# Utilizing 8K Super Hi-Vision for Disaster Mitigation and Geosciences: reporting from the 2016 Kumamoto earthquake in Japan

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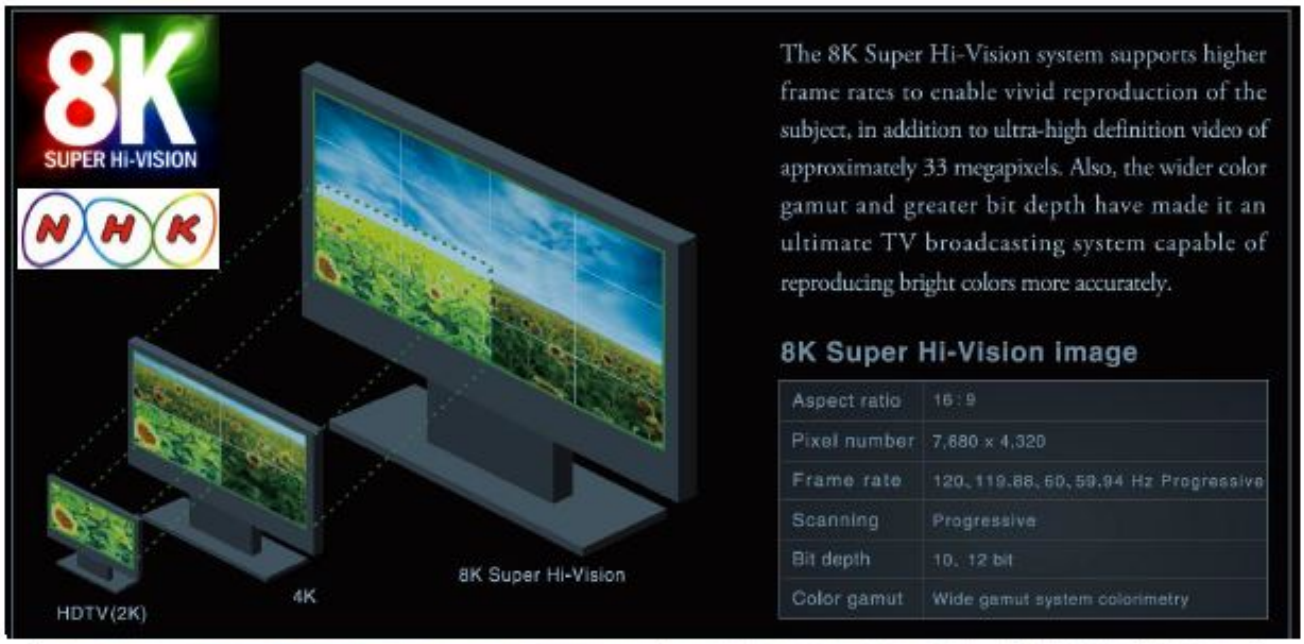
NHK (Japan Broadcasting Corporation) launched test broadcasting of 4K/8K(super hi-vision) in 2016. This presentation clarifies the fact that 8K, ultra-high definition image,16 times that of HDTV(2K),is useful for not only broadcasting but also disaster research and geosciences in terms of remote sensing, space information.
NHK used an 8K small camera in aerial filming of areas along active faults that were severely damaged immediately after the 2016 Kumamoto earthquake. As we had active fault scientists analyze the footage, undiscovered earthquake faults and raptures were found, which were reported in an NHK’s TV program. This served as the first utilization of disaster analyses of 8K images in disaster reporting in media.
Aerial filming using an 8K camera enables discovery of ruptures as small as a few centimeters from an altitude of 400 meters, and provides “higher resolution” than aerial photography and “wider angles of view” than 4K drones. Since ruptures may cause a variety of disasters, there are high expectations for the utilization of 8K images in DRR. 8K images also allow the observation of each individual’s “move,” which will be effective for life-saving and search operations and detecting temporary shelters. 8K’s “oblique bird’s-eye views” provides vertical information that will make it easier to survey collapsed buildings, and its graphics data can be utilized for making “3D models” and “crisis maps.”
Reference: Yamaguchi(2017) Possibility of Utilizing 8K Super Hi-Vision for Disaster Risk Reduction The NHK Monthly Report on Broadcast Research (Japanese)
http://www.nhk.or.jp/bunken/english/reports/summary/201701/01.html

Keywords: active fault, 8K Super Hi-Vision, remote sensing, Media, Japan broadcasting corporation, disaster







resolution: The ground pixel size
*5 mm* : 8K (this study)
*100 mm* : aerial photograph of
Geospatial Information Authority of Japan

You can watch flying butterfly on the ground shot by 8K camera from 400m high above ground.