

(1261)

awards. ~~It is~~ Also normally at least a 5 year gap is given before an upgrade to the next one!

Also Kalam was given lot of coverage with PM ~~not~~ herself giving special attention. Above all he had gone to DRDO in 1982. ~~SD~~

SD was very careful in not having any public showing DRDO - ISRO link; some foreign reports had hinted Kalam's movement to DRDO itself is to ~~not~~ 'channelise' ISRO technology to ~~DR~~ Def Defence. SD had to be careful because ~~there~~ USA was targetting heavily ^{on} h non-proliferation of

(1202)

nuclear & missile technology. MTCR
(Missile Technology Control Regime),
~~which~~ ^{under} ~~through~~ which they denied
many technologies to ISRO. It was
spearheaded by USA ~~single~~ even
though some European countries
did not obey USA's desire. Later
after Cold War was ~~is~~ over, there
is now a formal regime which
includes Russia as well! It ~~is~~ ^{was} by
using it USA manage to ~~is~~ scuttle
a large scale cooperation between India
& Russia on cryogenic system...

As I saw it during 1983
nobody missed anybody - including Kalam.

(1203)

ISRO was on the march ... and was looking forward to new successes.

* * *

There were so many things happening in ISRO during 1981-82-83 I was in the thick of most of them.

One of my important responsibilities related to International Relations. Among these one ~~stem~~ country which took ^{my} lot of time was ~~DFVLR~~ with Federal Republic of Germany (FRG), [West Germany] as it ~~in~~ encompasses ~~accept~~ receiving of specialised equipment (as per ISRO request) from DFVLR (German Research & Development Agency for Air. & Space — Later it became DLR).

and training of ISRO Scientists / engineers. It was handled by PDBhavsar as Secretary.

(1204)

Secretary ISRO. I inherited it. For a brief while one Dr Schuner was there.

DFVLR group would ~~come~~ ^{come} only for ~~such~~ review ~~at~~ visits. When Dr. Ötl took over, it took a new shape.

He told me that this ~~was~~ 'training' & 'equipment' as two components

was too restrictive. Also does not

reflect the ~~to~~ true potential of the future collaboration and status of ISRO

now which was really growing as a spacefaring nation. ~~He~~ He said we should

aim at joint projects. ~~Also~~ He said

such orientation would also help in long term sustainability of this cooperation

as there would be many stakeholders from DFVLR side.

I welcome this idea. Also this would mean some "equality" in

(P.T.15)

(1205)

relations unlike the earlier one where India (ISRO) was only a "poor developing country" receiving aid & training. Naturally this would involve direct expenditure by ISRO for visits by ~~their~~ DFR scientists for evolving joint projects, ISRO developing some hardware/software etc. We retained ~~a~~ "training" component through long term stay of by ISRO scientists (which always restricted to joint projects) / engineers under the title "Exchange of Scientists". DFR persons also came & stayed in ISRO facilities for a few days, rarely a few weeks; whereas ISRO persons stayed for 3 to 6 months. Lots of useful results had come for ISRO due to these. Notable

(1206)

amongst them was the ~~request~~
exposure & training in liquid engine
test facilities. Some advanced propellant
work was not accepted by DFVLR as
they involved 'military' work: Germans
were open to say so & politely deny
our requests.

The new orientation had
full support of SD. When I briefed him
he was all for it. Also later he
had excellent rapport with Prof Jordan
Chairman DFVLR when he visited India...
lots of special During the visits of
DFVLR scientists we took care of all
details including some visits outside
technical matters; they did too...
There would many pleasant memories
for many ICR & DFVLR scientists/engineers

(1207)

due to those exchanges & some joint projects which started with rocket experiments...

We took care to see that ISSRO scientists took medical clearance before they went there (~~one~~ a couple of difficult situations arose too!)

There ~~was~~ ^{was} only one difficult moment due to ~~an~~ one SAC Scientist sent there (YP pushed it to avoid problems for SAC from him - that was in 1979 time frame) I had reported...

Those who desire to study / research into these could (hopefully!!) access ISSRO ^{HQ} documents and definitely get from German side as they are careful with their archives...

(1208)

ISRO's cooperation was not limited to USA, Europe & Soviet Uni (Russia) though they were predominant — as cooperation & ^{also} as commerce (ISRO bought equipment ~~from~~, ~~at~~ components & materials from Europe & USA and launch services from USSR).

ISRO cooperated with other developing countries as well. It started early with training in ESCES; some training in NRSA etc. But I should confess it ~~was~~ was mostly in terms of holding ~~of~~ conferences & having some visits. This situation was due to the structural difficulties on both sides. Also ~~they~~ other developing countries also rightly sought direct contacts with
(P-70)

(1209)
advanced countries. Visit to India & talk
to some of our scientist/engineers was
in a conference abroad was useful for them
as in those days India was more
advanced... China was doing but it
was very closed in every way...

ASIAN REMOTE SENSING - CHINA VISIT (1981)

~~At~~ In such a situation
at the initiative of one Dr. Shunji Murai
a Japanese Remote sensing scientist
an Asian Association of Remote sensing
was formed; it was just between
~~the~~ practicing professionals. No

Thanks
Rajan
[quoted text hidden]

Y S Rajan <ysrajan1944@gmail.com>
To: DEAN - TSD <deantsd@bitsathy.ac.in>

Wed, Jul 11, 2018 at 5:30 PM

direct involvement by Govt / Govt agencies

MR RAJAN YS BLR TO CJB.pdf
65K

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Sathyamangalam,
Bannari Amman Institute of Technology,
Dean - Training and Skill Development,
Dr.P.Thangaraj
Thanks & regards

GD'S DIRECTLY. YOU SHOULD READ THIS DOCUMENTATION, WHICH APPLIES TO YOUR
BOOKING AND SPECIES, FOR EXAMPLE, HOW YOUR PERSONAL DATA IS COLLECTED,
STORED, USED, DISCLOSED AND TRANSFERRED. (APPLICABLE FOR INTERLINE CARRIAGE)

~~#20~~ (1210)

We (ISRO) also welcomed it. To begin with it was to be an Annual Conference of a 2-3 days where papers will be presented at the Conference. A scientist/professional from one country had to accept it to host it with ^{some} local hospitality, but travel to be covered by the participants themselves.

One of the early conference (or the ^{second} first?) was in Beijing. From India A. K. S. Gopalanna (exceptionally good electronics/communication engineer) ^(from SAC) and also innovations in Image processing; K. Ramamurthy (Water Resources professional from NRSA very good in remote sensing applications for water & myself went for it. It was during Nov 1981. It was for about a week or 10 days. ~~It~~ We saw the China which was

(1211)

emerging out of the Mao era,
especially ~~the~~ after the end of the
cultural revolution after the death of
Mao in 1976. Full of cycling persons.
Still mostly men & women dressed only
in the Mao uniform, mostly deep
blue and occasional grey & with
a Mao cap. I bought one for
Vikram ^(son of son) who was only 7 years only old
then.

