

SAN DIEGO COUNTY
REGIONAL AIRPORT AUTHORITY

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July 14, 2005

Mr. Joe Barrett, Senior Analyst
Navy-Marine Corps Team, BRAC Commission
2521 South Clark St., #600
Arlington, Virginia 22202-3920

Dear Mr. Barrett:

Enclosed is the information you requested regarding the 2001 San Diego International Airport (SDIA) Airport Master Plan. This analysis was compiled prior to creation of the San Diego County Regional Airport Authority (Authority). As I mentioned in our conversation, the Authority has not studied any military installation since November 2003. Further, we have committed to not study the five installations, currently on our list, until the Base Realignment and Closure process is complete.

In addition to the alternatives that show a runway utilizing a portion of the Marine Corp Recruit Depot (MCRD), I have also included the Table of Contents should you require additional information. Finally, as you had requested, concept six for SDIA was e-mailed to you on July 13, and again is only a study concept for the expansion of San Diego Airport.

Please feel free to contact me at 619-400-2455 should you require additional information.

Sincerely,



Angela Shafer-Payne
Vice President, Strategic Planning

ASP/nas

Enclosure

cc: Board Members, SDCRAA
T. Bowens, SDCRAA, President/CEO



SAN DIEGO
INTERNATIONAL
AIRPORT

SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN

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the south side of Runway 9-27. The new parallel runway would be the primary arrival runway (accommodating some departures) and would have a centerline-to-centerline separation of 800 feet from the existing Runway 9-27.

Relative to terminal area development, Concept C proposes that a new passenger terminal complex (including gates) be developed on the north side of the airfield. This development would occur on the former General Dynamics property and would have access from Pacific Highway. An upper-level roadway is planned with this concept to minimize congestion of passenger/vehicular traffic.

Airline support, GA, all-cargo, and belly cargo facilities would be developed on the south side of the airfield. This development would use the Camp Nimitz property and would have access from Harbor Drive.

The potential advantages of Concept C are:

- It provides significant increases in airfield capacity with its parallel runway configuration.
- It takes advantage of access opportunities to I-5 and the rail line.
- It can be implemented with minimal disruptions to airport operations. However, activities associated with cargo and GA operations would experience some disruptions in light of construction phasing issues.

The potential disadvantages of Concept C are:

- It does not build upon the investment that the Port District has made in terminal, access, and parking improvements on the south side of the airfield.
- It will require the complete acquisition of the Teledyne-Ryan property.

7.1.5 Concept D2

The Master Plan forecasts, demand/capacity analysis, and examination of facility requirements indicate an existing and future need for runway and taxiway improvements, additional aircraft apron space, an expanded terminal building, additional hangars, air cargo expansion, and additional GA improvements.

As illustrated in **Figure 7-5**, Concept D2 recommends that Taxiway "C" be converted to a 9,000-foot runway. This runway would function as the primary arrival runway, but would also accommodate some departure operations. As a result, Runway 9-27 would be closed and converted to a full parallel taxiway. In

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addition, a new south side parallel runway would be constructed at a length of 9,400 feet with a runway centerline-to-centerline separation distance of 800 feet. This runway would be the primary departure runway, but would also accommodate some arrival traffic.

Concept D2 suggests expanding the passenger terminal concourse (gate facilities) on the south side of the airfield (north of Harbor Drive) and developing a new passenger terminal processing complex (ticketing, baggage check-in, baggage claim, automobile parking, curbside activities, security screening, etc.) on the north side of the airfield. This expansion would occur on a portion of land previously occupied by General Dynamics and would have access from Pacific Highway. Essentially, the passenger activities would be located in split facilities, connected to one another by some form of people mover system (i.e., underground, above ground transit around the airfield, etc.). An upper-level roadway is planned with this concept to minimize congestion of passenger/vehicular traffic.

Airline support, GA, and belly cargo facilities would be developed on the south side of the airfield. All-cargo facilities would be developed on the north side of the airfield (on a portion of land previously occupied by General Dynamics), with access from Pacific Highway.

The major advantages of Concept D2 are:

- It provides some significant increases in airfield capacity with its parallel runway configuration.
- It takes full advantage of I-5 and rail access opportunities.
- It builds upon the investment that the Port District has recently made on developing improved terminal facilities on the south side of the airfield. However, the investment that the Port District made on parking and access improvements on the south side of the Airport would not be utilized.
- It could be implemented and phased with only minor disruptions to airport operations.

The major disadvantages of Concept D2 are:

- It would have relatively higher development costs associated with implementation than most other concepts under consideration due to the construction of two new runways and the people mover system.
- It would require some additional acquisition of Marine Corps Recruit Depot (MCRD) property.

7.1.6 Concept E

Prior to discussing Concept E features, it must be noted that this concept encroaches on MCRD property, and is only feasible if MCRD property becomes available in the future.

The Master Plan forecasts, demand/capacity analysis, and examination of facility requirements indicate an existing and future need for runway and taxiway improvements, additional aircraft apron space, an expanded terminal building, additional hangars, air cargo expansion, and additional GA improvements.

