"When in a Space Hole, Stop Filling It"

A presentation by
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Congested, Competitive, Contested

> Not to say Clichéd, as in: 'The Space sanitation issue is *at the tipping point'*.

> Except that 'at the tipping point' is true, not so much for the three title characteristics, but because near-Space is now vulnerable to 'cascade debrification' – that is, collisions between extant debris and active satellites -- or other debris -- causes more debris, which causes…

[V. Adushkin *et. al.* Orbital missions safety – A survey of kinetic hazards, Acta Astronautica, (2016)]

Space Arms, or Debris Control?

> The EU code proposal is a Trojan horse; a Space ASAT-NPT in the offing. Former Scientific Adviser to the Defence Minister, and current member Niti Ayog, warned as much at the 1916 Kalpana Chawla Annual Space Policy Dialogue last week in New Delhi.

> If the ASAT-capable powers do not prioritise the debris-limitation *essential*, over the Space arms control *desirable*, they will - *a la* Buridan's ass - achieve neither objective, to the detriment of themselves and all Space users alike.

N-Test ban precedents

> When nuclear weapons testing in the commons of Space, the oceans and the atmosphere began to irreversibly threaten the use of these commons, verifiable treaties were negotiated between the N-powers to ban N-testing in those commons (LTBT, 1963)

> When underground N-testing *above a threshold yield* (150kT) was considered not a strategic necessity, a verifiable Threshold Test Ban Treaty was agreed (TTBT, 1974)

A Threshold ASAT-ban treaty is do-able

> Debris which descend to, or are created at, heights of below 90-100 kM burn-up in days or weeks.

> That height was established by the Japanese 'Hiten' spacecraft aerobrake experiment (1991).

> That threshold band may be readily re-established by an internationally collaborated Space experiment, following which, a Threshold ASAT-ban Treaty is entirely do-able. [Kaul and Siddhartha, 2012]

Thank you