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reopened.

IMAP had some reasonably
good ^{scientific} results and it gave a large
opportunity for many Univ. Scientists
to do Space ~~of~~ ^{talk} Research and publish
papers. Also in COSPAR meetings.

I am not giving all details
of ADCOS work. It should be in ISRO
files, hopefully still archives maintained.

Given all these efforts
RRD found it useful to introduce
Indian work in COSPAR — he was
familiar with it. Also worked slowly
through their system to lead the
group on Benefits ~~of~~ of Space Research
to Developing Countries. ~~to~~ Fortunately

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COSPAR did not restrict Space Science too strictly — elements of Remote Sensing, Meteorology etc found some place. Then such items on Benefits. RRD made a good mark in COSPAR on that. I helped him too.

I had also attended a few COSPAR meetings & presented papers as well. Later I ~~the~~ gave ~~that~~ such opportunities to other ISRO/HR/ISRO colleagues.

Notable among them are the meetings in Graz ^(Austria) Dr. Öttele who had become DFVLR - Coordinator had an excellent rapport with me. He was also an active scientist

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working on SAR payload to be flown in one of the shuttle.

He also came for the meetings only to spend considerable time with me and show many parts of Graz, its food, Alps, ~~etc~~ special drinks (local made) etc.

He grew up there. So he knew things very well.

When we go for restaurants he ~~will~~ ^{would} not just look at Menu displayed but also look through windows. There were restaurants which had seats.

He will skip. It went on...

I asked him "Why? There are seats."

"No Mr. Rajan, empty seats available shows that it is not sought after."

We will select place where there is crowd

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Even queues. Their food will be good!"

He had also explained the menu which described the ~~input~~ ^{for} ~~raw~~ ~~cattle~~, a animal source, method of preparation etc. He got me special $\text{\$}$ schnapfs made locally. Wonderful. I took some home too later.

Then we had gone up in Alps. Shows the boundary of Austria & Italy — the latter being littered! I don't know how they are now.

In one of the COSPAR meetings (may be confer to this $\text{\$}$ GRAZ COSPAR, we brought our Cosmonauts. I had described it earlier.

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I had pulled off from COSPAR work considerably as other works of ISRO — including organising IRS utilisation program as a follow^{up} of SEO utilisation programme earlier and the massive and innovative NNRMS.

1980-84 period was full of ISRO work (actually from 1978/79 onwards)

- SLV-3 successful launch 1980
- IG/PM visit to SHAR in 1983
- ~~AE~~ SEO-2
- IRS negotiations
- NNRMS / RRSSC etc.
- NRSA ~~coming in~~ ^{coming into DOS} & major effort of merging it with ISRO programmatically & also straighten our Admin/Fin systems of NRSA
- APPLE launch
- UNISPACE etc.

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- Pressures of my work itself from within HQ & my ~~own~~ clear goal to leave
- Manned Flight
- Massive expansion of ISRO & demands on Admin/Norms etc
- PSLV definition
- Post-Kalam departure VSA asking me to join DEAL; he had to deal with SD in vain.
- NRSA ^{Director} fill up — my sudden problem.
- Moving to Antriksh Apts (the ISRO Quarters)
- INSAT-1 related problems.
JPS, P.P.K, . . .

* *
Let me ~~not~~ come back to ADCOS and wind it up. RRD made a mark in COSPAR in his own

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modest way. He was happy about his new found All-India role and also a role in the international field.

URR did not like ~~the~~ ADCOS. ~~He had~~ He considered himself a better Space Scientist and perhaps wanted to direct it... But how many things he can do! A very major activity of ISRO ~~was~~ of building satellites was with him; he was also the Chairman of procurement of INSAT-1SSPO. He had very good chance of becoming Chairman ISRO, the only competitors being YP (senior), VRG (~~no~~ equal). He was also in UN forums leading India. Some times in his 'low'

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leaves periods, URR used to tell me
" I don't know why I have to work
so hard for building up ISAC, satellite
projects, INSAT-1 SSPO etc and
still being spoken ill of by many
ISRO ~~fellow~~ fellows! I think I
should go back to PRL and do
science experiments. I will get the
same money, and far less
tension... You also come with me!..."

Having said it, he would
~~laugh~~ half-laugh and say: "Well
if we go there to PRL, there also
we will start cleaning up the system
and drive it to do much more...
A lot of Space Science is yet to be

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done, but they are not taking initiatives.
~~When~~ When we start that, again
people won't like it! ..."

To a good extent URL was
right. PRL was just drifting, the
only place where Space Sciences was actively
still pursued. TIFR had given up...
Some astronomy work was then... Other
univ. depts, mostly revolving around
ionosphere, atmosphere etc with
traditional methods... RRD did not
take any pro-active steps to make
them think big. To come up with
a large enough project to mark
the presence of India in the world of space

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Sciences. It could even be a few payloads in a smaller satellite or even a rocket. ..
Only ^{@ 2000 plus...} now ISRO is attempting...

To that extent ADCOS was merely becoming a platform of ^{then} existing low level work which was continuing for decades -

Now fast forward... ADCOS did help to keep the Space Science Community through ADCOS. Lal at PRL did not help as he got snarled up within ~~the~~ PRL with his own idiosyncracies of management & finally left PRL... ADCOS could not enter into any major way into Astronomy as the institutions concerned TIFR ~~was~~ was under DAE. Research

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Institute (RRI) under DST &

Indian Institute of Astrophysics under DST.

PR L had an IR telescope at Mt Abu
& a solar observatory in Udaipur. All
were fiercely independent. No attempt
to what India could do, was made..

I used to read NASA/NAS
documents, and summarise & send to
AD COS community — little interest
from them. Easy method would be
"Can we get the money?" But no cogent
proposal came!

... After SD's laying down
office, VRR was in high speed
mode within ISRO. At that ~~the~~ time

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RRD had managed to get COSPAR
to agree to a major Plenary talk about
"Benefits of Space Research for Developing
Countries" ~~considering~~ It should be from
a person from developing country. Naturally
Prof S. Dhanwan was a good choice, accepted
by everybody in COSPAR... ~~He was~~ RRD
was excited about it. Wanted to tell
URR new Chairman ISRO, in addition
to briefing him formally about ~~ADDC~~
ADCOS. I gently told RRD to
wait, especially ~~on~~ SD invite. I could
not plainly say about how URR
~~is~~ was reacting to others seeing SD.
It was an internal ISRO secret!
(That was a part of 'ISRO culture'!)

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RRD did not catch my hints.
He went and spoke to URR. Told
him about his ~~a~~ plans to get SD
for the Plenary talk... (Thus

~~URR started to~~

feed back was given to me by
RRD when he came out of his
discussions ~~from~~ with URR. His
eyes were brimming with tears. I
felt bad!)