Concept E, as illustrated in **Figure 7-6**, proposes a variety of airfield and terminal area expansion options. Regarding airfield improvements, it is recommended that a new parallel runway be constructed to the north of Runway 9-27. The runway would have a length of 9,000 feet and a runway centerline-to-centerline separation distance of 800 feet. This runway would be the primary arrival runway, but would occasionally be used to accommodate some departures. Taxiway "C" would be extended on the north side of Runway 9-27, and a partial parallel taxiway would be constructed to the north of the new runway on its east end. Further, existing Runway 9-27 and its associated taxiways would be maintained in their current configuration. This runway would be the primary departure runway, but would also accommodate some arrivals. Lastly, a dual parallel taxiway would be constructed on the south side of existing Runway 9-27.

In terms of terminal area improvements, it is suggested that the passenger terminal facilities be expanded on the south side of the airfield (north of Harbor Drive) by phasing the improvements. The development would occur by expanding onto the Camp Nimitz property and demolishing and redeveloping Terminal One. Terminal Two would also be demolished and redeveloped, and commuter activities would be relocated into the redeveloped terminal facilities. Future development would occur on the existing cargo area, Commuter Terminal area, and the Teledyne-Ryan property, as necessary. An upper-level roadway is planned with this concept to minimize congestion of passenger/vehicular traffic.

Airline support and belly cargo facilities would be developed on the south side of the airfield, while GA and all-cargo facilities would be developed on the north side of the airfield (on land previously occupied by General Dynamics), with access from Pacific Highway.

The major advantages of Concept E are:

- It provides significant increases in airfield capacity with its parallel runway configuration.

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- It builds upon the investment that the Port District has recently made on developing improved terminal, access, and parking facilities on the south side of the airfield.
- It could be implemented and phased with no major disruptions to airport operations.

The major disadvantages of Concept E are:

- It does not take advantage of I-5 or rail access opportunities.
- It would require relocation of the ATCT and the fuel farm.
- It would require acquisition of the Teledyne-Ryan property.

7.1.7 Concept E2

Similar to Concept E, Concept E2 encroaches on MCRD property, and is only feasible if a portion of MCRD property becomes available in the future.

The Master Plan forecasts, demand/capacity analysis, and examination of facility requirements indicate an existing and future need for runway and taxiway improvements, additional aircraft apron space, an expanded terminal building, additional hangars, air cargo expansion, and additional GA improvements.

Concept E2 is essentially a combination of Concepts E and D2. Concept E2 combines the Terminal and GA/Cargo area layout of Concept D2 with the airfield identified for Concept E. However, the airfield layout of Concept E on the Terminal and GA/Cargo layout of D2 restricts the land on the north side that is available for development. Therefore, the GA/Cargo facilities would be located in their current position on the south side of the airfield.

Concept E2, as illustrated in **Figure 7-7**, proposes a variety of airfield and terminal area expansion options. Regarding airfield improvements, it is recommended that a new parallel runway be constructed to the north of Runway 9-27. The runway would have a length of 9,000 feet and a runway centerline-to-centerline separation distance of 800 feet. This runway would be the primary arrival runway, but would occasionally be used to accommodate some departures. Taxiway "C" would be extended on the north side of Runway 9-27, and a partial parallel taxiway would be constructed to the north of the new runway on its east end. Further, existing Runway 9-27 and its associated taxiways would be maintained in their current configuration. This runway would be the primary departure runway, but would also accommodate some arrivals.

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Lastly, a dual parallel taxiway would be constructed on the south side of the existing Runway 9-27.

Concept E2 suggests expanding the passenger terminal concourse (gate facilities) on the south side of the airfield (north of Harbor Drive) and developing a new passenger terminal processing complex (ticketing, baggage check-in, baggage claim, automobile parking, curbside activities, security screening, etc.) on the north side of the airfield. This expansion would occur on a portion of land previously occupied by General Dynamics and would have access from Pacific Highway. Essentially, the passenger activities would be located in split facilities, connected to one another by some form of people mover system (i.e., underground, above ground transit around the airfield, etc.). An upper-level roadway is planned with this concept to minimize congestion of passenger/vehicular traffic.

Airline support, GA, and cargo facilities would be developed on the south side of the airfield. Ground access to this area would be from Harbor Drive.

The major advantages of Concept E2 are:

- It provides significant increases in airfield capacity with its parallel runway configuration.
- It takes full advantage of I-5 and rail access opportunities.
- It builds upon the investment that the Port District has recently made on developing improved terminal facilities on the south side of the airfield. However, the investment that the Port District made on parking and access improvements on the south side of the Airport would not be utilized.
- It could be implemented with only minor disruptions to airport operations.

The major disadvantages of Concept E2 are:

- It would have relatively higher development costs associated with implementation than most other concepts under consideration due to the construction of a new runway and the people mover system.
- It would require some additional acquisition of MCRD property.

7.1.8 Concept F

Similar to Concept E, it should be noted that Concept F also encroaches on MCRD property and is only feasible if MCRD property becomes available in the future.

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The Master Plan forecasts, demand/capacity analysis, and examination of facility requirements indicate an existing and future need for runway and taxiway improvements, additional aircraft apron space, an expanded terminal building, additional hangars, air cargo expansion, and additional GA improvements.

Concept F, as illustrated in **Figure 7-8**, prescribes airfield enhancements that diverge from the parallel runway concepts discussed previously. This concept suggests constructing a closed "V" runway (Runway 10-28) configuration to the north of Runway 9-27 at a length of 9,400 feet. This runway would be used primarily for departure traffic, but would also accommodate some arrival traffic. A taxiway system to accommodate the new runway would be developed, including an extension to Taxiway "C," high speed exit taxiways, and a new dual parallel taxiway/taxilane on the north side of the new runway. Runway 9-27, and associated taxiways, would be maintained in their current configuration. This runway would be used mainly for arrivals, but would also accommodate some departures.

