

Cosmogram-9 1984Apr22
JEO, Rt2 Box 350, Dickinson TX 77539
SALYUT-7 PRESSES ON. Soyuz-11/10
swap and Progress-20 resupply now
accomplished, Kizim/Solovyov/Atkov
continue their long voyage, headed
for what evidently is a record
stay in space (on Sep06 will sur-
pass 211 day record).

T-11 launch Apr03/1308
T-11 linkup Apr04/1431
T-10 land Apr11/1050
T-11 swap sep 13/1027
P-20 launch Apr15/0813
P-20 linkup Apr17/0922

NEXT VISITS? The orbit precesses
around again in late May, and
again in late July. What kind of
new visits can we expect? Can we
ever expect to see visiting crews
exceed a seven day overlap? Is it
conceivable that the current crew
could be partially exchanged in
the coming months -- say, Solovyov
returning to Earth, relieved by a
fresh FE such as Serebrov? And are
there any reports of other nation-
alities preparing for guest
visits? Afghanis? The Finns said
no, thanks. Palestinian Arab?
Nicaraguan? It is conceivable that
some such nationalities could re-
quire pre-launch total secrecy.
Others, such as Ethiopian, or
Syrian, or Greek, or Austrian, or
North Korean, or Cambodian, would
seem more likely to follow past
precedent and be highly publicized
for a year or more in advance.

IS IT ALL OVER FOR STREKALOV? Now
that Gennadiy has made his third
orbital flight, will he be re-
tired? Or will he be allowed to
return to the Titov crew, evident-
ly the Soyuz T-10 backups? Since
he was a last-minute stand-in, he
may NOT have lost any standing in
his original crew. Rukavishnikov
was removed, say the Soviet pa-
pers, because he came down with
"the grippe", not because of some
congenital defect associated with
age. Does this mean he may fly
again - a fourth orbital mission?

He has never been aboard a Salyut,
remember! And will we see a visit-
ing expedition with Berezovoy and
Grechko in a year or two, when
Grechko is 53 or 54?

PROTON PHOTO CONTROVERSY. Dispute
continues over whether Oct 83
Sputnik really shows part of a
Proton launcher. C-gram non-sub-
scribers appear divided on this
question, and I have not seen the
photo in question. To be continued.
ZERO CONTACT WITH INDIAN NEWSMEN.
My attempts to get in touch with
Indian journalists, who are cer-
tain to be having excellent access
to Soviet space information, have
been complete failures. Not a
single response to any inquiry.

HARVARD CONFERENCE ON SOVIET
SPACE. On April 9 there was a one-
day seminar on Soviet space act-
ivities, sponsored by Harvard Uni-
versity in Cambridge, Massachu-
setts. I talked to several people
who went and they were mystified
why such a superficial activity
was ever conceived. Anybody who
knew anything about Soviet space
activities reportedly would have
learned nothing there.

KOSMOS-1443 CUTAWAY VIEW. Just
after remarking that no such views
yet had been published, I learned
of one in the Feb '84 issue of
Sovietskiy Soyuz (Mar '84 issue of
the English edition, Soviet -
Union). It is a pretty good one
although still no details of the
'recoverable module'. I am having
35mm slides made of both the cover
art and the cutaway section.

SOVIET MILITARY POWER - 1984, from
the Pentagon, copies C.P.Vick's
artwork of new booster family. Has
more photographs from Kosmos-1445
recovery, too. Says: "Since last
year, the Soviet developmental
programs for providing a family of
new space launch vehicles and
reusable spacecraft ... have come
sharper into focus. Significant
new launch and support facilities
at Tyuratam are nearing comple-
tion. Some of these should be

ready this year or next to support initial testing of new launch vehicles. These vehicles include a space transportation system (STS), that in many respects copies the design of the US space shuttle, a new heavy-lift launch vehicle based on the core rockets of the STS and a new medium-lift launch vehicle that is evidently designed for high launch rates. The new spacecraft include a space shuttle that differs from the US shuttle only in the respect that the main engines are not on the orbiter, a small space plane ... and a space tug that would be used in space to move equipment and supplies from one orbit to another. The Soviet shuttle could be first tested in the mid-to-late 1980s... The new heavy-lift vehicle is estimated to have the capability to place payloads weighing upwards of 330,000 pounds into low earth orbit."

BAUDRY TO MOVE TO HOUSTON. Backup French guest-cosmonaut Patrick Baudry is the leading candidate for a French guest mission aboard the Space Shuttle next March. He will spend about six months in Houston and I expect to talk to him at length. Any new questions to ask? Any advice on topics to avoid, for any reasons?