URR had lambasted the
functioning of ADCOS. And on SD
trip: "Why do you go and commit
such a thing? SD had to be funded
first class travel & ISRO has to
bear it!" When RRD told this

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I was reminded of the troubles
(even humiliations) ~~of~~ SD had
in trying to get a special permission
for URR to travel by First Class ~~Executive~~
~~for~~ when he became Space Commission
Member — he was not eligible for it.
~~to~~ I ~~have~~ recall writing about it
in some pages earlier!

So I had to say "Life is
like that!" URR also owed his
position as Chairman ISSO with full
"powers" of the Troika because of ~~SD~~ SD!

People ~~for~~ once they get "power"
forget those who helped ~~at~~ them
to get! Later my studies have

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given me insights into Psychology
of Power (formal scientific studies)!

I had to pacify RRD. He
was a good man; much elder to me
and also ^{elder} to URR. My resolve to
go out of ISRO which strengthened
much earlier, became more...

I helped RRD to get into normal
work... I don't ~~know~~ ^{remember} what happens
to SD's trip etc. Nor did I follow
much of ADCOS except for helping
RRD whenever he wanted, till I
left ISRO in 1988...

... ADCOS is over ...

I find it was alive; URR became chairman
after retirement... Nor it looks at Satellite payloads.

* *

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NRSA Transition — My role...

Major work for helping smooth functioning of NRSA & SAC towards IRS-1 satellites yet to come, ~~was~~ began with BP Committee. I played a major role as explained earlier...

By and large Wgdr KR Rao played by that report whereas SAC was treating NRSA ~~as~~ as an inferior outsider! KRR by his nature was not the one to run to Chairman ISRO/Secy DOS ~~to~~ seeking help. He would write to Director SAC. If response is nil for repeated reminders, he would take his own decision!

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SD was not warm to him
~~either~~! either! KRR also was a
stiff person. After some time
KRR was uncomfortable in working
with YP and ^{having} SD as his boss. (VAS
manages KRR's style and got the
best out of him for establishing
ESCES or building ARVI Earth Station)
SD's style was different!). He
tendered his ~~reg~~ resignation — second
time problem with ISRO for him
(one when YP came as Director SAC
and edged out KRR & B S Rao
and second now after enjoying independence
of establishing NRSA under DST, now
getting back to DOS/ISRO, interfacing

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with YP & with no special support from SD!))

To some extent KRR was also of the type "My way is the Highway!" But he was not a person to be so and sabotage the work of the organisation. He put in his papers.

After going through a process, Prof B.L. Deekshatulu who was doing some image processing work in IISc was chosen as Director NRSA.

Till that process was completed Dr. (retired) L.R.A. Narayanan was ~~later~~ given in charge of NRSA. He came to NRSA from Survey of India.

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He was a real anchor for
NRSA. Probably because he ~~would be~~^{was}
considered as ~~a~~ ~~high~~ RRR ~~not~~ protégé
he was overlooked. BLD had
limited knowledge of R's applications
and more so in administration of
a fairly large organisation like NRSA.
He had no admin/mgmt experience
within IISc. He was a pure academic.

Probably SD would have thought
that he would be a good 'compliant'

person and thus SAC / NRSA / ISRO

integration / transition would be easy. SD
would have assessed

LRAN was not so not so upset
to leave, because of his nature. He
was made Assoc. Director NRSA. If
LRAN had left in a huff when BLD

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became Director, there would have been a real trouble ~~in~~ for NRSA. We all incl. SD took care to give enough respect for LRAN in all activities of NRSA, remote sensing.

NRSA Directorship would have been a good opportunity for me.

~~After the~~ I know I cannot push with SD. Only thing he told me after the event "was" "Rajan, you should have been Director NRSA; but what will I do here when you go there?"

Was it a good ~~was~~ 'maska' of a ~~clea~~ clever, manager/leader seeing a weakness in me for being satisfied with a praise?! Or was it genuine

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predicament he had. ~~But~~ In actual practice I had to do a lot of ISRO, which I did, as listed ~~in~~ earlier some major items and also for NRSA. I had the freedom to do so; it would appear that I was de facto NRSA Director for some time. Even TNS who was then Addl. Secy had to go by judgement on technical/admin/finance matter. I can say even now that I did it all purely in the interest of NRSA, its employees and also for the sake of all of ISRO, (IRS-work & etc).

For example one major problem for NRSA was all its 300-odd employees then had so many genuine grievances. ~~Their~~ They did not have a clear

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personnel policies. A Ph.D would have been taken in a much lower scale than a person with M.Sc & B. E. They take up the job and realise it later. Since jobs (that ~~the~~ two govt ones) ~~are~~ ^{were} scarce, ~~they~~ they accepted it. In ISRO almost from the beginning when things were somewhat flexible such things were extremely rare. There was a norm as to who should be placed where... also 1st class in the last examination was insisted upon. The earlier ISRO recruits did not have this strict practice... But still the disparities were low.

Similar problems were

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there for admin staff, technicians etc.

There was a huge normalisation exercise that was done. Since NRSA was an autonomous society under DOS, ~~the~~ DOS cannot force it. There was no question of "ISRO" asking for uniformity. But ~~it~~ the request/pressure was from the employees of NRSA itself. BLD could not even perceive of a process; he used to bring each request to SD and ~~be~~ plead for them. "Hargenuine it is?" etc.

→ TNS & I conceived of the one-time normalisation using ISRO norms as the yardstick and set up special committees to

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to go through cases etc.

& Also we wanted to place some limitations as otherwise the arrears of the decade would take over all the budget. We also wanted to convey a clear message that it was not an automatic admin exercise of counting years qualifications, years etc. ISRO's first entry level selection itself was very rigorous and the subsequent review provisions. Therefore the package given was: It is not automatic; our admin calculation was only to look at what level the candidate had to be ~~at~~ evaluated.

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If they ~~do~~ not qualify in the interview process for that level, Committee may suggest a level which was final; also if they don't qualify at all, they had to be in the grade in which they were and face subsequent promotions, as per norms.

Once they ~~are~~ were fixed in a new scale which was considered as final ~~and~~ eligible for them, they cannot ask for arrears of the past. The new scale ^{will} operate then on & reviews will then be as per ~~the~~ the norms.

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It was a huge exercise in making people understand; many admin/other persons were deployed to calculate and explain to employees. Without understanding the process as a whole, BLD would come with suggestions given by some individual groups and ask that to be used! He would even send by formal letter. The employees were clever and ~~was~~ were utilising his ignorance on the subject.... If any one wrong step ^{was} ~~is~~ taken for one or a group of employees, then the whole normalisation process would

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collapse as a pack of cards!

Each employee gave a consent letter. Otherwise they would be in the earlier "system" whatever it was.

Then interviews were held for Scientific / Engineering staff; technicians were given some tests too. So also for admin staff....

The massive exercise took a few months, after getting approval from GC of NRSA for the whole process, new norms etc.

Even after it was done, as is there in any admin exercise, there would be a few individuals who

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would "gain" a bit more and some who ~~would~~ "lose" a bit.