Concerning terminal area development, it is recommended that a new passenger terminal complex (including airline support and belly cargo facilities) be developed on the north side of the airfield. This development would occur on MCRD property and former General Dynamics property, with access from Pacific Highway. GA and all-cargo facilities would be developed on the south side of the airfield, with ground access from Harbor Drive. An upper-level roadway is planned with this concept to minimize congestion of passenger/ vehicular traffic.

The advantages of Concept F are:

- It provides the greatest increase in airfield capacity with its closed "V" runway configuration.
- It (with the new Runway 10-28) avoids some existing obstructions on Point Loma and allows for some increase in aircraft performance and, consequently, stage lengths flown.
- It will direct departures further to the north, which will redirect some of the overflights (and resulting impacts) currently occurring over Point Loma.
- It takes full advantage of I-5 and rail access opportunities.
- It could be implemented and phased with no major disruptions to airport operations.

The disadvantages of Concept F are:

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- It does not build upon the investment that the Port District has recently made on developing improved terminal, access, and parking facilities on the south side of the airfield.
- It would require relocation of the ATCT and the fuel farm.
- It would require closure of the MCRD and property transfer to the Port District.
- It would require acquisition of the Teledyne-Ryan property and some land at the intersection of Barnett Avenue and Lytton Street.

7.1.9 Concept G

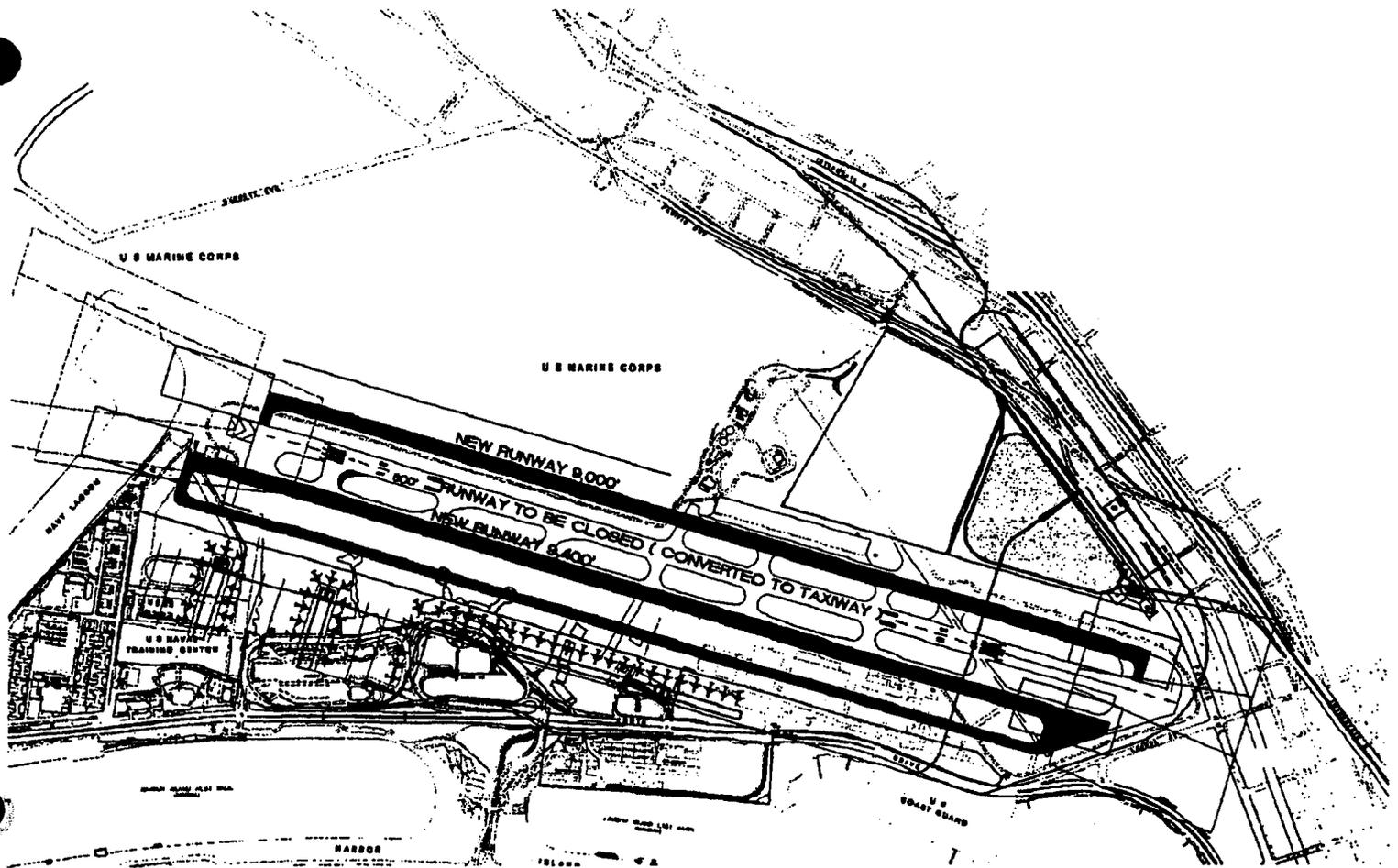
Concept G is the most "innovative" of all the concepts. It should be noted that this concept is only feasible if the Navy allows joint use of its airfield at NAS North Island and allows a portion of its land to be converted to civilian use for development of passenger terminal facilities.

