TITLE 14 - AERONAUTICS AND SPACE
CHAPTER I - FEDERAL AVIATION AGENCY

(Reg. Docket No. 168)

(Special Civil Air Regulation No. 438)

Los Angeles International Airport
Traffic Pattern Area Rules.

On October 28, 1959, notice was given in Draft Release No. 59-17 (24 F.R. 9020) that the Federal Aviation Agency had under consideration the adoption of a Special Civil Air Regulation establishing special airport traffic pattern rules for the Los Angeles International Airport area. This regulation would establish a specific area of airspace surrounding the Los Angeles International Airport to be designated as an airport traffic pattern area within which special aircraft operating rules would apply. These operating rules were developed in order to enhance the safety of all aircraft operations in this area and to provide for the protection of persons and property on the ground.

The nature of comments received in response to the draft release could be classified in two broad categories; those submitted from aviation community interests which addressed the technical aspects of the proposed aircraft operating rules, and those submitted from other interested persons which addressed the aircraft noise abatement aspects of the proposed rule.

Many of the comments of this latter category contended that the proposed rules did not "go far enough" and urged that much more be done to provide relief to nearby communities from the from the aircraft noise problem. While comments such as these were prevalent, other comments recognized

that the rules, which deal with traffic pattern flight procedures would result in an alleviation of the problem insofar as practical air traffic rules could provide. For example, the comment of the City Council of Inglewood stated, in part, that the proposed regulation "...is, and will be, a long step toward the ultimate solution of the critical noise problem in this city ..." The City Council urged the early adoption of the proposed regulation.

The Agency would like to emphasize the point that the proposed rules outlined in Draft Release No. 59-17, were not intended to be representative of a complete Agency answer to the aircraft noise problem. These rules are an initial product of an Agency-wide program that seeks the alleviation of aircraft noise through the various areas of purview of each particular Bureau in the Agency. The Agency has been studying the fundamental problems of aircraft noise in airport communities to attack the problem on a broad scale. Basic research is under way on the fundamentals of community objections to aircraft noise to determine how to improve the designs of aircraft and their flight operational techniques to lower noise levels and, where possible, alter the noise characteristics to make them less annoying. As part of this intensive research program, a wide number of community reactions to aircraft noise studies have been made, the results of which are being regularly discussed with the aircraft operators for consideration in the design of new aircraft and engines.

While all jet transport aircraft in civil operation are equipped with engine noise suppressors, which are heavy and costly, the Agency is continuing its studies of jet noise suppression methods to further minimize the noise problem. Ground engine mufflers are also being analyzed as these devices are particularly pertinent to the engine run-up maintenance procedures employed at airports. Studies of the new turbofan engines are also being made to assure that these engines will produce less noise on both take off and landing.

Studies are also under way to determine the least noisy methods and techniques for the take off and approach to landing of civil jet transport aircraft. Camera studies are being continued to determine the extent of operational variations between operators and pilots along with the accuracy to which the aircraft is flown. Airspeed indicators, artificial horizons, and angle of attack indicators with improved accuracy and readability are being studied to permit jet aircraft to be flown to the optimum performance consistent with safety and noise abatement.

Commercial air carriers based at many major airport terminals have been requested to remove their flight training activities to other airports where such operations may be conducted over less congested areas without creating undue noise annoyance. These requests were made primarily on the basis of safety, in that simulated engine-out maneuvers and the conflict of training flights with normal heavy traffic at such airports constitute an undue hazard as well as an unnecessary source of noise annoyance.

Additional navigation aids for instrument approach procedures at major airport terminals have been established so that approaches during limited weather conditions may be made from more than one direction. This eliminates the necessity for circling approaches around the airport at low altitudes since straight-in approaches to land can be made from more than one direction and is expected to contribute significantly to the further alleviation of the noise problem.

