

DESARROLLO AEROPORTUARIO

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Taller de Planificación de Aeropuertos
Patrocinado por la Oficina Regional Sudamericana
de la OACI

El Proceso de Planificación

- * Establecer Metas y Obejtivos/ Visión al Futuro
- * Analizar las condiciones existentes
- * Desarrollar Alternativas
- * Evaluar Alternativas
- * Identificar Plan Recomendado
- * Implementación
- * Proceso de Planificación Permanente

Superposición de Procesos de Planificación de Aeropuertos

- * Planificación
- * Temas ambientales
- * Grupos afectados- interesados/ Participación pública
- * Diseño
- * Programa de Mejoras y Ampliaciones (CAPEX)
- * Financiamiento
- * Temas Legales
- * Construcción
- * Decisiones Políticas

Desarrollo de Aeropuertos

- * Las mejoras y ampliaciones de instalaciones aeroportuarias deben estar sujetos a los niveles de demanda y pronósticos de demanda aeronáutica
- * Los criterios principales para diseñar las instalaciones aeroportuarias son seguridad operacional (safety) y seguridad de la aviación (security)
- * Es muy importante cumplir con las normas y métodos recomendados (SARPS) de la OACI para asegurar una operación segura y eficiente de las aeronaves
- * Siempre es mejor mejorar operaciones y procedimientos antes de empezar de ampliar. Es bueno optimizar el uso de las instalaciones existentes

Desarrollo de Aeropuertos

- * Hay que asegurar que exista un balance entre las instalaciones del lado aéreo, terminales y del lado terrestre. Siempre es importante planificar con una visión global
- * Hay que asegurar que las mejoras y ampliaciones se hagan a su debido tiempo, o sea con suficiente tiempo para acomodar la demanda pero que no sea usada poco. Hay que realizar análisis financieros para determinar su factibilidad
- * Es vital que el desarrollo propuesto considere el impacto que puede tener más allá del periodo evaluado.
- * No realizar desarrollo en áreas protegidas por razones ambientales y culturales

Desarrollo de Aeropuertos

- * Hay que asegurar que las instalaciones que tienen cierto nivel de interdependencia entre ellas se encuentren cercanas para facilitar las operaciones (p.e., terminales de pasajeros y carga mas cuando la carga se transporta en la bodega de los aviones)
- * Control el desarrollo alrededor de los aeropuertos para que no afecte la operación normal de los aeropuertos
- * El principio KISS
- * Beneficios económicos generados por los aeropuertos

Desarrollo de Aeropuertos

- * Siempre es bueno discutir con los grupos afectados los hallazgos y las alternativas de desarrollo para conocer sus posiciones al respecto. La planificación no se puede hacerse en un vacío
- * Es importante planificar como va a operar un aeropuerto cuando se está realizando obras de mejoras
- * Desarrollo de “ciudades aeroportuarias”
- * Sistema de multi-aeropuertos en un área metropolitana – Por lo menos 14 millones de pasajeros que empiezan su viaje
- * “Field of Dreams”

Política de buen vecino



FUENTES DE INFORMACIÓN

Documentos y Manuales

Normas y métodos recomendados
internacionales



Anexo 14
al Convenio sobre
Aviación Civil Internacional

Aeródromos

Volumen I
Diseño y operaciones de aeródromos

Esta edición incorpora todas las enmiendas adoptadas por el Consejo antes del 5 de marzo de 2009 y reemplaza, a partir del 19 de noviembre de 2009, todas las ediciones anteriores del Anexo 14, Volumen I.

Véase en el Preámbulo y en el Capítulo 1, 1.2, la información relativa a la aplicación de las normas y métodos recomendados.

Quinta edición
Julio de 2009

Organización de Aviación Civil Internacional

Doc 9157
AN/901



Manual de diseño de aeródromos

Parte 1
Pistas

Aprobado por el Secretario General
y publicado bajo su responsabilidad

Tercera edición — 2006

Organización de Aviación Civil Internacional

Doc 9157
AN/901



Manual de diseño de aeródromos

Parte 2
Calles de rodaje, plataformas
y apartaderos de espera

Aprobado por el Secretario General
y publicado bajo su responsabilidad

Cuarta edición — 2005

Organización de Aviación Civil Internacional

Doc 9157-AN/901
Part 3

AERODROME DESIGN MANUAL



PART 3

PAVEMENTS

SECOND EDITION — 1983

*Approved by the Secretary General
and published under his authority*

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Doc 9157
AN/901



Manual de diseño de aeródromos

Parte 4
Ayudas visuales

Aprobado por el Secretario General
y publicado bajo su responsabilidad

Cuarta edición — 2004

Organización de Aviación Civil Internacional

Doc 9137-AN/898
Parte 6

Doc 9184-AN/902
Parte 1

MANUAL DE SERVICIOS DE AEROPUERTOS



PARTE 6 LIMITACIÓN DE OBSTÁCULOS

SEGUNDA EDICIÓN — 1983

*Aprobado por el Secretario General
y publicado bajo su responsabilidad*

ORGANIZACIÓN DE AVIACIÓN CIVIL INTERNACIONAL

MANUAL DE PLANIFICACIÓN DE AEROPUERTOS



PARTE 1 PLANIFICACIÓN GENERAL

SEGUNDA EDICIÓN — 1987

*Aprobado por el Secretario General
y publicado bajo su responsabilidad*

ORGANIZACIÓN DE AVIACIÓN CIVIL INTERNACIONAL

Normas y métodos
recomendados internacionales



Anexo 9
al Convenio sobre
Aviación Civil Internacional

Facilitación

Esta edición incorpora todas las enmiendas adoptadas por el Consejo antes del 8 de marzo de 2011 y reemplaza, desde el 17 de noviembre de 2011 todas las ediciones anteriores del Anexo 9.

Véase en el Preámbulo la información relativa a la aplicación de las normas y métodos recomendados.

Decimotercera edición
Julio de 2011

Organización de Aviación Civil Internacional

Normas y métodos
recomendados internacionales



Anexo 17
al Convenio sobre
Aviación Civil Internacional

Seguridad

**Protección de la aviación civil internacional
contra los actos de interferencia ilícita**

Esta edición incorpora todas las enmiendas adoptadas por el Consejo antes del 18 de noviembre de 2010 y reemplaza, desde el 1 de julio de 2011, todas las ediciones anteriores del Anexo 17.

Véase en el Preámbulo la información relativa a la aplicación de las normas y métodos recomendados.

Novena edición
Marzo de 2011

Organización de Aviación Civil Internacional

Normas y métodos
recomendados internacionales



Anexo 10
al Convenio sobre
Aviación Civil Internacional

Telecomunicaciones aeronáuticas

Volumen I
Radioayudas para la navegación

Esta edición incorpora todas las enmiendas adoptadas por el Consejo antes del 25 de febrero de 2006 y reemplaza, desde el 23 de noviembre de 2006, todas las ediciones anteriores del Anexo 10, Volumen I.

Véase en el Preámbulo la información relativa a la aplicación de las normas y métodos recomendados.

Sexta edición
Julio de 2006

Organización de Aviación Civil Internacional

Doc 9774
AN/969



Manual de certificación de aeródromos

Aprobado por el Secretario General
y publicado bajo su responsabilidad

Primera edición — 2001

Organización de Aviación Civil Internacional



U.S. Department
of Transportation

Federal Aviation
Administration

Advisory Circular

Subject: Airport Design **Date:** 9/28/2012 **AC No:** AC 150/5300-13A
Initiated by: AAS-100 **Change:**

1. What is the purpose of this advisory circular (AC)?

This AC contains the Federal Aviation Administration's (FAA) standards and recommendations for airport design.

2. Does this AC cancel any prior ACs?

AC 150/5300-13, Airport Design, dated September 29, 1989, is canceled.

3. To whom does this AC apply?

The FAA recommends the standards and recommendations in this AC for use in the design of civil airports. In general, use of this AC is not mandatory. The standards and recommendations contained in this AC may be used by certificated airports to satisfy specific requirements of Title 14 Code of Federal Regulations (CFR) Part 139, Certification of Airports, subparts C (Airport Certification Manual) and D (Operations). Use of this AC is mandatory for all projects funded with federal grant monies through the Airport Improvement Program (AIP) and/or with revenue from the Passenger Facility Charges (PFC) Program. See Grant Assurance No. 34, Policies, Standards, and Specifications, and PFC Assurance No. 9, Standards and Specifications.