The Master Plan forecasts, demand/capacity analysis, and examination of facility requirements indicate an existing and future need for runway and taxiway improvements, additional aircraft apron space, an expanded terminal building, additional hangars, air cargo expansion, and additional GA improvements.

Relative to airfield improvements, Concept G, as illustrated in **Figure 7-9**, proposes extending the existing north-south runway (Runway 18-36) at North Island to the south. This runway would be extended to 11,000 feet and would be used as the main departure runway, directing departures over the water. Further, it is proposed that a new southeast/northwest runway (Runway 13-31) be constructed to the east of Runway 18-36 at a length of 7,500 feet. This runway would be used as the primary arrivals runway, with arrivals coming in over the water. Consequently, the existing east-west runway would have to be closed to allow for development of passenger terminal facilities.

With regard to terminal area development, a new passenger terminal complex (including airline support and belly cargo facilities) would be developed on the west side of North Island. This development would have access to/from the existing Airport via a new tunnel system under San Diego Bay. Subsequently, the existing passenger terminal facilities on the south side of the Airport would be expanded as the main passenger processing complex. An upper-level roadway is planned with this concept to minimize congestion of passenger/vehicular traffic.

SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN ALTERNATIVE D



SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN ALTERNATIVE D

Planning Objective: Develop an airport that meets regional domestic needs.

Airfield: Closes existing runway and constructs two new parallel runways
North Passenger handling facilities w/Transit Center & People-Mover to
South Concourses

Direct Access via Interstate 5 (tunnel connection or perimeter rail)

Project Description: Concept converts Taxiway 'C' to a 9,000-foot runway. This runway would be the primary arrival runway, and would also accommodate some departures. Closes Runway 9/27 and converts it to a full parallel taxiway. Constructs a new south side parallel runway at a length of 9,400 feet and with a centerline-to-centerline distance from the new runway 9/27 of 800 feet. This runway would be the primary departure runway, and would also accommodate some arrivals.

Terminal Facilities: The concept proposes concourses with holdrooms and limited retail/food and beverage concessions on the south side of the airfield in a phased development. It develops passenger-handling facilities on the former General Dynamics property. It constructs a people mover connecting the north facilities to Terminal 1, either by tunnel under the runway or perimeter rail. It relocates commuter activities into the new terminal facilities. All dedicated cargo and general aviation facilities are on the north with access from Pacific Highway.

Roadway Access: Direct connectors would be constructed to/from north and south I-5 to the parking area and passenger handling facilities. A people mover connects the terminal facilities. No public parking will be located on the south side.

AIRFIELD

Two Runways: 9,400' and 9000' Dual Taxiway System

Advantages	Disadvantages
Airfield Reliability: Airfield will support non-stop domestic flight operations to meet 335,000 annual operations out to the year 2020.	Airfield Reliability: Two parallel runways oriented 27/10 will not support design aircraft operations for non-stop international destinations (B-777-200) due to rising terrain to the immediate west.
	Land Acquisition: Concept requires the acquisition of MCRD property (estimated 47 acres) beyond that required for Taxiway 'C' extension.
Airport Noise: Runway orientation of 9/27 would result in 65db noise contour impacting present community.	Financial Considerations: Construction costs for airfield and terminal improvements estimated \$750 million; parking facilities \$116 to \$126 million; people-mover system \$333 million; and roadways, including local access and direct connections to Interstate 5, at \$62 million. Total estimated \$1.23 billion.
Blotic Resources: The endangered California least tern species nests on 15.9 acres in east runway ovals from April 1 to August 31. Concept does not impact the nesting site.	Air Quality: Predicted to result in higher emissions due primarily to terminal location on southside of airfield. Will result in increased traffic congestion and emissions. Airfield congestion and ground taxi delays will result in increases in aircraft emissions.

TERMINALS

Terminal Gates: 51

Gate Utilization at 2020: 7.2 average daily departures per gate

Advantages	Disadvantages
Passenger Terminal Facilities: Concept can accommodate 917 average daily operations (including peak loading during hour of 7:00am to 10:00am and 7:00pm and 10:00pm). Preserves infrastructure investment in Terminal 2W.	Passenger Terminal Facilities: The southside location prevents expansion further west beyond 51-gate capacity due to NTC canal/property development. "Split Plant" configuration with people mover is inconvenient for passengers.
	Air Cargo Facilities: Concept provides limited (63.7 acres) of property for facility development.

ROADS/GROUND ACCESS

Advantages	Disadvantages
Traffic (Local): If access to south side terminals can be provided for with people-mover systems, and no public parking is provided on the south side, congestion along Harbor Drive and the terminal roadways can be reduced to manageable levels (LOS B or C).	Land Acquisition: Additional property (78 acres) of Port leased commercial real estate will be required to site the terminals and supporting infrastructure. Additional property will be necessary if the perimeter people mover is installed.
Mass Transit: Transit Center and parking area will accommodate rail, trolley and private vehicles.	Parking: Parking is highly constrained by terminals located on the northside. Construction of 4-5 story structures would be required to provide for 10,000 stalls between the I-5 freeway and passenger terminals.

