

TO BE OPENED BY
CHAIRMAN ONLY

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Some immediate actions concerning IRS.

ZERO BUDGETTING:

1) Even while the zero-budgetting exercise is going on regarding ISRO programmes especially IRS, SLV-V etc, we need to initiate urgent activities regarding IRS if one were to move on the programme at all. Start of the programme cannot afford to have any set-back. If it slips a little, the chances are that the programme will receive serious set back.

2) Zero-budgetting exercise has been initiated today (14/12/78). Sudarsan & Chandra will put a basic scheme in a few days which will be elaborated further, discussed in HQ and then put up to Chairman. This will involve some-time especially coordination within HQ. Then actual interaction with Centres and decisions (by ISRO Council & Chairman) are going to delay considerably. I do not see any serious decisions coming before 6 months and therefore it will not apply to 79-80 budget. But as I promised to Chairman, HQ document will be ready in 3 to 4 weeks.

IRS RELATED ACTIONS REQUIRED:

3) As I mentioned in the beginning, IRS has to start irrespective of these. The following are major action points:-

* Defining of a management structure for IRS

It involves the major elements viz, overall coordination, spacecraft management, data product management and utilisation. The facilities part including ISTRAC is another aspect. (I had sent a fairly detailed write up on the subject which Chairman had seen

when he was abroad and it is attached herewith.)

IRS management structure cannot be left loose, just because SAC is vociferous or sensitive.

Without clear management structure for spacecraft management etc including overall coordination, the direction is not likely to emerge. I would like to point out the considerable problem for APPLE due to delay in declaring a structure. (RM Vasagam was pulling one way & so on).

* Reorganisation of the Project structures at the Centres:

Presently the ISAC Centre's divisions and the independence of SAC payloads (& VSSC subsystems) are holding to ransom all Projects SEO, APPLE & SLV-3 etc. This trend has to be reversed. Six chaps in SEO core team and about 20 in APPLE along with the Project Engineers of SEO & APPLE who really report to their respective Division heads (and not to the Project Director except "functionally") cannot be the only ones who worry about the projects while the Division heads, Group Directors/Area Chairman etc give priority elsewhere. This means a clear confrontation in terms of Project ~~vs~~ Divisions and also most importantly shifting some Division/Section heads between VSSC, SAC & ISAC to break vested interests. A solution has to be found for this. The Centre Directors are not likely to favour giving more direct control by the Project Directors as it is likely erode their own sovereign status.

* Regarding IRS utilisation, an overall system definition has to start right away to conduct

- techno-economic studies to identify optimal combinations of satellite, aircraft imagery and ground truth and conventional data.
- Optimal interpretation visual, computer processing etc need to be identified.
- The existing conventional data collection methods needs to be studied in connection with other agencies like GSI, NGRI, etc

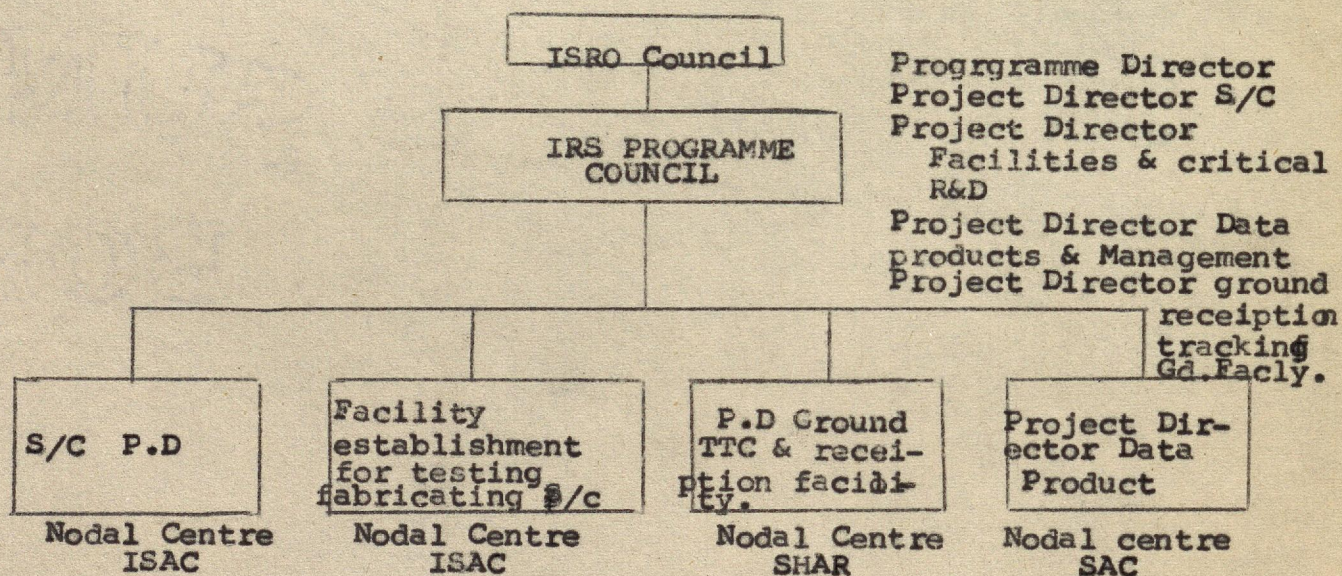
to evolve a MULTIDATA RESOURCES MANAGEMENT SYSTEM. Flood forecasting etc can really become a sub-set of these studies programmatically.

