Cosmogrām-16 / 1985 Dec29 / J. Obera Rt 2 Box 350, Dickinson, TX 77539 USA VASYUTIN ILLNESS: After more than a month, we have heard a few words about the sick cosmonaut. Reuters (Dec 21) said that the Dec20 Izvestia reported Vasyutin was still in the hospital. But UPI from Moscow said a Soviet spokesman on Dec18 had told them that Vasyutin had recovered and "may be home in time for the New Year holiday" (implying he still was in the hospital). No details about the nature of illness. VASYUTIN B/U CONFUSION (CONTINUED): I was able to locate the Sepi8 Pravda article and it forces me to modify somewhat the notes I made in c-15 about Vasyutin's backup duties. The exact words from Pravda, following the assertion that Vasyutin had done four backup assignments, were: "Paired with Viktor Savinykh he did all that Dzhanibekov, Lyakhov, Kizim <mark>did then in their short or long</mark> flights." (article by A. Tarasov). This can be made consistent with the TRUD announcement (Sep18, article by V. Golovachev)) which said Vasyutin (together with Savinykh) was only on three backup crews, explicitly named as Soyuz T-7 (Popov), T-10 (Kizim), and T-12 (Dzhan again), IF we assume that Soyuz T-7 was originally to have been commanded by Dzhanibekov but when he was moved up to T-6 (French) to replace Malyshev, backup Popov took command of T-7, giving Vasyutin the backup slot. Also, TRUD must have overlooked the Lyakhov backup assignment -- I wonder why? Anyhow, here's my C-15 chart with some amendments: Soyuz T-2 Malyshev (Kizim) Soyuz T-3 Kizim (unknown) Soyuz T-4 Kovalyonok (unknown) Soyuz T-5 Berezovoy (Titov) Soyuz T-6 Dzhanibekov (Kizim) xMaly Soyuz T-7 Popov (Vasyutin) Soyuz T-8 Titov (Lyakhov?) Soyuz T-9 Lyakhov (Kirim?) (Vasyutin) Soyuz T-10A Titov (Kizim) Soyuz T-10 Kizim (Vasyutin) Soyuz T-11 Malyshev (Berezovoy) Soyuz T-12 Dzhanibekov (Vasyutin) Soyuz T-13A Vasyutin (Titov??) Soyuz T-13 Dzhanibekov (Popov) Soyuz T-14 Vasyutin (Titov??) I had earlier written in C-15 that "Thus the candidates for Vasyutin's possible fourth backup command seem to be only Soyuz T-3 and T-4. Savin-

ykh is known to have been backup o<mark>n</mark>

T-3, but Kovalyonok was not (he wrote he was backup commander of Soyuz-35), so I tend to lean towards Vasyutin for T-3 backup commander (he became a cosmonaut in 1976 in 1978 began preparing for specific flights, his biog says). For T-4, wouldn't it have been likely to be a veteran Salyut-6 commander? I gest Romanenko or maybe Popov. Malyshev and Kizim distant possibilities." (Popov would have moved to Soyuz-40 command position when ginal aging commander (Khrunov?) was removed). But since Pravda tells us Vasyutin backed up Lyakhov (only reasonable time was Soyuz T-9), there is no "missing" fourth backup slot, and T-3 is again "unknown". Now, Rex Hall has dug into many <mark>original Soviet s</mark>ources and he differs from my b/u list thusly (in letter dated "early December 1985"); T-3 Kovalyonok [] see no proof] T-4 Titov, Strekalov Ccites French sources, I will accept that] T-9 Titov [but now we have Prayda] T-13 Vasyutin [but we already have four good backup assignments, and I cannot imagine such a difficult assignment would be entrusted to a <mark>robkie even as a b</mark>ackup. Popov was mentioned by name, was seen at the flight director's console during docking, and also attended the postflight press conference and sat next to Dzhanibekovl. SYRIAN GUESTS: Rex reports their names are Nunir Habib and Muhammed al-Faus. An Arab friend of mine says the usual spelling is "Munir", dunno if Rex ran into a typo or if it's really a variant spelling. INDONESIAN GUESTS: Dr. Pratiwi Soedarmono, female biochemist from Djakarta U., has been picked to fly with the Palapa/PAM payload in mid-1986. Her backup is Taufic Akbar. SOVIET LAUNCHINGS: Article Richard C. Gross, UPI, dateline<mark>d</mark> Cheyenne Mountain, no date, published in Houston Chronicle on DecO<mark>l</mark> (section 4 page 1) under title "Sentinal in 'Mountain' keeps vigil over aerospace", gave an interesting statistic: in 1984, NORAD tracked 480 Soviet space and missile launchings. From Nick Johnson's statistics, we see that only 97 were successful space launchings, so nearly 400 were military missile tests of various kinds. Busy hands are happy hands. GERMAN SALYUT SCHEDULE INSIGHT: Dec14 DPA wire service from Hamburg

