Guest Editorial

Research Centre Imarat (RCI), Hyderabad is organising **International Conference on Quality and Reliability in Aerospace Systems (CONQUEST-2006)** during 15-17 January 2006 to be conducted at HITEX, Hyderabad. The theme of the Conference is to conquer the aerospace systems through quality and reliability. It is being organised by RCI under the auspices of DRDO and in association with the Society for Aerospace Quality and Reliability (SAQR). The CONQUEST-2006 is also being patronised by ISRO, DAE, CSIR, ordinance factories, academic institutions, STQC, DOS, BIS, PSUs, private enterprises, and so on. Though, the theme of CONQUEST-2006 is addressed towards aerospace systems, it also deals with related disciplines such as automobiles, telecommunications, biotechnology, process technologies, and so on because the approach towards quality and reliability is similar in all the cases.

Conquering of aerospace systems through quality and reliability is a holistic task which covers the whole gamut of philosophy, engineering, technology, art, and management, for realising the quality objective–creating, throughout the life cycle, paxonistic experience with zero risk and zero vulnerability while deploying aerospace systems.

An aerospace system or a product covers hardware, software, humanware, and services. Conquering of aerospace systems involves quality management of life cycle of the product–quality management of need and expectations (both implicit and explicit), requirements (both functional and nonfunctional), design, test and evaluation, manufacturing, delivery, field use, field maintenance, and finally, disposal.

Whereas, quality management of functional requirements concerns all the product features which the customer immediately needs and expects, the quality management of nonfunctional requirements goes into the realm of reliability, safety, ergonomics, aesthetics, endurance, life, and so on. In addition, quality management of life cycle of the product includes enabling technologies, infrastructure, and outsourcing partners (industries, academic and R&D institutions), and very close interaction with the customer and regulatory agencies.

Thus, conquering of aerospace systems entails many interrelated elements which form part of the quality management of life cycle of aerospace systems, and for managing these interrelated elements, one needs a quality system, or to be more specific, aerospace quality system. For the aerospace quality system to be organic, effective, efficient, and responsive, the prerequisite is compelling and committed leadership.

Further, aerospace quality systems should help in managing both macro and micro quality management. These are some of the issues which will be deliberated in detail in CONQUEST-2006 during 15-17 January 2006. For wider deliberation and exchange of ideas, parallel sessions, panel discussions, guest speaker lectures, key note addresses, etc have been planned. Further, to enhance the partnerships with industry and academic institutions, mega exhibition is being organised during the CONQUEST-2006.

A number of papers related to macro and micro quality management, technologies and infrastructure of quality, development and selection of outsources, and customer feedback have been included in this special issue of *Defence Science Journal*. It is hoped, this Special Issue will kindle the spark of zeal among delegates of CONQUEST-2006 and one may expect bubbling atmosphere during CONQUEST-2006.

I greatly value and appreciate the initiative taken by Director DESIDOC and his Editorial Team of *Defence Science Journal* in bringing out this special issue.

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