BLD was entertaining each of the cases. Without explaining the system, he would accept all of them and sent to ~~the~~ SD as Chairman NRSA C.C. He would strongly recommend those cases. It was his "clever" way of shifting the blame to HQ! TNS & I, with the help of Paricker Hd PGA (a remarkable Admin officer) of ISRO not fully rewarded) would examine each case; in fact many of them contradicted each other; accepting ~~the~~ ^{would} the case of one ~~means~~ several

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several others had to lose out, using that as the norm! BLD would recommend all them to be accepted... We explained to him several times... He would say

"You people don't understand my problem! I had to face them every day!" We would ~~like~~ explain what would happen if one of it accepted & how that same ~~rule~~ change-of-rule affect many more adversely... He would refuse to listen & ~~was~~ keep murmuring.

We told him that he ~~to~~ We requested him to come up with a new set of rules ~~that~~ based on what he had given to us

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and we could go back to GC
and apply that as final. He
would not do that; because the
earlier exercise took into account
all cases & fixed numbers & huge
majority were fully satisfied...

Then we suggested to him
not to come to us and make
~~a letter~~ a consolidated letter covering
all the demands he had and
seek Pj SD's approval directly. He
can then implement. He thought it
was a good idea & went to SD.
He had the ~~full letter~~ covering letter
enclosing all demands & met SD.
I ~~think~~ don't know what was
discussed. After some time SD

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called TNS & me. He did not ask us any question nor gave the letter / appendices of which BLD gave him.

He had a sort of mischievous and charming laugh (not usually used by him!):

"Py Dekashatulu: These guys are giving you a lot of trouble, isn't it?"

BLD[#] sheepishly murmured some thing!

"Now I am going to solve all your problem and fully approve all what ~~#~~ you had been asking

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for. [#] Then don't come back to me.
"Go ahead and implement!"

~~He~~ ~~chat~~ SD clicked his ball pen, keeping it a pose ready to write on the letter given by S BLD to him.

[#] He looked up to BLD
"Tell me what should I write on your letter!..."

I still remember the frown that suddenly came up on BLD's face...

[#] ~~He~~ BLD stretched his hands out & pulled his letter from SD's hand...

"No Sir! Don't sign anything

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on that. I am taking it back!"

That was the moment of administrative enlightenment of BLD! He never raised that again... That did not mean he became a great administrator after that...

"...don't come back to me after that!" would have alarmed BLD!

Bickerings between SAC & NRSA continued. There were several methods which were employed to tackle it! In trying to help NRSA to transition and execute Director's responsibility indirectly ~~we~~ added great burden to me! But it was useful for

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Spreading remote sensing in India;
to prepare for NNRMS....

LRAN played a major role
with States / Users etc. From SAC side
it was Baldev Sahai, who was considered
by SAC elite as "belovr par"! He did
^{demonstration}
lots of L applications & drew up
standard SOP for users. Did a lot
in Gujarat as well! In fact
these were the two key Generals to
spread ISRO / NRSA / DOS wings with
variety of users! Of course they were
not given the due credit by ISRO / DOS!

NRSA started equipping itself
for the IRS ~~rec~~ reception etc. There were
also other items like receiving SAR

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data from ~~the~~ USA & later European satellite. SAR data processing on the ground was ~~not~~ a separate technology by itself... it was not like retrieving imagery from the usual electrooptic data... I pushed for these things very much... The reason was that the learning curve for these ~~things~~ would be ~~of~~ a few years; ISRO/NRSA could not afford to wait for the Microwave Satellite programme to be approved.

& My working with ESA was appreciated so much by them that they sent me the ^{first} Imagery of the first ESA satellite to me even after I left ISRO... It is in my home!

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It was sad that the USA's SEASAT developed some trouble after 3 or 4 months of operation. But NRSA participation was helpful to get ready... It took a long time for ISRO to have its own ~~own~~ MW satellite RISAT....

But NRSA could get ~~its~~ some SAR imagery from other satellites to get familiarised with the use of MW SAR data....

I had not linked ~~them to~~ the above in a chron order...

There was also a question of aircraft flying by NRSA. We had to solve many problems raised by

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Survey of India... I had described it earlier when I had written about P. K. Kaul the then Deputy Secy — in human flight programme.

One logical sequence could have been to briefly describe NNRMS but let me break the monotony of Rendti Susrij (even for me !!) and ~~to~~ deal with an interesting research topic which ISRO promotes & supported.....

That was about "Origin of Life"... SD took also special interest after Cyril Ponnamperuma (CP) a Sridharan origin scientist but who lives in USA; Maryland Univ. Professor.

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Another person from Indian side was Dr. Pushpa Bhargava, who was setting up Centre for Cellular & Molecular Biology (CCMB) then.

His wife was British. S.D. & he ~~was~~ had some personal friendship

But S.D.'s closest friends were Dr. S. Ramaseshan & Dr. A.K.N. Reddy — even the houses ^{near} of the Palace Road, they have taken together.....

I don't remember ^{the names of} other scientists who were involved in the programme. One of the things they wanted to work on was some of the rock samples from the deepest part of ~~the~~ Kolar gold mines, some meteorite samples etc.

These rock samples were by law the property of GOI and ~~the~~ it thus came under Geological Society of

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India. They had visited the central repository of GSI in Calcutta for getting some good samples. I have heard them complaining about the extremely shoddy conditions in which the precious rock/meteorite samples were stored. Insects, rat urine/feces etc were in those areas. Any scientific search for organic molecules (leading to ~~life~~ origin of life or other such evolution related studies) would be impossible!

The group tried its level best to keep ~~the~~ the interest. I think there was also one academic from Ahmednagar (I think a Christian name) who was a life-sciences ~~re~~ researcher in the

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Kram. He was considered to be an excellent researcher.

Cyral Ponnampersuma, PB et al tried to keep the team alive for about two years. They were very happy about ISRO support... I don't think any paper came out of it; or even a report.

The group fizzles out..

* *

Let us move now to NNRMS, especially the major ϕ events in May 1983.

We had earlier discussed about the need for NNRMS, thought of initially by SD in conversations with me.

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While VAS was responsible for conceptualising ~~the~~ the idea of use of ~~sat~~ satellite communications & building up of INSAT satellite, ISRO-MIT studies etc, he had only initiated ~~a few~~ some interactions with relevant ministries: not yet in full form before his sudden demise.

It was left to SD, almost immediately after his taking over to start the process of initiating formal structured study of use of INSAT via Planning Commission Committees — Telecom, TV, meteorology. It led to a final shape for INSAT utilisation, govt approval & an INSAT Coordⁿ. Committee at an Apex level. . . . But that was only having three departments of (P.T.O)

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GoI. All three were Central govt
subjects. ~~the~~

SD realised that ~~that~~ the ICC
type of system or even Plain Commission
Committees cannot capture ~~the~~ even some
applications of remote sensing like Agriculture,
Forestry, geology, with various subdisciplines
like geomorphology, ~~mineral~~ minerals, etc,
~~soil~~ soil surveys, urban land use, water
resources of various types, etc etc. Many
of them were State subjects. In addition
many agencies from Central & State
~~govt~~ govt, were involved & not just
govt departments, but autonomous
institutions under them.