For operations in good weather conditions, considerable attention is being devoted to the development of visual glide path indicators. These devices will provide accurate visual guidance in the landing approach so as to assure that aircraft which create a difficult noise problem will not be flown at an altitude loweer than that

deemed acceptable throughout the approach. Five types of visual glide indicators are being installed at the National Aviation Facilities Experimental Center for testing and evaluation. One system is currently under active test and one will soon be ready for actual test. Within a few months, all five systems will be under simultaneous evaluation.

Studies are also under way by the Agency to determine the practicability of expanding the scope of airport master plans to include buffer zones designed to cushion the effects of aircraft noise. Consideration is also being given to recommending to airport owners and other public agencies, the utilization by them of local zoning powers to encourage land uses of areas contiguous to airports in a manner mutually beneficial to the community and airport activities.

The diligent pursuit of these and other noise alleviation projects within the Agency coupled with the continued and conscientious efforts of the Aviation community, particularly the aircraft operators and local airport authorities, justify a confidence that significant progress will be made in the alleviation of the aircraft noise problem.

With respect to the comments received from the Aviation Community which addressed the technical operating provisions of the proposed rules, the concensus indicated an opposition to the principle of establishing separate Special Civil Air Regulations for each airport that may have a noise problem. It was contended that the inflexibility inherent in the establishment of mandatory operating procedures in a Civil Air Regulation could compound the complexities involved in further developing and revising noise abatement flight techniques. It was held that the establishment of detailed procedures designed to minimize the noise problem at particular airports could best be devised and more readily improved if developed on a local basis. The Agency finds merit in this proposition and consideration is being given to drafting an air traffic rule of general applicability which will standardize all controlled airport traffic pattern rules to the extent

practicable and provide for the establishment of detailed airport procedures on a local basis.

Many comments were directed to the proposed provision which would require jet aircraft to maintain an altitude at or above the ILS glide path. The view was expressed that the precise 3° angle should not be specified and should not apply to the point of touchdown. Further, the approach altitude requirement ought be applicable to piston engine aircraft as well as jet aircraft. The proposal has been modified in light of these comments and the rule is phrased to require descent at or above the glide path setting by all large aircraft equipped with ILS instrumentation. The rule applies only until the aircraft reaches the middle marker so as to provide for a safe "flare-out" for a landing by the pilot.

The proposed restriction on the use of the airport by jet aircraft between the hours of 10 p.m. and 7 a.m. under certain surface wind conditions has also been reevaluated and this provision has been omitted from the rule. The practice of prohibiting the use of various airports during certain specific hours could create critically serious problems to all air transportation patterns. The network of airports throughout the United States and the constant availability of these airports are essential to the maintenance of a sound air transportation system. The continuing growth of public acceptance of aviation as a major force in passenger transportation and the increasingly significant role of commercial aviation in the nation's economy are accomplishments which cannot be inhibited if the best interest of the public is to be served. It was concluded therefore that the extent of relief from the noise problem which this provision might have achieved would not have compensated the degree of restriction it would have imposed on domestic and foreign Air Commerce.

Recommendations were received from aircraft operators at Hughes, Hawthorne and Santa Monica Airports for modifications to the proposed rules which would provide for a more flexibile operation to and

from those airports. Some of these recommendations indicated a misunderstanding of the proposed rules, especially the applicability of the two-way radio requirement. The proposal did not provide that two way communication had to be established with the Los Angeles tower if an aircraft were being flown to or from any airport other than Los Angeles International Airport within the Los Angeles traffic pattern area provided the appropriate entry and departure areas were utilized. For example, aircraft may enter the southeast sector of the Los Angeles traffic pattern area and land at Hawthorne Airport without communicating with the Los Angeles tower. Likewise aircraft may depart Hawthorne to the south without communicating with the Los Angeles tower. It will also be noted that the proposed departure procedure from Hawthorne has been modified to permit turns as early as practicable after a take-off to the west.