The shops looked like the
old mulki ~~to~~ product ~~dry~~ shops
in old towns in India (Ua 9 50 60
don't); any ch No fancy packed products
Mostly kept in big sacks: potato, to
groundnuts to Old style weighing &
given in some old papers (almost like
old towns in India). At that time

(12/2)

Bangalore had more ~~of~~ sophisticated shops.... Prices were very low. Since we brought dollars in exchange we got ~~them~~ China's special currency Renmin? (Yuan). With that we can buy some special items in some ~~not~~ rare big shops (~~not~~ nowhere near malls) like Cofee, eggs etc. Eggs were rationed for Chinese citizens. ~~To be~~ Can be bought by foreigners with foreign exchange!

Since AKS &

We were all put in the "Friendship Hotel" (forgot Chinese name for it). We used to get ~~for~~ big flasks full of hot water closed by a big cork. ~~It~~ Only the outer part had a nice enamelled color painting.

(1213)

It retained heat very well even in the cold not heated room — maintain clean for us. There were nice ~~st~~ looking simple tea pots & ~~a~~ a ceramic vessel with Chinese gastrime tea leaves, and a cup &. We had to make some tea in the morning & whenever we want. Some young women & ~~some~~ men w/ service regularly. They never asked for or accepted any tip... Always at work; never seen sitting & gossiping or smoking etc during their work period.

Food available in the hotel was standardised.
(Will come back to it later)
* * *

(1214)

I did a google search (2/8/2018)
with ~~the~~ words Asian Remote Sensing
Conference Beijing 1981

There are some useful info.
In one of it there is a ^{set of} saved
articles / messages

One ~~one~~ by Prof. Shunji Murai
General Secretary, Asian Association
on Remote Sensing (AARS) gives
some good historic ~~data~~ info/data.

~~In the year~~ The title of the brief
paper "The Birth of Asian Conference
on Remote Sensing (ACRS)" by him
He states in 1980 at Hotel
Balmoral San Jose, Costa Rica
a few Asian Scientists & on 25th

April 1980 Japan (6 persons) China (6)
China Taipei (3), Thailand (2)
Sri Lanka (1), USA (1) ~~decided~~
~~resolved~~

(1215)

to start the first ACRS in
an Asian Style party in his hotel
room. They were the first founders.

He describes about his meeting
at Los Angeles Airport ~~to~~ ~~and~~
groups of Chinese scientists

One from China Mainland
and ~~the~~ China Taipei. He gives names
~~has~~ In his words "At that

time the two parties did not know
each other, even did not want
to talk to each other, because
China was just opening ~~up~~ and
Chinese people were isolated from the
international community. As I
knew the two groups, I tried to
have the two groups shake hands,
because Mexico City is so far enough
to forget the political issues. Very

(1216)

luckily they understood my idea
and shook hands with each other.

Soon after, they started to
talk to each other in Chinese...

He goes with lots of ~~nice~~ things
which happen with airlines etc...

... How the nineteen friends
started sitting in the floor of
the his de luxe hotel removing
sofas etc, ~~drinks~~ drank &
Then songs in their languages

One idea then was, "Why
we come such a long way spend
so much on expensive tickets.
Why not meet in Asian countries
nearby..."

They wanted to hold in
1980 itself. ~~in~~ Thailand person
Savit said, he would...

(Dr. Surjit Vibulshrestha later
became my good friend.)
(12/7)

Then trials & tribulations ...
He describes them ... It's
sudden trip to China to get
participants ... The top man of
Bureau ... next day agrees
to send scientist & also ^{agrees}
said they will host 2nd ACRS
in Beijing.

India was not involved
in the start. Shriji Muni could
not reach us then, as Beijing
was nearer.

(These are in the 20th
ACRS Conference messages/notes)
There is another place, a paper
by R.S. Ayyangar & Y.S. Rajan
July 1986 (IIRS)

(1248)

It gives brief references to ACRS

→ 1980 - First in Bangkok
Thailand

1981 - Second - Beijing

1982 - Third - Dacca

1983 - ~~to~~ Fourth - Sri Lanka
Colombo

1984 - Fifth - Kathmandu
Nepa

1985 - Sixth - India.

From the website I could find that ~~it~~ ACRS, not only completed 20 years ~~from~~ (I had got many references here from the brochure prepared for the 20th (1999 year) ACRS) but it continues beyond, even now.

Shunji, Murai had been the main driver. It was mainly run by

(1219)

active
the professionals though there
was support by the govts of the
host countries.

While Indian scientists (not
just ISRO but from other agencies
of India related to surveys, one Bagchi
was there in our group in 1981, India
did not take any lead role.
In general ISRO did not take any
special active interest in Conferences
with the exception of COSPAR (from
which INCOSPAR (ISRO) was born)
and Int'l Astronautical Federation (IAF)
IAF took a very active role in promoting
ISRO's connections with IAF as it had
many benefits to ISRO. Most industries
participated in it, sharing info on latest
techniques & systems. They did ~~exhibitions~~

(1220)

as well. It matches the overall
interests of ISRO which was a strong
engineering / developmental organisation.
COSPAR had limited context as Indian
~~scient~~ space scientists were very few
in number & rarely worked on cutting
edge space science experiments or
theories. Even Chandrayaan, Mars Mission

etc have very ~~little~~ little of space science
component. Aditya would have.....

I had explained about ADGOS
earlier... The status of Space Science is
not very high within ISRO & India.

Astronomers ~~to~~ prefer their own
specialised big conferences ~~like~~ held
by IAU (Intl Astronomical Union).

So ACRS had still limited
role. But helped to keep in touch

(1221)

with Asian countries. ~~The~~ Japanese gov^t had not attached great importance to remote sensing as they were restricted in getting into launch vehicles/satellites. Now it has relaxed. The indications there did not foresee a huge market for the products, though they were very strong in electronics, electro optics etc.

* * *

Coming back to our China stay where we left off, AKSG & Kham were both strict vegetarians. Kham would have been 50+ and was not used to bland food.

(So he used to order for plain soup, put lot of chilli powder in it - which he carried - and the steaming rice. The gluey rice was not to his like... But some thing rice was

(1222)

Sometime, some boiled Cabbage.
AKS was a little better, but he was
addicted to good strong ~~strong~~ coffee
("filter coffee") in the morning.

We found out that ~~no~~ 'Nescafe'
equivalent of coffee powder was available,
quite costly, available for R Yuan (FE)
He got a small tin. No milk
was possible. He took some milk powder...

I being an explorer in food
and had a strong conviction that we
should respect others by eating the food
they eat, I enjoyed different types
of food - sea cucumber as well.
Many of their dishes - more original
Chinese than what I had eaten
in USA, India, Europe's Chinese restaurants.
I was keen to eat the Chinese breakfast

(1223)

as well. They were avoiding it. We were given bread, toast, omlett, eggs type only... One day I manage to get it. They were some 'balls' type with ginger etc — tasty; some rice etc. & (The names I had written down had ~~wasted~~ been lost...)

For purchasing some of these items including momentos like Mardress, the flasks etc & we had to go for shopping. To taxis was difficult. No yellow/black type of taxis, you wait & get. Since we three were there we managed to get one hired — not too costly... We ~~not~~ used to buy & keep our goods in the taxi. Go again for shopping etc. We were told it would be safe.

(224)

It was so. We stopped at many ~~the~~ places. He was patiently waiting. Once we tried to tip ~~to~~ a driver. He refused totally — Mao's Socialist ethics !! We felt ~~to~~ bad as he had been so good.