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eported that artifle in bill magazine discussed European contribution to instrumentation for imminent Salyut-class launch. "The Soviets intend to launch their first major project to investigate X-rays in space next spring together with West European scientists. Scientists from ESA, the universities of Utrecht, Birmingham, and Tuebingen and the Max-Planck Institute for ET physics in Garching near Munich, as well as the Interkosmos Institute in Moscow, have developed an observatory for this purpose...." There will be four instruments in the project called "Salyut-HEXE" (for High Energy X-ray Experiment). Dr. Claus Reppin of Max-Planck told GEO it was not clear "whether the observatory is intended to be coupled to the existing Soviet space station Salyut-7 or possibly to a new space station, Salyut-8". German scientists were not allowed to be present at installation equipment: some Soviets spent two weeks in Germany learning the process. GEO continued: "The experiment is a part of the Soviet efforts to set up a permanently inhabited large space station in outer space. At the beginning of the coming year, a completely new station with several coupling connections to which various modules can be attached in the course of time, is due to take off. In this way, a settlement in space is supposed to arise gradually according to the building block principle. Up to 30 cosmonauts were training for the new station." EXTRA REPORT ON SALYUT-8. It seems

Jean-Loup Chretien has been invited by the Soviets to spend several months aboard the new station. He visited Houston a few weeks ago to consult with American space experts on health issues and other topics. His second-hand account is that the new Salyut is a "hub" with six

radial docking ports.

HOWEVER, when Congressman Bill Nelson's group visited Starry Town in November, they saw an EVA exercise in which two cosmonauts were installing add-on solar panels to a station's basic panels. His group was told that panel augmentation would be a standard operation on all future missions. This strongly implies to me that many features of the next Salyut are identical to Salyut-6%7, including solar panels and launch shroud (otherwise, why not just

panels installed?).

SO WHAT? Let me speculate that four X-ray telescopes are not enough for a whole add-on module, but maybe the "astronomy theme" and next March's comet encounter together tell us that an "astronomy add-on module" is to be launched. Is there time to get a new-generation Salyut-8 ready, especially in light of fact that until mid-November it was fully expected that Salyut-7 would be manned and operational through the comet encounter period? The crews which would be training for use of the astronomy-module (including a "cosmonaut-investigator" who is a professional astronomer, I'll bet!<mark>)</mark> would have also been training for Salyut-7 operations, NOT some and different third-generation Salyut-8. I am skeptical that the Salyut will appear in February (necessary to support early-March Halley encounters); rather, in January we'll probably see a new crew sent up to Salyut-7.

HISTORY FOOTNOTES: Gubarev and Remek book PORODNENNIYE ORBITOY, Molodaya <mark>Gvar</mark>diya Press, Moscow 1983 has some interesting pictures (between pp. 64 <mark>and </mark>65). Plate 12 bottom shows Black Sea splashdown training of Gubarev together with Leonov and Kubasov! Were they all in a single crew 1970-71? He wrote he got teamed with Grechko "end of 1971". Plate 4 shows Gubarev and Grechko at airport route to Baikonur with Klimuk Sevastyanov, and a civilian-clothed Boris Volynov. Does this tell us K&S were backups to G&G for Soyuz-17, not Lazarev and Makarov as we had

assumed? Looks like it. ILLEGALITY IN ORBIT. I have finally obtained the USSR report to UN's "Committee on Peaceful Use of Oute<mark>r</mark> Space" for June 1985 launchings, dated Sep11 but not released until mid-December. The 1985-53A, B, C mystery fragments were NOT on the list. If they really were from a secret Soviet satellite launching believe), this places the USSR unambiguous violation of the vention on Registration of Space Objects". Why did they the risk? And what comes next?

PIONEERING SPACE (McGraw-Hill) now has official Feb 7 release date; we got our first copy a few weeks ago, we think it looks great!

In Oberg