4. Are there any related documents?

Related documents to this AC are indicated in paragraph [108](#).

5. What are the principal changes in this AC?

This AC was substantially revised to fully incorporate all previous Changes to AC 150/5300-13, as well as new standards and technical requirements. This document was reformatted to simplify and clarify the FAA's airport design standards and improve readability. Users should review the entire document to familiarize themselves with the new format. Additional principal changes include:

- a. A new Runway Design Code (RDC) designation



U.S. Department
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**Federal Aviation
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Advisory Circular

Consolidated AC includes Change 1

Subject: Change 1 to AIRPORT MASTER PLANS
Date: May 1, 2007
AC No: 150/5070-6B
Initiated by: APP-400
Change: 1

1. PURPOSE. This Change adds a new drawing, the Runway Departure Surfaces Drawing, into the Airport Layout Plan drawing set. The requirement to add this drawing is based on the new 40:1 and 62.5:1 departure surfaces added to Appendix 2 under Change 9 of FAA Advisory Circular 150/5300-13, Airport Design. It also incorporates a reference to FAA Advisory Circulars 150/5300-16, 17, and 18, which is recently published guidance on conducting aeronautical surveys.

2. CHANGE TEXT. Changed text is indicated by vertical bars in the margins.

PAGE CONTROL CHART

Remove Pages	Dated	Insert Pages	Dated
iv	7/29/05	iv	5/1/07
79	7/29/05	79	5/1/07
80	7/29/05	80	5/1/07
135	7/29/05	135-136	5/1/07

Benito DeLeon, Director
Office of Airport Planning and Programming



U.S. Department
of Transportation
**Federal Aviation
Administration**

Advisory Circular

The Airport System Planning Process



AC No: 150/5070-7

Date: November 10, 2004





U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

AC 150/5020-1

NOISE CONTROL AND COMPATIBILITY PLANNING FOR AIRPORTS

AUGUST 5, 1983



U.S. Department
of Transportation

Federal Aviation
Administration

Advisory Circular

Subject:

Date: September 28, 2004 AC No: 150/5020-2
Initiated by: AEE-100 Change:

GUIDANCE ON THE BALANCED APPROACH TO NOISE MANAGEMENT

1. **PURPOSE:** By this Advisory Circular, FAA accepts the International Civil Aviation Organization (ICAO) document, *Guidance on the Balanced Approach to Aircraft Noise Management*, as additional guidance material. The balanced approach document can be used as additional information to consider when applying Federal Aviation Regulations (FAR) parts 150 and 161 at U.S. international airports. The balanced approach applies to any airport served by international air traffic that has a perceived noise problem.

The ICAO document provides Member States with useful information to set up a balanced approach to noise management at international airports. The guidance describes the principal elements of the balanced approach, some of the measures available, and the link between the elements and the measures. It also provides analytical and methodological tools useful to assess and compare the measures' costs and benefits. The guidance is wide-ranging to help all ICAO Member States in carrying out the balanced approach.

2. **APPLICABILITY:** Some procedures and measures identified in this document may already be in place at many U.S. international airports. For example, many airports have completed FAR Part 150 airport noise compatibility plans that address the same elements as the balanced approach. Also, some suggested procedures may not directly apply to our U.S. regulations and policies. For example, some of the operating restrictions may be inherently inconsistent with requirements of the U.S. Constitution and obligations arising from Federal agreements. Moreover, the adoption of operating restrictions may be subject to the Airport Noise and Capacity Act of 1990 (ANCA).

In preparing the balanced approach document, ICAO recognized that Member States have laws, existing arrangements, and policies that may govern managing noise problems at their airports. Therefore, any existing U.S. laws, regulations, policies, and obligations incurred under Federal agreements for surplus property and airport development grants supersede the *Guidance on the Balanced Approach to Aircraft Noise Management*.

3. **BACKGROUND:** At ICAO's 33rd Assembly in October 2001, all participating Member States adopted Resolution A33-7. This Resolution expressed the unanimous consensus of the worldwide aviation community on both aircraft noise and gaseous emissions. In addition, the ICAO Assembly adopted a new approach for managing aircraft noise at international airports, the Balanced Approach.



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: A MODEL ZONING ORDINANCE TO
LIMIT HEIGHT OF OBJECTS AROUND
AIRPORTS

Date: 12/14/87

AC No: 150/5190-4A

Initiated by: AAS-100

Change:

1. PURPOSE.

a. This advisory circular provides a model zoning ordinance to be used as a guide to control the height of objects around airports.

b. This advisory circular has been editorially updated for reprint/stock purposes only. There were no changes made to the content of the advisory circular except to update the format and renumber the document to AC 150/5190-4A.

2. CANCELLATION. AC 150/5190-4, A Model Zoning Ordinance to Limit Height of Objects Around Airports, dated August 23, 1977.

3. FOCUS.

a. Aviation safety requires a minimum clear space (or buffer) between operating aircraft and other objects. When these other objects are structures (such as buildings), the buffer may be achieved by limiting aircraft operations, by limiting the location and height of these objects, or, by a combination of these factors. This advisory circular concerns itself with developing zoning ordinances to control the height of objects, based on the obstruction surfaces described in Subpart C of Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace, current edition. It should be recognized, however, that not all obstructions (objects whose height exceeds an obstruction surface) are a hazard to air navigation.

b. The Federal Aviation Administration (FAA) conducts aeronautical studies on obstructions which examine their effect on such factors as: aircraft operational capabilities; electronic and procedural requirements; and, airport hazard standards. If an aeronautical study shows that an obstruction, when evaluated against these factors, has no substantial adverse effect upon the safe and efficient use of navigable airspace, then the obstruction is considered not to be a hazard to air navigation. Advisory Circular 150/5300-4, Utility Airports--Air Access to National Transportation, current edition, presents additional discussion on hazards to air navigation.

c. Airport zoning ordinances developed for height limitations do not in themselves ensure compatible land use surrounding the airport. Land use zoning, incorporating height limiting criteria, is an appropriate means for achieving this objective. Advisory Circular 150/5050-6, Airport-Land Use Compatibility Planning, current edition, presents generalized guidance for compatible land use planning in the vicinity of airports.



U.S. Department
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Advisory Circular

Consolidated file includes Change 1

Subject: Surface Drainage Design

Date: 9/29/2006

AC No: 150/5320-5C

Initiated by: AAS-100

- 1. Purpose.** This Advisory Circular (AC) provides guidance for engineers, airport managers, and the public in the design and maintenance of airport surface drainage systems.
- 2. Cancellation.** This AC cancels AC 150/5320-5B, *Airport Drainage*, dated July 1, 1970.
- 3. Background.** The Federal Aviation Administration (FAA) evaluated options for revising the airport drainage manual and decided it would be beneficial to participate in the cooperative effort undertaken by the Department of Defense (DOD). This effort combines existing surface drainage topics covered in different agency manuals into one Unified Facilities Criteria (UFC) document. The resulting manual/advisory circular will serve as the design and analysis standard for surface drainage for DOD and FAA. The current techniques and practices have been evaluated in order to take advantage of recent advances in the field of drainage engineering, changes in drainage technology, national regulations, and local requirements.
- 4. Application.** FAA recommends the information and procedures contained in the manuals for use by airports as appropriate.

David L. Bennett
Director of Airport Safety and Standards

Portions of this AC are under review for update. Please contact the [National Planning and Environmental Division](#) for assistance.

AC 150/5360-9

DATE 4/4/80

ADVISORY CIRCULAR



DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
Washington, D.C.

Subject: PLANNING AND DESIGN OF AIRPORT TERMINAL BUILDING FACILITIES AT NONHUB LOCATIONS

1. **PURPOSE.** This advisory circular provides guidance material for the planning and design of airport terminal buildings at nonhub locations.
2. **RELATED READING MATERIAL.** Appendix 1 contains a listing of documents containing supplemental material relating to terminal building planning and design. Ordering information is also contained therein.
3. **BACKGROUND.** Advisory Circular (AC) 150/5360-7, Planning and Design Considerations for Airport Terminal Building Development, provides guidance for the planning and design of airport terminals. The material contained within it is applicable to all airports serving air carriers, regardless of size. Because of this wide range of coverage, the material is necessarily very general in nature and of limited usefulness in providing detailed planning guidance, particularly for less sophisticated, low activity airports. To remedy this, a contract was awarded to the airport facility consulting firm of Arnold Thompson Associates, Inc., to provide assistance in the development of guidance material for the planning of terminal building facilities at nonhub locations. The nonhub category of airports was chosen as it represents a range of airports with relatively unsophisticated and uniform characteristics. The results of this contractual effort are presented in this circular.