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- It builds upon the investment that the Port District has recently made on developing improved terminal, access, and parking facilities on the south side of the airfield.
- It could be implemented and phased with no major disruptions to airport operations.

The major disadvantages of Concept E are:

- It does not take advantage of I-5 or rail access opportunities.
- It would require relocation of the ATCT and the fuel farm.
- It would require acquisition of the Teledyne-Ryan property.

7.1.7 Concept E2

Similar to Concept E, Concept E2 encroaches on MCRD property, and is only feasible if a portion of MCRD property becomes available in the future.

The Master Plan forecasts, demand/capacity analysis, and examination of facility requirements indicate an existing and future need for runway and taxiway improvements, additional aircraft apron space, an expanded terminal building, additional hangars, air cargo expansion, and additional GA improvements.

Concept E2 is essentially a combination of Concepts E and D2. Concept E2 combines the Terminal and GA/Cargo area layout of Concept D2 with the airfield identified for Concept E. However, the airfield layout of Concept E on the Terminal and GA/Cargo layout of D2 restricts the land on the north side that is available for development. Therefore, the GA/Cargo facilities would be located in their current position on the south side of the airfield.

Concept E2, as illustrated in **Figure 7-7**, proposes a variety of airfield and terminal area expansion options. Regarding airfield improvements, it is recommended that a new parallel runway be constructed to the north of Runway 9-27. The runway would have a length of 9,000 feet and a runway centerline-to-centerline separation distance of 800 feet. This runway would be the primary arrival runway, but would occasionally be used to accommodate some departures. Taxiway "C" would be extended on the north side of Runway 9-27, and a partial parallel taxiway would be constructed to the north of the new runway on its east end. Further, existing Runway 9-27 and its associated taxiways would be maintained in their current configuration. This runway would be the primary departure runway, but would also accommodate some arrivals.

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Lastly, a dual parallel taxiway would be constructed on the south side of the existing Runway 9-27.

Concept E2 suggests expanding the passenger terminal concourse (gate facilities) on the south side of the airfield (north of Harbor Drive) and developing a new passenger terminal processing complex (ticketing, baggage check-in, baggage claim, automobile parking, curbside activities, security screening, etc.) on the north side of the airfield. This expansion would occur on a portion of land previously occupied by General Dynamics and would have access from Pacific Highway. Essentially, the passenger activities would be located in split facilities, connected to one another by some form of people mover system (i.e., underground, above ground transit around the airfield, etc.). An upper-level roadway is planned with this concept to minimize congestion of passenger/vehicular traffic.

Airline support, GA, and cargo facilities would be developed on the south side of the airfield. Ground access to this area would be from Harbor Drive.

The major advantages of Concept E2 are:

- It provides significant increases in airfield capacity with its parallel runway configuration.
- It takes full advantage of I-5 and rail access opportunities.
- It builds upon the investment that the Port District has recently made on developing improved terminal facilities on the south side of the airfield. However, the investment that the Port District made on parking and access improvements on the south side of the Airport would not be utilized.
- It could be implemented with only minor disruptions to airport operations.

The major disadvantages of Concept E2 are:

- It would have relatively higher development costs associated with implementation than most other concepts under consideration due to the construction of a new runway and the people mover system.
- It would require some additional acquisition of MCRD property.

7.1.8 Concept F

Similar to Concept E, it should be noted that Concept F also encroaches on MCRD property and is only feasible if MCRD property becomes available in the future.

Roadway Access. The Terminal Loop Road would have signalized intersections on Harbor Drive at the west end of the site, at Harbor Island Drive and at the Rental Car Road. A portion of the existing grade separated ingress/egress at Harbor Island Drive would be used. Direct connectors would be constructed to/from north and south I-5 via an elevated roadway running parallel to Laurel Street on the north side and into the site at the east end. A northbound I-5 off ramp would be added at Washington Street. The northbound I-5 off ramp at Vine Street would be closed. The southbound Pacific Highway on ramp to I-5 would be relocated to avoid the southbound connector. The northbound I-5 on ramp at Hawthorn Street would be closed.