In a second time when ~~he~~ ^{we} had gone went like this, ~~we~~ ^{we} ~~that~~ on a return trip, we happened to see the Swiss couple who had come for the conference. They came as Sri Lankan delegates as at that time he was working at Sri Lanka. They had been trying for a taxi for ^a long time. Asked us whether they could join as they were also in the same hotel. When we were exchanging notes about visits (they did too) we mentioned that taxi drivers were so good & reliable ~~to~~ and refuse to

(1225)

accept tips. The Swiss lady said
"See what I do!" When we all
got down, took all our purchases
items down, the driver entered the
car to go after receiving his fare.
She was sitting in the seat
and opened her purse and took

2 or 3 eggs & gave in his hands.
Hardly could anybody see from
outside. His face brightened &
he took them! ... I went away

After ~~we got~~ they got
down, she said, "There is such
a severe rationing for food, they
get only some rice; maybe a
couple of cabbages for a week & some ^{small} ~~fruit~~.
No eggs at all - some
times one or two per family per week.
This is a tip they can easily take.
Their yuan does not get them much.
Our yuan (RE) will land them in jail!"

(1926)

"Eaten eggs are difficult to trace!"

Wondered at the disciplines innocence.

~~So~~ I had not seen such

situations in USSR / Moscow etc.

I am not sure whether we could
leave our goods & go ~~visa~~ &
come back & have things safe.

I had such an experience in
India 1965, I think when I went
for an interview in Gorakhpur
(would be in my 1960's chapter)

In a cycle rickshaw I left my
only bag & he had ~~been~~ taken
one for right seeing for over half day!

In the same period I was cheated
in Delhi another time when I came
for UPSC interview! (Also described
in 1960's chapter!)

(1927)

I guess innocence remains ~~then~~ with most people when ~~the~~ all of them ~~live~~ live at subsistence levels ^{and} controlled by strong social norms (here in China it was a strong arm of Communist cadres!). When prosperity starts, ~~the~~ ~~there~~ competition starts and cheating starts!! Current China may not have ~~that~~ such innocence discipline. When I went again in 1994, China was much more prosperous & commercial. There ~~were~~ ~~was~~ no such situations. ~~All~~ Mostly commercial... Also stiff bargaining in shops! More about it in the relevant chapter as ~~it~~ ^{it} involves many items of ISRO (though I was in DST), former DA ESA Roy Gibson's observations etc

(1928)

Coming now to the meetings, they were good. Most of the countries ~~to~~ incl. China were in initial stages of applications: bulk of it with aircraft imagery / Landsat data visual interpretations. Some computer aided supervised / unsupervised classification.

We had visits to some Chinese laboratories. At high level one Chinese Vice Premier wished us. I have some photos of the event. We had a visit to the Great Wall of China — chilling winds. I had put my full cover cap — I had beard too.

One of the person in the group joked: "Rajan you look like Chengiz Khan. The wall was built to block the

(1229)

Mongols in horses running over. You are now on the wall itself!"

For our visits a young lady had been attached for the whole period. She spoke English fluently. I think ~~if~~ they had some party person of the Gang of four still around to control. ~~But~~ So she was careful in speaking. Name: Di. Maybe in our photos she is there. I asked her how she chose this interpretation ~~career~~ career. She said "No options! I wanted to become an architect! But those who were good in foreign languages had to choose interpretation as career." Whether she rose up, I don't know. She also told about

(1230)

Some social norms. No love marriage!
She ~~she~~ gestures the hand ~~around~~
across her neck as if it would
be cut. Parents decide... This
was & actually not a part of
communist doctrine! But ~~they~~
the party was clever not to
interfere in practices / taboos which
did not affect the communist rule!

She told about the Indian movies
which ~~are~~ were famous. Most of
them were Raj Kapoor's.

She said "Awaara!" It took time.
Chinese had problem with 'Ra'
It was 'La'! I don't know why
Raj Kapoor was famous with USSR,
China & later I found in Egypt also &
when I went there in 1990's for NAMSAT Centre!

(1231)

One day the Chinese Professors gave us a very good dinner with Peking Duck... Explained how served, how to ~~ask~~ ask for, don't rush for full serving, as it will be kept on the circular centre disk (Americans used to call it Lazy Susan!)

Various drinks were also served — the Chinese rice wine Moutai, ~~wine~~ regular wine & cool drinks. I was told that there was no order in drinking. Actually, ~~they~~ The Moutai like Russian Vodka had to be taken bottoms up. But the cup was much smaller — may be 20ml capacity. — "Gam-bay" was told for it when it was taken in hand & cheered. & Initially it had a

#9 (1932)

strong smell, "disappeared" after a few of them. In between we took cool drinks, wine etc.

The professors nearby were explained about different parts. First the chef ~~came~~ came with the full duck ~~of~~ of cooked - held in his hands; then went inside & served part by part. so I tasted small pieces & notes which I would take more. . . . liver etc also were sliced nicely. It was not spices. The spicy syrups etc were on the table; one could customize. . . .

After about half - an - hour or more, the chef came with two cut legs of the big duck ~~at~~ he showed before. They gestured to him. He went inside. The professor told me that

(1933)

all parts had been sliced & served.
Only thing left was the leg... that
was the signal by the chef. That
meant we can leave our plates
full with items of our choice...

Quite

↳ Some time later he came &
kept the pot of soup (white
I recall)... The professor explained
that it was from the bones of
the duck... It was close to the
end of our meal... I was told
that normally Chinese took the
soup at the end... Also there
was good supply of light jasmine
tea in pots, which we could pour
in our cups & drinks all through
the ~~meals~~ meal... I don't
recall whether AKS & Remonthy came for

(1234)

Perhaps it was limited to one member from a country or some protocol; I was told this was hosted by the Chinese foreign ministry...

Besides these ~~at~~ arbitrary part, as we had already a few days of acquaintance, the professors opened up to explain about the state of S & T during the decade of cultural revolution. In essence they said that the set back was for more than a decade. They said that the ~~effect~~ impact on them was far less as they had gone up to certain level. The younger ones, especially at a period when they had to start their professional tasks ^{coming} out of colleges such as R&D, development, teaching were completely diverted to ideological studies several hours a day, they had to

(1935)

Cycle all the way to several places and go to villages, farms, crude workshops etc.

A decade of real foundational period of their career was lost totally and also they had to suffer physically — with very low incomes, cycling, lots of hard physical labor.

"We hope to build them up!" Not just one or two: several thousand of young men & women professionals. (more of men, as entry of women to higher studies of S&T was limited then). In 1981 when I went most of such persons ~~were~~ they referred to would have been \approx around ^[30s] 35 years

of age. ~~Though~~ Those around 25 years then would have lost lots of foundational period in science, tech, phys, maths etc.

(1936)

Now looking back it is remarkable. China has overcome all these lost years and with the same "dentes" human resources built up a modern economy, great industries, a vast & strong space programme etc, becoming #2 in the world after USA (@ 2018)

Later recently I read the well researched book on Deng - the turn around strategy

Maybe some of these intellectuals seniors who watched helpless and the juniors who suffered supported the emergence of "demand for democracy" in Tianenman Square in 1989. Had Deng not crushed them in June 6, 1989 with tank-para,

(1231)

China might have gone into another set of chaos triggered by "democratic aspirations" ~~as it~~ as it happened in India from ~~1967~~ 1966/67 with a short peak of Emergency in 1975-76 & again chaos of coalitions! Also Chinese Communist Party top echelons would have ~~the~~ studied the disaster let loose by Glasnost of Gorbachev along with "Perestroika" along with experience of what was going on in a country like India with population comparable to theirs.....

