

TO BE SEEN BY CHAIRMAN ONLY

To: Prof. S. Dhawan
Chairman, ISRO

From: YS Rajan

3/4/76

Sub:- Future of ISRO - i.e. future of indigenous
Space Technology in India.

1.0 Though I have shown some traces of my sadness in my recent tour-report (tour to USA) and mentioned orally to Chairman, I find it difficult to describe my sadness and depression about the fate of Space Technology in the country. I am glad in a way to note Rs 326 Crores have been "allotted" under the Five Year Plan (78-83) which will perhaps remain a draft giving effect to the worst interpretation of the rolling plan (That is a different question). But does this allotment of Rs 326 Crores to Space mean a clear policy on Space or for that matter on S&T? May be it is good not to insist on policy and work "our" way through - day-to-day and year-to-year.

2.0 But what I am worried about is the fact that Space technology world over is fast maturing into a good commercial proposition and there is a lot of idle capacity in the USA and Western Europe pushing around for business - in shuttle, communication satellites, earth station, etc. Commerce & politics being closely intertwined, I am afraid that pressures may build up to constrain, if not, scuttle the India's Space programme. No USA Govt. official (NASA, DOD etc) and top business men hide the fact (in fact they stressed it) that one of their major reasons for STS programme is to maintain US leadership in S&T and high technology products.

3.0 Considering briefly the (socially) positive aspects of US Space programme, the Space technology in a span of two decades have reached a vast segment of non-specialists who are now able to think of harnessing it for various national (US) needs. Such a fast dispersion of a new technology into the public domain, would really give hope to a society - better morale at least. The "New Leftists" in the USA (and their mimickers in this country) may talk of technology - push and technology tiger.

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The fact remains that the American people have come out of their introspection and are enjoying the fruits of their high technology - at the cost of others who do not act around the globe (we also being ones) who do not act).

4.0 Every facet of STS presentation, the technology involved and the fact that many common persons (in USA) can conceive of and design systems of relevance, constantly reminded me of our state of affairs - ISRO, HAL (the sleeping giant), BEL, HEC (Ranchi), DRDO Labs, NAL etc. If these companies/agencies can be geared up we can make the country a reasonably good first-rate space power - not just to show its ~~muscles~~ but to build relevant systems in the country suited to its needs. It pained me to note that we do not seem to be in that direction. Then I have come to see the British Aero-Industry Symposium organised in a grand style to influence the fighter aircraft purchase. Something in me cries "Where are we heading for?"

5.0 Nearer home we have INSAT-1. We work hard for it and we will make it a success, no doubt. What is the future? Will the country make INSAT-2 or even INSAT-3 or will we be going around various Committees to determine the reliability of the indigenous systems, cost-effectiveness of build-buy options etc? On these counts indigenous technology will always have a disadvantage the way it is funded and administered. What is the credibility of man who has not done operational systems, in the eyes of a cold-minded executive? Will then the whole of ISRO be proposal-evaluators and monitors-of-contract? I abhor to think of a scenario when NRSA might import the space segment of Landsat.

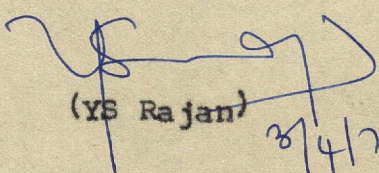
6.0 So what is the role of indigenous development vis-a-vis operational systems? Are they to compete with the international cartels with the Indian Administrative machinery (DOS inclusive!) taking care of cost effectiveness, procedures etc? Or will there be a clear direction that the indigenous development will lead to such-and-such operational system by such-and-such year and one has to live with it and improve upon it. How come Chinese are putting their own geosynchronous communications satellites? I see some dark patches in the horizon which remind me of the fate of HAL and DRDO laboratories? Would ISRO (the symbol of self-reliant space effort) be reduced to these?

7.0 I argued in my own mind on the other side too. Why do we need an indigenous technology? Why self-reliance in technology when so many are poor? Is not water supply to villages, & roads more important? Is this "bogey of self-reliant S&T" a pressure group of fat elites trying to carve out a crucial economic position for themselves? I don't hold brief for many of our irresponsible and avaricious scientists and science-administrators (who are so not because they are scientists, but because they are typical Indian middle class). But I am convinced in my mind that no society (especially bigger ones like India) can pull itself out of the rut without large-scale application of science and technology and that technology cannot grow without internal effort.

8.0 Internal effort cannot be developed without clear policy directions. Presently I see a trend that internal R&D in advanced technologies is merely done to develop a large-scale market of high technology products to be sold by the West, just as public sector investments open up a market for various indigenous private efforts. But unfortunately the Western companies have behind them the Western powers with their clear vision of the role of South Asia. I am not xenophobic but am trying to make a realistic appreciation of the geo-politics.

9.0 So "what are our goals? (and fate?)" is a question that is becoming louder and louder in me. Even military secrets and self-reliance in this crucial sector does not make this country to mount some effort in that sector for self-reliance. I can only place my views to you as Government procedures do not allow any other means; also forums in this country to discuss these are not found. I can only request that you do something if possible. As for myself I only hope I can carry with me the optimism I still have in me (even in mid-thirties) for 2 or 3 more decades.

Regards


(YS Rajan)

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