William V. Vitale
WILLIAM V. VITALE

Director, Office of Airport Standards

Initiated by: AAS-200



U.S. Department
of Transportation

**Federal Aviation
Administration**

Advisory Circular

Subject: GUIDELINES AND PROCEDURES FOR MAINTENANCE OF AIRPORT PAVEMENTS **Date:** September 28, 2007 **AC No:** 150/5380-6B
Initiated by: AAS-100 **Change:**

1. **PURPOSE.** This Advisory Circular (AC) provides guidelines and procedures for maintaining rigid and flexible airport pavements.
2. **CANCELLATION.** This AC cancels AC 150/5380-6A, *Guidelines and Procedures for Maintenance of Airport Pavements*, dated 7/14/03.
3. **APPLICATION.** The Federal Aviation Administration (FAA) recommends these guidelines for airport pavements, as appropriate.
4. **PRINCIPAL CHANGES.** The following principal changes are incorporated:
 - a. Added the distress types that were not originally included, as defined within American Society for Testing and Materials (ASTM) D 5340 *Standard Test Method for Airport Pavement Condition Index Surveys*.
 - b. Added Tables 6-2 through 6-10 to familiarize the user with each distress type and its recommended method(s) for repair/maintenance.
 - c. Added generic specifications for maintenance products to provide guidance in selection of materials and products regularly used for airfield pavement maintenance for use on Airport Improvement Program funded projects.
 - d. Added select generic typical details to provide guidance in the installation of materials and repair procedures.
5. **RELATED READING MATERIAL.** The publications in Appendix D, Bibliography, provide further guidance and technical information.
6. **METRIC UNITS.** To promote an orderly transition to metric units, the text and figures include both English and metric dimensions. The metric conversions are based on operational significance and may not be exact equivalents. Until there is an official changeover to the metric system, the English dimensions should be used.



U.S. Department
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**Federal Aviation
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Advisory Circular

Subject: AIRPORT PAVEMENT MANAGEMENT PROGRAM **Date:** 9/01/06 **AC No:** 150/5380-7A
Initiated by: AAS-100 **Change:**

1. PURPOSE OF THIS ADVISORY CIRCULAR.

This advisory circular (AC) discusses the Airport Pavement Management System (APMS) concept, its essential components, and how it can be used to make cost-effective decisions about pavement maintenance and rehabilitation.

2. WHAT THIS AC CANCELS.

This AC cancels AC 150/5380-7, Pavement Management System, dated September 28, 1988.

3. WHO THIS AC AFFECTS.

This AC is intended for the airport operators, engineers, and maintenance personnel responsible for implementing an airport pavement management system.

4. COMMENTS OR SUGGESTIONS.

Send comments or suggestions for improving this AC to—

Manager, Airport Engineering Division
Federal Aviation Administration
ATTN: AAS-100
800 Independence Avenue SW
Washington DC 20591

5. COPIES OF THIS AC.

The Office of Airport Safety and Standards makes its ACs available online at
http://www.faa.gov/airports_airtraffic/airports/resources/advisory_circulars/.

David L. Bennett
Director, Office of Airport Safety and Standards



U.S. Department
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Federal Aviation
Administration

Advisory Circular

Subject: Operational Safety on
Airports During Construction

Date: 9/29/11
Initiated by: AAS-100

AC No: 150/5370-2F

1. **Purpose.** This AC sets forth guidelines for operational safety on airports during construction.
2. **What this AC Cancels.** This AC cancels AC 150/5370-2E, Operational Safety on Airports During Construction, dated January 17, 2003.
3. **Whom This AC Affects.** This AC assists airport operators in complying with Title 14 Code of Federal Regulations (CFR) Part 139, Certification of Airports (Part 139). For those certificated airports, this AC provides one way, but not the only way, of meeting those requirements. The use of this AC is mandatory for those airport construction projects receiving funds under the Airport Improvement Program (AIP) or the Passenger Facility Charge (PFC) Program. See Grant Assurance No. 34, "Policies, Standards, and Specifications," and PFC Assurance No. 9, "Standard and Specifications." While we do not require non-certificated airports without grant agreements to adhere to these guidelines, we recommend that they do so to help these airports maintain operational safety during construction.
4. **Principal Changes.**
 - a. Construction activities are prohibited in safety areas while the associated runway or taxiway is open to aircraft.
 - b. Guidance is provided in incorporating Safety Risk Management.
 - c. Recommended checklists are provided for writing Construction Safety and Phasing Plans and for daily inspections.
5. **Reading Material Related to this AC.** Numerous ACs are referenced in the text of this AC. These references do not include a revision letter, as they are to be read as referring to the latest version. Appendix 1 contains a list of reading material on airport construction, design, and potential safety hazards during construction, as well as instructions for obtaining these documents.

Michael J. O'Donnell
Director of Airport Safety and Standards



Airport Development Reference Manual

9th Edition
Effective January 2004

International Air Transport Association

ACRP

REPORT 79

Evaluating Airfield Capacity

AIRPORT
COOPERATIVE
RESEARCH
PROGRAM

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TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

ACRP

REPORT 25

Airport Passenger Terminal Planning and Design

Volume 1: Guidebook

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

AIRPORT
COOPERATIVE
RESEARCH
PROGRAM



Sponsored by the Federal
Aviation Administration

ACRP

REPORT 55

Passenger Level of Service and Spatial Planning for Airport Terminals

AIRPORT
COOPERATIVE
RESEARCH
PROGRAM

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Administration

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

ACRP

SYNTHESIS 2

Airport Aviation Activity Forecasting

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

AIRPORT
COOPERATIVE
RESEARCH
PROGRAM

ACRP

REPORT 82

Preparing Peak Period and Operational Profiles—Guidebook

AIRPORT
COOPERATIVE
RESEARCH
PROGRAM

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TRANSPORTATION RESEARCH BOARD
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ACRP

