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SPACE DEBRIS SYMPOSIUM (A6)
Interactive Presentations (IP)

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CHASING SPACE DEBRIS, MISSILES & SATELLITES – USING GROUND SYSTEMS. TRACKING &
HIGH-RES IMAGING SYSTEMS FOR HIGH PROPER MOTION SPACE OBJECTS.

Abstract

Since work began on constructing the International space station (ISS) – in 1998, a huge amount of structure has been added to it. The first model, Zarya, was an un-screwed unit just 12.6M long and 4.1M wide. Now, 17 years later, the ISS is a very sustainable spacecraft, with a habitable modules and a massive solar array. Its large size and low-Earth orbit make it an optimal manmade-space-tracking target, with an angular size that can be as double as Jupiter. In our presentation we will present several methods for ground based missiles satellites tracking – using optical systems. We will discuss about innovative platforms that enable continues imaging of High altitude high proper motion objects (FMOs) in space in high-res. The lecture topics shall emphasize missiles and satellites tracking. We will also discuss NEO and PHA asteroids tracking imaging programs. Technical discussion will also be given on tracking platforms, extremely high FPS cameras considerations and suitable optical elements.