I still feel (as I did then) the oppression of Tiananmen Square ^{in 1989} was a historical necessity for China / Chinese people towards their

(1238)

better future

None of these shimmerings
were visible. . . . ~~One~~ We had a
short stay. . . . that too in a overspecialist
area. . . . We had zero knowledge of
Chinese language! What we
saw was mostly the Maoist China
~~minus~~
~~without~~ the warriors of cultural
revolution moving around; even some
persons of Gang of four followers were
around, watching over Chinese people
& intelligentsia. ~~We~~ I am sure
some of them were still in our
group. . . . I could see from the
expression in the face of Di, the
translator. When I was speaking
to some higher officials / Scientists /
~~China~~ from China, ~~to~~ some young
persons with ~~the~~ grey Mao suits walked

(1939)

~~would~~ join forcing ~~the~~ Di to translate what was happening. Fortunately they did not know English and had to depend on her for authenticity of the translation....

Q I was amused to see one such situation. Prof. Dharwan had given me a small gift - sandal wood covered pen with a small greetings note to Prof -

— — — — — (insert the name later) who was a top person in S&T. (Vice Chairman or something like ~~that~~ that). I had bought an appointment with him. It took a couple of days for clearance and finally got it. Di was to accompany me. The two Party guardsmen also accompanied

(1940)

For other meetings with some Chinese top persons (not so high as him!) the two persons' presence would make them talk in Chinese with Di as the translator... So won't be here I thought.

We were taken to a place which was looking like a huge palace. We walked through several feet with both both sides with ~~us~~ uniform (militia looking) persons. It was mostly empty. It was in some sense creating an awe. In India I had seen Ministers & gone to their offices. So I had with some top amb persons in Germany, France, USA also, even in USSR.

(1941)

Things ~~look~~ there looked simple.

Finally Di & I reached his office. He had a couple of

people there in his office... ~~The~~ ~~person~~ looked perhaps sixty plus

elder to SD. He welcome me by shaking hands. I handed over

~~the~~ SD's gift & told him that he wanted to wish him... He smiled

took it & made me sit

comfortably; Di had to sit near

us: the translator. The two pulled

their chairs widely near to hear..

I think he spoke a couple of words in Chinese, Di translator.

It would have been cumbersome.

He started fluently in English

(1942)

and it was a good conversation —
nothing very serious. Something about
our conference etc. ~~Di~~ Di did not need
to translate.

The two were getting very
uncomfortable... went close to
Di to ask her to translate...
She tried but got engrossed
in our dialogue. The body language
of the top man was just to
ignore them... Di also stopped her
Chinese translation for them...

After about 10-15 mins. we
were said good bye... we came out.

I don't know whether the
party men baged Di later! I
did not ask her. I was extremely
careful not to put any of the Chinese

(1943)

lost in trouble, having read
about the ruthlessness of the
autocratic regimes (Chinese, Soviet
as well!) - - - -

I don't think the low
party men had enough power to
~~create~~ ~~to~~ complain about the top
man... Also ~~at~~ I was a little
fry from S&T which was not in
the party radar much at
that period... * *

~~In the shops,~~
~~meat~~

I visited some meat
shops too! Lots of small pecked
dogs also were hung along with
~~the~~ pig meat etc... We had
~~at~~ visited some living places
near Tiananmen Man square (in addition

(1944)

to seeing heritage places they slums).
The people lived in very ordinary
houses — just about squalid

conditions... I was told that the
cluster of community latrines was

for sharing ~~the~~ between the

the population... They also looked

ordinary; I did not venture to
go near, as it ~~may~~ might be mistaken!

I thought to myself about the
Chawls of Bombay where I had
lived ^{late} during 1950's & 1960's... There

were many slums even without these
facilities even in ^{New} Delhi ^{India} ~~the~~ Capital

during 1980's. Maybe whether they all
have been covered under Swacha Bharat,

I do not know! When I has
been closely associated with

(1945)

"Good Morning Bombay" project
initiated by Dr. Varant Gervanika
during 1988-89 (~~latrines &~~ Modular
community latrines for Slums & huge
Garbage processing plant — both
successful) — I had seen worse
squalid conditions... But I could not
say seeing Beijing of 1981 ~~the~~ those
living conditions that China did not
have terrible slums elsewhere...
They might have been inside...
I did not see any such in the
Soviet Union (Moscow, Volgograd or
Kerpushin Yan) ~~even~~ even during 1974
onwards... but USSR (Russia part)
was less populated & had a Communist
rule of nearly 50 years with good growth.

(1946)

My trip to China fulfilled one of my desire of seeing a giant Communist country which dares to chalk out its own path. Right from 1964, I had admiration for Mao Tse Tung though I was deeply affected by the humiliation China gave to India. ~~I~~ I would not like China to subjugate India, by any means. ~~On~~ On one side there was a strong nationalism for India to succeed... For Indians to achieve...

At the same time the basic ideas of Marx towards Communism, changing the "existing order" radically (revolution) ~~had also~~ ~~of~~ were also occupying

(1947)

my mind space - brain space.
Naturally respect for Lenin & Mao Tse
Tung, Ho Chi Minh etc ~~was~~ was
there in me (~~even~~ (is even now! @2018))

So success of USSR, success of
Peoples Republic of China, Vietnam etc
also gave me happiness. I also
resent the Western world domination
via USA, Europe etc., keeping
even Japan, S. Korea under tutelage!

But none of them above
interests of Indian people and India!
It was then and even now.....

The collapse of the Indian
left movement (Communist parties,
various hues of socialists) ~~was~~
which had neither a strategic
vision nor a tactical capabilities

(1948)

disillusioned me right from 1964
when I was in Ahmedabad... Our
left movement's tactics often times
bordered on ~~a~~ narrow ^{local} parochialism
to win some seats; to have unreasonable
"unionism" calling strikes. Later
I understood that the left "movements"
thrived on this "labour aristocracy".
They never bothered about lift all
the poor ~~in~~ people in India...
If a capitalist wanted more profit,
~~these~~ the labour aristocracy ~~was~~
wanted more and more incomes
~~& part~~ & life long protection with
less & less work. I had seen
the worst of labour laziness
in Kerala since 1965 along with

(1249)

violent extortions. (I had described some of it in 1960 - Chapter 2 & 1970's.). In ~~the~~ Bombay during 1950's & 1960's left was pandering to Maharashtra chauvinism when ~~the~~ ^{the emerging} Shiv Sena was attacking south India..

... Left's bombastic theories were ~~etc~~ around regional imbalances due to capitalist policies etc...

During 1960's, even ^{early} 1970's my understanding of economics was poor. ~~I~~ ~~But~~ exposure to USA had shown as to how the Leftist ~~&~~ depiction of USA as the Devil, Americans people suffering under Capitalism were bogus (to use the mildest of the words). Americans in their domestic

(1950)

had used much of the "materialist basis of life" as elaborated by Marx. ~~and~~ They believed in establishing an egalitarian society... Good minimum wages for all their workers. Average ~~of the~~ life of people was very superior... So was Europe...