SYNTHESIS 10

AIRPORT
COOPERATIVE
RESEARCH
PROGRAM

Airport Sustainability Practices



A Synthesis of Airport Practice

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

HERRAMIENTAS DISPONIBLES

Modelos de Simulación

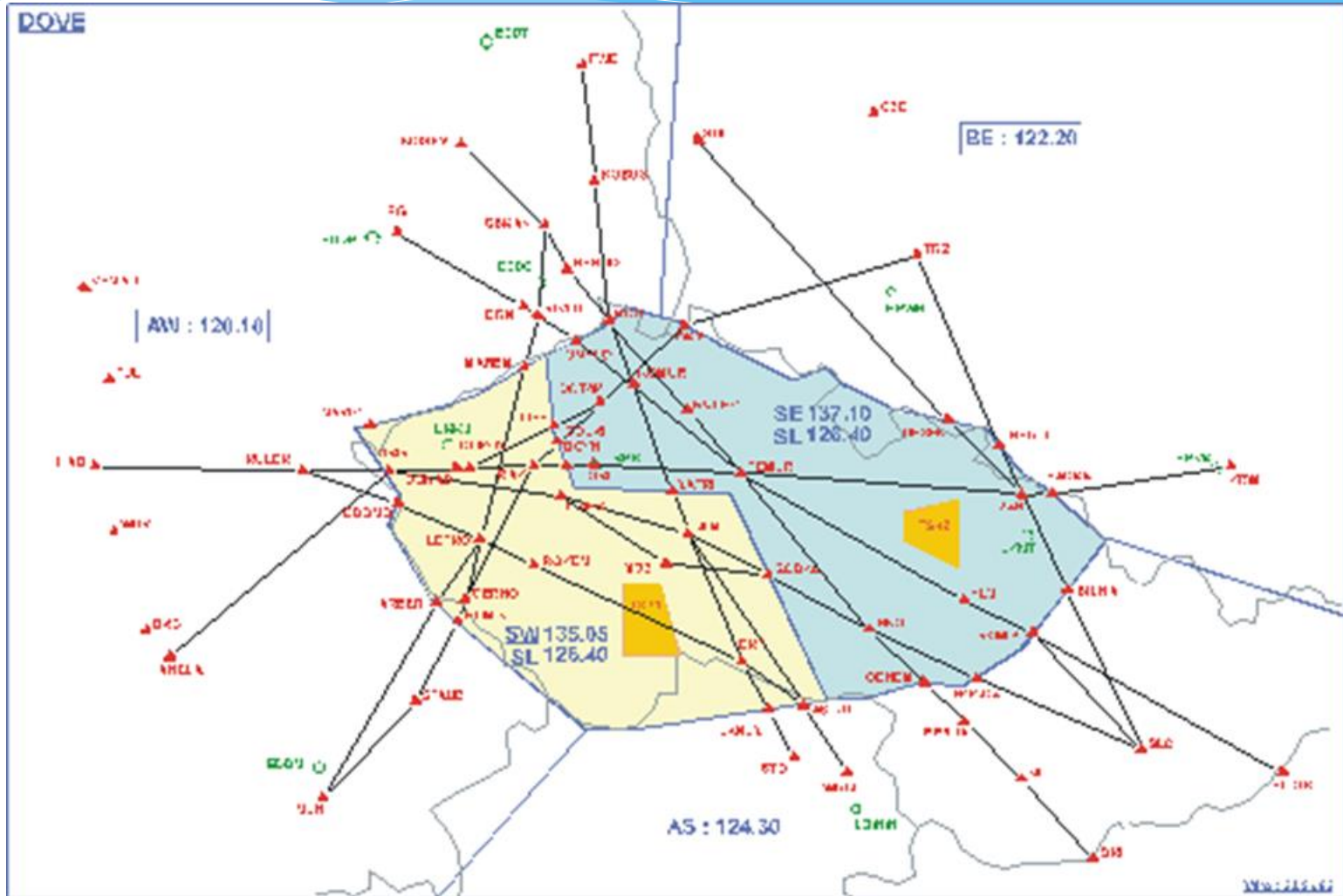
Modelos de Simulación

- * SIMMOD – Simula la operación de las aeronaves en las instalaciones del lado aéreo (pistas, calles de rodaje y plataformas) y el espacio aéreo asociado
- * INM – Evalúa el impacto de ruido de la actividad de los aviones
- * Total Airport and Airspace Modeler (TAAM) – Permite modelar la operación del espacio aéreo y aeropuertos con la capacidad de evaluar el impacto de cambios en las instalaciones operaciones e itinerario de vuelos
- * Total Airport Management Suite (TAMS) – Integra la gestión de proceso de la actividad del lado aéreo y del lado terrestre

Modelos de Simulación

- * CAST Terminal – CAST Terminal 3D simula el comportamiento del flujo de pasajeros
- * Modelo de Simulación de Terminal, Calle de Acceso y Acera/ Andén (TRACS) – Mide el efecto de demanda y cambios operacionales en el sistema de aeropuertos – flujo en la terminal de pasajeros, sistemas de equipaje, movimiento de equipo de servicio de tierra (GSE) y sistemas de acceso terrestre a la terminal de pasajeros
- * Arena Airport Suite – Simula itinerarios de vuelos, planificación de instalaciones de terminal, flujos de pasajeros, manejo de equipajes

