

MEMORANDUM

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For : CHAIRMAN, ISRO.

File / Ref :

From : YS RAJAN, ISRO HQ.

Date : DECEMBER 18, 1979

Subject : Some critical and important activities for Chairman in the coming 3-4 months.

Chairman had asked me in Bangalore after the INSAT meeting to give him a brief note on the very critical issues on which Chairman may devote his time in the coming 3-4 months. I had earlier given to Chairman a list of about 20 items on which action is to be taken by Chairman. However, if one were to pick up the more critical elements they boil down as under:-

1. INSAT

This requires some constant watch not only in terms of details which are going on but more importantly in terms of human inputs and perhaps through injecting different organisational elements into it. Also it would be better to free Chairman by injecting a senior person to deal with most of the regular matters of milestone progress etc. So as to give him time to think only about a few critical items such as negotiations with NASA, if any, selecting the right persons to keep the quality of the project without seriously affecting other ISRO programmes, Government interface etc. I personally feel that Prof UR Rao should now be made to take full charge of the project activities and the Project Director may henceforth report to him. Prof Rao then can decide about the details of operations.

There is also a need to have some independent input into the project and not leave everything to the judgement of the project team and Project Director only. This would mean that 4-5 senior ISRO engineers should be in close touch with the project. Amidst their other ISRO activities these persons should visit FACC periodically (say once a month or so) (at least for the next 9 months) and ~~give~~ give their feed-back to Prof Rao and Chairman. I feel that the team should consist of persons like Dr Rangan, Shri RM Vasagam, Shri Ramachandran and Dr Srinivasan.

The critical issues connected with the launch are: the assessment of risks involved in augmenting Thor Delta and making NASA do it for us. Once this is done, the question of bearing the cost for this augmentation need to be sorted out. Though theoretically and legally FACC should bear in real life we may have to bear and Government interfaces on this has to be suitably sorted out.



2. APPLE

Next item equally critical is the APPLE. We have to ensure the CDR dates in February 1980 and that the integrated spacecraft will be taken to Guyana in time. I do not think at this stage we can solve the major technical problems of the project. The only thing Chairman could do is to get a first hand feed-back regarding risks involved which is inherent in such projects. This should be done calmly without panicking the project or letting the related persons go cynical since the risks are high. An announcement at this stage by Chairman that by middle of January he will spend one full day at ISAC (seeing all the hardwares, holding detailed discussions with the team and consult engineers regarding the status and test results of each of subsystems etc) would help in boosting the lagging pace in the project which is occurring due to various reasons. This would also help the Project Director in pushing the matters thus being able to integrate the spacecraft by end of January to meet the middle of February CDR dates. One imponderable is the success of LO-1 of ARIANE. I hope and wish it is a success. If the LO-1 is a failure then we are in a different ball game. If Ariane LO-3 is shifted say by a year some of the technical issues on APPLE could be reviewed to take stock of the risk elements from the APPLE spacecraft. We can perhaps do some more tests and so on. If the delay is only say 6 months then nothing much can be done. This is an item which we can probably take stock around December after LO-1 launch.

3. SLV

The third item in the list is the preparation for the second experimental flight. Dr Gowariker had a meeting at the VSSC on December 11 to arrive at a reasonable time schedule, taking into account the lessons from the first experimental flight. It is necessary that Chairman gets an appreciation of this probably by calling a few selected senior executives and scientists from VSSC & SHAR one day in early January.

4. Selection of the Liquid Test Site

I put this also as one critical item because non-selection of site somehow has a demoralising effect on the team for whatsoever reasons and a mere announcement even would greatly build the team into action. Whatever be the psychological origin of such fears, it is in ISRO's interest to keep the team going with the fabrication of GOT engines. Full funds have been allotted for the task. They can do the task with greater vigour once Liquid Test Site is allocated. I understand that the process of going to Government etc may have to be gone through, which may take a month or so. However,



if internally some decision of Chairman is known, it would be a sufficient moral booster. As instructed by Chairman, I am doing the analysis and submit it for decision within 15 days.

5. Organisation of future projects

Though a full project organisation for preplanning to ASLV-3/PSLV-3, IRS need not be done immediately by Chairman, it is necessary in my opinion that Chairman calls the concerned Centre Directors and asks them to work out details internally in the Centres and also with some inter-Centre coordination. For ASLV-3/PSLV-3 Directors of VSSC & SHAR are the concerned persons. For IRS, Directors of ISAC and SAC may be called. However, Chairman may have to choose the name of persons for SLV-V & IRS who will keep the ball of planning activities rolling. This would also greatly help in reorientation of activities in the Centres for R&D/facilities in the coming year (80-81). Present ISRO general belief is <sup>that</sup> SLV-V & IRS are non-starters and therefore nobody seriously plans for it. If the next 6 months are usefully utilised to plan the activities in a planned and concerted manner, I am sure the programme will move through. Therefore in the coming one or two months if Chairman can name two lead persons for these two programmes and also ask the Centre Directors to work out the details, then we are in business. I am aware of budget restrictions and I am sending a separate note on the subject. Also another crucial issue is to move papers for Cabinet approval which will require prior work. I have addressed this issue also.

If the above five issues are handled effectively in next 3-4 months, I think we are in business. All issues be it CISF issues, post creation etc., are all dictated by this issue.

Regards.

*Raja*  
(Y S Rajan) 18/12/79