It should also be made clear that all the required traffic pattern area entry and departure procedures, altitudes as well as routes, may be superceded by authorization of the control tower. The principal purpose in adopting these procedures is to establish a standardized, segregated flow of air traffic at these various airports which would promote the controllers capability to provide for a safe and expeditious movement of traffic in the area. The rules intend that the controller be provided the flexibility to authorize flight operations in such manner as is best suited to the instant state of the traffic situation.

Recommendations for a re-designation of the traffic pattern area to exclude the downwind leg portion of the Santa Monica traffic pattern were also received. However, the advantages of a standardized dimension of the traffic pattern area are considered more significant than locally different dimensions especially since national application of the concept is being considered. Further, the rules herein adopted do not contemplate the imposition of a radio requirement or any other restriction to Santa Monica Airport traffic other than that which provides a degree of segregation between Hughes Airport traffic and traffic on the downwind leg of the Santa Monica Airport.

As stated above, consideration is being given to the development of an amendment to the Air Traffic Rules, Part 60, of the Civil Air Regulations, which would provide for a national application of standardized controlled airport traffic pattern rules. It is expected that this proposed amendment would accomodate locally developed detailed airport procedures and provide for the ready implementation of revisions to these local procedures. Further, such a general rule would minimize a requirement for several special rules at individual airports.

In consideration of the foregoing, the following Special Civil Air Regulation is hereby adopted to become effective April 4, 1960.

LOS ANGELES INTERNATIONAL AIRPORT
TRAFFIC PATTERN AREA RULES

Scope and Applicability. All aircraft operating within the airspace of the Los Angeles International Airport Traffic Pattern Area shall be operated in accordance with the following rules unless otherwise authorized by air traffic control. As used in these rules, the Los Angeles International Airport Traffic Pattern Area shall include the airspace described by a five mile horizontal radius from the geographical center of that airport and extending upwards from the surface to, but not including 2,000 feet. Additionally, large aircraft as used in this regulation shall mean those aircraft of 12,500 pounds or more maximum certificated take-off weight.

(a) General Rules.

(1) Avoidance of Traffic Pattern Area.
Enroute aircraft shall be flown so as to avoid the Los Angeles International Airport Traffic Pattern Areas.

(2) Communications.
Two-way radio communication shall be established with the Los Angeles International Airport traffic control tower prior to entering the traffic pattern area for a landing at Los Angeles International Airport

and prior to take off from that airport, except that an aircraft not equipped with functioning two-way radio may take off or land at the Los Angeles International Airport if prior authorization from the Los Angeles International Airport traffic control tower has been obtained.

(3) Aircraft Operating Within the Traffic Pattern Area.

All aircraft taking off from or landing at the Los Angeles International, Hawthorne or Santa Monica Airports shall be operated within the Los Angeles Airport Traffic Pattern Area in conformance with the traffic pattern rules as prescribed herein, including the altitudes and directions of flight therefor.

NOTE: For the convenient reference of the pilot, there is attached to this regulation a chart which depicts approximate flight paths of the traffic patterns for such airports.

(b) Traffic Pattern Rules for Los Angeles International Airport.

(1) Traffic Pattern Entry. All fixed-wing aircraft, except those operating on IFR flight plans, landing at the Los Angeles International Airport, shall enter the Traffic Pattern Area in the northeast, southeast or southwest sectors of that area and at an angle of approximately 45 degrees to the downwind leg of the runway in use, and unless the VFR distance-from-cloud criteria require otherwise, at the following altitudes:

(i) Large aircraft shall enter the traffic pattern area at an altitude of at least 1,500 feet above the surface. After entry, an altitude of at least 1,500 feet shall be maintained as long as practicable prior to landing.

(ii) Small aircraft shall enter the traffic pattern area at an altitude below 1,200 feet but not less than 1,000 feet above the surface. After entry, an altitude between 800 and 1,000 feet shall be maintained as long as practicable prior to landing.

(2) Helicopters. Helicopters shall cross the traffic pattern at approximate right angles to the upwind or downwind leg of the Los Angeles Airport traffic pattern at an altitude below that being utilized by fixed-wing aircraft in the pattern. Thereafter, approach to land shall be made in a manner which will avoid the flow of fixed-wing aircraft.