For day-to-day life of people the theoretical issues of who owns the companies, were irrelevant. Leftist obsession against private sector was mere hatred or perhaps to have more public sector to ponder to their labour ~~to~~ aristocracy's laziness. I had seen how ~~if~~ inefficient HAL, HEL, even BEL were when we visited as ISRO teams to use their facilities. Most machines idle!...

(1251)

Perhaps Marxian ~~ideas~~ ^{ideas} of public control (on behalf of workers!) can come about only through a tightly organized dictatorship by the Party (the essence of Leninism). Mao had also understood it. Therefore it did not matter for him whether he had with him proletariat (in the technical sense of the word) or peasants (though often used derogatorily by Marx or even petty ~~to~~ bourgeoisie... Mao was ~~to~~ trying to bring China under one tight rule using some principles of Marx for public control but most other items were his own innovations to suit the then China. ~~So~~ So in the overall I would like to see him succeed.

(1252)

in the long run. USSR, China & India ~~succeeding~~ ⁱⁿ succeed in establishing a modern economy, good life for its people ^{and} good military to protect themselves from outside forces, I would be happy. The Western hegemony would have a real challenge.

While I did see USA & Europe ^(even during 1970, 1980's) were doing ~~very~~ ^{well} in terms of ^(~~their~~ ^{its}) economy, well being/welfare of its own people, and in military strengths, there was a strong element of "desire to dominate" the world. Though Freedom was their watchword, and were purported fighting against

(1953)

totalitarian forces ~~like~~ of Communism.
But their thickest friends be it
Latin America, Africa or West Asia
(Middle East) were all full time
autocrats: total despots without
any socio-economic agenda for giving
some good lives to their people or
to develop their countries' technology/
economic strengths. They bought lots
of weapons from the "military-industrial
complexes" of the West. They were their
bulwarks against Communism as
they ~~can~~ ^{could} put down any ~~an~~ economic/
social demands by their people. Nearest
home, ~~they were~~ USA/UK etc were
fully supporting Pakistan ~~with~~
through military pacts and ~~the~~ ^{financial}

(1954)

help. ^{USA} ~~They~~ kept the Kashmir issue burning etc. So in 1981 when I visited China my mind was ~~in~~ more engaged in seeing positive things of and about China.

There are a few black and white photos of that trip. Chinese gov't side also would have figured out about India — when I went during 1981 India had become ^a Space Power — with satellite launches from 1975 with Soviet launch. A successful SLV-3 flight albeit a small L/V. Had states plans for bigger L/V's. A complex Geosynchronous satellite ~~is~~ being built ^{through} ~~at~~ ^{by} global tender (INSAT) ~~in~~ ⁱⁿ USA. A geosynchronous launch of APPLE ~~is~~ ^{developed &} satellite built in India (3-axis stabilised)

(1955)

launched by Asiame (June 1981).

IRS plans well under way....

So they would have decided to treat me well — be it for dinner or visit to a top man or a Vice-Premier

meeting or etc.

~~AFH~~ Asian Reunion + Beijing Trip (SM)

Shunji Murai was a good orchestrator of the programme. He also arranged the Asian style drinking, eating & singing etc. None of the Indian

colleagues were ready to sing... ~~the~~ SM wanted all to sing... at least one from a country... So I sang. I thought

Raj Kapoor picture songs were simple & rhythmic... "Mera ~~the~~ Joota hai Japani", Maybe one more.

~~The~~ Nayanakara ~~by~~ Surveer
Censored from Sri Lanka was a sophisticated

(1956)

man. He had excellent sense of humour; he used to tell during our conversations, some very serious on technical matter too, nice jokes. Some times during drinks & dinner some "vulgar" ones too, but told nicely. & On the Peking Duck, he used to say that the best taste come when the Chinese farmer does (something ^{**}) before cooking!

~~On return I had ^{to pack} purchases done, & ~~but~~ most of it were PRC unique artefacts - the~~

Chinese side had also arranged a nice dance / music performance (P.T.O)

(1152)

typical Chinese ones. It was most beautiful in every way ... songs

Item 6 Any Other Matters

were melodious. Very different from Indian dances ... Mostly slow moving.

But the way they ^{***} handled the colour of dresses, was remarkable.

We ~~were~~ generally used to contrasting colours ~~at~~ between lighter & darker shades. The way they uses many light shades & still coming out well was remarkable.

I purchased some ~~for~~ printed Chinese art - probably printed from originals ... I have them even now ...

Mao uniform, huge hot water flask etc etc. PRC artefacts. Some handicrafts. I had packed

22
then in a canvas suit case which can budge & accommodate ...

(1958)

On return the route was via
Hong Kong — Beijing to HK by
China Airways ... HK to Delhi ~~etc~~
I don't remember ... I used to travel
My travel was ~~through~~ with Official
Passport as ISRO was full Govt ~~since~~
Customs in India were notorious
in those days ... What one can bring
was very restrictive. Since Indians
were starved of electronics goods, many
returning Indians managed to buy many
electronics gadgets; also special fabrics
for sarees etc. In general since Coma &
had stayed in USA, we did not have the
Craze. I had travelled to USA/Europe
many times since 1974 when he returned

(1259)

to India. Mostly I used to bring only good kitchen aids, some backup hot plates ... Even the camera I (Olympus ~~35~~) was ~~born~~ bought when we were in USA. At best I was taking some colour rolls .. Lots of chocolates & ~~food~~ canned food items (non-veg) for Vijay & Vikram. Some cheese of different types ... Liquor was limited; I took within limits only ... We never were crazy about gold or jewellery ...

On the whole I should be left out. ~~But~~ easily But since the flight was from HK the customs official ~~x~~ thought otherwise. Actually the gap time available

(1960)

in HK was good enough to see
some places in markets. The Indian
groups loved the electronics places.
I saw too: it was full of goods
more than European & US shops!
I bought nothing... But the
big sky scrappers were remarkable...
I ~~the~~ don't remember any thing in specific

The customs official
~~he~~ did not want to leave me
as he saw a fairly puffed up
canvas bag..... When asked "I told
him I have no electronics items; no
camera bought except the one which
I took which was entered. No extra
liquor et...." He probably did
not believe. He told me to open

(1961)

everything... I did. He saw
~~some~~ so many strange things
which he had ~~so~~ not seen
with any Indian passenger! He
opened even the flask etc....

He got tired after 10-15 mins
of not having anything on which
he can catch me and bargain
for ^a bribe to let me go with duty!

Then he told me to close
them all. It took time ~~so~~ by
the nature of articles I had!

"Arrey yaar! pabhi hee
Kyo nahin bole... mera time
barbaad ho gaya!..."

"Sir, I hum batka diya tha!"

(11/6/2)

He was annoyed because he had wasted about 20 mins on me with zero earning. During that period his other colleagues parallelly doing would have caught 2 or 3 persons and negotiated deals.....

He was cursing himself. I packed ~~me~~ as fast as I could do to clear the way for the next person!.....

At home they were happy with the goods bought. Vikram put on Mao suit which was a little bigger... but with some folding he like it. The flask was put to good use... Chinese

(1963)

Jasmine tea was enjoyed over a period

As was usual practice I wrote a long note on the visit & bringing attention to some points useful for ISRO.

