Cap. Gilberto López Meyer  
Director General,  
Aeropuertos Servicios Auxiliares (ASA)  
México, D.F., México  

Subject: Reply to ASA Request

Dear Cap. López Meyer:

Per your request through Dr. Bernard Lisker, this letter provides information on the following three items:

- Estimated depth to be excavated from the hills Chiconautla (hereinafter Colina Norte) and Chimalhuacán (hereinafter Colina Sur)
- Coordinates of areas at Texcoco for potential location of runways and taxiways
- Coordinates of area outside of the federal boundary that have not been acquired (per CONAGUA’s information) for the construction of the eastern-most pair of runways

It is important to state that MITRE is not a civil engineering company and, therefore, these figures represent an approximation only. Furthermore, these estimates are beyond the scope of the SCT-MITRE contract. This information is provided for general planning purposes only and it should be used with caution.

For the convenience of those handling the figures, they have been translated to Spanish.

Excavation Depth Estimates of Colina Norte and Colina Sur

For some of the runways at Texcoco, Colina Norte penetrates the International Civil Aviation Organization (ICAO) Annex 14 Approach and Takeoff Climb Surfaces, as well as the United States (U.S.) TERPS final approach obstacle assessment surface. Colina Sur, on the other hand, only penetrates the ICAO Annex 14 Approach Surface.

Ideally, penetrations to the ICAO Annex 14 Approach and Takeoff Climb surfaces should be removed, unless the authorities provide a waiver. In the case of TERPS, however, all penetrations must be removed. Therefore, how much excavation is necessary is a decision that the Mexican government needs to make. Naturally, the best outcome to avoid difficult decisions involving safety, all penetrations, ICAO and TERPS, should be removed. Having said that, waivers may be an option.

Figure 1 shows the estimated amount of excavation necessary at Colina Norte in order to remove the penetrations to the Annex 14 Approach and Takeoff Climb surfaces. Figure 2 shows the estimated amount of excavation necessary at Colina Norte in order remove the
penetrations to the U.S. TERPS final approach obstacle assessment surface. Figure 3 shows the estimated amount of excavation necessary at Colina Sur in order to remove the penetrations to the Annex 14 Approach Surface. Note that penetrations by trees are not included. Some trees may need to be trimmed and/or removed.

Figure 1. Estimated Excavation Requirements of Colina Norte to Remove Penetrations to the ICAO Annex 14 Approach and Takeoff Climb Surfaces
Figure 2. Estimated Excavation Requirements of Colina Norte to Remove Penetrations to the U.S. TERPS Final Approach Obstacle Assessment Surface
Figure 3. Estimated Excavation Requirements of Colina Sur to Remove Penetrations to the ICAO Annex 14 Approach Surface
Coordinates of Areas at Texcoco for Potential Location of Runways and Taxiways

Figure 4 shows the areas where runways and taxiways may be located. Each rectangular box represents one runway group (i.e., western, central, and eastern). The exact position of each runway and taxiway has not been decided by the Mexican authorities. Therefore, the boxes show the areas within which MITRE has defined runway and taxiway positions under various scenarios.

![Diagram of Texcoco airport areas](image)

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Fuente: Google Earth Pro

**Figure 4. Coordinates of Areas at Texcoco for Potential Location of Runways and Taxiways**

Coordinates of Area not yet Acquired

Figure 5 shows the area that has not been acquired (per CONAGUA’s information) in order to construct the eastern-most runway pair. The two inverted triangles form a single area (note that points C and F are separated by a few meters). The yellow area to the right of the segment A-F as well as to the right of segment F-E was included so that engineering analyses (e.g., soil testing) could be conducted in order to support any future airport-related development activities. Therefore, that area to the right of the above-mentioned segments does not have to be acquired to achieve a full runway pair.
Figure 5. Area Inside the Red Triangles not yet Acquired

Please do not hesitate to contact me if you need any clarification or any other assistance.

Sincerely,

Ing. Robert W. Kleinhans
Project Leader

cc:
Lic. Serio Romero, DGAC
Dr. Bernardo Lisker, MITRE