(3) Departures. Unless the VFR distance-from-cloud criteria require otherwise, fixed-wing aircraft shall be flown so as to conform to the following:

(i) Aircraft taking off to the West shall climb as rapidly as practicable on the departure runway heading until past the shore line. Such aircraft shall not recross the shore line at less than 1,500 feet.

(ii) Aircraft taking off to the East, shall climb to at least 1,500 feet as rapidly as practicable.

(iii) Aircraft taking off to the North or South shall climb straight ahead to 1,500 feet as rapidly as practicable before proceeding on course.

(4) Special Operating Rules for Large Fixed-Wing Aircraft.

When the applicable aircraft performance limitations permit, all landings and take-offs shall be made in a westerly direction when the surface wind velocity is less than five knots and the runways are dry. If this direction of take off or landing is not considered by a pilot to be suitable for the safety of the particular flight operation involved, the pilot may use another direction for take off or landing. In such a case, a written report of the reasons for such operation shall be forwarded within 48 hours to the Chief, Flight Standards Division, Federal Aviation Agency, Region Four, Los Angeles, California.

(i) Final Approach. When approaching to land on a runway served by a functioning instrument landing system, large aircraft equipped with functioning instrument landing system equipment shall remain at or above the glide slope altitude between the outer marker and the middle marker.

NOTE: Precision radar advisory service is available to assist pilots to conform with this requirement.

(c) Traffic Pattern Rules for Hawthorne Airport.

(1) Entry. All fixed-wing aircraft landing at Hawthorne Airport shall enter the Los Angeles International Airport Traffic Pattern Area in the southeast sector of that area and at an angle of approximately 45 degrees to the downwind leg of the Hawthorne traffic pattern. Helicopters shall be flown in a manner which avoids the flow of fixed-wing aircraft. Unless the VFR distance-from-cloud criteria require otherwise, fixed-wing aircraft shall be flown at the following altitudes:

(i) Large aircraft shall enter the traffic pattern area at an altitude of at least 1,200 feet above the surface. After entry, an altitude of at least 1,000 feet shall be maintained as long as practicable prior to landing.

(ii) Small aircraft shall enter the traffic pattern area at an altitude of at least 1,000 feet above the surface. After entry, an altitude of at least 600 feet shall be maintained as long as practicable prior to landing.

(2) Departures. Aircraft departing from the Hawthorne Airport shall climb as rapidly as practicable to at least 600 feet unless the VFR distance-from-cloud criteria require otherwise, and shall depart the traffic pattern area to the South.

(d) Traffic Pattern Rules for Hughes Airport.

(1) Entry. All aircraft landing at Hughes Airport shall enter the Los Angeles International Airport Traffic Pattern Area in the northeast or northwest sectors of that area. Fixed-wing aircraft shall enter traffic on a flight path parallel to the Hughes Airport runway. Helicopters shall be flown in a manner that avoids the flow of fixed-wing aircraft.

Unless the VFR distance-from-cloud criteria requires otherwise, fixed-wing aircraft shall enter traffic at an altitude of at least 1,000 feet. When entry is made at 1,000 feet the altitude of 1,000 feet shall be maintained as long as practicable.

(2) Departures. Aircraft departing from the Hughes Airport shall climb as rapidly as practicable to 1,000 feet.