Simulación del Espacio Aéreo



Simulaciones del Lado Aéreo



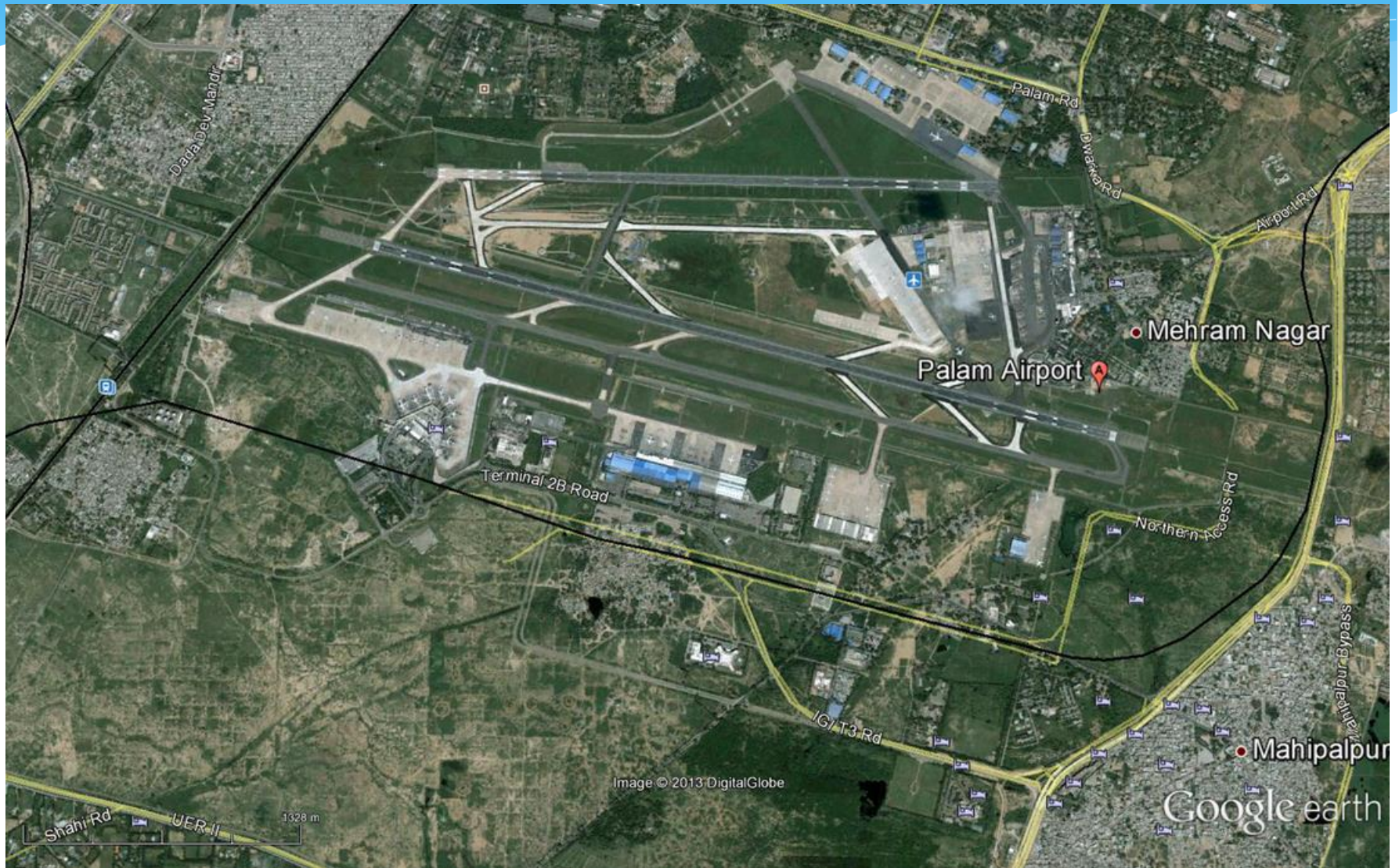


Ejemplo de Simulación de Terminal

- * https://www.youtube.com/watch?feature=player_detailpage&v=Elqx3u658tg

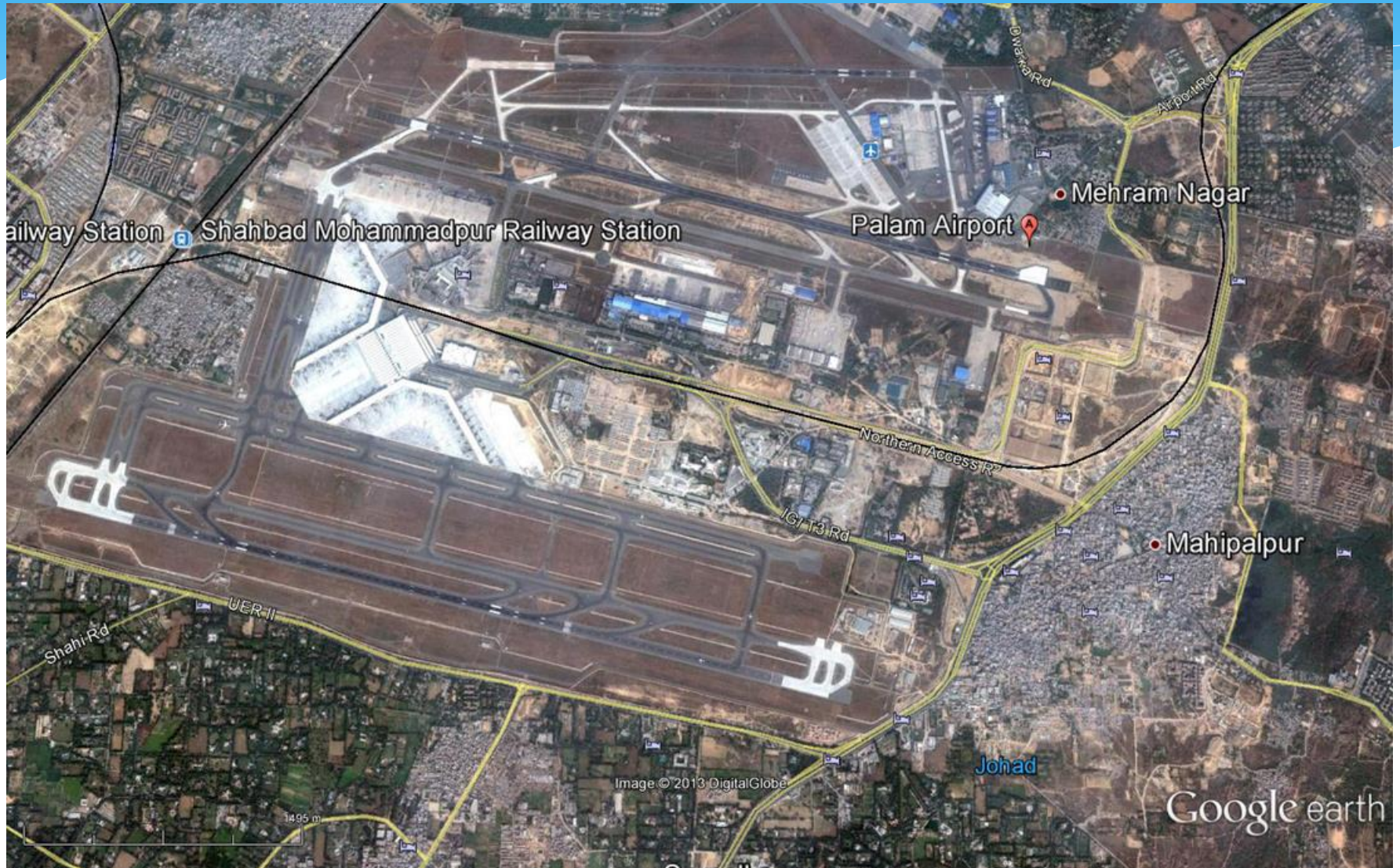
EJEMPLOS DE DESARROLLO AEROPORTUARIO

Aeropuerto de New Delhi -2005





Aeropuerto de New Delhi -2011



Aeropuerto Chek Lap Kok, Hong Kong



Aeropuerto Kansai, Osaka, Japón



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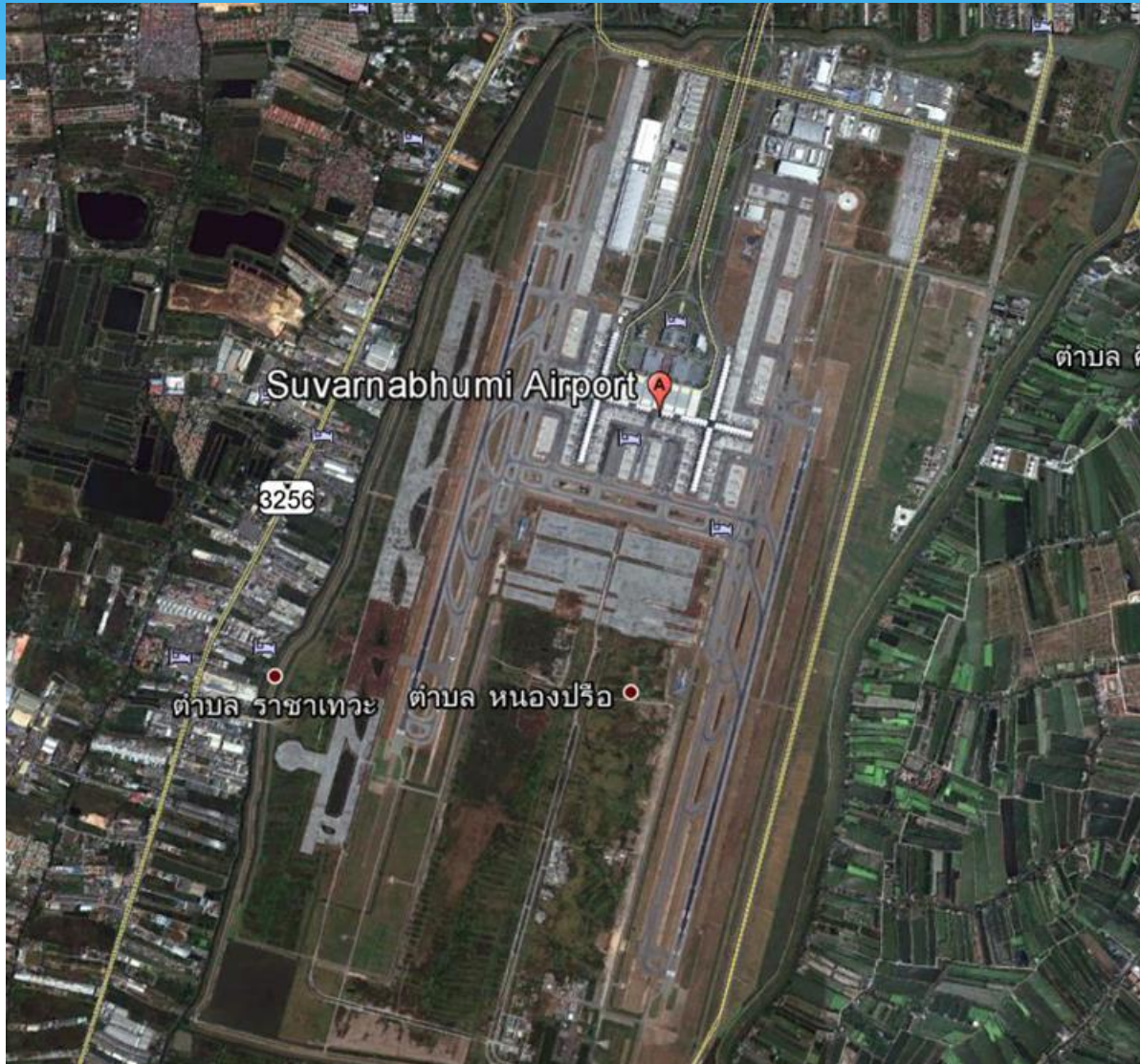
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Google earth