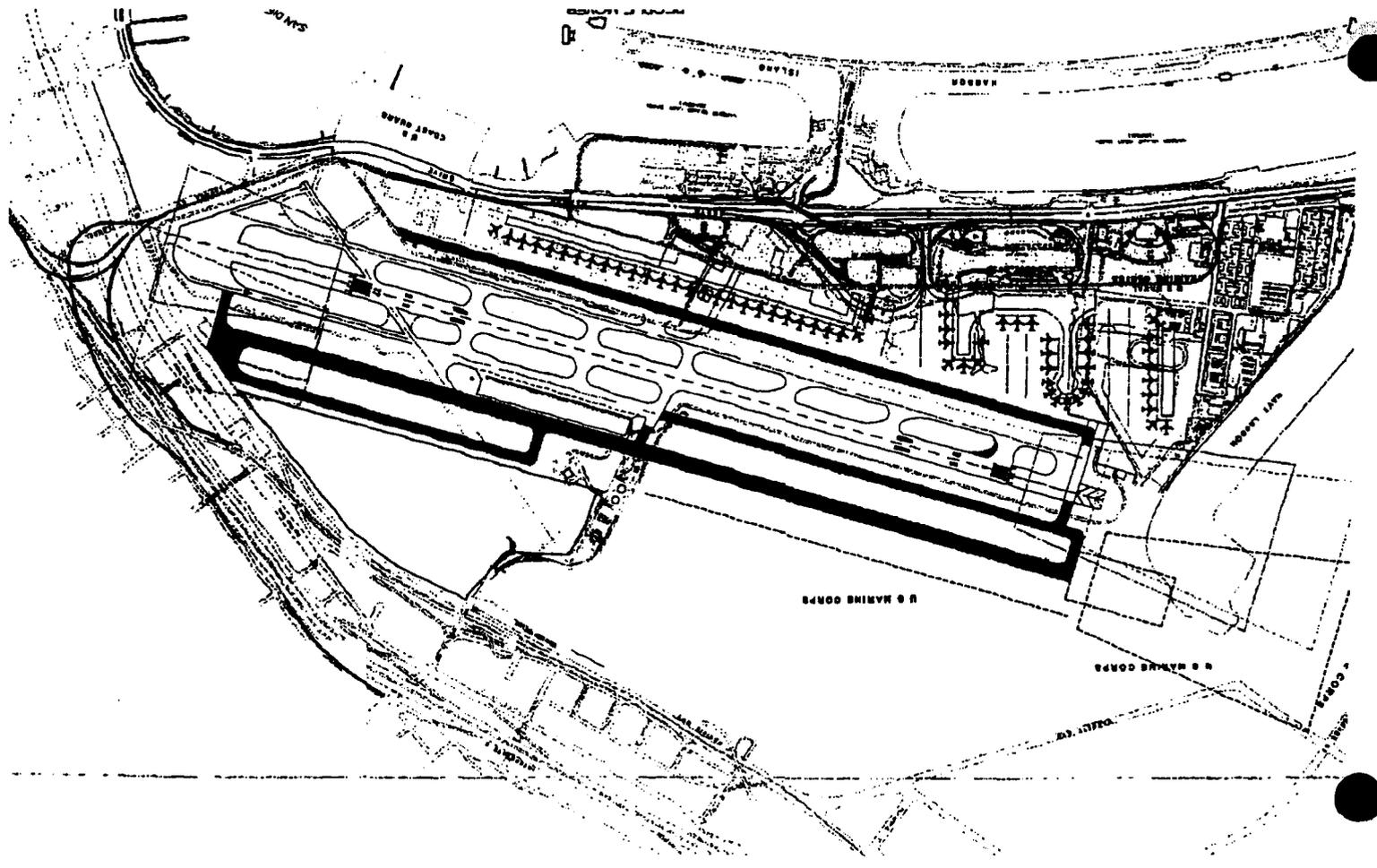
Terminal Facilities: Passenger terminal facilities remain on the south side of the airport and are expanded. It develops a satellite terminal facility on the Camp Nimitz property with a people mover connected to Terminal 2. Demolishes Terminal 1 and develops a new terminal on the existing cargo area, commuter terminal area and the Teledyne-Ryan property. It demolishes the old portion of Terminal 2 (East) and expands facilities incorporating the recently opened Terminal 2 (West). The concept develops "belly" cargo and airline support facilities on the south side of the airfield and dedicated cargo and general aviation facilities on the north with access from Pacific Highway.

Project Description: Concept proposes a new parallel runway to the north of Runway 9/27, at a length of 9,000 feet with a centerline-to-centerline separation distance of 800 feet. This runway would be the primary arrival runway, and would also accommodate some departures. Concept extends Taxiway C on the north side of Runway 9/27 and constructs a partial parallel taxiway to the north of the new runway on its east end. Concept maintains Runway 9/27 and its associated taxiways and constructs a dual parallel taxiway on the south side of Runway 9/27. This runway would be the primary departure runway, and would also accommodate some arrivals.

Airfield: Construct new parallel runway to the north of Runway 9/27
Passenger Terminals & Parking on south
Air Cargo / General Aviation Facilities on north

Planning Objective: Develop an airport that meets regional domestic needs.

**SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN
ALTERNATIVE E**



**SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN
ALTERNATIVE E**

AIRFIELD

Two Runways: 9,400' and 9000' Dual Taxiway System with partial taxiway on north

Advantages	Disadvantages
Airfield Reliability: Airfield will support non-stop domestic flight operations to meet 335,000 annual operations out to the year 2020.	Airfield Reliability: Two parallel runways oriented 9/27 will not support design aircraft operations for non-stop international destinations (B-777-200) due to rising terrain to the immediate west.
	Land Acquisition: Concept requires the acquisition of MCRD property (estimated 47 acres) beyond that required for Taxiway 'C' extension.
Airport Noise: Runway orientation of 9/27 would result in 65db noise contour impacting present community.	Financial Considerations: Construction costs for airfield and terminal improvements estimated \$750million, Parking facilities - \$116 to \$126million, people mover system - \$300million and Roadways, including local access and direct connections to Interstate 5 at \$25million. Total estimated \$1.15 to \$1.17 billion.
Biotic Resources: The endangered California least tern species nests on 15.9 acres in east runway ovals from April 1 to August 31. Concept does not impact the nesting site.	Air Quality: Predicted to result in higher emissions due primarily to terminal location on southside of airfield will result in increased traffic congestion and emissions. Airfield congestion and ground taxi delays will result in increases in aircraft emissions.

