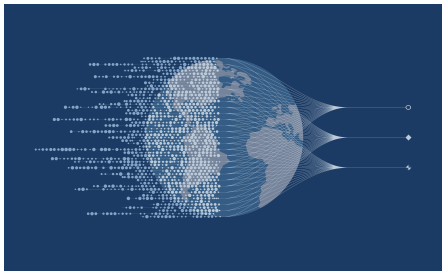

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-Site Inspections in Challenging Environments with Reference to Recent Volcanoes

The phrase "On-Site Inspections (OSIs) in challenging environments" has been extensively used in reference to OSI exercise environments. For example, the OSI Build-Up Exercise 2024 (BUE2024) was held in somewhat mountainous/rugged terrain and the next Integrated Field Exercise (IFE) is anticipated to be held in a tropical rain forest environment. These are just few among many other OSI challenging environments. This abstract considers possible conduct of an OSI in areas of recent (late Quaternary) caldera volcano, e.g. Menengai caldera, formed on a massive shield in the inner-trough of the Kenya rift valley. The caldera is associated with a high thermal gradient resulting from shallow magmatic intrusion. The caldera floor is overlain and extensively covered by pera-alkaline trachy-phonolites. In addition, thick vegetation and deep gulleys and faults characterize the caldera floor. These trachy-phonolites as well as the surface morphology are likely to impede the conduct of surface geophysical techniques including passive seismic monitoring (PSM). Further, they are likely to severely slow down the conduct of visual observation (VOB), position finding (POS), and both low and high energy resolution analysis (ERA-L and ERA-H) inspection activities. During the forthcoming SnT2025, these limitations on OSI activities and techniques will be discussed in more details.

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