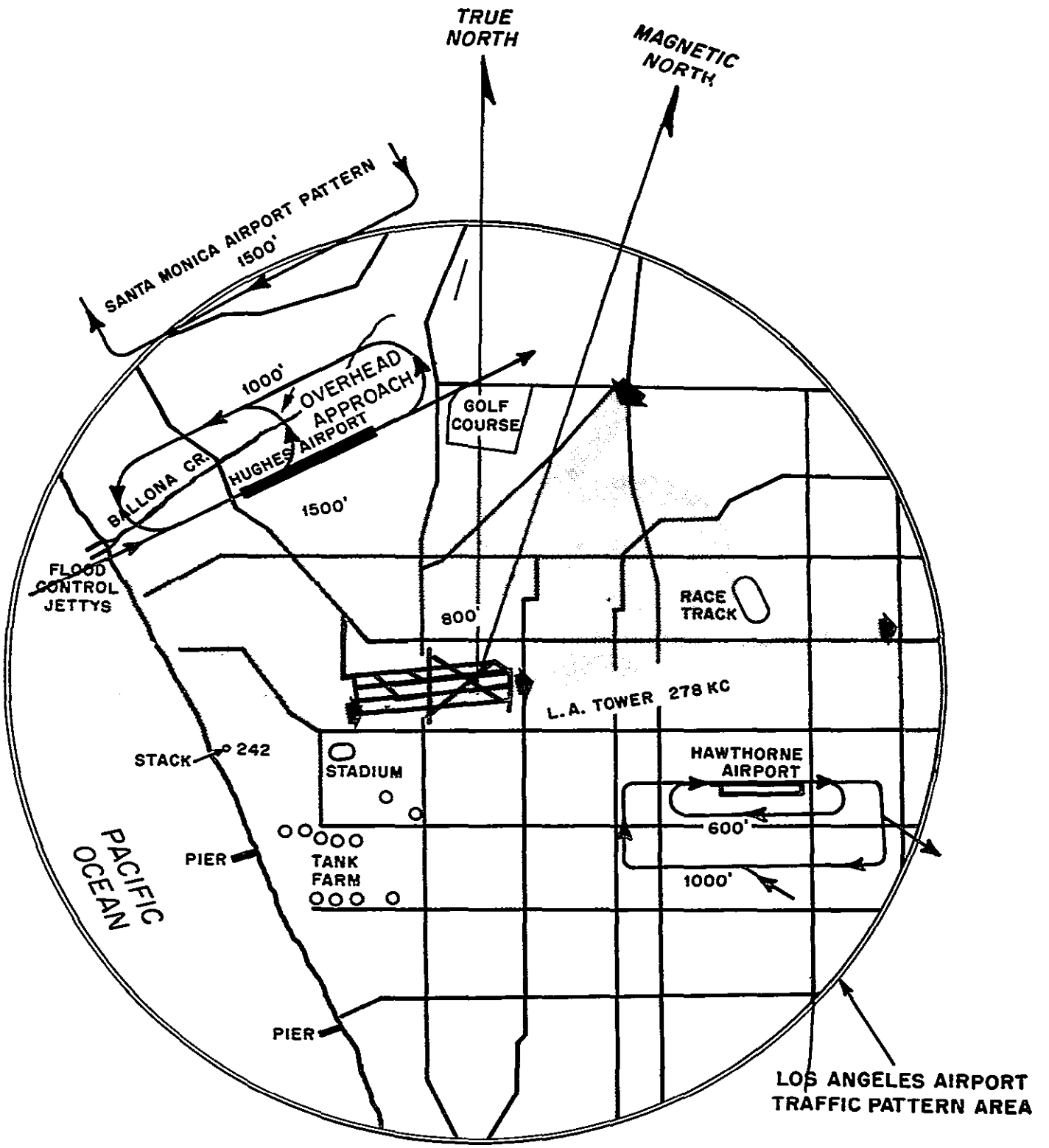
(e) Traffic Pattern Rules for Santa Monica Airport. Aircraft operating in that portion (downwind leg) of the Santa Monica Airport traffic pattern which may extend into the Los Angeles Traffic Pattern Area shall be flown so as to remain within one and one-half miles of the Santa Monica Airport.

This Special Civil Air Regulation shall remain in effect until superseded or rescinded by the Administrator.

(Sections 313(a) and 307 of the Federal Aviation Act of 1958, 72 Stat. 752, 749, 49 U.S.C. 1354, 1348.)

