

BURAN-1 15 NOVEMBER 1988.

The enormous patience of those interested in Buran was finally rewarded 15 Nov. 1988:

BURAN lift-off from Baykunur at 0300UT for a computer controlled flight of 3hrs and 25 mins. The "take off" took place at sunrise in Baykunur under very bad weather conditions (almost causing a second postponement!). But it did not obstruct the flight, though the observers saw Buran disappear from its own smoke into the clouds.

As usual again "on duty" now at 0245UT, with the knowledge that all what was going to happen with Buran (apart from a few minutes around 0600UT) would take place "out of my range". Radiosignals could hardly be expected around 0600UT for Buran then had already to be execute a slight descend. Radio Moscow did not broadcast a direct report. In a newscast there was word about the launch at 0300UT, but in fact no clear confirmation. But I was able to get that confirmation very soon: At 0313UT MIR showed up and the cosmonauts left their sleeping bags for the news about Buran. On TsUP deputy-chief Viktor Blagov told them about the successful launch and the cosmonauts congratulated TsUP. (orb. 15760, 0313-0323UT).

Finally 1hrs 15 mins after the launch Moscow started the recording of the "direct" report. Of course there were a lot of differences, for instance as far as the Rockets and Engines were concerned, but if translated in English the scenario was almost similar to an American Shuttle launch. (So also in this respect there is "a convergence of different systems", already long ago predicted by optimistic politicians!) The Russian reporter was so polite as to let us hear the flight-controller for long periods and so I was able to determine that what was going on without a "press kit" as we always get during Ariane launches. Every 5 or 10 seconds the controller gave flight data and all went on going well: flight normal, engines base block (Energiya) stable, good pressure in the combustion chamber, movements around Y- and Z-axes (pitch and yaw) within limits, ("roll" was not mentioned, he spoke about "rotation".), etc. 500 seconds after lift off: the last thrust of Energiya engines, towards 100 KM altitude Energiya engines "off", separation of Buran from Energiya at 120 KM alt., a short free flight of Buran, to alt. 150 KM, for a while the own "manoevring engine" on, so Buran now proved his autonomy and there was applaus for the 2d time. This took place at 11 mins 25 secs after lift-off. Then alt. 250 KM, in half an hour a second "engine push" was necessary to achieve a circular orbit at 250 KM. this took place at 0347UT and the engine worked 65 secs. One and a half hour later Buran flew over the Caspic sea and was about to begin its second orbit and to prepare for the descend operation. The descend was going on at 0605UT, at about 100 KM, 5 mins before landing again reducing speed. There had been a radio silence of appr. 20 mins. caused by the temp. of 1600 degr. C. This did not influence the superb functioning of the computer and this did what it had to do: to approach accurately and to make a soft landing, which the computer did Buran do: touch down at 0625UT on the concrete runway on appr. 6 KM from the launching site.

Radiotraffic from Buran: These 2 orbits made it impossible to discover beacon and or telemetry frequencies. I scanned a lot: next time better I hope! (The next flight will again be unmanned, but will last longer, so sleuthing will be easier). So before trusting Buran to Volk and Sultanov there will be another computer controlled flight. In an interview of a friend of mine with Volk, the latter said that in his opinion it was better to be on board during the first flight. He feared the possibility of a computer misinterpretation during Buran's transition from cosmic- to supersonic speed. In fact his pessimism has not been justified.

Greetings,
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