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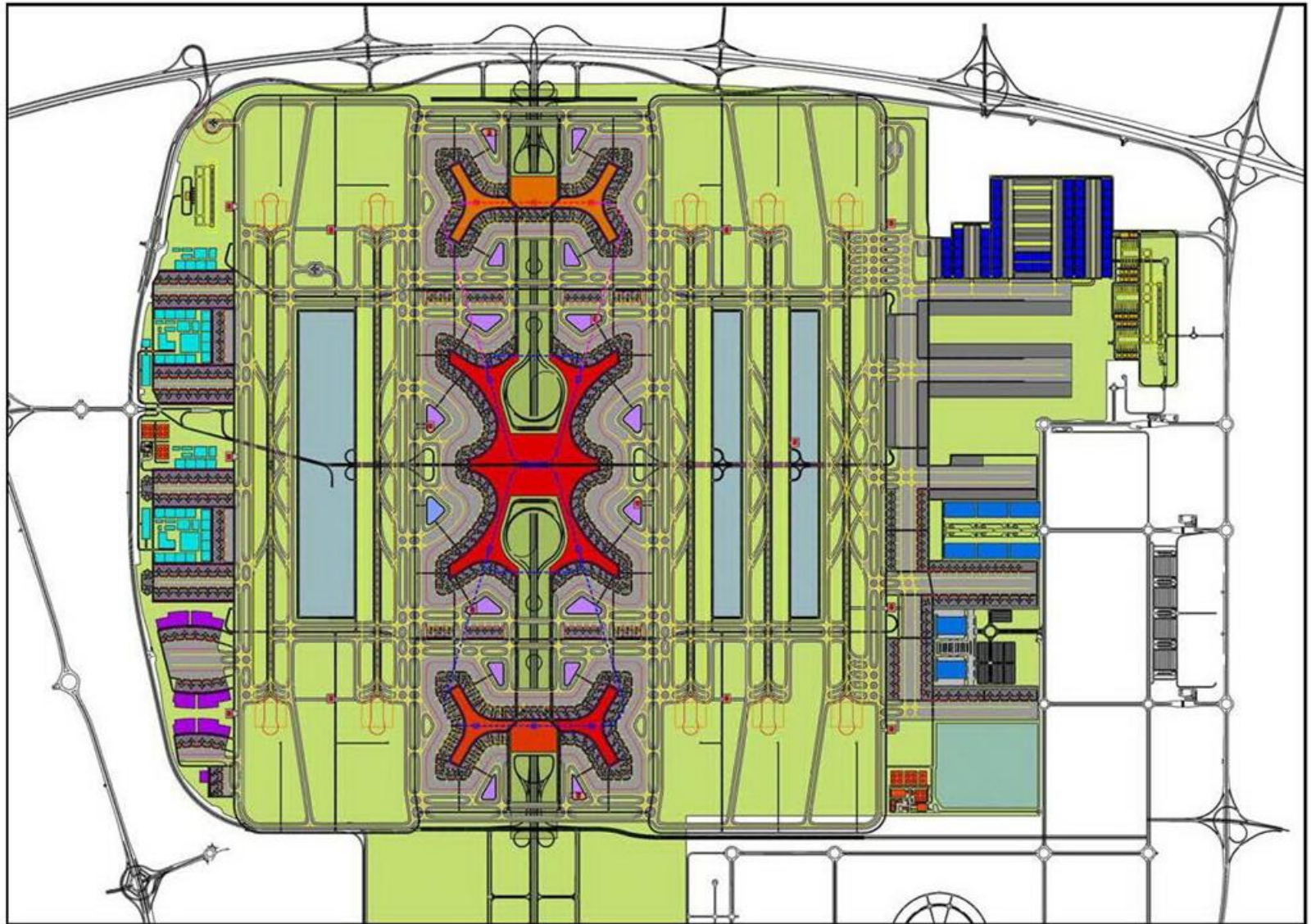
Aeropuerto Suvarnabhumi de Bangkok, Tailandia



