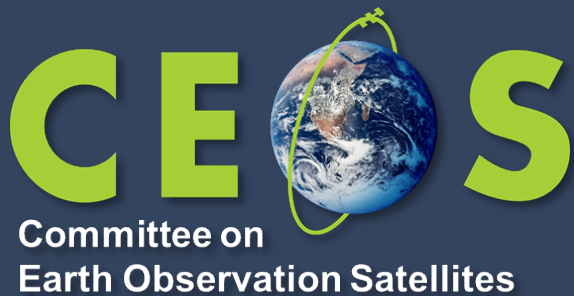


WG Disasters 20 (presential & virtual) Sept-2023

*5G frequency allocation
impact on X-band EO*



Helene de Boissezon ,
CNES, WGD Chair
Agenda Item : 17
WG Disasters -20 2023, USGS
5th - 9th September 2023

Future 5G/6G frequency allocation – Potential negative impact to X-band SAR



- ❖ Upcoming decision on the allocation of new frequency ranges to terrestrial 5G services planned at the 2023 World Radiocommunication Conference (WRC-23) on Nov 20 - Dec 15, 2023, in Dubai, UAE.
- ❖ WRC held every three/four years to review / revise the Radio Regulations (international treaty governing the use of the radio-frequency spectrum and the geostationary-satellite and non-geostationary-satellite orbits).
- ❖ At WRC 2023 there will be a decision on whether to **allocate a special frequency band for terrestrial 5G applications that overlaps with X-Band SAR Earth observation frequencies**. If this frequency is granted, X-band SAR Earth observations are expected to be negatively impacted.

Future 5G/6G frequency allocation – Potential negative impact to X-band SAR



- ❖ These **matters** are handled **at the agency level** through established channels within your respective countries
- ❖ We have to ensure that **all CEOS Agencies are aware of the situation** and have the opportunity to **engage with their national frequency regulators ahead of WRC-23.**
- ❖ First reactions : DLR, UN-Spider, CNES, AEM, WMO (non exhaustive....)

Thank you

