

Information for a restricted surface

*centrain*

**Restrictions on locations of  
buildings and other structures  
on the circumference of  
Chubu Centrain International Airport**

# This notice is intended for those who are planning to construct buildings and other structures on the circumference of Chubu Centrair International Airport

Aircraft normally conduct landings at the airport with a steady angle of approach, as well as for take-offs and increasing altitude. Consequently, it is necessary to maintain a specific flight protection area clear of all obstructions (approximately within a radius of 24 kilometers) in order to take off, land, and maneuver safely in the surrounding area.

The restricted surface is defined as the ground surface area that must be secure on the circumference of an airport. It is prohibited in principle by the Civil Aeronautics Law to locate buildings and other structures (including lightning rods, television antennas, and other objects; temporary structures such as cranes, scaffolding and other equipment used in construction; and planting of vegetation) within the restricted surface.

## Civil Aeronautics Law

(Restriction of Structures, etc.)

Article 49. Paragraph 1 – No person shall, after a notification issued under Article 40 concerning an aerodrome for public use (including when applied accordingly thereto under Article 43 paragraph 2) install, plant or leave any structures (except the part referring to the structures which are under construction at the time of notification), plants or any other objects which protrude above the approach surface, transitional surface or horizontal surface (the surface shall be the lowest one if surfaces overlap) described in the said notification. However, the same shall not apply where temporary structures and any other objects (except those relating to approach surfaces or transitional surfaces) specified by Ordinances of the Ministry of Land, Infrastructure, and Transport are installed or are left under the approval of the aerodrome provider and are planned for removal before the scheduled date of activation.

Paragraph 2 – The aerodrome provider may request the owner or any other person who has the title thereof to remove such structures (including plants protruding above the approach surface, transitional surface or horizontal surface) that have been installed, planted or left in violation of the provisions under the preceding paragraph.

(Aeronautical Obstruction Lights)

Article 51. Paragraph 1 – The owner or person who has the title to any structures with a height of not less than 60 meters above the ground or the water shall install aeronautical obstruction lights on the structures concerned in accordance with the provisions in Ordinances of the Ministry of Land, Infrastructure, and Transport. However, the same shall not apply in cases where special permission is granted by the Minister of Land, Infrastructure, and Transport.

(Daytime Obstruction Markings)

Article 51-(2). Paragraph 1 – Any person who installs a chimney, steel tower or other structure specified by Ordinances of the Ministry of Land, Infrastructure, and Transport which is considered difficult to perceive from aircraft in the light of day and is also at the height of not less than 60 meters above the ground or the water, shall install daytime obstruction markings upon such structure in accordance with the provisions in Ordinances of the Ministry of Land, Infrastructure, and Transport.

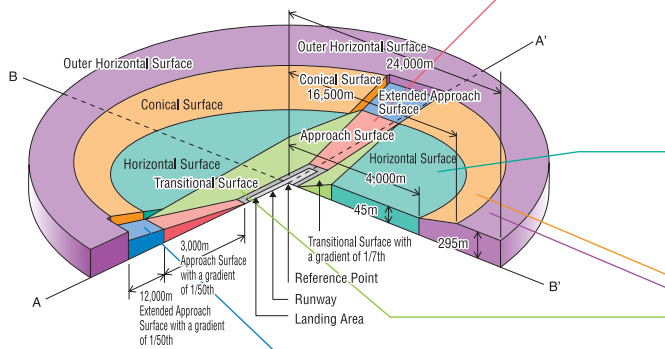
(Exceptions of First Class Aerodrome, etc.)

Article 56. Paragraph 1 – The Minister of Land, Infrastructure, and Transport may designate the extended approach surface, conical surface and outer horizontal surface for the first class aerodromes and second class aerodromes specified by a Cabinet Order.

Article 56-(3). Paragraph 1 – No person shall install, place or leave any structures (except the constructing part referring to such works of the structures which are under construction at the time of notification), plants or any other objects which protrude above the extended approach surface, conical surface or outer horizontal surface (the surface taken shall be the lowest if overlap of these projected surfaces occur) described in the said notification, when notification is issued under Article 40 which applies accordingly to the preceding Article paragraph 2 with regard to aerodromes as specified by the provisions of Article 56 paragraph 1.