Aeropuerto Al-Maktoum, Dubai



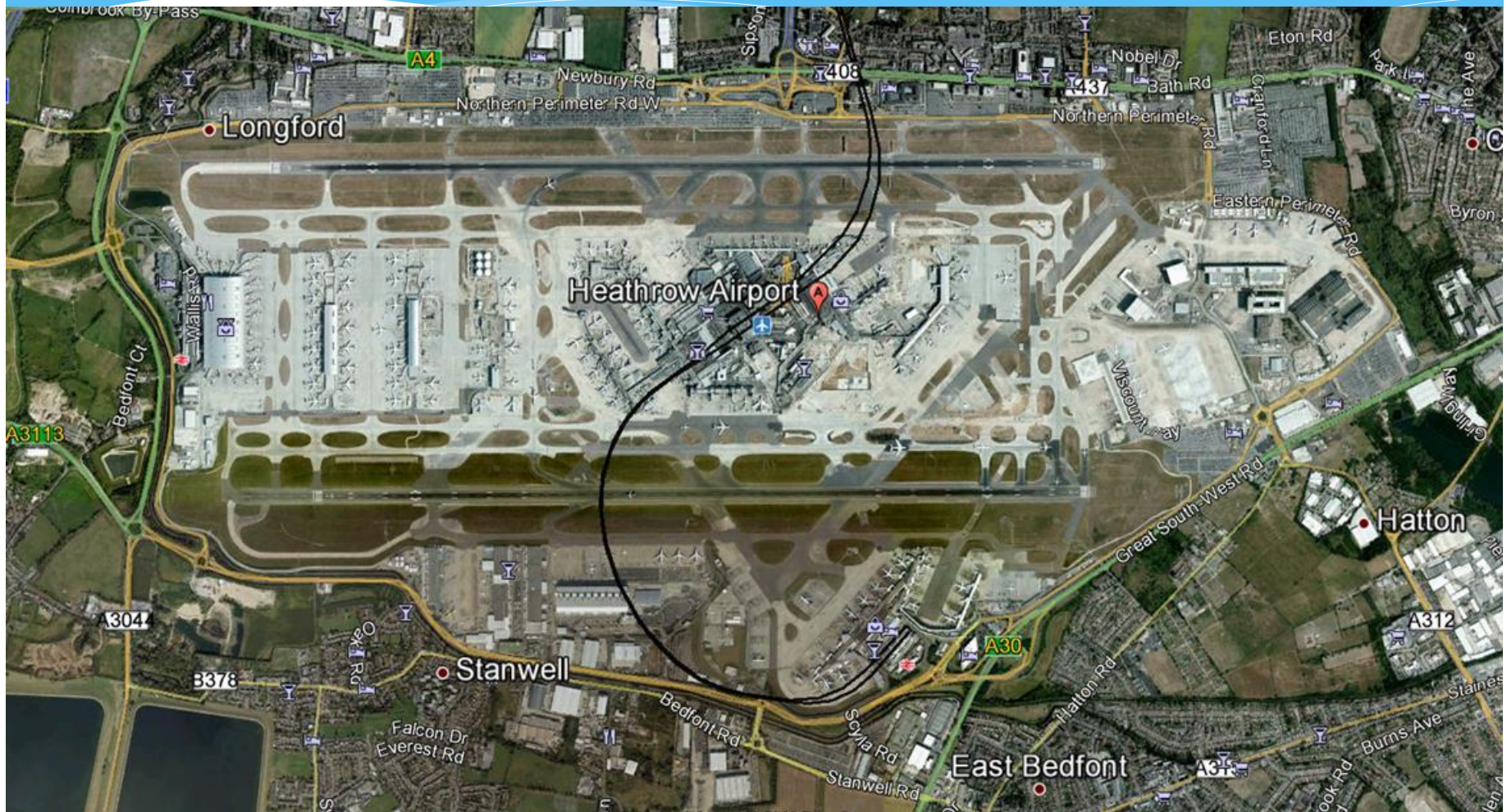
Aeropuerto Al-Maktoum, Dubai



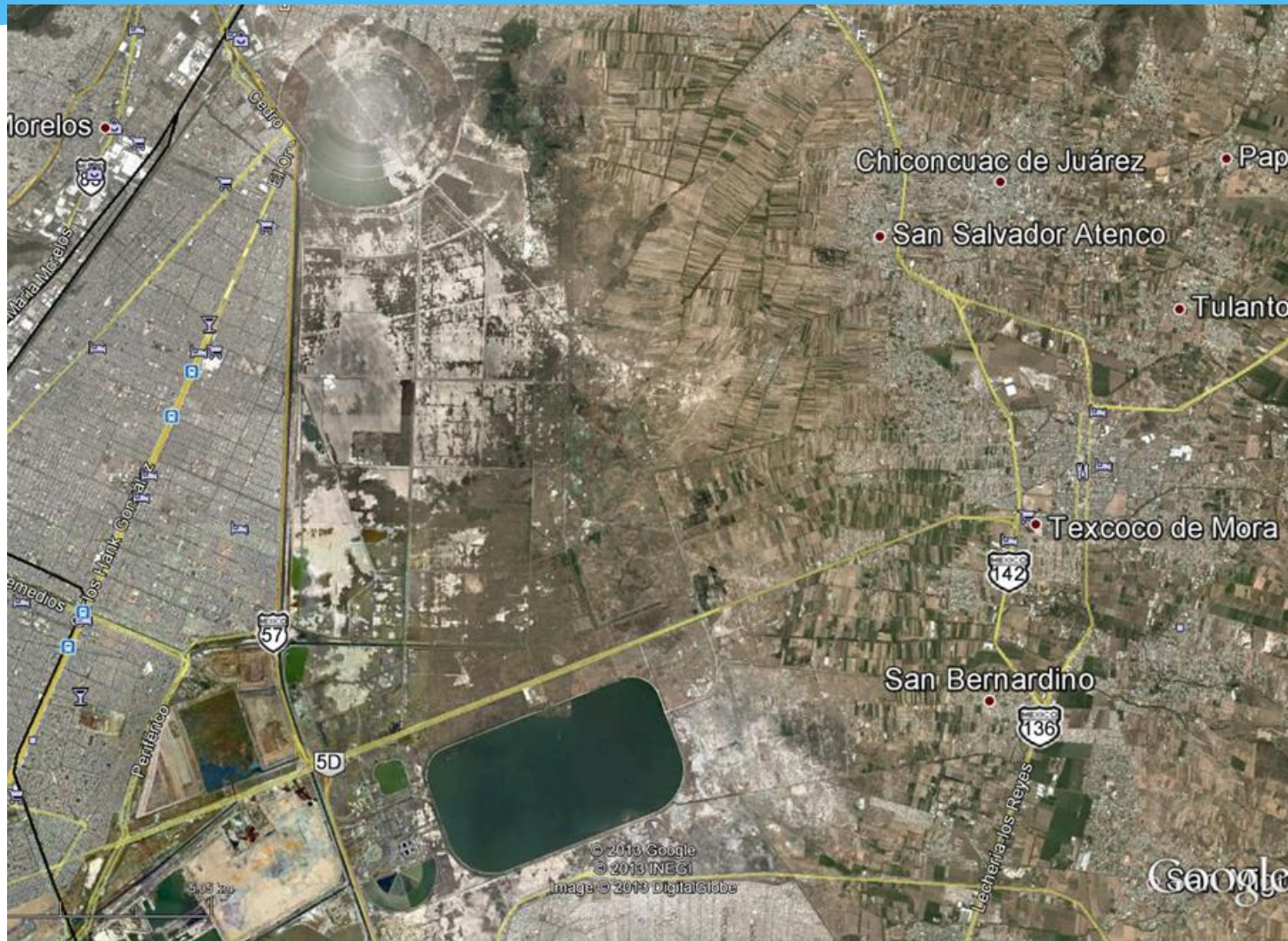
Aeropuerto de Madrid Barajas



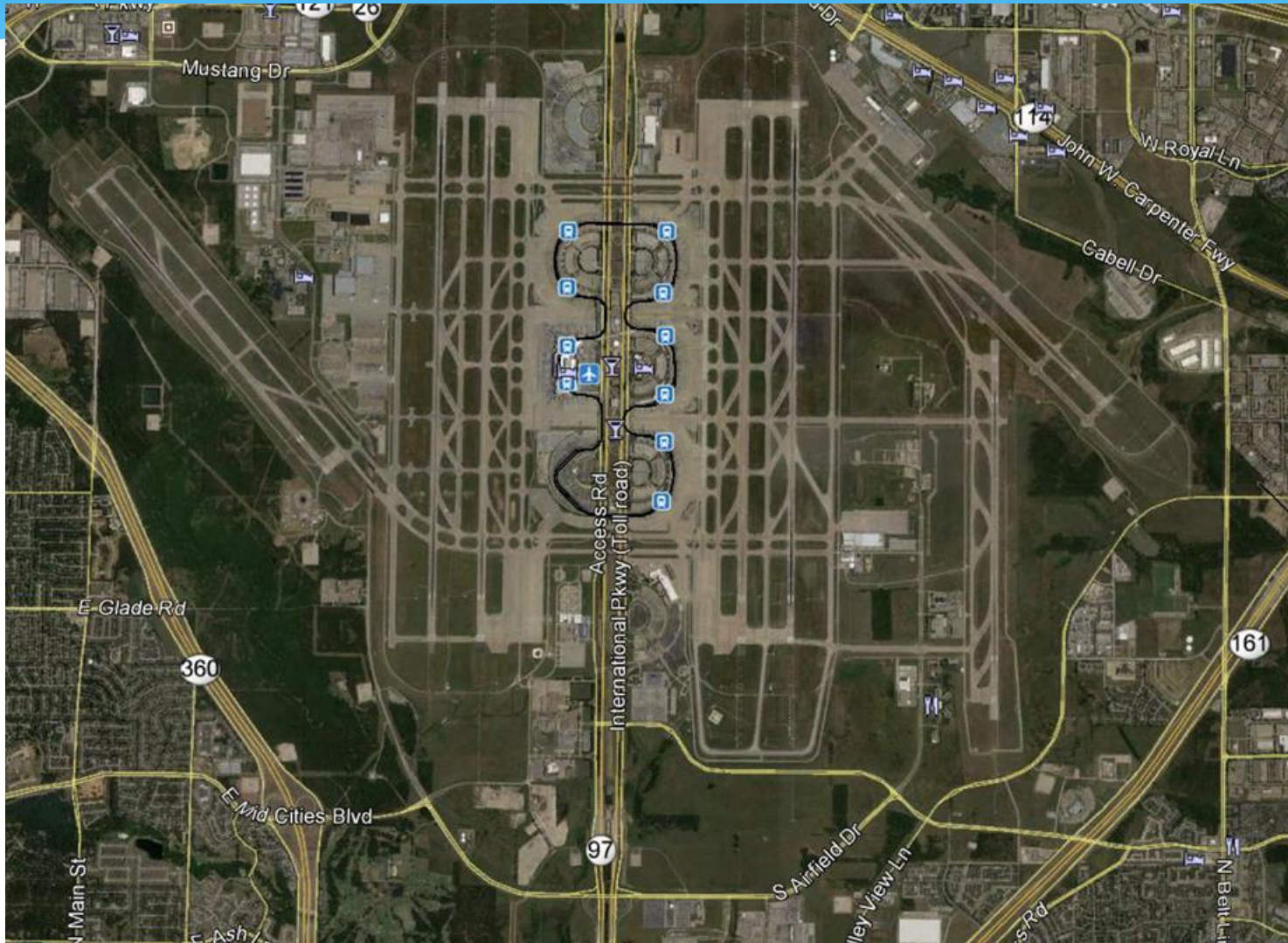
Aeropuerto Heathrow de Londres



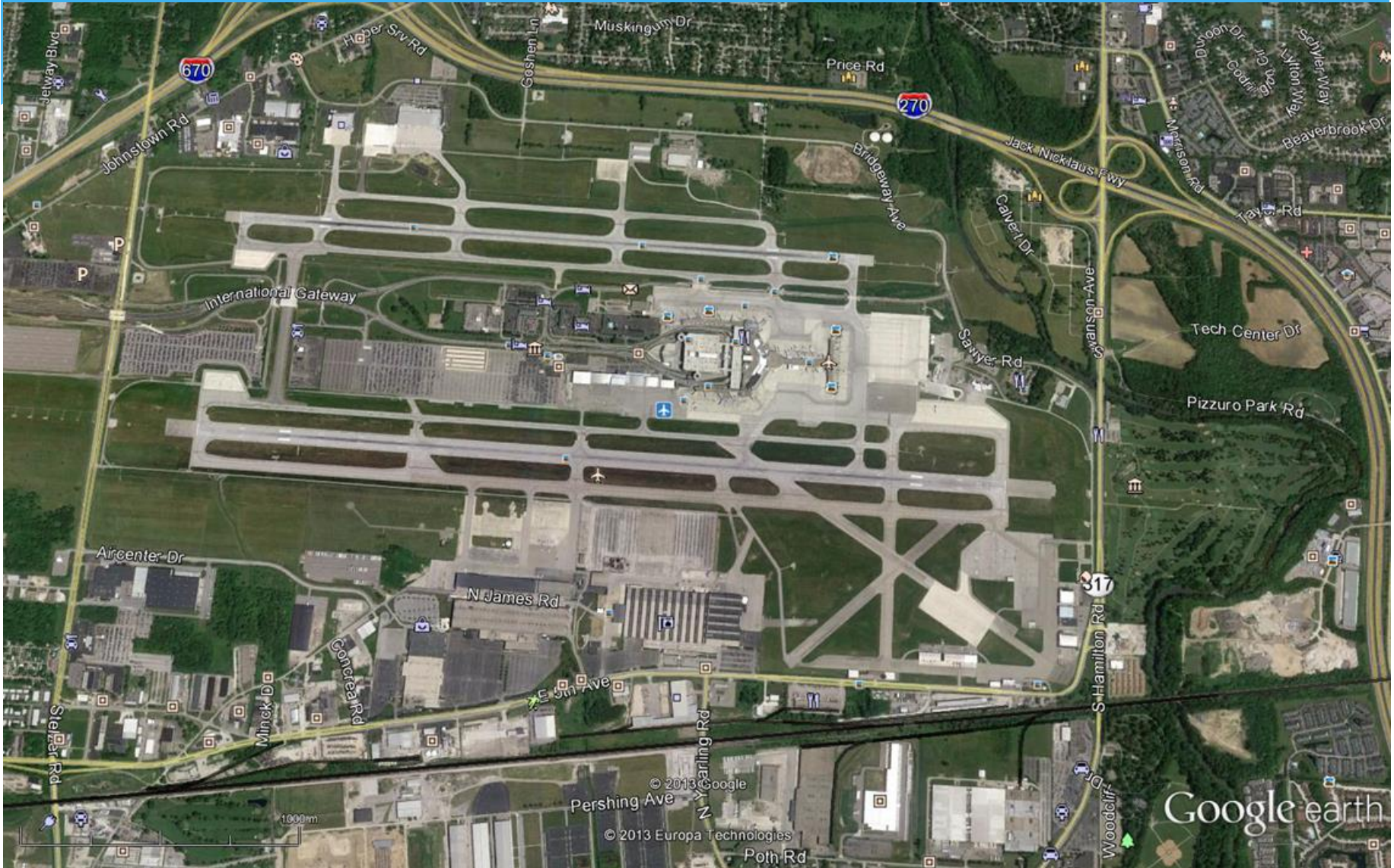
Lago Texcoco, México



Aeropuerto de Dallas Ft. Worth



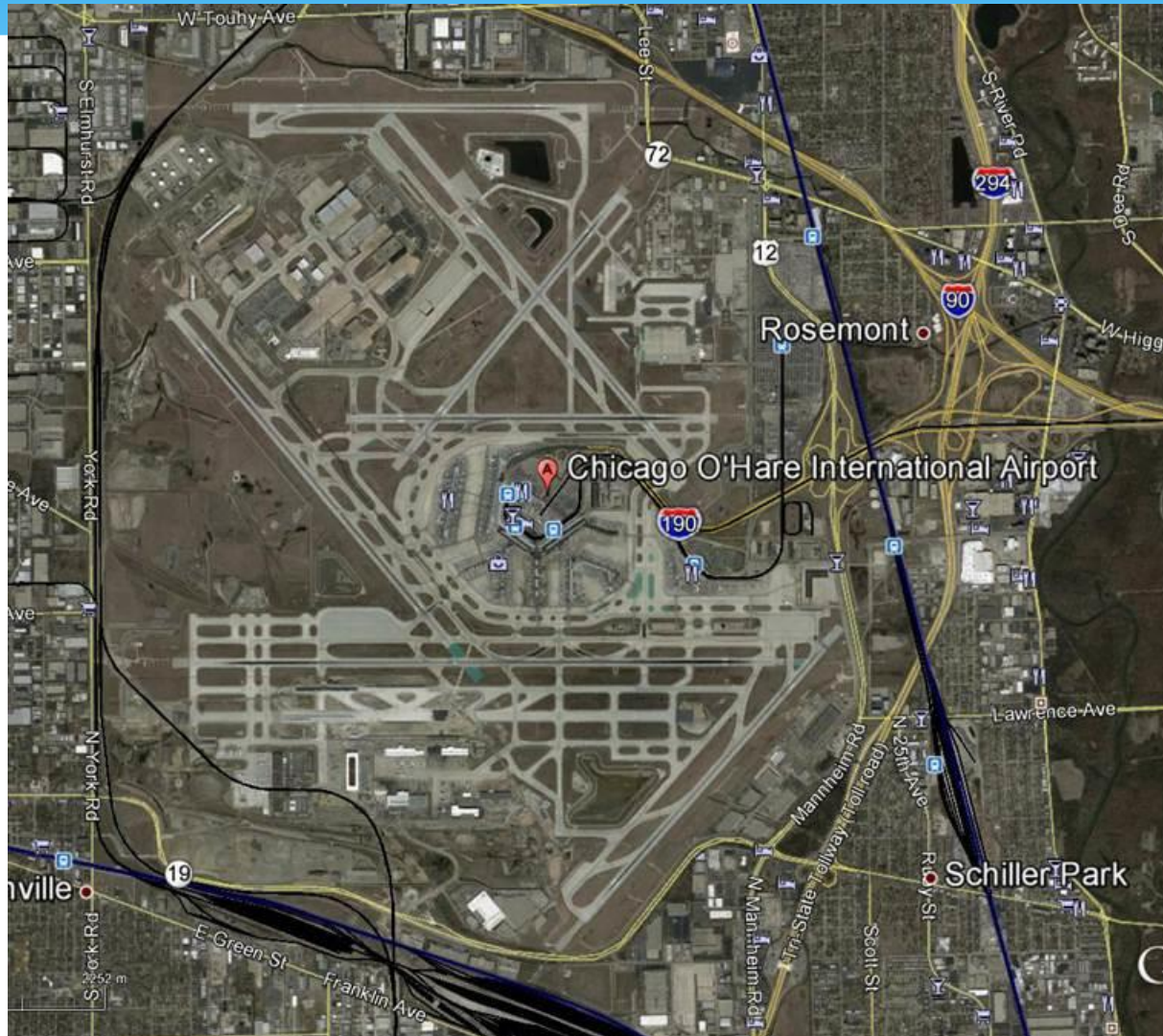
