Cambridge Pixel Supplies IFF Radar Processors to Tellumat for South African Air Force SSR Upgrade

- *Cambridge Pixel to showcase IFF radar/other sensor systems at IDEX 2019 (Stand 05/C07), 17-21 February 2019, Abu Dhabi National Exhibition Centre, UAE*

CAMBRIDGE, United Kingdom, January 22, 2019 – Cambridge Pixel, a developer of radar display, tracking and recording sub-systems, is supplying its IFF (identification friend or foe) secondary radar processing and plot extraction technology to Tellumat, as part of an upgrade of the South African Air Force's Secondary Surveillance Radars at six airfield sites across the country.

Tellumat engineers needed to replace obsolete and hard-to-maintain plot extraction hardware at the airfield sites and to deliver enhanced capabilities. These included IFF radar decoding, simplified maintenance and the provision of a modern plan position indicator (PPI)-style radar display.

Warren Whitfield, software development manager, Air Traffic Management division, Tellumat, said: "Cambridge Pixel's modular SPx software library made it easy for our engineers to design a custom solution that interfaced with existing equipment, where it was still fit for purpose, and add the new capabilities, such as IFF radar, that our client required.

"Cambridge Pixel's software modules are seriously best-in-class! This flexibility of the software modules approach has helped us to introduce new technology to extend the life of the Selex ATCR-33 and ATCR-2T radar systems, whilst minimising the cost of the upgrade program. The support received from Cambridge Pixel during the development process was second to none."

The two legacy plot extractors were replaced with dual independent systems containing Cambridge Pixel HPx radar interface cards as well as synchronous serial adapters to output the plot data to the remote sector control centres. A Windows-based user interface was built for each system using the display components from Cambridge Pixel's SPx library to provide an integrated picture of maps, primary and IFF plots and scan-converted radar video.

Tellumat's new custom solution – including Cambridge Pixel's SPx Server plot extraction software - interfaces to the combined IFF video and mode pulses data stream for plot extraction. Plots are then passed to a remote display system for target tracking for ATC and mission control scenarios. A separate channel interfaces to the primary radar to extract primary plots.

Richard Warren, director of software, Cambridge Pixel, said "Cambridge Pixel's SPx software library was specifically designed to allow system integrators, such as Tellumat, to build custom upgrades for radar processing applications like this."

Cambridge Pixel's IFF radar tracking technology is part of its hardware-agnostic SPx suite of software libraries and applications which provide highly flexible, ready-to-run software products or 'modules-of-expertise' for radar scan conversion, visualisation, radar video distribution, plot extraction, sensor fusion, target tracking and clutter processing.

Cambridge Pixel's radar technology is used in naval, air traffic control, vessel traffic, commercial shipping, security, surveillance and airborne radar applications. Its systems have been implemented in mission-critical applications with companies such as BAE Systems, Frontier Electronic Systems, Blighter Surveillance Systems, Exelis, Hanwha Systems, Kelvin Hughes, Lockheed Martin, Navtech Radar, Raytheon, Saab Sensis, Royal Thai Air Force, Sofresud and Tellumat.

Cambridge Pixel will be showcasing its award-winning sensor processing and display solutions at The International Defence Exhibition and Conference (IDEX 2019), at the Abu Dhabi National Exhibition Centre (ADNEC), Abu Dhabi, UAE, (Stand 05/C07), from 17 to 21 February 2019.

For more information about products from Cambridge Pixel, please visit www.cambridgepixel.com or call: +44 (0) 1763 852749 or email: enquiries@cambridgepixel.com.

Media photo:
www.cambridgepixel.com/news

White paper on processing and simulating IFF Radar:
www.cambridgepixel.com/files/Articles/WhitePaper-IFF-Support-in-SPx.pdf

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About Tellumat (www.tellumat.com)

Tellumat is a South African technology company that consists of four major trading divisions; Air Traffic Management, Defence and Security, Electronic Manufacturing, and Tellumat Integrated Solutions. As long-standing leaders in electronic and related technologies, we know expertise alone doesn't create real and lasting value for our customers. Tellumat's end-to-end philosophy and integrated business divisions make us the ideal partner in our chosen fields – our lasting partnerships with customers and global technology partners are testament to this. Our people, processes and solutions are backed by innovative research and fronted by specialised skills. We solve problems – from design to operations, and beyond. We believe that technological innovation and imagination are the cornerstones of a safer, connected, more environmentally responsible and sustainable future. We see challenges as opportunities for innovative solutions.

About Cambridge Pixel (www.cambridgepixel.com)

Cambridge Pixel is an award-winning developer of sensor processing and display solutions including primary and secondary radar interfacing, processing and display components for military and commercial radar applications. It is a world-leading supplier of software-based radar tracking and scan conversion solutions through its modular SPx software, and HPx hardware product range. Based near Cambridge in the UK, the company operates worldwide through a network of agents and distributors.

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