NEW CHINA LAUNCH SITE. China-14 (Jan29:1225GMT) and China-15 (Apr08:1120GMT) were obviously from a new launch site south of standard space center. Hint: Chinese journalist at launch described liftoff as occurring just past sunset, in an area surrounded by mountains. Pan Hongxin, in a Beijing domestic service report broadcast Apr10/1200, began his report: "The sun is just setting here, white clouds are scattered about in the sky, and the mountains around the site are bathed in the golden glitter cast by the setting sun. The sky is getting dark." For 31N, this would have occurred at 105E, in Sichuan (Szechwan) province somewhat east of

capital, Chengdu. But the launch site would have to be somewhat south of there, since the China-14 groundtrack made first northbound equator crossing at 032.55W, which traces back to a track across China along roughly a line from Kueiyang in Kweichow (much further west would not have been late enough in the day to be consistent with Pan's sunset description) to the seaport of Shant'ou. [My first estimate of location, in a letter dated April 12, was based on misunderstanding an equator crossing as being one rev too early -- I retract my suggestion of "east of Chengdu in Sechuan"]. American visitors in 1979 were shown Long March 3 booster factory near Shanghai. Stages could be barged up the Yangtze River to the site. Chinese journalists also reported that the site was in "southwestern China" and that the launch azimuth of the booster was "to the south east". Launch sequence of China-15 involved SUBORBITAL leg between second stage cutoff and third stage (presumably cryogenic) ignition at first equator crossing. Apogee burn was made after three revolutions in transfer orbit. Stage 3 was left in 12-hour transfer orbit with 31.1 inc. Note that this dusk launch time means that eyewitnesses would have had a spectacular apparition in the sky, as the booster contrails were lit by the over-the-horizon sun to the west. Potential witnesses were in Hong Kong (200 km south of track), Taiwan (between 20 and 400 km north of track), and Luzon (300 km south of track). Anybody hear of any spectacular UFO reports from these regions on January 29 or April 8?

SOYUZ-1/2 CREW SENSATION. Rex Hall found a "Gagarin Jubilee" (50th birthday) article by Valeriy Kubasov, entitled "When Gagarin Was A Stand-by". Rex had the Novosti release (3NT003-84-8402) in English, and Joe Rowe sent me the

original (from Vechernaya Moskva, Mar 9, p. 3) which corrects several obvious typographical errors in the Novosti translation [BUT the Novosti version has several passages cut from the VM version, which were not totally flattering to Gagarin]. Anyway, Kubasov relates that from Aug 1966 to Apr 1967 ("1977" in Novosti) he, together with Viktor Gorbatko and Yuri Gagarin, were training "together" to fly the Soyuz. Gagarin was "head of our team". This of course is at odds with the official Soviet account that Gagarin was backup to Komarov, not to a three-man crew (and of course Kubasov and Gorbatko later were backups to Yeliseyev and Khrunov, during Soyuz-4/5). Yet I am willing to accept the new report as accurate in describing the backup crew of Soyuz-2 (prime crew Bykovskiy, Yeliseyev, Khrunov), and then ask, "Who was Komarov's backup on Soyuz-1? It has been said in Moscow that "Lazarev trained together with Komarov for Soyuz-1". Moskovskaya Pravda (Mar 3, p.3) wrote that during Soyuz-1, Gorbatko had already been training for the flight "more than two years". Gagarin's widow's book "108 Minutes and a Life" recounts that Gagarin was enraged to learn that the "Soyuz-1" teams (prime and backup) had already been composed without him, and he had to raise hell with officials to get himself added later. If the first assignments had been made early in 1965, they could therefore not have included the four men assigned to "Voskhod-3", to wit, Volynov, Shonin, Beregovoy, and Shatalov. So, again the question, who was really Komarov's backup? And who did Gagarin bump from the command of the Soyuz-2 backup crew? The available commanders, in the order they later flew, are: Filipchenko, Nikolayev, Dobrovolskiy, Lazarev, Popovich, Gubarev, Leonov ... and not to forget "Dmitriy". So, new grounds for specu-

lation.

DMITRIY AGAIN? Rex Hall sent me another photograph, from a Ukrainian book on cosmonauts ("Voni bili pershimi" -- in Russian, "Oni byli pervimi", "They were the first ones"). With Kamanin on the grass sit three pairs of cosmonauts: Shonin and Kubasov, Nikolayev and Sevastyanov, and ??? and Volkov. The "???" is probably "Dmitriy" and he does in fact look like a man in some of our earlier mystery photos. Photo must have been taken post Soyuz-4/5; the Nik/Sev crew was known to have been in training in late 1968 because they clearly show up in Soviet Soyuz-3 film, "Man and Cosmos". Also in that film, another two-man crew showed what many observers later identified as Volkov and an unknown pilot ... Dmitriy again?

