

My Journey with *Defence Science Journal*

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When I joined DESIDOC in October 1979 as its Director, the *Defence Science Journal* (DSJ) was getting printed in the Government of India Press at Shimla. Edited manuscripts were sent to the Press by DESIDOC from time to time, and the Press was usually taking 3 to 4 months to print the issues when DESIDOC editors were taking prompt action in correcting the proofs and returning to the Press. Sometimes, when some other urgent jobs came up, either for DESIDOC for the Press, the printing was taking even about six months.

As per the quality of printing and production, the less said the better. Paper varied in quality from issue to issue and also among copies of the same issue. The typography was also not proper and the layout and printing were very unimaginative. Only black and white printing of the text was done and colour was used for printing the cover. The content was also routine. The papers or articles published were mostly theoretical usually covering operations research and mathematical applications for Defence problems. Sometimes, the applications to Defence were also not obvious. Since most of the articles contained mathematical models or equations, they seemed to interest hardly any one (except the authors).

During July 1978 and February 1982, Dr Raja Ramanna was the Scientific Adviser to *Raksha Mantri* (Defence Minister) (SA to RM) and Chief of the R&D Organisation, Ministry of Defence, which later became much more well-known as Defence Research & Development Organisation (DRDO). During his time there used to be Directors' meetings usually held on the fourth Monday of every month. Those meetings were mostly attended by the Delhi-based Directors (of labs and also of the DRDO Headquarters) and the outstation Directors were also invited to attend if they happened to be in Delhi on the days of those meetings. The meetings were being held at the Solid State Physics Laboratory (SSPL), Delhi and chaired by SA to RM.

Soon after my joining, I attended the next meeting of the Directors at SSPL. The agenda for that meeting also had an item on improvement of *DSJ*. Dr Ramanna took initiative in cutting jokes on the *Journal*, its content, quality of printing, timeliness of production, circulation, and so on.

I was new to the DRDO system and its procedures and practices as I had joined the Organisation from BHEL, a progressive public sector undertaking with much simplified rules and procedures compared to those of DRDO. So, on hearing the sarcastic comments of Dr Ramanna on the *Journal*, I politely replied that the quality of articles would improve if we had a peer-review (refereeing) system and the printing and production quality would go up if we used a reputed private printing press as government presses usually would have certain constraints. Dr Ramanna shot back immediately, "Go to a reputed private press. Have a good peer-evaluation system. Who prevented you?"

Improvement in Printing Quality

The next day after the meeting I called the Accounts Officer of DESIDOC and asked him if I could approve getting the printing done in a private press. He replied, "Sir, it is not in your powers to do that, nor even the SA to RM has that power. We have to get clearance from the Directorate of Printing under the Ministry of Works and Housing for getting printing jobs done by private presses". A couple of days later when I contacted the Director, Printing over telephone before making a formal request, he rejected the request on phone itself saying they had a lot of spare capacity for printing jobs in English and so clearance could not be given. I did not leave the matter with that. I drafted a D.O. letter addressed to the Secretary, Ministry of Works & Housing (MW&H), to be signed and issued by SA to RM and met Dr Ramanna and explained the efforts I had made. He agreed to issue the letter and did accordingly. However, in about a fortnight, a D.O. reply from the MW&H Secretary came politely declining the clearance. Subsequently, I came to know that the Secretary marked Dr Ramanna's letter to the Director of Printing and the latter put up a draft reply to be sent by the Secretary. Dr Ramanna called me to his office in the South Block and told me, "I have made a small request and the Secretary has no feeling even to help the case. You immediately draft a detailed letter explaining why we wanted to go to a private press and what was wrong with their press. If necessary I shall meet the concerned Minister and get you the clearance." While issuing the second detailed letter

demanding the clearance, Dr Ramanna added one line by hand, "Please issue clearance immediately", to the typed portion of the letter. I don't know what happened after that, in a fortnight the clearance came (November 1980). Thus, it was due to Dr Ramanna's intervention, that steps could be initiated and pursued for achieving good quality printing.

Content Improvement

Till the end to the 1970s, the papers received for the DSJ were scrutinised by the Editor of the Journal or by a senior scientist in the related subject discipline for deciding on their acceptance. Hardly any external subject expert was involved in the evaluation. The content improvement received a major initiative when Dr VS Arunachalam was the SA to RM. He took a lot of personal interest in the Journal and reconstituted the Editorial Board with distinguished scientists like Dr R Chidambaram, Dr RA Mashelkar, MR Kurup, Dr GP Phondke, YS Rajan, Prof MA Ramaswamy, and the then Vice Chief of the Army, Lt Gen K Sunderjee, who continued on the Editorial Board even after he became the Chief of the Army. Dr Arunachalam was the Chairman of the Board and Director, DESIDOC (myself then) was the Member Secretary. Dr M Krishnamurthi, Chief Controller (R&D) in the DRDO Hqrs, who was also coordinating the activities of DESIDOC along with several other labs, was also an active member of the Board.

However, since most of the members of the Editorial Board were top-level officials in the Government, it became very difficult to convene the Board meetings. With considerable effort and follow-up, only one or two meetings could be held during a period of about eight years. When this problem was impressed upon Dr Arunachalam, he constituted an Editorial Executive Committee (EEC) with Dr Krishnamurthi as its Chairman and some senior scientists/lab Directors of DRDO as members. Then, due to the initiatives taken by Dr Krishnamurthi and myself a number of improvements were made on the quality of the content of the Journal. These include the following:-

- (a) Bringing out special Issues on specific topics of Defence interest, associating experts in the respective disciplines as Guest Editors. The Guest Editors took initiative and got high quality articles from experts from DRDO and other organisations, vetted them and passed on to DESIDOC for style editing and production.
- (b) Preference was given for applied articles/papers. Theoretical papers were considered only when they had a direct application to Defence systems.
- (c) Two-referee system was introduced. The referees were paid some token honorarium to meet their contingency expenses in the evaluation and for related correspondence. This helped in better participation of the referees in the evaluation of the articles.
- (d) Reduction in the time for evaluation of the contributions received for publication and also in the printing of the *Journal*. Quality of the printing and production also improved greatly.

Special mention must be made of the efforts by Dr Krishnamurthi, Chairman of the EEC. He ensured that the EEC meetings were held regularly three to four times a year, and also assigned the responsibility to the members of EEC for using their contacts for getting good quality papers and also for vetting them and passing the vetted papers to the Editorial office at DESIDOC. Also, topics for special issues and Guest Editors for them were identified. This helped DESIDOC in bringing out the special issues which were well received by the readers.

All these measures contributed considerably to improve the stature of the *Journal*. However, the full market potential for the Journal in terms of number of subscriptions could not be exploited and the subscriptions could be only be raised from about 350 to a maximum of 1100 or 1200. This in itself can be considered a good achievement due to the specialized nature of the *Journal*. The quality of the contents, editorial and of the production of the *Journal* were certainly impressive.