In principle

In practice, it would have

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been possible to have structured meetings
with ^{a few} Central Govt departments like
Dept of Agriculture & Cooperation; Dept of
Mines; ~~etc~~ Dept of Water Resources;
Dept of Urban areas etc and produce a
document to get approval for an
Indian Remote Sensing Satellite project.
Many foreign applications can be
cited and a nice ~~too~~ reading report
could have been placed to Cabinet;
Cabinet would have approved also.
In India many things were done
that way, in those days and even
now. S & T departments / agencies were
replete with it: Show foreign uses
and ask for similar ~~proj~~ projects
for India.

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~~India~~ Then actual Indian uses suffer.

SD did not want to come to that "sorry # pass" a few years later.

He was very keen to develop users ~~along~~ well ahead of ~~that~~ developing & launching a space segment. &

Therefore he had started various processes for use ~~use~~ of IRS satellite. A reasonable definition of satellite segment existed starting with TA Hanuman Committee report & other ~~sub~~ subsequent studies for sensors etc.

He initiated IRS utilisation programme on the lines of ~~Bhaskar~~ SE0 (Bhaskara) (imager) utilisation program. Acquiring NRSA into Dept of Space & make SAC - NRSA ~~integrable~~ "programmable integration" was a part of this process.

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~~But a~~ But DOS/ISRO had to move beyond this: Various institutions & working on ~~Nature~~ Natural Resources (and ~~their~~ the professional experts) working in them had to be brought into the loop of decision making, and through them also their ^{Central} Depts under which they were working...

It was a daunting task. Not attempted before for a large scale focussed job... Big projects were usually "top down", discussed in Delhi and approved. Others were to fall in line: ~~but~~ but usually they would ignore ^(implementation of detail things) ~~of~~ creating only paper work...

The danger in such an attempt could be that those user institutions would be felt threatened

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and block new ideas. Even for simple coordination for INSAT Ming I & B did not feel the requirement of a satellite in spite of demonstration of SITE. Fortunately Telecom Dept. came around especially with a demo of STEP with Franco-German satellite *Symphonie*. IMD was very hesitant thinking that their own ^{age-old} huge establishment would be wound up with satellite meteorology, despite several assurances that it was they who ~~will~~ would run the entire INSAT meteorology usage. Since ~~it~~ IMD was under Ming Civil Aviation then and was a single monolith for meteorology all over India, they could be brought into the system.

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So when INSAT space segment project went to Cabinet in 1977 only two concerned depts supported. Min of I & B did not relent. It was the ~~the~~ bold decision of Morarji Desai as PM which allowed the two S-Band ~~channels~~ transponders in the satellite: "You go ahead & ~~let I & B~~ build satellite which had lead time... Let the grant segment of Min of I & B come up later...."

of Remote Sensing ~~cannot~~
could not have used that method.
The expert agencies under the Central Ministries, even in some State ~~where~~ need to be brought into the net of

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of accepting. They should feel that they ~~are~~ were a part of defining IRS Satellite and its utilisation: this is to be done with what would ~~be a~~ look like disparate group agricultural scientists, soil scientists, ground water experts, watershed managers, foresters, ~~and~~ geologists, mines persons, ~~etc.~~ urban developers etc. Talking from Spectral signatures to final visual/computer utilisation selection of optimal channels for India to LandSat to sensor technologies to final utilisation of data ~~as is~~ ^{is} through visual/computer processed forms and integration of these in their thematic maps and actual use in

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Operations

Fortunately in all these
depts / agencies, there were some persons
who had used ~~air~~ aerial imagery
available from Survey of India (SOI)
and ~~some~~ a few persons who ~~the~~
were aware of Satellite imagery.

Fortunately availability of Landsat
imagery from NRSA (even before
it came under DOS) ~~help~~ helped.
They had procured a few Landsat
images ~~for~~ (70m resolution) in
those days) for curiosity / experiments.

This was both plus & minus!

Some had strong opinions against
~~the~~ Landsat type data: not enough

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resolution etc. We want infrared channel. (Sensor would be a challenge even for USA/NASA/NOAA ~~was~~ ^{was} not their concern!) ... Some were genuine; some were to "show off" their knowledge ...

"Navigation" ~~of~~ amidst these disparate groups ~~to~~ could make us lose direction ...

SD & I dump our discussions ~~to~~ had identified these complexities. But we had little option, as SD wanted IRS to be useful for India users.

SD had asked Chandra & me to make ~~a~~ a cost-benefit analysis ~~of~~ for IRS made in India; wanted a con We made an excellent

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study with several good assumptions which turned out to be right. ~~We~~ Based on various prior experiences & practices we had come to a conclusion that NASA / USA / NOAA would ~~not~~ ~~give~~ continue to give free data to the world. ~~Then~~ ~~has to~~ USA would ~~not~~ leave it to commercial actors as well, with transfer of technology... or even for ~~the~~ US ~~with~~ satellite, there would be a cost recovery.. ~~We do~~ US Govt would ~~not~~ demand amortisation of US \$750 million or so already invested in Landsat. So each ^{new} Landsat & launch will be the new cost factor eh... Then Indian needs...

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Then some technical constraints ^{to satellite} to give to India its data ~~are~~ needs (some of them would have to be in particular time periods etc), as USA had to supply to other countries ~~and~~ as well.

So IRS-1 would be cost-effective for India, may even be cheaper...

We ~~are~~ ~~not~~ were armed with this data.

SD did not want any justification based on the "surveillance" capability. Whenever ISRO persons used to push for this angle & not the head path of commercial justification, ^{and our own civilian sector acceptance} "Leave that the North Block!" will be his quick answer...

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The primary job of translating the idea of SD into a tangible plan of action of involving user agencies / ministries came to ~~be~~ me; had a good intellectual / analytical support from Chandra to begin with.

SD was very keen to find out as to what was recommended on remote sensing / natural resources survey by NCST (1970's marathon study ~~for pilot~~ directed by CS). It was a huge challenge to get all volumes; even ~~the~~ Planning Commission did not have a full set; ~~not~~ nor DST! I somehow got them from various depts

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and read through those dusty reports.

This was in spite of ~~the fact~~ my
asthmatic ³ possibilities.... Will take
an anti-allergic tablet...

~~Here~~ While surveys of various
sorts were mentioned. Very little of
remote sensing; there was mention of
aerial surveys — leading to NRSA
later...

So we had to start
ab initio in user sensitisation. ~~It was~~
Fortunately some users in Agriculture special
soil surveys, ~~and~~ geology etc had
some advanced work done...