April 5 ANOMALY. Another tidbit of fallout from the Gagarin Jubilee is in the table at the back of the Mar 1984 issue of Astronomy/Cosmonautics, on manned mission durations. It lists the April 5, 1975 Soyuz launch abort, and gives a flight time of "22 minutes". This seems reasonable -- but I have never seen this flight listed in previous Soviet books tables, and it is not counted as a "space flight" in the running totals of cosmonaut activity. It only took nine years to release this item! OLD COSMONAUT. What is this report that as of 1982 there was a cosmonaut "in his mid-fifties" being trained for a flight"? Any new whispers on this?

FATE OF MILITARY COSMONAUTS. During Gagarin Jubilee, photos showed Yuriy's mother with younger cosmonauts. Lyakhov, Romanenko, Klimuk had chestful of service ribbons (six or seven rows, four to a row!!); Zudov and Sarafanov had only two rows! So what have they been doing since 1977? I last heard of Rozhdestvenskiy as a CAPCOM for Salyut-6 in 1979, no mention since. Glazkov still ap-

pears in group photographs. The way these men have been side-tracked is a mystery to me.

SOVIET SPACE SUPPORT SHIPS. During congressional testimony in mid-March, Rear Adm. John L. Butts, director of naval intelligence, disclosed that the construction of the first of a "Marshall Nedelin class" of space support ships was completed in 1983, and that "a second apparent space event support ship" also was launched; the latter is more than 850 feet long and probably is nuclear powered, and this size "indicates that the navy's role in the Soviet space program is increasing."

WHEN DID EX-COSMONAUT 'VALENTIN GRAMPS' DIE? Shonin's book had identified a cosmonaut-candidate named Valentin who was too old (mid-30s?) for the rigor of training, and who dropped out of the program, to the sorrow of the younger men who had nicknamed him "gramps" ("d'yed"). Soviet sources recently wrote that he later took part in the training for the Voskhod spacewalk, as a training official. My files also have this brief note: "Moscow, Oct 6, 1970 UPI. A Soviet test pilot who helped develop techniques for the world's first spacewalk was killed while testing a new supersonic catapult system, Pravda said today. Lt. Col. Valentin I. Danilovich ejected at high altitude from an aircraft flying at supersonic speed, Pravda said..." Well, Valentin was a common name (there were three such candidates among the twenty first cosmonaut-selectees), but all the same it is suggestive.

LIBRARY OF CONGRESS REPORT: A note from Marcia Smith of the Congressional Research Service, "We have completed Part 2 of the SOVIET SPACE PROGRAMS 1976-1980 update covering manned programs and the space life sciences, but have been advised that it will be many months before the government

printing office publishes it. Consequently we have assembled a CRS report, "ATTAINING A PERMANENT MANNED PRESENCE IN SPACE" for use on an interim basis. The report consists of the executive summary, overview, and 1981-1983 supplement that will appear in the GPO-published version." Let me add that however useful these reports are, the decision to omit time-of-day from the launch summary table, and the continued absence of an index, makes them much less valuable for my own particular needs. However, better than nothing by a long shot -- thanks, CRS!! I'm not sure how to advise overseas friends to obtain copies, since in the USA one is supposed to ask one's congressman.

"COSMONAUTS AND COSMONAUTICS" is an occasional publication in Australia (Number 1 came out in Feb 1983). It looks terrific since it draws upon a wide assortment of Soviet sources, as well as my own material and BIS too! Subtitled "Soviet Space Activities: Review, Analysis, Speculation". Editor, Mark S. Hillyer, P.O. Box 229, Noble Park, Victoria, Australia. Mark asks (Feb12), "Is there anything to connect Ryumin with Soyuz-22? [not to my knowledge]" and "Have you seen anything that suggests Kovalyonok and Savinykh were originally the Soyuz T-4 backup crew? [No]". Anybody else can help? ASTRO INFO SERVICE has been brought to my attention by Mr. Anne van den Berg. Address, 26 High Farm Road, Hurst Green, Halesowen, West Midlands B62 9RX, England. They reportedly publish MSF NEWS [Manned Space Flight] and a "SPACE EXPLORER'S LEXICON". Well-known names attached to the project are David Shayler, Rex Hall, Neville Kidger, the same vdB, Curtis Peebles, Rick Mulheirn, and vdB's associate Gerard van de Haar. Good luck!

Jim Oberg