- In any remote sensing system related to Agriculture without IMD involvement for conventional data, can an optimal system be evolved for the country. How do we do it?
- Also NRSA cannot be ignored altogether. SAC does not have the will nor the culture to do this because the existing group pressures will orient SAC only towards utilising & expanding on its existing infrastructure and expertise (all hardware be it Omega Sonde or TV studio will influence SAC) (Their relations with the users are that of a competitor in most cases)

How to do then a system definition? I was trying to interest Prof. R.Narasimha. But he has to devote full time and also begin really in ISRO project mode - i.e., with crazy schedules and intense desire to finish tasks in time. I don't know whether he will move out of his present works and mode of operation.

Another ideal person would be Dr. Kasturi Rangan. I think he can be named the overall Director for IRS programme in which capacity he can also conduct these studies.

The IRS Programme Director should be vested with powers. In fact he should be the Chairman of IRS Programme Council through which only the overall coordination is done.



Each nodal Centre can have a Project Board (containing persons from other Centres too as needed as in SEO, APPLE etc) and these Boards are under Directors of the Centres. But overall coordination, inter-se priorities have to come to IRS Programme Council which will be under Chairman, ISRO. IRS Programme Director will thus be on functional par with Directors and will have authority in programme control. Directors may not like it. But I don't see a better form of coordination of this complex and time bound matter. IRS Council Chairman has also the responsibility for system studies mentioned before.

PROBLEMS

Since SEO has not been launched yet, I can very well see that one has to worry about the repercussions in the Centres and the need for a little caution. But that should not be the reason for continuing the SEO structure where the Centres can operate autonomously and moving (especially SAC) only when Chairman asks for it.

POSSIBLE IMMEDIATE ACTIONS

Without waiting for SEO launch, Chairman may issue the following guidelines:

- (a) The Project IRS will be split into four major elements with nodal centres as indicated above. There will be an overall coordination body which will be identified later. The following team is formed so study technical issues:

A few names of persons whom Chairman considers would play important role in IRS should be brought into the team.

No papers from the Centres should be invited on the subject as this will create lots of emotions and especially in SAC energies diverted towards this.

The initial arrangements can be called ad-hoc or interim.

Within a month after SEO launch, the entire structure should be formalised naming the individuals as Programme Director (Designate), Project Director (Designate) etc.

Two persons in HQ who can assist a take-off of an IRS Management system are Chandra and myself. If Chairman does not clearly indicate to Directors that they cannot work in their old modes, there will be more teething troubles than required. If firm decisions are not given people will attempt dilatory techniques (as was done for SEO) & so on. Directors may be told to operate through ISRO Council. I understand that in such a mode their decision making role will be truncated (as it is their feeling vis-a-vis INSAT where Project is more powerful in powers). Chairman may consult the Directors, therefore, at a personal level - face-to-face talks - without asking for formal papers which lead to percolation of the conflicts to all levels.

In end, I should point out the complexity of the problem should not be reason for procrastination. We can't wait too long.

(YS Rajan)