So the complex network of
NNRMS was conceived: calling it
PC-NNRMS, Preparatory Committee
(P.T.O.)

of (1058)

of National Natural Resources Management System (PC - NN RMS). It had several standing committees, each chaired by a Secy to GOI in Agriculture, Mines (Geology) etc. There were further sub-committees of ~~sets~~ specific specialisations as needed.

I was made Member - Secy of PC - NN RMS and convenor of many of those Standing Committees as well. One item which was carefully thought out was the Secy of the Standing Committees under ^{respective} Secy of GOI. In an ideal sense

06.02.08

Y.S. Rajan

Well till that time the eight power hierarchies will be dominant in India - may with some alterations in their relative positions. What you want to do, you choose understanding the ground reality.

Good luck!

(1059)

it should have been left ~~to~~ under
the Secy's Dept — near them. But
we all knew that this element would
be ^a microscopic activity in their dept
which had bulk items in other
areas ... which ~~was~~ would be
continually & continuously
occupying them

So we decided to have
~~the Secy~~ all the Sects functions of
the NNRMS (Apex PC-NNRMS,
and Standing Committees & also the
sub-Committees of the Standing Committees)
at ISRO HQ / DOS. Incidentally
PC-NNRMS was not chaired by
Secy DOS (SD) but by the

(1080)

~~member~~ Member (Scienca) of the
Planning Commission. When we
began it was Dr. M. S. Swaminathan.

This centralisation of the NNRMS
& Secretariat functions was an
important component of the success
of PC-NNRMS

My job in ISRO then
multiplied many fold. In
addition to Sc. Secy ISRO tasks,
Director EOS (for remote sensing),
Secy NNRMS position became quite
huge.

Since ~~the~~ R'S' applications
was (is) spread ~~on~~ around

(1061)

many agencies including some NGO's
it would be difficult for one dept
to give all data. Therefore we
took multi pronged approach. We
wrote to several agencies in India,
Universities etc. We did not have the
benefit of Internet / Website / email
etc. So there were massive mailing
of cyclostyled letter but individually
signed.

We brought out a first
volume Remote Sensing in India
(I think it was 1980 or 1981). ~~At~~ To
some of my colleagues who felt
it would not cover all, my response
was: "Well, if we wait for ~~each~~ everyone,

(1062)

even some big ones, it would never come out. Let us publish; we ~~can~~ could write in a Preface ~~to~~ or Foreword that we contacted (so many) institutes (so many responded... Hope in future edition others who did not respond yet will come forward... We are planning to make it Annual reports."

~~My expectation was for~~ ~~us to~~
We ~~also~~ ^{printed} gave the name of the persons) (institutions under each input; some of them would be seen their names printed for the first time in a national (all India) report.

First report was received very well. Many wrote to us that they

(1063)

have been left out $\frac{1}{2}$ and they do a lot of work using satellite data.

We would warmly welcome them to send info to us and also remind that we could not put the info as they did not provide earlier...

So it picked up.

As NNRMS meetings picked up we started a Print NNRMS Bulletin. To make better involvement we got it brought out by an Agri - institute.

(I think Dr. Karale was taking care of it with one of his officers. His name would also be typed in etc)

Similarly for the specialist NNRMS sub-committee meeting I

(1963)

I did not take the Chair. With the consent of all members I would request Dr. R. S. Murthy Director NBSSLOP to chair. He was much elder to us & very knowledgeable. Such gestures were useful in developing friendly relations.

For my part I also learnt a lot & about other disciplines — right from the expert professional practitioners; that was very useful for me, then and later when I went to TIFAC, to know about different types of industries & be useful to them.

~~It~~ There was a sad moment when R. S. Murthy died after a lot of chemotherapy... I was told he (being a nice man) took an early retirement which later disallowed

(1064)

persuasion.

~~For NNRMS we could~~

For ~~NAT~~ execution of NNRMS even at preparatory phases, I ~~had~~ needed more manpower... Manager to get some... ~~JPS~~ JPS was jealous about it as EOS was "big"!

Preparatory ~~to~~ I had seen NNRMS bulletins being kept carefully in EOS office (while I was in the distinguished Professor phase in ISROHQ from 2010 - 2015). Hope ~~it was~~ at least one set would be kept safe... I had ~~one~~ some scattered items in my archives as samples) Similarly the Remote Sensing in India series... These were g. excellent examples in mobilising a large number of expert professionals in different fields

(1065)

related to ~~the~~ natural resources management.
They were all governed by different sets
of rules for their pay scales, promotions etc.
Many of them were getting less salaries
than those who were in ISRO, DAE,
CSIR, ~~etc~~. Even some of our junior
scientists in EOS office were getting
salaries equal to some of them who
were in charge of units (SE level of
ISRO); even Dr. R.S. Murthy was of
~~a lower~~ a lower scale. This was
~~at~~ a problem which science
policy makers had overlooked: the
justification was that they were not
R&D persons; doing routine observations
& services etc. ! ... I had later seen
after going to DST_h ^{that} many "scientists"
working in ^{some} central govt organisations

(1068)

attached to so called S&T departments
were doing ~~more~~ almost non-scientific
administrative jobs and still enjoying
good scales as in CSIR, ISRO etc.

The "caste system" in the
Indian govt organisation (State/Central/
PSU etc...) ~~was~~ were (are?) terrible.
The central All-India service officers
with apex of IAS, IFS etc were
taken care of very well. The elite
S&T organisations like ~~IS~~ DAE, ISRO/DRDO/
CSIR/ICAR^{et} had it well. Even DRDO/
ICAR had to fight ~~of~~ out to get "merit"
review promotion system (Flexible complement)
Later ~~the~~ some left out Central
S&T organisations like DST, DOE etc
got them...

Returning to NNRMS,

(1067)

progress was very good. I developed excellent rapport with Secretaries of different GOI, (later that experience was very useful for TIFAC & DST)

Add Secy's, Joint Secretaries & even some lower level officers who were closely supporting their higher ~~management~~ ^{management} of persons from an elite scientific organisation like

ISRO (it was not just me but also my colleagues in ISROHQ & and some from NRSA, SAC)

~~to~~ working so intensely with persons from the socio-economic sectors (ie Depts other than the closed ~~sect~~ depts of S&T; then mostly DST & CSIR... later become DBT, DNES, DO Env.), would have been rare.

(1068)
[& especially CSIR]
I had DAE worked with them in
that manner ~~& especially CSIR~~
right from 1970's, applications of
Atomic Energy (nuclear), would have
been much larger... From CSIR
side a number of indigenous
products applicable to India (socio-
economic dept decided on them)
would have come about.

Except probably CS, ~~most~~
~~of the~~ Indian (Central / State) political
leaders were totally ignorant of
such a need. They thought S&T
would need to be left to top scientists
and they ~~will~~ will take care. (Something
like the Homi Bhabha syndrome
started by Nehru, with all good

(069)

intentions. ISRO was fortunate
have had ~~Vikram~~ VAS with a
focus on end results & immediately

following him SD as a person
who mastered the processes of
making the ~~SE~~ S&T ~~gov~~ developer
in ISRO to be relevant to and
accepted by other departments

of govt (socio-economic ones whose
~~the~~ main tasks were not perceived
to be related to S&T development
or R&D), though the initial founders
of Indian Govt created ^{or attaches} S&T
institutions under these depts...