TERMINALS

Terminal Gates: 51

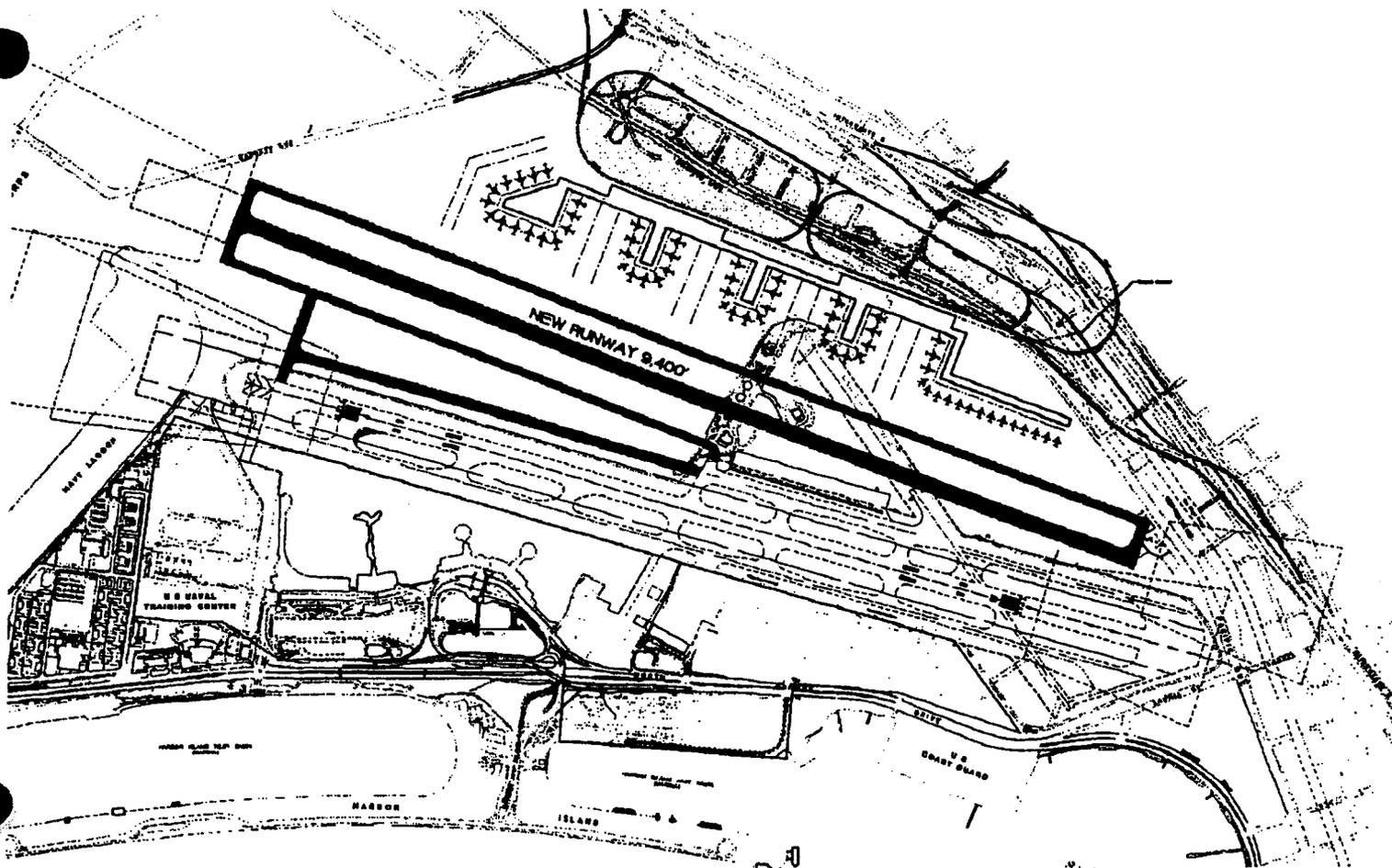
Gate Utilization at 2020: 7.2 average daily departures per gate

Advantages	Disadvantages
Passenger Terminal Facilities: Concept can accommodate 917 average daily operations (including peak loading during hour of 7:00am to 1000am and 7:00pm and 10:00pm). Preserves infrastructure investment in Terminal 2W	Passenger Terminal Facilities: The southside location prevents expansion further west beyond 51 gate capacity due to NTC canal/property development.
	Air Cargo Facilities: Concept provides limited (55 acres) of property for facility development.