/s/ James T. Pyle,
Acting Administrator

Issued in Washington, D. C.
Date: February 23, 1960



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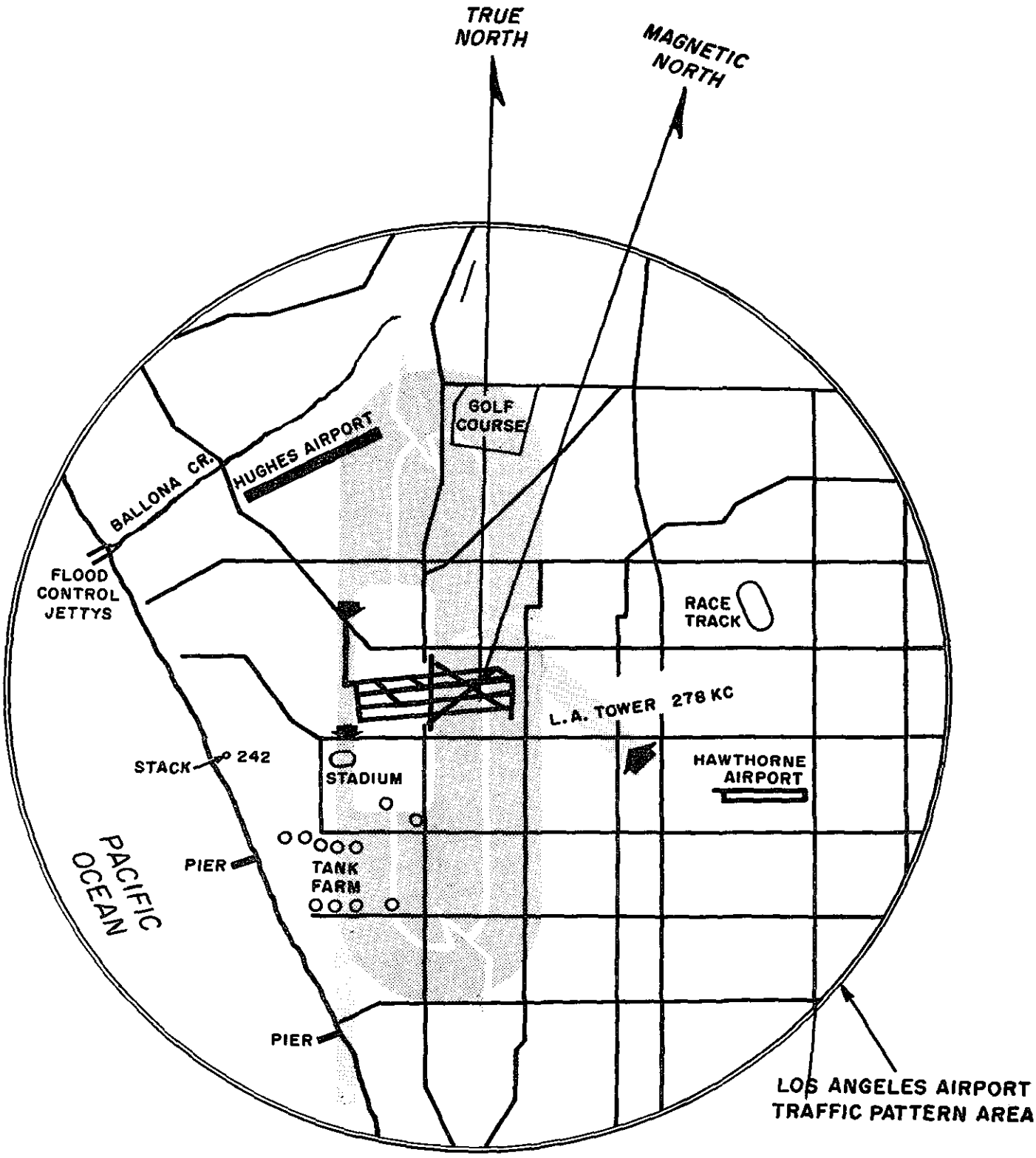

