What altitude is 'safe enough' to overfly a Conflict Zone?

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Most conflict zone guidance from Aviation Authorities is based on the risk posed by MANPADS – Man Portable Air Defence Systems, or more descriptively – Shoulder Launched Surface to Air Missiles (SAMS).

Large-Unit SAM attacks on aircraft are uncommon – MH17, removed from the sky by a Russian-made Buk missile, was the first aircraft to be shot down by a large SAM unit since a Siberia Airlines Tupolev in 2001. These large units – requiring a radar system as part of the mechanism – have never been used by terrorists. Almost all incidences involving large-unit SAMs have involved misidentification. **There is no safe altitude from a large SAM**.

MANPADS, on the other hand, represent a greater threat to aircraft in 2017. These shoulder-launched systems are very portable, and far more likely to fall into the wrong hands. Common ranges are in the 10,000 – 15,000 ft range. The most dangerous is the FIM-92 Stinger, which has an operational ceiling of 26,000 ft (and there is concern that these have reached anti-government rebels in Syria)

The internationally promulgated standard safe altitude for overflight has now become about **25,000 ft AGL**. Most CAA/State guidance is issued based on this number. There are two important points for aircraft operators to note:

- That is 25,000 feet Above Ground Level. A missile could easily be launched from a mountain, or higher ground, so if you take 25,000 feet as your safety margin, make sure to add the terrain elevation beneath. In South Sudan, for example – Juba is at 2,000 feet – most of the country is at about this height. So 27,000 feet should be the minimum safe level, and you can work with FL270.

- This is based on the assumption that we're not worried about Stingers. Especially in the Middle East, a higher safe altitude might be better. **FL300 seems like a good place to start**.

References:

- Originally posted on safeairspace.net
- safeairspace.net Risk Map
- Download current Unsafe Airspace Summary (PDF)