ROADS/GROUND ACCESS

Advantages	Disadvantages
	Traffic (Regional): If direct access is not provided from I-5 to and from the passenger terminals, portions of Grape Street, Harbor Drive, Hawthorn Street and Kettner Boulevard are expected to encounter demand levels at or beyond their capacity - Level of Service(LOS) E and F - beginning in the year 2007 (I-5 itself will likely exhibit LOS E or F conditions with the anticipated forecast). Without connections to I-5 or construction of a transit center, the anticipated increase in air travel and the corresponding increase in traffic would cause Harbor Drive to reach capacity at 18.6 million annual passengers in the year 2007.
	Parking: Parking is highly constrained by terminals located on the northside. Construction of 4-5 story structures would be required to provide for 10,000 stalls between the I-5 freeway and passenger terminals

SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN ALTERNATIVE F



SAN DIEGO INTERNATIONAL AIRPORT MASTER PLAN ALTERNATIVE F

Planning Objective: Develop an expanded domestic airport with limited international capabilities (North/South America and Europe)

Airfield: New Runway north of Runway 9/27 in Closed "V" (10/28)

North Passenger Terminals

Primary Access via Pacific Highway

Air Cargo / General Aviation on south

Project Description: Alternative F proposes that Runway 9-27 and its associated parallel taxiways be maintained in their current configuration. Taxiway C is extended on the north side of Runway 9-27. A new 9,400-foot runway would be the primary departure runway (accommodating some arrivals) Alternative F proposes a new passenger terminal complex and gates be developed on the north side of the airfield. This development would occur on the former General Dynamics property and would have access from Pacific Highway. An upper-level terminal roadway is planned with this alternative to minimize congestion of passenger/vehicle traffic. Airline support, general aviation, all cargo and belly cargo facilities would be developed on the south side of the airfield incorporating land conveyed from NTC and access from Harbor Drive.

AIRFIELD	
Two Runways: 9,400' (primary departure) and 9,400' (primary arrival)	
Advantages	Disadvantages
<p>Airfield Capacity: Provides significant increases in airfield capacity with closed "V" runway configuration. Estimated 335,000 annual operations serving an estimated 24.44 million annual passengers. Provides limited non-stop international service with design aircraft B777-200 to Asian and European destinations.</p>	<p>Financial Considerations: Second runway increases cost of airfield improvements to a total from \$935 million (Alternative A) to \$1.0 billion. The 9,400 runway, while providing limited international service (No fully loaded B747-400 capability) would displace all of Teledyne Ryan and would cause the relocation of Solar Turbines. This cost has not yet been finalized. Even the limited numbers of take-offs could impact the city's redevelopment housing plans for NTC, with cost implications.</p>
<p>Airfield Reliability: Second runway provides significant enhancement in airfield reliability: 1) average taxi time 5.4 minutes per aircraft in Year 2020 and 2) average delay per aircraft is 1.8 minutes in Year 2010 and 5.3 minutes in Year 2020.</p>	
<p>Constructability: Second runway can be implemented but will cause disruptions to airport operations because of its proximity to north side terminals. Activities associated with cargo and general aviation operations will experience some disruptions in light of construction phasing issues.</p>	<p>Constructability: Terminal construction and operations relocation to Pacific Highway would need to occur prior to initial construction of second runway. Difficult to transport passengers from North to South while terminals are being phased.</p>
	<p>Airport Noise: New runway to north would expose approximately 3,000 more residential units than Alternative A. The arrival contours will impact areas to the east of SDIA that were not previously within the 65 dB CNEL contours. In Year 2020, 8,153 residential units (1,600 single family residential and 6,553 multi-family residential) will be located within 65 CNEL contours, as well as 5 schools, 4 hospitals/clinics, and 8 churches. May impact NTC redevelopment.</p>
<p>Air Quality: Predicted to result in significantly lower emissions of all pollutants than Alternative A due primarily to terminal relocation to northside of airfield. Traffic reductions from a northside transit center would offset increases in aircraft emissions.</p>	<p>Air Quality: Same provisions as Alternative C apply.</p>
<p>Biotic Resources: The endangered California least tern species nests on 15.9 acres in east runway ovals from April 1 to August 31. Concept F does not impact the nesting site.</p>	<p>Land Use/Historic Resources: Requires entire MCRD property and displacement of historic residences located on federal property. Requires complete removal of existing structures from Teledyne-Ryan and some components of Solar Turbines.</p>

TERMINALS

Terminal Gates: 51

Gate Utilization at 2020: 7.2 average daily departures per gate

Advantages	Disadvantages
Passenger Terminal Facilities: Northside terminal provides access opportunities for vehicle access to Interstate 5 and passenger access to rail lines and transit center. Terminal location enables expansion west past 2020 planning horizon.	Passenger Terminal Facilities: Northside passenger complex meets ultimate space requirements, but does not retain investment in recent terminal improvements.
Air Cargo Facilities: Provides maximum in air cargo development opportunities with 221 acres on the south available.	

ROADS/GROUND ACCESS

Advantages	Disadvantages
Access (On-Airport): Passenger terminal on Pacific Highway allows opportunities for vehicle access to Interstate 5 and passenger access to rail lines and transit center.	Access (On-Airport): Road improvement costs estimated to range from \$19 – \$40 million for local road access and \$27 – \$59 million for direct connections to I-5.
Traffic (Regional): Relocation of passenger terminals to north Pacific Highway would remove approximately 20,000 ADT from Harbor Drive for the year 2020. Airport ingress is more accessible and less constrained than airport egress. North and south on-ramps to I-5 should be implemented prior to off-ramps.	Mass Transit: Transit center would have to be constructed. Requires property acquisition for transit center.
Mass Transit: Passenger terminal on Pacific Highway allows opportunities for access to rail lines. A multimodal transit analysis indicates that transit access is more feasible with a northside terminal. Construction of a transit center is expected to reduce vehicle traffic by at least four percent.	Parking: Parking is highly constrained by terminal location on General Dynamics, which requires property acquisition for parking structures. The area available for parking structures between the I-5 freeway and passenger terminal is limited.