(example: Agriculture → ICAR;
Health → ICMR; Industry → CMITI etc.
Mines → GSI-~~2~~; Civil Aviation → IMD etc.)

(1070)

It was SD who took up the cause of IMAF etc to Min of Civil Aviation and brought in the role of IMD...

~~Under~~ And later, ~~INSAT~~ for satellite meteorology for IMD...

In case of Survey of India it was much tougher because they had a double control & mostly "ruled" by ~~A~~ Army HQ; most persons from Army seeking easy postings were sent to SOI. ~~That~~

~~caused a~~ Even after SOI

came under DST, it was difficult

to "control" direct them. They were brought under ~~a~~ decades of traditions of "secrecy" (created for Army maps)

They were aghast when

(1071)

Satellite remote sensing came and liberated the tools of survey & map making. SOI controlled ~~also~~ aerial flights ~~also~~ for photography..... They I had described earlier as to how P. K. Kaul helped the process of "clearing" Landsat imagery for sending to the ^{Civilian} users by SOI / Army etc.

The resource survey organisations also equally suffered from SOI's oppressive control ~~for~~ ~~an~~ over clearances of maps and enormous delays... They looked forward to I STRS / DOS help... That would have been also a reason ~~at~~ why they got together with ISRO / DOS on ANRMS.

(P.T.O)

(072)

SOI continued to play that negative role, much later too ... As also

Agenda Item 1:

Minutes of the previous meeting.

Minutes of the Board of Governors meeting were circulated on 09.03.2017

Army, ... I am told that ISRO is unable to use Cartosat, RISATek for civilian uses because the ~~thing~~ the Defence Services block ~~is~~ it from doing so. ~~Thus~~

(@ 2015 periods) # ~~I~~ What is amazing is that very high resolution & imageries are available for purchase globally, with the speed of e-transfer!!

~~Even~~ ~~During~~ 1980-83 periods when I was doing lots of work for NNRATS & ~~for~~ preparatory work for

(1073)

IRS utilisation, the imageries were ~~of the~~ around 70 m resolution & perhaps showed a promise of 30 m resolution.... Defence forces & SOI would ~~so~~ scoff at them as being not of use & they needed 1 m resolution ~~but on~~ ~~the other~~ ~~at~~ Landsat/IRS imagery were too coarse!! But on the other hand they would block its use in most areas (border areas, coastal region etc). This fight continued... During the NNRRMS period Dr. S. Varadarajan was Secy DST and he was very supportive of NNRRMS & kept SOI under some control..

But SOI could not stop

(074)

The enormous mobilisation that was taking place. ~~Within~~

~~The~~ ~~Dr~~ In between during this period, MSS was replaced by Prof. M. K. Menon as Member (Science). SD requested his good friend M. K. M. to chair NNRMS... M. K. M. had the background; in fact without his decision to ~~at~~ transfer NRSA to DOS, ~~IRS~~ when he was Secy DST, preparatory ~~work~~ work for IRS would have been ~~in a~~ on a shaky ground. ~~Also~~ for data reception, dissemination etc. More importantly a good group of application scientists like L. R. A. Narayanan, Ramanathan et al would

(1075)

not have been for ISRO / DOS to deal with multiple users. Also

(51) LRAM being from SOI was helpful as he could manage at operational level many clearances.....

So it was dec

A fairly good idea about how the NMRMS would be, how a rudimentary ~~to~~ Natural Resources

Information System (NRIS) can be configured emerged. (1980's ~~was~~ ^{was})

period without ~~interest~~ internet;

~~in India~~; computing systems were not powerful; they ~~was~~ were mostly

centralised processors. Heavy CCT's needing 24x7 airconditioning. The entire processes were costly.

(1076)

In the Indian context we had to emphasise more on Visual Interpretation. Some locally manufactured simple visual interpretation units — basically magnifiers & projectors but with facility to draw maps on papers placed on them —

The NNRMS national Conference took place in Hyderabad May 1983.

I think it was a three day conference.

The papers presented were ~~compiled~~ compiled

I think it was about 2^{1/2} inch thick!

Q & Q Good quality papers. Most Secretaries to Govt attended. . . . I don't remember the details. Since NRSA was located in Hyderabad (the reason

(1077)

for the choice of venue & also its connectivity by train & air). So the "bandobust" for lunch etc were done well too. Attendance might have been ~ 1000 persons.

As an outcome we decided to have a resolution passed. ~~Most~~ Persons from the key agencies & myself did the work — cycled through SD & MGKM — and it was adopted.

One special thing worth mentioning. MGKM speech; it was extempore. So we had to transcribe. Remarkable that it could be just typed without any editing. He was capable of speaking without any mistake in

(1078)

syntax, context etc - ~~no~~ no repetitions.

The NNRMS Conference
~~the~~ 'Resolution' was formally
adopted in the Conference towards
the end..

It was a unique achievement.
Later we used that ~~for~~ while
getting ~~format~~ formal approval
of NNRMS.

Though it happened a few
months later, I would cover it
right now. Since NNRMS covers
several areas of other Govt departments
and did not by itself come under
'all matters concerning Space', it was
considered prudent to have it included

(1079)

~~as~~ under the "Rules" Allocation of
Business" under Dept of Space.

It is a special document defining
the "turf" of each department.

Closely guarded. It ~~is~~ was something
that was easily available to persons
within departments. "Confidential" &
only with Secy, Addl. Secy & JS.

Even in ISRO even senior Directors
would not have ~~see~~ seen it. Only
within Dept of Space.

I was aware of it being
in ISRO and having to do certain
things for DOS.

One of the immediate
decision we implemented was
to ~~a~~ Christine PC in PC-NNRMS

(1080)

from "Preparatory" to "Planning"

This decision also came from ^{the} Conference that ~~it should~~ DOS should now start implementing the recommendations and create an executive structure.

Other Standing Committees etc remained the same.

