



# Technical innovation to deliver advanced medical care communication

## IET Partner News—Issue 45 (Winter 2020)

SA Group's Technical Project Team has helped deliver innovative and secure telemedicine capabilities for the MOD this year. Nicknamed Project LARA, the Agile project team combined Test & Trial specialists with project managers, business analysts and military personnel to enhance medical communications in the field despite strict social distancing restrictions.

Telemedicine is used by military surgeons in difficult and often isolated locations, allowing them to liaise with UK-based colleagues to access specialist skills and vital support. Yet until recently provision of this support was relatively ad hoc, using civilian technology and insecure networks. Project LARA aims to substantially enhance patient care in the field through a range of innovative military-grade communication capabilities, including:

**Medical Messaging** - Support to a LAND led trial of a medical messaging application for on both personal and MOD phones. A public-hosted AWS cloud solution that is delivering a medically tailored, WhatsApp-type messaging system for 2,000 users.

**Remote Monitoring** - The networking of 800 Tempus Pro medical monitors providing the capability to transmit patient vital signs. Exploitation to enable wider networking in order to deliver clinical reach back and medical record archiving from forward location to the UK or larger medical facilities.

**Real-Time Clinical Support** - An augmented reality, surgical reach back system for deployed R2 medical facilities, allowing a deployed surgeon to stream live video back to a UK specialist for support, in real time. SA Group created a bespoke project team,



Telemedicine brings specialist medical expertise to military surgeons in the field. ©Ministry of Defence

combining a Business Analyst to capture end to end User requirements, a Project Manager to co-ordinate the development and testing activities plus provide governance and control, and a Test & Trials Specialist to cover all project capabilities and enable a user-driven development of the Minimal Viable Product (MVP).

### Test & Trials Management

The SA Group Test & Trials Manager created a Master Test and Trials Plan to cover all the capabilities for the Project. Working in the context of the Covid-19 epidemic, we conducted testing under social distancing restrictions of the Real-Time Clinical Support solution with the Medical Joint Service Operating Department Practitioners (ODP), enabling a user driven development of the MVP.

The MVP consisted of two cameras with ergonomic mounting to provide the live video streaming to the local and remote surgeon, using a MOD accredited UK AWS hosted application.

The MVP testing was conducted using deployed connectivity options; 3G/4G, WIFI, SatCom bearers and VPNs.

### Next Phase

The success of the project so far has enabled the joint team to claim Initial Operating Capability (IOC), delivering: **Medical Messaging** - Beta Testing and Transition into Live Services by Q1 2021. **Remote Monitoring** - finalising the outstanding work strands to achieve Full Operating Capability (FOC). **Real-Time Clinical Support** - delivery of the MVP solution for deployed user trials, working towards IOC and FOC.

The SA Group team are proud to continue our work on this project, using our experience and knowledge to help provide cutting edge medical care to HM Forces in the field.

To find out more about SA Group's Technical, P3M and Digital expertise, go to [sa-group.com](http://sa-group.com) or call 03333 583340.