Talk:Technology Trends/Low-Earth Orbit System

Can we add stuff - in particular meshnetworks and swarm technology? data fusion of drone and ground sensor data?

data fusion of satellite, drone and ground sensors to detect objects of interest or to cause an event to happen (ie detection of forest fire, flood, oil spill etc...) https://www.mdpi.com/journal/remotesensing/special_issues/Multi-Sensor_Data_Fusion_UAVs_RS_Environmental_Applications https://www.mdpi.com/2072-4292/12/9/1357 www.darpa.mil/program/ocean-of-things https://www.libelium.com/ https://phys.org/news/2012-07-swarming-drones-sea.html https://www.militaryaerospace.com/communications/article/14167541/cloud-computing-mesh-network-satellites

- good diagram https://www.mdpi.com/1424-8220/21/23/8117/htm

https://www.researchgate.net/figure/Maritime-MTC-IoT-communications-enabled-by-various-wireless-communications-technologies_fig1_340811362 https://www.researchgate.net/figure/The-sky-and-earth-perception-IoT-network-architecture-scene-diagram_fig2_346074578 https://www.researchgate.net/figure/The-overall-IoT-network-environment-in-5G-network_fig1_344091120

plus space cloud - https://incubed.esa.int/portfolio/uss/

all of this technology is coming quickly from the launching of smallsats through induction or the like https://www.spinlaunch.com/ https://www.msn.com/en-us/news/technology/scientists-create-laser-system-that-could-get-to-mars-in-just-45-days/ar-AATXiMv https://phys.org/news/2022-02-laser-mars.html

to meshnetworks and swarm technology (ie a group of satellites autonomously communicate with each other with various sensors and determine that a potential threat or event of interest exists in a AOI - thus, drones are deployed which drops ground sensors in a high risk high potential area then satellites swarm that AOI from above to determine the possibility/probability of a potential threat or the outcome of an event (reactive)) to cloud in space... to even 3D printing in space! https://www.3dnatives.com/en/fleet-space-has-developed-fully-3d-printed-satellites-030120214/ https://www.space.com/satellites-antennas-3d-printed-in-space

will canada be ready!?!? hope so... we need investment! we need R&D dollars! we need innovation and entrepreneurs to lead the way...

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