Columbus, Ohio



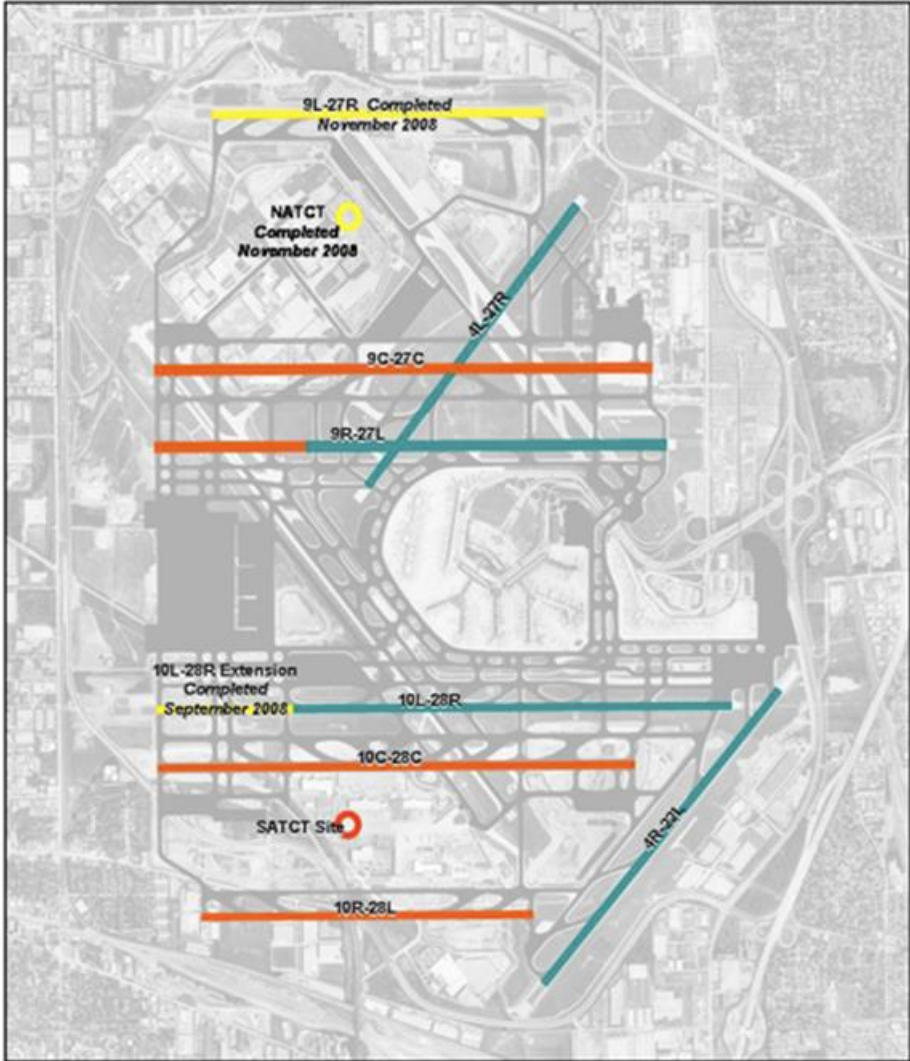
Aeropuerto O'Hare 2000



Aeropuerto O'Hare 2012



O'Hare International Airport at Full Build Out



Source: Chicago Department of Aviation

- Existing Runways
- Completed OMP Projects/Runway
- Future OMP Projects/Runways

Aeropuerto Capital de Beijing



Aeropuerto Internacional de Shangai, China