Paragraph 2 – The proviso of Article 49 paragraph 1 shall apply accordingly to the conical surface and the outer horizontal surface.

### • Overview of the Restricted Surface



**The Approach Surface** is the surface that restricts an obstacle in order to protect the straight flight portion immediately after takeoff or on final approach. These surfaces are 1/50th of the gradient at a runway with a precision approach. The width is the same size as an approach area.  
(Civil Aeronautics Law, Article 2, Paragraph 7)

**The Horizontal Surface** is the surface that restricts an obstacle in order to secure the safety of aircraft within the traffic pattern. It is a circular surface centering on the point of 45m of the perpendicular upper parts of the aerodrome reference point. The width is set to a range of a radius 4,000m according to the grade of the landing area.  
(Civil Aeronautics Law, Article 2, Paragraph 8)

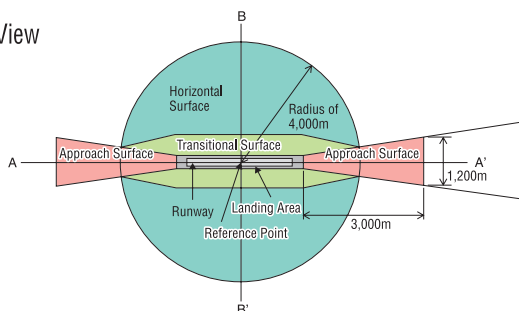
**The Transitional Surface** is the surface that restricts an obstacle in order to secure the safety of a missed approach. It is specified at all airports. It is a slope until it reaches the Horizontal Surface from the longer sides of a landing area at a gradient of 1/7th.  
(Civil Aeronautics Law, Article 2, Paragraph 9)

**The Extended Approach Surface** is the surface that restricts an obstacle in order to secure the safety of the final approach of a precision approach. The width of an extended approach surface is extended by 5 times of the approach surface.  
(Civil Aeronautics Law, Article 56, Paragraph 2)

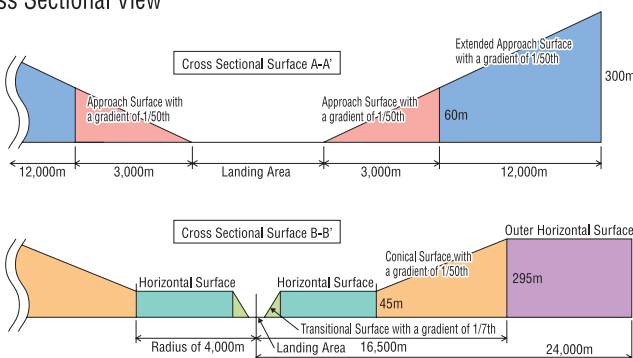
**The Conical Surface** is the surface that restricts an obstacle in order to secure the safety a non-precision approach course and a wider traffic pattern. The width of a conical surface is the range that the Minister of Land, Infrastructure and Transport specified in a radius 16,500m (focusing on the mark according to the grade of the landing area.) The gradient of a conical surface is 1/50 at the landing area for precision approaches, and in other landing areas, according to the grade.  
(Civil Aeronautics Law, Article 56, Paragraph 3)

**The Outer Horizontal Surface** is the surface that restricts an obstacle in order to secure the safety of the airspace needed for a base turn or a procedure turn before making a precision final approach. The size of an outer horizontal surface is the range that the Minister of Land, Infrastructure and Transport has specified among the level surface of the shape of a doughnut that spreads from the edge to a radius 24,000m, and focusing on a mark outside the conical surface.  
(Civil Aeronautics Law, Article 56, Paragraph 4)