These were cyclostyled & sent to many persons in ISRO. There would be many such notes in ISRO — at HQ, the Centres etc. I used different colour codes ^{for papers...} Foreign trips were in blue colour, I think.

Many ~~the~~ such things were buried in ISRO — initially in offices; much would have been destroyed; some may be in archives. Even if only a small % would reach

(1964)

I kept up this discipline. Intensity
as per Govt rules, after each trip
an officer should write a note and
circulate! Hardly ~~any~~ ^{a few} persons followed it!

To complete my part of
the story on The Asian Route Ship
Conference, I could not attend the Dacca
meeting ~~in~~ 1982; I don't remember who
went. Normally they would be briefed &
prepared...

For 1983, I was all set
to go Sri Lanka. I looked forward
to go... There was a gentle
suggestion from MEA that I should
drop out while an Indian team could
go... My PDB who was in SAC then

(1265)

Who was my guide in PRL & ~~the~~
my predecessor Scientific Secy ISRO
called and said "Rajan! Don't
go to Sri Lanka... See you are
a Tamil and are having a beard!

The civil war ~~is~~ because of Sri Lanka
Tamils Prabhakaran has started...

Who knows what will happen...

~~& then~~ Whatever anybody else
says, I tell you to drop out... Let
other ISRO fellows go!"

He was very much
concerned about me and was an
affectionate person...

So I dropped out!

In a way that was also ~~the~~ my
^{attendance} direct / dropout from ARSC though my

(1966)

papers etc would go!

~~It was~~ There was a
held in India ...
ARSC in 1985/6. I don't remember
how it was handled... SD had
retired laid down office in End Sept 1984.
~~Probably I had~~ a URR
had taken over... Many things
were happening in ISRO. Also I
wanted to pull out of some of these
as pressure on my ~~at~~ time was
very high....

AFRICA Trip

Since we are on this
topic which I elaborate due to
my first China visit that too
in 1981, I would ~~be~~ write
here about my trip to
Africa in connection with Rant Sans.

(1267)

That was for African Remote Sensing Council Conference Plenipotentiary 4th under ECA (Economic Cooperation of African nations) held at Kinshasa during 1982. I was invited as special delegate. ~~it was~~ from African side it was attended by high level Ministers & top officials. Some reps of European Space Agency (ESA) were also there. Valerie Hood ^(VH) was one among them. She gave me lots of tips to survive in Kinshasa (of those days 1982) and not get hit!

As for subject matter there was very little. The Big Wigs of Africa

(1968)

came & made statements about the peaceful uses of outer space, use of remote sensing and the usual "demands" that developed countries should give "free access" to technology to developing world. The importance of technology transfer etc. When I hear such repeats I feel terrible! We ~~heard~~ were hearing such things in the COPUOS also. It had become a necessary ritual in those days! ~~But~~ Whether it was a special Western ploy I would wonder as these African countries ~~got~~ were getting many Western consultants as a part of UN funds, or other AID programmes.

(1969)

They were made to believe that technology was so easily transferable through documents & some training programmes by expert consultants.

I found that Indian "leftist" groups in academic, intellectual groups used such jargons: more sophisticated

Indian science 'policy' & administrative elites used ^{additional} ~~the~~ jargons, "not just know-how; but know-why!"

The need to go through the R&D led development - production &

phases by one's own actions were totally sidelined: that is the hard path!

Our elites wanted to talk about soft paths, finish their terms grandiosely or when extended search for new phrases!

(1970)

That was in 1970's & 1980's but unfortunately continues even now (@ 2018) even after seeing the ~~drifts~~ long stogs made by Japan, S. Korea, ~~I~~ Israel, ~~the~~ Taiwan, ~~I~~ and recently China to achieve technological strengths.

Thank God for persons like me, we had early pioneers of ISRO who avoided these jargons though they were used in ~~D~~ New Delhi freely like in these African countries...

SD often used say: "There is no leap frogging in engineering; it is assiduous laying of bricks one-by-one!"

So I was sad to see that most

(1271)

of the African "elites" — the real paras-that-be, mostly from the autocratic ruling class — were frittering away precious resources and opportunities. In my mind the "international humanity" was truly there — from the Renaissance, Marxism etc; and also from India's own heritage of treating the world, humanity as one! I would be happy to see Africa with its rich natural & mineral resources to flourish, prosper using modern S&T tools!

Zaire, whose capital Kinshasa was, was very rich in minerals but people were utterly poor. In the

(1272)

Hotel we stay in in the huge
convention hall ^{where} we had meetings,
were all heavily air conditioned.

Not by energy efficient central cooling
but by individual ~~box~~ a/c boxes.

In the hall I saw almost about
100 + ~~etc~~ room a/c boxes!

Another ~~pair~~ distressful
scene ~~#~~ in front of the five-star hotel
was many ^{Zaire} women, "attractively" dressed
looking for "clients". It was so blatantly
open....

Valerie knew that I had ^(have not)
a habit of walking around the places
in which I ~~at~~ stayed, attended meetings
etc. I had done a bit in Europe,
USA, USSR etc. Even China too, which

(1973)

was a unknown entity in 1981...
So she told me "Rajiv: don't
venture ~~at~~ out alone. We went
in a group of 4-5 Europeans; men
~~too~~ mostly. Well built guys...
When we were some ~~at~~ distance
away from the hotel, a gang came
down on us with clubs etc. We somehow
escaped... We were told not to go
walking... Be careful..." In
addition she told me about some food
tips (local ones) especially the very ~~hot~~ hot
Chilli pickle: pili-pili...

So I had to be careful.

Fortunately ^{our (Indian)} embassy was kind enough
to depute a person to take care of
me - sort of a liaison officer to take
me around etc. Our embassies normally

(1924)

ignore ~~seeing~~ SET group ^{or} ~~or~~ such
less powerful groups ~~or~~ even officers ~~were~~
high in rank!...

A I forget that person's name;
I think it ~~is~~ is a South Indian name.
He was knowledgeable about the places.
One striking thing about Zaire/Kinshasa
was that Nature ~~is~~ had given bounties!
Leaves, fruits, flowers... all were
very rich looking and much bigger
than what I saw in India. All these
were naturally grown... Naturally though
very poor, people had good things to
eat. So looked strong & sturdy.. also
natural genes. I did not see any
emaciated person ~~anywhere~~ in the places
I ~~was~~ visited. In one of the places

(1975)

he went (he took me because I wanted to see ordinary places - but he cautioned me against getting down or taking photographs!), I saw something like a mass kitchen.

Many women were continuously cooking & men / children were also there.

When they saw our car going by they got excited & I couldn't hear their talking ~~to themselves~~ between them ...

He told me that many people come here cook, eat and live more or less and do lots of menial jobs around. If we had got down they ~~may~~ might have surrounded us and created a scene. Might have demanded money.

(1976)

This ~~is~~ ^{was} what he told me. He also told that to keep slums away all such labor who come from suburbs had to return by night by the not-so-frequent buses.