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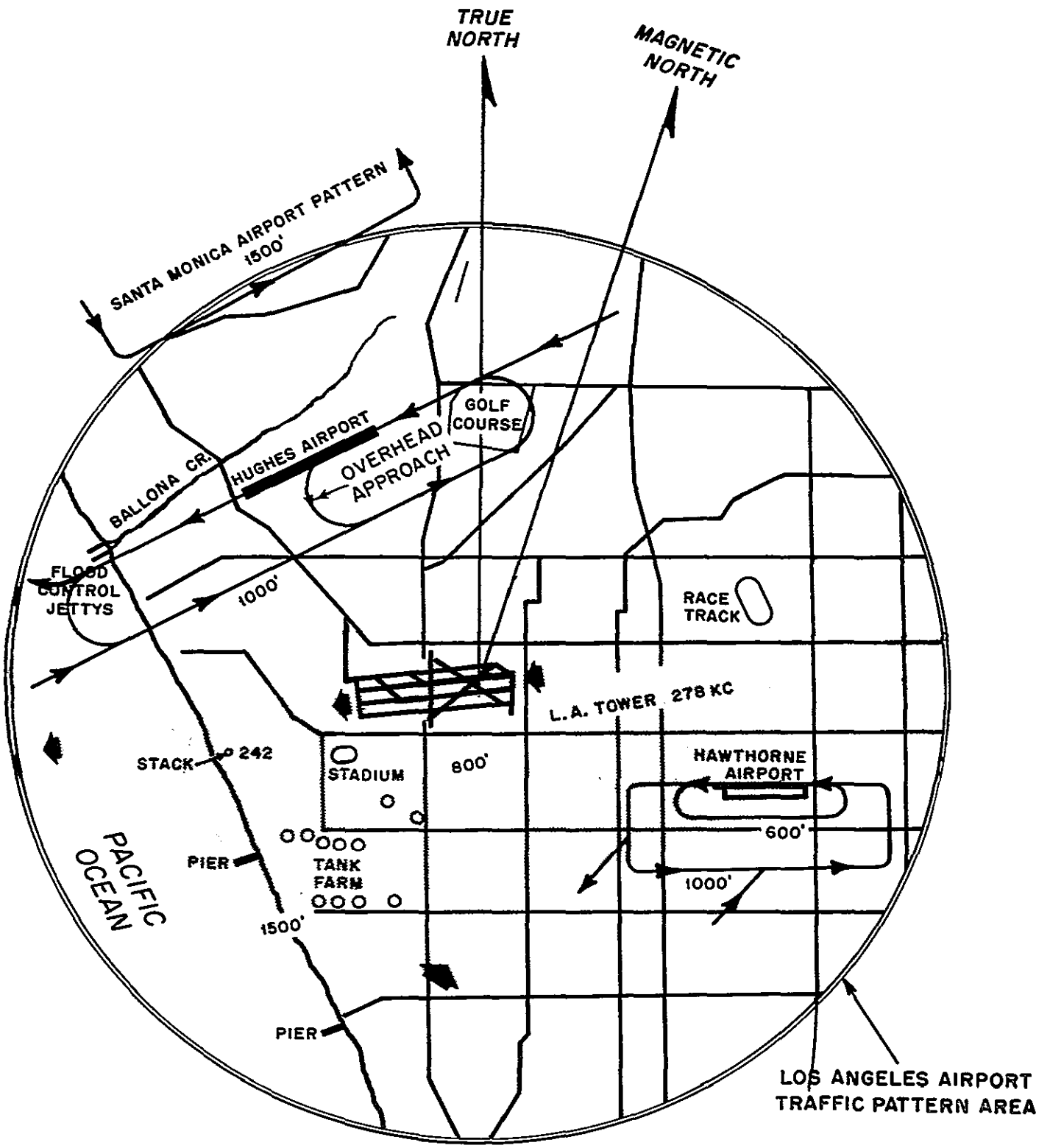

