

# Tampa airport runways renumbered due to magnetic north movement

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(PhysOrg.com) -- The magnetic north pole is slowly moving, and the shift is affecting runways at airports in Tampa, Florida, with the major runway at Tampa International Airport closed until January 13th to allow for the signage to be changed and numeric designators at each end of the runway to be repainted.

The primary runway at the [airport](#) is designated 18R/36L, which means the runway is aligned along 180 degrees from north (that is, due south) when approached from the north and 360 degrees from north when approached from the south. Now the [Federal Aviation Administration](#) (FAA) has requested the designation be changed to 19R/1L to account for the movement of the magnetic [north pole](#). Similar changes are also

taking place at the Peter O. Knight airport in Tampa. Later in the month Tampa International Airport's east parallel and east-west runways will also be closed to allow their signage to be changed. Over 100 sign panels and 40 signs will need to be changed, along with painted signs on the runways.

The magnetic north pole is always slowly moving and is currently heading towards Russia from its current position in far northern Canada. The magnetic north pole moves by around 64 km (40 miles) a year because of changes within the Earth's core (unlike the true north pole which moves very slowly due to tectonic plate movements). It has moved from extremes of around 10 degrees east in the late 16th century to 25 degrees west early in the 19th century, and is now at around 3 degrees west. The north and south magnetic poles can also switch places, and this last happened about 780,000 years ago.

According to FAA spokesman Paul Takemoto changes at other airports may not be required because magnetic fields vary from place to place. Takemoto said re-designation is rarely required. Such changes are not that unusual, however, with Stansted Airport in London having to do the same thing in 2009, redesignating its 3,000 meter runway 23/05 as 22/04. Stansted airport officials said they would have to renumber the runway again — in another 56 years or so.

Kathleen Bergen, also from the FAA, said runway designations were based on geomagnetic information, and that aviation uses information on latitude, longitude, and the magnetic poles. She said that the magnetic poles are constantly changing, and movements of more than three degrees can affect runway designations and numbering. In far northern areas, where the relative difference in location between true north and magnetic north has a greater effect, aviators tend to use true north as their reference instead of magnetic north.

Takemoto stressed the changes at the Tampa airports would have absolutely no effect on passenger safety.

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