My mind went to the (then) recent past in that country. Only around 1960's Patrice Lumumba who was duly elected ^{in Congo} was not only "dethroned" but also killed. Dag Hammarskjöld one of the unusual UN Secy Gen (who was proactive & not willing to be rubber stamp of a big power) was killed in an air crash when he ~~here~~ went to see the situation there. Mobutu, an ^{army} ~~any~~ man, who staged the coup & (supported by West) took over most of Congo. There was civil

(1227)

war for long. He carved out Zaire
which was ~~at~~ recognized by West first.
& others had to follow. The residual
Congo was Democratic Rep. of Congo

D. R. Congo.

At that time Patrice Lumumba
was a hero for most developing nations.
& for me too! How much he would
have succeeded in building up a
strong Congo, I can't guess now! Some
promising African leaders had
ended up as ~~at~~ failures or autocrats!
Looking ~~from~~ at those periods after so
many years, I cannot fully ~~at~~ put
the blame on Western nations alone
who had also done lots of damage

(1978)

in furthering their ~~of~~ commercial and geo political interests. ~~But these~~ ~~the~~ USSR & China too played their 'domination' roles though it was supposed to be for spreading ["]socialist revolution"_". Also a lot of blame should ~~to~~ go to the local "elite" the power wielding class - whether that was merely tribal affliction or individual para-hunger. (I suspect more the later).

In India too the para-hungry persons have used the politics to further ~~their~~ ^{the} power & money for ~~themselves~~ themselves & their family - they have used the ~~greatest~~ "greater cause" of certain groups of "deprived" Indian people

(1979)

in terms of ~~castes~~ various castes,
language groups or minority religious
groups etc. — It is somewhat equivalent
to taking care of "tribal interests".

I was happy to come back
from China; but after the visit of
~~to~~ Zaire, I was not happy! Sad
to see that some parts of humanity
was being condemned to life of penury,
conflicts for many more years! ...

At that period (@ 1982), I had
still lots of hopes about India's ^{growth,} ~~pros~~
betterment of lives of Indians etc
despite the continuous bickering
in the Indian politics somewhere

(1980)

from the later half of 1960's
I was also seeing through my
professional life that India was
missing many opportunities which
~~to~~ were arising in the world —
the classic loss ~~was in~~ was in the
area of Electronics ^{& Computers} during 1970's :
~~a new~~ a whole new area being
nurtured at fledgling stages by the
oppressive / ignorant policies of Dept of
Electronics.

Another sector was Aeronautics
That was the greatest frustration
for SD. But under his leadership
we ~~at~~ in ISRO were all being
protected to march along the

(1181)

euphonic march in Space related technologies
& applications. But even here I was
noticing the missed opportunities
as my notes to SD would show.
We had seen some of ~~it~~ ~~but~~ before
my writings before and also in things
which would come later...

I could see that a strong
will of the whole Indian system &
was not there though ISRO was
supporter in its need for budget etc.

The overall goal of reaching fast
a developed status was not there.

The depts (Met Dept, Surveys etc)

were all in their own turf, ~~not~~
just protecting but not moving forward.

So ~~not~~ ^{ISRO} had to struggle through mechanisms

(1982)

like ICC, NNRMS etc. The PSU's
like HAL, BEL, ~~etc~~ Michani etc
looked at ISRO's tasks as a job
order in which they ~~can~~ could pad
up costs and earn! Nothing more.
They knew that ISRO was dependent
upon them due to ^{ISRO's} ~~its~~ own policies of
doing it not-in-house but through
Indian Industries. The academic institutes
like IISc looked at ISRO for grants
but not to do anything concrete.

CSIR institutes like NAL
were worse! They took more money;
delivery was not their concern.

I could see all these
weaknesses... Also there were power-plays
~~and~~ within ISRO & the "tribal domains"

(1283)

Still I thought we ~~was~~ could overcome. In that period China ~~had not gone to~~ was also in early stages... So I thought it was the big ~~pop~~ population

of these countries which ~~are~~ ^{was} preventing speedy growth. ^{Belief was:} We could ^{over-}come & do things through ISRO!!...
Now (@ 2018) the story

of ISRO (& India) are different. China... very different. We would do such comparisons, analysis etc much later...
* *

Now ~~was~~ back to the events of 1980's period...

Let me take up some international type events & cover them not necessarily in chronological order.

↳ India - UK ~~At~~ Cooperation.

Some of UK
is repeat of Bee earlier
but also!
But this
more
multinational - Has
some
new!
(1984)

Unlike USA, USSR & France, ~~UK~~
~~was not~~ and even Germany (through DFVLR
program), ~~the~~ UK was not very much
involved in India's space cooperation.
Some companies were involved purely
in a commercial way. UK had
commercial linkages in defence matters
and ~~to~~ many tie ups with BEL, a
ministry of defence PSU.

One major situation in UK
was that they had ~~were~~ wound up
their ~~the~~ national space programme after
a ~~so~~ successful launch of a launch vehicle
from Woomera (Australia) launch base.
They were more tied up with ESA,
the multilateral European space body
which cooperates with India but more
importantly was in a major way planned to

(1285)
(@ 1980's) to work with USA's shuttle programme. UK gov / policy makers might have decided that ~~the~~ special efforts with the miniscule Indian programme was not necessary.

~~How~~ SD thought it ~~would~~ would be useful for ISRO to be in touch ~~to~~ with top notch UK scientists (many of them ~~were~~ researchers ~~or~~ rather than product developer or engineering types) as it would strengthen science base of ~~the~~ ISRO. So he contacted some persons ~~in~~ in UK ~~most~~ all of them ~~for~~ associated with Royal Society — Astronomers, ~~or~~ physicists etc. I recall that ~~we~~ we had a couple of joint meetings, visiting laboratories.

(1286)

(during ~~18~~ 1980 - 1982). We did
visit a few of ~~their eng~~ UK's
Aerospace
Engineering companies too. I don't
remember the details.

During one such meeting
as Kalam had ~~fin~~ completed the
SLV-3 project and did not really
have ~~a cat~~ a tangible assignment,
SD included him also in a team of
senior persons: UR Rao, Gowarikar etc.
Kalam & I had planned to go
~~and~~ and visit Ilupich & museum
where Tipu's sword is kept. (I
had written in some detail in the
Tamil book on Kalam - Nazima & Yiskajar
yet to come out). Since there was
no ~~not~~ nodal agency for cooperation

(1987)

~~we~~ (unlike CNES, DFVLR etc) we
could not ask our hosts to make
arrangements: most of their own
science laboratories were ~~in~~ operating
in \$ shoe-string budgets...

I knew about the museum
from Journal of British Interplanetary Society
(JBIS). I was ^{elect} ~~any~~ fellow for JBIS for quite
some time ~~that~~ and received journals. Since
the membership fee was ~~get~~ getting higher
for me due to the Indian Rs's F.E. was
changing more rupees to be paid for a
pound £ or USD \$! I could not

afford with my salaries & allowances. ^{But}
^{(Also read by detail in Economics of Space Program by J. D. van der}
~~what I do~~ I had the journals. ^{So decided} ^{to} ^{visit}
to see Plymouth museum; Kalam was
excited. ~~It~~ It was away from London.

(1288)

Went by bus. ~~I some~~ We somehow managed to reach there in the evening. ~~It was~~ All ~~are~~ around many military areas: probably contingents... Military museums...

We reached the gate; the watchman said that it was closed...

Some 4:30pm or so. He told that we can try ~~a~~ next day before that time.

When we were morning to reach there in the over coats ~~#~~ I was joking to Dr. Kalam "Sir, let us not run too fast.

