
18	BAR	10,000	100,000
19	LUNGEON	10,000	100,000
20	CLUBHOUSE	10,000	100,000
21	SWIMMING POOL	10,000	100,000
22	TENNIS COURT	10,000	100,000
23	PLAYGROUND	10,000	100,000
24	BOAT HOUSE	10,000	100,000
25	BOAT RAMP	10,000	100,000

APPROACH SLOPE CLEARANCE

Runway	Clearance
12L/12R	50:1
30L/30R	28:1

PALO ALTO AIRPORT

OF SANTA CLARA COUNTY
DEPARTMENT OF PUBLIC WORKS
AIRPORT LAYOUT PLAN
PLAN NO. 9-04-02

DESIGNED	CS	12/15/58	BY	APP	DATE
CHECKED	CS	1/10/59	BY	APP	DATE
DRAWN	CS	3/10/59	BY	APP	DATE
REVISIONS			BY	APP	DATE

Scale in Feet
200 200 0 200

Palo Alto Harbor
Yacht Harbor
Pond
Water Lake
CLEAR ZONE
SOIL
Fairway
MUNICIPAL GOLF COURSE
CLUBHOUSE
RESTAURANT
BAR
LUNGEON
SWIMMING POOL
TENNIS COURT
PLAYGROUND
BOAT HOUSE
BOAT RAMP