

Geological features around the Tokyo International Airport D runway under construction(Preliminary Report 3)

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Stratigraphy and sedimentary environment in the D runway, under construction, of Tokyo International Airport (Haneda Airport) was investigated.

In this report, stratigraphy and paleoenvironment of the Kazusa group and Edogawa formation in and around Tokyo International Airport D runway (under construction) are investigated using the analyses of refractive index of volcanic glass, nannoplankton, foraminifera, pollen, diatom, paleomagnetism, and so on.

1. Kazusa group

The formations composed mainly of siltstone, are distributed below AP-150m to AP-170m.

Volcanic ashes are identified to be Taya scoria(Tys), Ootadai11(O11), Kasamori15(ksm15) and Kiwada38(kd38). After nannoplankton, it corresponds to CN13a, CN13b. Its sedimentary environment was inner bay influenced by the ocean water, but the water depth was deeper for lower part and shallower for upper part. Fossil pollen indicate the flora of subarctic to cool temperate, suggesting MIS13.

Brunhes-Matsuyama boundary at the C runway, is near AP-180m and at the D runway it is near AP-220m to AP-210m.

2. Edogawa formation

The formation is composed mainly of sand with a few silt beds and distributed below AP-100m to AP-85m.

Volcanic ashes of Tama tephra, such as TB-12, Tcu-4, TE-5 upper part(TE-5b) and Omachi tephra(APm). are included. After nannoplankton, it corresponds to CN14a, CN14b. The sedimentary environment is estimated to be inner bay environment near the land. Fossil pollen indicate the cyclic change from cold, warm, cool-warm, cool-warm, to cold, suggesting MIS11, 10, 9, 8 and 7.

3. The geologic structure

Based on the horizon of the B.M. boundary, Kazusa group declines slightly to NE. Edogawa formation also declines to NE based on slope of volcanic ash beds.