The security here may ^{mistake us!} ~~be~~ ^{My beard is there!!} to some ~~of~~ Palestinian! We may get shot also!" ... Those were years when Palestinian attacks/~~were~~ hijackings were still ~~not~~ around...

Next day we managed to reach before 4 pm. But we could not

(1989)

do earlier as the meeting ~~was~~
went on. Our absence ~~was~~ would
be conspicuous.

When we reached the museum
was open. The watchman could recognise
us. (I was full of black beads. Kalan
had his long hair but well manicured!)
We realised ~~that~~ that in 30-40 mins
for closure, we could not ~~go~~ identify
the Tipu ~~sword~~ rocket. So ~~we~~ ^I enquired
with the watchman about Curator's
office; # told him we needed to
see only one item ~~of~~ ^{British} from ^h India. He
told the directions. Met Curator
and told about our desire. He saw
our sincerity. So took us to the room
in which it was kept.

(1990)

It was to be seen from outside in the ~~closed~~ horizontally kept closed Cupboards. Kalam said to the Curator

"Can we touch it?" ~~to~~ Curator said

"No we keep it closed. Visitors can see this way"

I then explained: "Sir we have come all the way from India for India - UK meeting ^{in London} took time off to see. This person here Abdul Kalam is the father our Indian launch vehicle programme - Proj Director for the first launch vehicle which went in 1980 successfully.... He would like to feel the old Indian rocket... We had read about it in some detail... Sir pl. consider... for just a few minutes!"
The Curator ~~saw~~ ought have

(1991)

seen the sincerity in our faces.
He opened it with keys he had.
Just gave ~~tot~~ after one and gave
to Kalam; I think there were two
pieces.. Small rocket tied to a long
sword!"

Kalam was ecstatic. He
thanked the creator profusely & gave
it back. It was kept inside..

We then walked away satisfied...
Later India tried to get it for the
IAF Congress held in ^{India} ~~India~~ in 1988... Kalam
~~I~~ left ISRO 1982 & I in 1988 July.

Coming back to UK meetings
it was on a slow pace discussing
their research interests and also discussing
how one-to-one relationship could
be built to expand later to other

(1992)

developmental type efforts. They
were also frank that they had little
relationship with the ~~the~~ big British
aerospace / defence industry...

We visited laboratories where
the greatest of physicists of the
20th Cent early 20th century worked.

In the ~~the~~ Rutherford Appleton Laboratory
(RAL) in the side lines I was ~~late~~
talking to ~~a~~ a senior professor
about the Purchas ~~proda~~ procedures
they use. He explained to me. He said
it was a small document and it is
as per both processes. We compared
notes. It was pretty much same
as we had! After all ~~the~~ Indian gov't
procedures are all derived / copied from

(1993)

British India. The main difference was that their rule book remained thin and small giving considerable flexibility to apply to local situations. In India we had gone on to expand it, in terms of clarifications, definitions etc to a point that they become volumes including Swamy's Books!

Repeat!!
(Sometimes much later around 2000's I think, Dr. J. J. Irani ~~was~~ in a CII function was giving an introductory talk ~~to~~ welcoming a British VIP probably connects in Infrastructure railways, "Sir what we had derived from the British in terms of ~~total~~ railway track & mileage, we had
(P.T.O)

(1194)

BSE Institute Limited
Notes forming part of the Financial Statements

17. Other financial liabilities (Current)

Particulars	As at March 31, 2018 (Rs)	As at March 31, 2017 (Rs)
Deposits from Students	38,99,782	17,78,095
Provision for Leave Encashment	2,81,883	1,09,966
Total	41,81,665	18,88,061

18. Other current Liabilities

Particulars	As at March 31, 2018 (Rs)	As at March 31, 2017 (Rs)
1. Income Received in Advance	9,60,04,907	7,79,45,506
2. Advance from Customers	-	2,08,500
3. Statutory Remittance	21,23,845	1,19,45,728
4. Others	31,138	27,157
Total	9,81,59,889	9,01,26,891

increases very little. We had made some ~~into met~~ from metre gauge to broad gauge; some routes electrified etc. But many made ~~tra~~ new mileages are not covered; hence an opportunity

But in terms of our bureaucratic rules we have perhaps expanded hundred or thousand fold than what the British left behind!"

I realised it in the 1980's when we visited RAL.

The Indo-UK attempt to

(1995)

had started in slow pace then.
Somewhere in 1983, when Margaret
Thatcher was going to visit India
it was decided at the highest level
that Indo-UK MOU on Space Cooperation
~~with~~ would be signed in presence
of the two "Iron Ladies"!

If I recall right, SD
was on some brief trip abroad, very rare.
He was asked to return for the even.
& A ~~UK~~ ^{UK} First Secretary from Delhi
came to Bangalore to show me the
draft (blessed by ~~it~~ on MEA).
— One Mr. Miller. I spoke some pleasantries
& requested him to talk to Chandra.
I took him to his floor (one down)

(1996)

~~Cham~~ I request Chanda to look at the drafts request Mr. Miller to be with him for clarifications. I went up stairs.

About 30 min later I went to see them. I asked Chanda.

He said to me: "Draft okay yaa except that I had to make a number of ~~English~~ ~~or~~ language corrections!" I saw a lots of

pencil marks & lines pointing words from one place to another.

I saw it & gave to Mr. Miller

requesting him to see & whether okay with him. & He saw it &

said ok! He had perhaps a

~~mad~~ mandate to return with

(1997)

with an accepted draft! I took him to my room & had those items typed in my office

— fresh draft. & gave to him

It was then for MEA to process and keep ready.

Later I told Chandan² "Chandra did you realize what you said! A hard core English ~~man~~ man Mr. Miller, you were correcting his English"

Chandan was exceptionally good in ~~the~~ English language: Other than SD himself, three persons in ISRO HQ were very good with
(P.T.O)

(1985)
Eghon: VS, PSS Chandra....

A few days later, SD & I went to Delhi.. When the two PM's were "watching" the MoU for Ind-UK cooperation in Space was signed by SD & UK Ambassador. Left to himself, SD would not have ~~had~~ likes such a rush. There was nothing concrete in it. Just enabling ones, which could have come from direct contacts first!

So ~~was~~ were the results! There were a few follow up visits &. The MoU was with UK's Deputy Trade & Industry which handled all of S & T cooperation. In a way a good idea

(1299)

but little were they prepared. So they were just formal meeting to complete the formality of follow-up! Once I remember that our counter ~~part~~ part person could not attend & his boss attended. He invited us ~~to~~ a lunch in one Indian restaurant; he would have been advised. He was a typical English.

~~After~~ ~~White~~ During the lunch he told us that he had never visited India, not nor had eaten in an Indian restaurant.

After the meals he told ~~that I~~ ~~"I"~~ "I understand why Indian food is not prepared with some drinks before meal. The spice

(1200)

in your food has the integrating effect of alcohol in the food we eat!"

Profound observation I thought! Cold beer may only cool the ~~scor~~ scorching tongue! I was wondering how he would have fared ~~&~~ rest of the day & especially next day morning!

In the overall, nothing much happened in Indo-UK cooperation till I left ISRO in 1988!

In the international front there are many interesting / important things to ~~be~~ narrate especially in UN, which ~~I~~ I had a handle