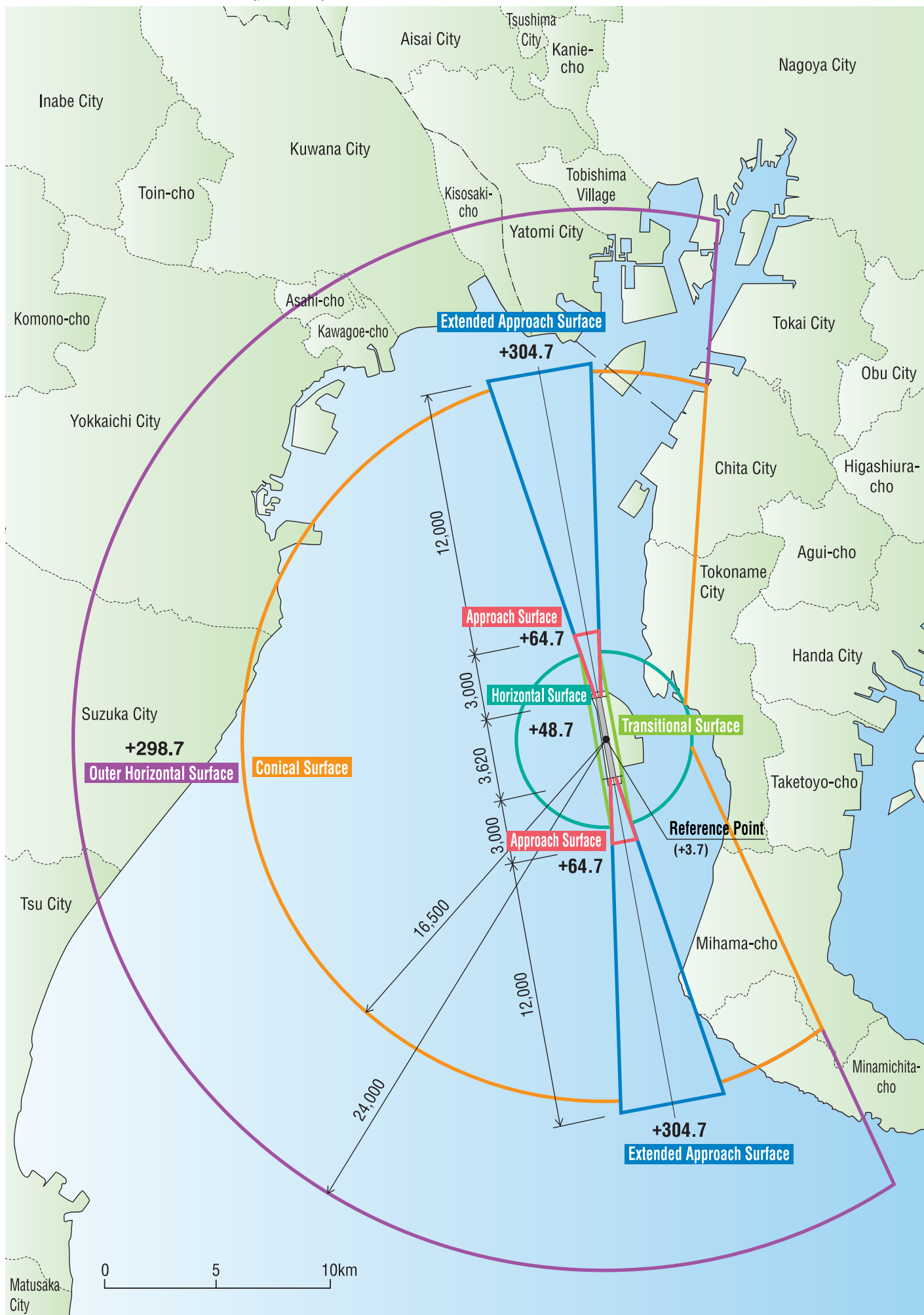
### • Plan View



### • Cross Sectional View



• Overview of the restricted surface (plan view)

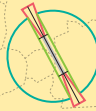




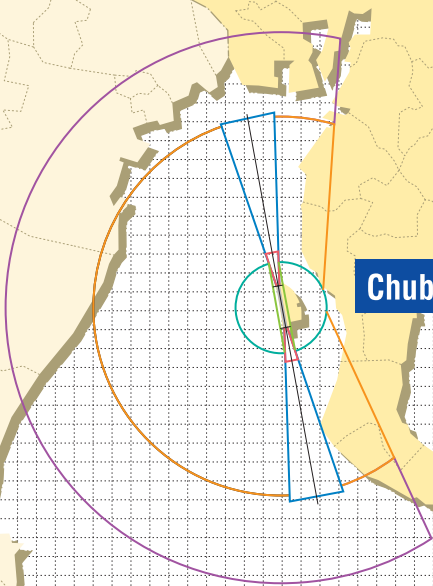
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**Aichi Prefectural Nagoya Airport**



**Chubu Centrair International Airport**

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