The Institute of Naval Medicine (INM) was tasked by Surgeon General’s (SG) Research Strategy Group (RSG) to undertake a programme of work that is examining nutritional provision and dietary intake of UK Armed Forces personnel. Specifically, this three-year research programme – which is being completed in collaboration with the Defence Science and Technology Laboratories and the University of Surrey, Guildford – will provide an evidence-base to support the dietary requirements of personnel undertaking recruit and officer cadet military training across the three Services, as well as ensuring appropriate nutrition for trained personnel undertaking duties in hostile theatres of operations. The aim of the Operational Support element of this work programme is to evaluate the actual food provision, food choices, dietary and energy intake, estimated energy expenditure (physical work demands) and physical status (body mass and body shape) of trained military personnel on operations.

In preparation for the main study (which is due to commence in April 09), a reconnaissance visit was undertaken by Dr Simon Delves and Lieutenant Steve Peake of the INM to Kandahar Air Field (KAF) during HERRICK 9 (13 – 18 December 2008). The purpose of this visit was to collate information to inform pilot work and planning in advance of the main study.

Following a long journey out of Brize Norton, the INM team was met by Major Andy Tout RAMC who hosted the visit. Major Tout had organised meetings with several key people who would be providing the necessary ‘in theatre’ support for the main study. The important areas of the KAF to be visited by the INM team were the medical facilities, the dining facilities (D/FACS), commercial outlets providing additional dining opportunities, gymnasia, and a potential site for the Scientific Support Laboratory. Although the visit was planned to include visits to Camp BASTION and Lashkar Gah, this was not possible due to local security issues.

The first meeting upon arrival at UK Joint Force Support in the KAF was with SO1 Med Lieutenant Colonel Sharoch who provided an overview of the available medical facilities. This was followed by discussions with Major Neil Wilson, Chief of Staff for 42 Commando Royal Marines and Lieutenant Paul Burnett their RN Med LO, which provided a description and context to the arduous work undertaken by the Surge Battle Group RBG(S) located within Camp Roberts. During the INM’s visit to the KAF, 42 Commando was involved in Operation Sond Chara (Red Dagger), details of which provided valuable background information in support of the project with regards to operational patrolling.

Mr Rene Nevola, who was undertaking the Operational Analysis role for UK Joint Force Support in the KAF during HERRICK 9, is also part of the INM/dstl/University of Surrey project team. Rene provided guidance with regard to the geography and organisation of
the base, whilst also facilitating much of the information gathering.

The INM team visited the Role 1 and Role 3 hospital facilities to review the medical support that would be available to the main study. During the study, blood samples will be drawn from volunteers for assessing micronutrient status; it will be essential that these samples are efficiently treated and frozen in theatre, in advance of subsequent analysis in the UK. Throughout the INM’s visit, the team dined at the Cambridge and Luxembourg D/FACs. The types of food available to soldiers were documented during meal times, as well as the schedule of D/FAC opening, in preparation for the nutritional analysis to be undertaken during the main study. It was also important to collate menus informing alternative dining opportunities (ie fast food outlets at the boardwalk) as additional support to the study analyses.

A further activity of the INM team was to evaluate the efficacy of the physiological measurement systems – which are intended for use in the main study – within the operational environment of Afghanistan. Specifically, it was essential to assess the acceptability of the technologies for estimating energy expenditure to patrolling personnel. It was also important to assess these technologies with personnel whilst undertaking operational roles at Forward Operating Bases (FOBs), and to confirm that the measurement approaches did not represent an additional physical burden nor did they compromise personal security. Soldiers from the RAF Regiment were consulted regarding the placement of equipment and the practicalities of taking measurements in theatre.

Although the INM team was unable to visit
Camp BASTION or Lashkar Gah, the reconnaissance visit was very successful. Important details were collated describing the organisation and activities of deployed UK personnel. Operational decisions made by LAND HQ following the INM’s visit have resulted in the main study being based during HERRICK 10 at Camp BASTION. Nevertheless, the visit to the KAF provided essential operational information that both informed the study protocol (that was approved by the MoD’s Research Ethics Committee, MoDREC, in January 2009), as well as supporting ongoing pilot work. It is through such careful preparations that the INM is ensuring its support to frontline operations is both embedded in situ, as well as being scientifically sound.

Mr S Delves, Higher Scientific Officer, Institute of Naval Medicine