PC-NNRMS started functioning with full speed. We hired some additional space in Jawahar Towers and recruited some persons. Most remarkable person was Sh. Krishnan Umni, from ASI. Very ~~kind~~ respected Geologist & fully aware of Remote Sensing equivalent any one in NRSA or SAE. ~~To get him~~ Due to the vacancy based provisional system of (P.T.O)

M.S. RAMAIAH UNIVERSITY OF APPLIED SCIENCES

M.Pharm Intake - 2017-18

Annexure : 6

| Master of Pharmacy (M.Pharm) (Note:1) | Govt. Seats | University Seats | Total |
|--|-------------|------------------|-----------|
| Pharmacognosy | 6 | 9 | 15 |
| Pharmaceutical Chemistry | 6 | 9 | 15 |
| Pharmaceutics | 6 | 9 | 15 |
| Pharmacology | 6 | 9 | 15 |
| Pharmacy Practice | 4 | 5 | 9 |
| Total: | 28 | 41 | 69 |

Note:1 -M.Pharm - Out of the Nine Courses four courses are not offered in 2017-18

(1081)
 ASI, he was in a much lower grade
 compared to his counterparts in
 ISRO/NSA. Still we managed to
 get him in SG grade, just a
 single selection, which would be
 normally ~~from~~ ~~from~~
 upon by ACC (Appointments
 Committee of Cabinet). I remember
 P. A. Menon ^{or N.S. Venkatesh} Dy Sec ~~at~~ requesting
 me to write the note for ACC.
 Why him? What was the Selected
 Mode? etc - I was thoughtful
 by and large. His Dept of Secy (Mining)

(1082) a MSc.
B.K. Rao, himself a geology
& IAS supported it. I had
written about the nature of the work
and as to why ISRO DOS needed
a person from a User Agency...
ek. Har PymMKM Ment Sec, Sec Min,
Secy DOS etc have applied their minds
to select a person while observing
the work of PC-NARM over months.

(In a way I think that they
were the Search - cum - Selection
Committee) ek. ~~As a~~ note
covering a few pages. The proposal was accepted!
He was to oversee all PC-NARMS
efforts reporting to me.

Another important
decision was to have a remote
(F.O)

| Sl.No | Master of Technology (M.Tech) -Part-Time Programmes- 2017-18 |
|-------|--|
| 1 | Automotive Engineering |
| 2 | Automotive Product Design |
| 3 | Automotive Powertrain Design |
| 4 | Turbo Machinery Design |
| 5 | Aircraft Design |
| 6 | Advanced Machinery Design |
| 7 | Advanced Manufacturing Technologies |
| 8 | Engineering & Manufacturing Management |
| 9 | Civil Structural Design |
| 10 | Construction Engineering & Management |
| 11 | Electronic System Design Engineering |
| 12 | VLSI System Design |
| 13 | Computer Science & Networking |
| 14 | Real Time Embedded System |
| 15 | Automotive Electronics |
| 16 | Transportation Engineering |
| 17 | Sanitation Engineering & Waste Management |

(1083)

sensing in each State of India
 so that they can "own" them; for
 this ISRO/DOS ~~will~~ ^{would} give some
 30% for capital expenditure.
 For N-E States, 100% Capital
 Expenditure. ... Over a period
 these were established. ... More
 later. ... But these centres
~~Only for~~
 would initially be based on Visual

(084)

Interpretation only as computers
mostly VAX 780(?) based. They
were costly; CCT based. But India
needed it; so it was decided
to have a system of Regional
Remote Semp Service Centres (RRSSC)
about 5 to 6 across the country
with the system located in a place
of an User Agency — centrally established
operator by PC-NRMS Seatt / DOS / ISRO.
More about it later; separately &
role of Krishnan Umni; technology
denial issues by USA; ~~etc~~ Role
of SEP / MORIN, offer for setting up
of a ^{JV} company for image processing etc....
Airta Varadan, R.S Chaturvedi etc.

(1085)

A Cabinet paper on ~~NNRMS~~ adding NNRMS into "Allocation of Business" for DOS was sent & approved (the Resolution also was enclosed) and Presidential sanction (signed by Giani Zail Singh) was issued. It was a major event in SET history; for us it looked normal, because we were doing so many things on several fronts and they were mostly successful.

I don't think, Indian press covered it. They mostly looked at a Satellite or rocket launch; if

(1086)

is a failure, there was an extra kick for them... This was in spite of the fact, ISRO/DOS was taking about ~~20~~ 15-20 S&T reporters from ~~2~~ national newspapers around all ISRO centres regularly — almost once in 6 months — as a deliberate policy by SD.

V. K. Nair P&R did a remarkable job -

One another item worth ~~the~~ writing here itself is. The NNRMS conference proceedings were of good quality. Since Proj 4P happened to be in the Editorial Board of Int'l Journal of Remote Sensing (IJRS) published from UK

(1087)

Editor-in-chief being Roy Cracknell,
he said he would send a copy to
him asking him to consider the
publication of some papers in IJRS.

This was a very positive response.

~~He said~~ He was surprised to see the
R's applications with simple equipment;

IJRS ^{papers were} ~~was~~ dealing with complex
mathematics & equations; their applicability
to tackle simple problems were minimal.

It was partly because the European
Countries ~~(which)~~ (from where the papers emanate)
~~had~~ were already having a good repository

~~and~~ resources survey done over
their countries through aerial surveys
even before the advent of ~~sat~~ satellite
remote sensing; of course satellite
remote sensing has many other

(1088)

advantages • Larger swath; Cost effective
regular repetivity; multiple ~~set~~
spectral data etc — also large area
coverage in addition to large swath
on individual images...

It was (to the NNRMS Conf)

So all the authors were
requested to rewrite their papers in
accordance with the format of IJRS.
~~and~~ It was a huge job ^{late} Dr. V. R. Rao
took up lot of that burden. We had
to decide, which had come up to the
standards of IJRS and finally sent
~~to~~ them. Py Crackerel decided to
merge two issues into one, devoted
to IJRS.NNRMS. As Technical
Editor, I wrote two page foreword
introducing them & Indian R's program.

(1089)

~~I think~~ Prof Cracknell wrote a nice
editorial (I think the publication in 1985)
Had it been
~~I think~~ in academic circles, it would have
been ~~be~~ celebrated by them — an
international publication... We took it
all as taken!! ... ~~That is~~ In addition,
Indian Remote Sensing Program, took
~~a central~~ a central stage in International
community of IRIS' application scientists...
It was very useful later as well for the
~~same~~ sale of IRS data to international
customers.

One small item: MAM used to fondly say NNRMS in
both abbreviated & full expansions ~~is~~ a tongue twister...

Now I move to another item
chronologically before NNRMS Conference.
It happened ~~at~~ on 17th April ~~at~~ 1983.
That was Prime Minister Indira Gandhi's

~~108~~ (1090)

visit to Sriharikota (SHAR) for
witnessing a SLV-3 launch. She was
a "para" lady; she understood the
"para connotations" of a launch vehicle.
She was the one who understood how
India lost its position to be the ^{exclusive} P-5
and thus losing out on NPT. So at
least initiated 1974 Pokharan PNE. She
made an Indian ^{SET} team to visit Antarctica
before ~~the~~ the deadline date; thus
India is ~~the~~ in the exclusive club
of countries in Antarctica treaty...

We had a failure of
SLV-3 E01¹⁹⁷⁹; SLV-~~E02~~^{E101} 1980 was a
success; SLV-3 D~~01~~^{C19} D1 (1981[?])

SLV-3 D2 was 17th April 1983

In terms of orbits - Both E2 & D1

19(1091)

were not great; slightly better than touch-and-go. So that tension was in our mind.

