

# Rocket and Mortar-Position Ranking and Analysis System

## **OVERVIEW**

RAM-PRAS provides rapid identification and prioritisation of potential Indirect Fire (rocket, mortar) and Direct Fire (RPG, Machine Gun, Rifle) firing points around a vulnerable point, route or area by utilising digital mapping, terrorist methods of working and weapon characteristics.

The analysis is presented in a variety of formats for briefing police or force protection teams and commanders. If the tactical situation changes, the software can quickly reprioritise any threats so that teams can be re-deployed.

Hostile shooters can be plotted and danger footprints can be calculated to allow safe passage of containment teams to the scene. Calculated maps/diagrams/overlays can be downloaded to the front-line personnel first on the scene.

RAM-PRAS is in service with 14 UK Police Forces. It is similar to SAM-PRAS, our Aviation Security application, which is presently deployed by governments and militaries worldwide, including the UK (Police and RAF), the USA (Transportation Security Administration), Australia (Department of Defence and Federal Police) and France (Air Force).

## **KEY FEATURES**

- Import mapping data military and civilian
- Configure weapon data Unclassified to Secret
- Calculate threat footprints for multiple scenarios
- Display in 2D, 3D, and overlaid on Google<sup>™</sup> maps and aerial imagery
- Create a database of surveyed firing points to support low-level intelligence gathering
- Site, optimise and display sensors and their coverage e.g. CCTV, own snipers, radars
- Plan and visualise patrol routes and their terrain coverage
- Enable rapid re-tasking of protection forces as the tactical situation changes

## **DESCRIPTION**

RAM-PRAS calculates a footprint of potential attack sites surrounding a point (e.g. sports stadium), a route (e.g. VIP transit), or an area (e.g. military base), and also identifies those areas which may be out of scope due to terrain, weapon range, or expected terrorist tactics. This focuses scarce resources on the most likely attack locations.

By using a series of user-defined rules, potential launch sites can be systematically categorised, ranked, and mitigated. Aerial photography and local ground survey refines the selection. A site database provides an updatable record of all sites, rationale for selection or mitigation, and can include notes, photos, videos, maps, sketches, and aerial imagery.

Hostile shooter threat footprints can be displayed in 2D and 3D to allow decisions to be made on safe passage to incidents and where to position friendly firearm teams.

Sensors can be plotted and their coverage displayed to give the commander an indication of which sensor to use for optimal observation of an incident.

All data can be studied on screen, exported to standard geographic information systems (GIS), or printed in various reports useful for situational awareness, reconnaissance, incident control, patrol teams, and command briefings.

RAM-PRAS assists force and incident commanders in deploying teams to the areas of most risk first, and also facilitates pragmatic dialog between event organisers and ground forces engaged in protecting assets and persons operating within the threat area.

Most military and civilian mapping standards and formats are able to be used by RAM-PRAS, as well as overlay of analysis onto Google<sup>TM</sup> where connection to it is permitted.

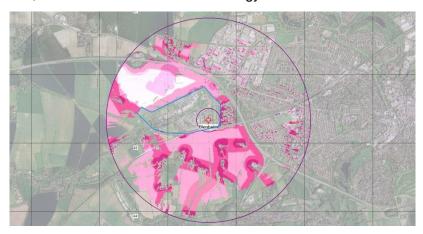
There is potential for exporting the data in geo-referenced pdf file format that can be downloaded to front-line personnel to assist in their decision making.

## **SUMMARY**

- Threat assessment of snipers, rockets and mortars
- Sensor coverage and overlap display
- Hostile shooter threat footprint display
- · High resolution maps and aerial photography
- Survey tools with audit trail to justify mitigation decisions
- Generation of reports for law-enforcement, security and Force Protection communities
- Improved situational awareness, and information sharing, across networks
- Display of patrol 'truth traces' derived from GPS data logger input
- View in 2D, 3D, or overlaid on Google<sup>™</sup> mapping and aerial imagery
- Generation of area search patterns with progress management tools
- In Development: Plan and task UAVs, store and retrieve their output

#### **TECHNICAL SPECIFICATIONS**

- Microsoft Windows Win 7/8.1, 32 or 64-bit
- Links to Google Earth<sup>™</sup> (if permitted by Security Regulations)
- Internal 3D terrain generation, graphics and rendering engine for when Google not available
- Network deployable or stand-alone as required
- Utilises Microsoft SQL, Esri ArcGIS and FME Technology



For further details of RAM-PRAS or to arrange a demonstration, please contact us at:

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Threat Visualisation for the Real World