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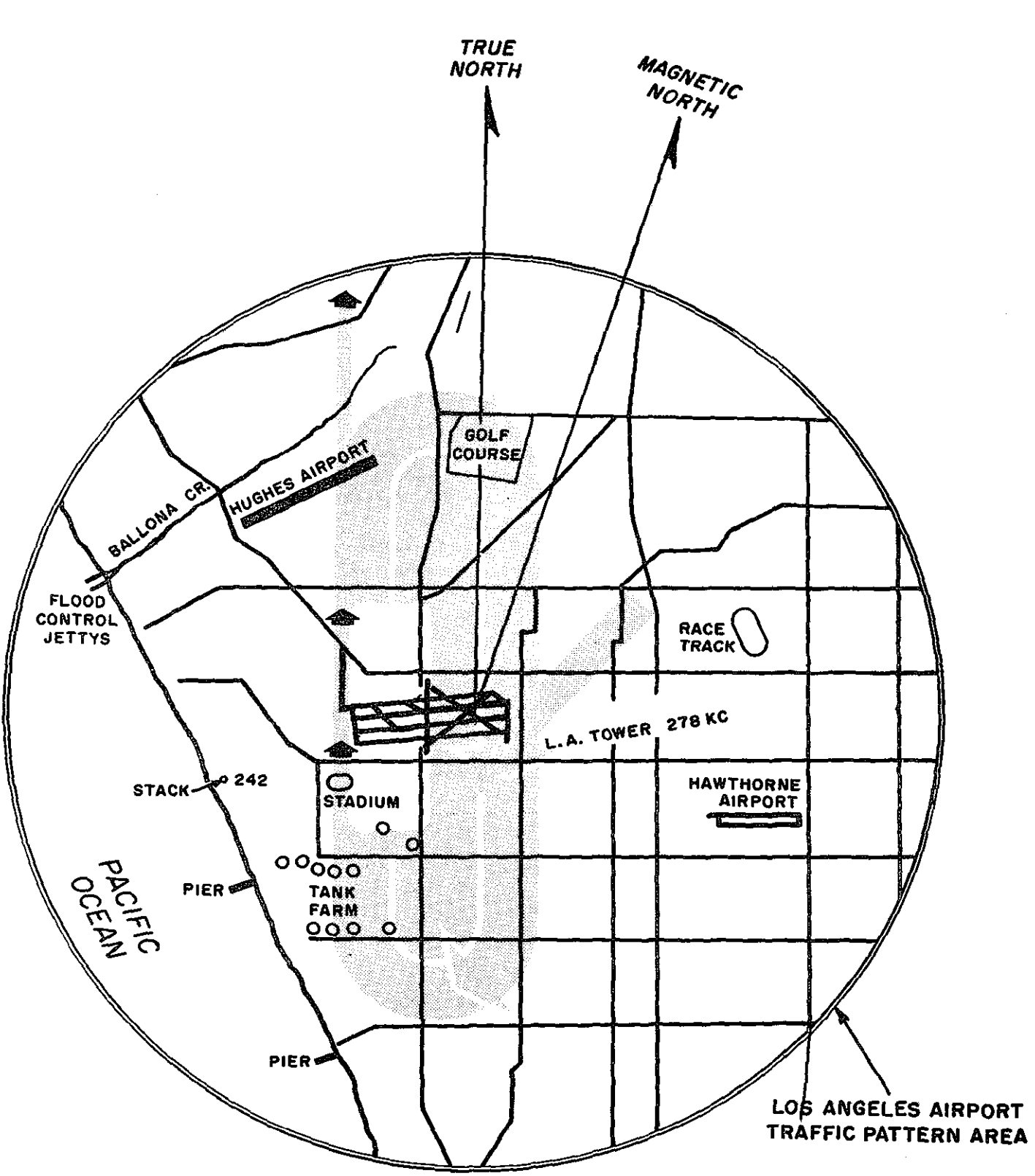

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