Plus the security arrangements to be done ~~to~~ in an open island with a large coast, bushes etc. It was not like the ~~is~~ relatively simple precautions we took before the first SLV-EO1 launch (I had described it

earlier). Also that was a period when she was tough on the Khalistan separatists though she was in a way helpful to Bhindranwale to come up politically with an idea of splitting Akali Dal which was emerging ~~as~~ a powerful opposition to Congress Party, when she realised that ~~the~~ Bhindranwale & party

(1092)

turning into a terrorist - Aparahit
organisation funded & supported by Pakistan
she had started cracking down. It was
to lead to the Operation Blue Star
in June 1984.

In the political front it
~~was~~ though she was in command
post - Emergency defeat, the collapse of
and opposition Krichdi ~~got~~ govt from
1977-79, there were loss of political
power in traditionally strong Congress
basion - Andhra Pradesh; a total
noise to politics NTRama Rao (NTR)
starts a Telegu Desam Party (TDP)
& blitzkrieges to victory. When she
was coming to SITAR, he was
already in power in AP with a strong

(1093)

popular base. As AP CM he would come too ~~as~~ as SHAR was in AP and it would not be stopped, without serious political uproar.

SHAR had limited facilities ~~as~~ for VVIP, VIP visits; a simple guest house for Chairman ISRO/Directors & some senior persons and a number of large hostels for persons from VSSC, etc to come & camp for weeks/months during the launch phase.

When PM, that too as Minister of Space desires to come, we had to do it. Who exactly would come with PM in her team ~~is~~ is normally not specified; they block a number of rooms. For sure Min of State ~~for~~

(094)

dealing with Space Shivraj Patil
would be there. Then there ~~was~~ were
speculations that Rajiv Gandhi ^(RG) who
was ~~an~~ an MP then (as IG, after the
death of Sanjay Gandhi had decided
to get her first pilot son into politics
with an idea of succession) would
come with his family - wife & two
children. It was also generally told
and some writings in press that Raj
RG was very keen on high protocol
from him next only to PM. It
was tough to arrange as there were
very little facilities.

We converted the Range
Director's room ~~(Raj)~~ (Ratnaraj Jeyamani)

(1095)

into a room for PM to sit with self contained bath room (which was retrofitted from its usual fungal form). ~~There ~~are~~ were two separate rooms~~ This was in the operational area, as it was necessary to give.

Two other ^{single} rooms were ~~made~~ ~~with~~ fitted with ~~that~~ male urinals (NTS & Shivraj Patil) — operational area. Others did not have any except general bath rooms / urinals which we blocked for VVIP visitors.

Of course the whole of guest house was blocked for ~~the~~ PM's entourage & Chairman ISRO perhaps a couple of them free. If VVIP entourage persons need some

(096)

privacy when in operational area
they ~~have~~ could ~~to~~ go to guest
house (which was not far away!)

So RA units have a special
protocol. ~~the~~ It was told to us

by some that this was a risk!

At the same time there was a

standard protocol to follow and

we were not told anything else

by PMO....

In this process of rationing,
many of the senior persons from
VSSE, ISAC (for satellite work) plus
some special guests of ISRO Centre
could not even get a room in
the guest house to stay at night
or day, as it was blocked. So was
the situation for MLA's, MP's who would

(1097)

want to come. There was a lot of pressure on SHAR Admin.

Normally I as Scientific Secy ISRO need not get into all these details of logistics. ~~The~~ Director SHAR, Controller SHAR, Addl. Secy / IT Secy DOS, should do it being in touch local govt. & admin (Collector, Police etc) & PMO.

But the anchor person for DOS, T. N. Seshan had to go for a critical negotiation for with insurance agencies for the lost INSAT-1A satellite & possibly for the new ones too. He could not shift it for the SLV-3D2 launch. So he called me & ~~said~~ told me "Rajan you have to drop all your other

B (P.T.O)

avs holidays

Thank you for booking with avs holidays Your booking is confirmed.

Please carry a valid identity proof along with this e-ticket. We recommend you check-in 2 hours prior to departure

Passenger Details : 1 Adult

| Sr No. | Name | Ticket Number | F F Number | Meal Type | Seat | Baggage |
|--------|-------------------|---------------|------------|-----------|------|---------|
| 1 | Mr YS RAJAN (ADT) | X7GTTR | - | - | - | - |

Bangalore-Delhi (Booked)



Indigo
6E - 2367

Departure: Bangalore (BLR),
Saturday 02/06/18 at 08:30 Hrs

Arrival: Delhi (DEL),
Saturday 02/06/18 at 11:20 Hrs

Airline PNR
6E-X7GTTR

(1098)

work and go to SHAR a week before PM's visit. I am sorry I am unable to cancel my trip to USA due to ~~the~~ critical insurance negotiations. You have to act on my behalf. I am also worried about Pant saab who would get confused with conflicting demands. Piyushwan should not left to tackle those, as Pant saab ~~would~~ would kick-it-up to him. He will find difficult. So you have to be "ME" & take decisions. I will inform Jay (SD) about it and also PMo".

(1099)

He was a seasoned person
in Admn. / security etc. He would
have done it for many VVIP's earlier
~~etc~~ at the State level. ~~After~~ He
reposed full faith in me. I was
just going to complete 39 years. (on
paper 40)... ~~It~~ It was the first
major responsibility of this type for
me.... I think SD also had faith
that I would do, as TNS would have
definitely briefed SD what he told me.

When I went to SHAR
I could not be making this public.
TNS would have told Controller SHAR
(I don't remember whether it was
Varadan or Swaminathan?). Also Director SHAR
that I will do I ~~am~~ was TNS
Addl. Secy's rep. (P.T.O)

avs holidays

Thank you for booking with avs holidays Your booking is confirmed.

Please carry a valid identity proof along with this e-ticket. We recommend you check-in 2 hours prior to departure

Passenger Details : 1 Adult

| Sr No. | Name | Ticket Number | F F Number | Meal Type | Seat | Baggage |
|--------|-------------------|----------------|------------|-----------|------|---------|
| 1 | Mr YS RAJAN (ADT) | 228-5318529606 | - | - | - | - |

Delhi-Bangalore (Booked)



Vistara
UK - 813

Departure: Delhi (DEL), T-3
Sunday 03/06/18 at 17:30 Hrs
From: Terminal 3

Arrival: Bangalore (BLR),
Sunday 03/06/18 at 20:15 Hrs

Airline PNR
UK-SRJFFW

(1100)

First & foremost task was to get into the primary security & protocol tasks as laid in the Blue Book and as interpreter for specific action by police and local admin. ~~The~~ Equally important was to tailor visits etc as per the instructions of PMO (which kept changing too!) and the perceived personality of the PM. ~~4~~ "She cannot

"She won't tolerate any dust or dirt... She is meticulous ~~in~~ w/b time.. etc!"

The district collector Sujata Rao told, "Mr. Rajan time hangs on