

## Meeting No. 21

1. On 24th July, 1961, subject arrived at 1305 hours. Subject has purchased a silver cigarette case costing £22 which he will give to VARENNY, which he unpacked and displayed. It is to be inscribed "to dear Sergei Sergeevich" and not with VARENNY's full rank etc., since their families are on very friendly terms and signed from (subject's true family name). After discussion it was decided that engraving is to be done in MOSCOW for security reasons. Subject agreed.
2. Subject requires further supply of batteries which he was asked to bring back by RUDEY, both PAVLOV and VARENNY. Q: The two sets are not enough. A: All right we will get them.
3. Q: After visiting the Earle Court Exhibition for a short while that morning, I then went on to the Embassy where I saw PAVLOV who told me that he had heard from VORONIN that I was first on the list and was being "reconsidered" for the same.
4. Q: RUDEY then asked me for news of the machines I had promised to obtain. I told PAVLOV that I had already spoken both to WINE and DASHKOV about both machines and that WINE was going to buy one in his own name and then hand it over to the Soviets who would pay the bill. The bill will then be taken by me to INKOV as an official invoice to justify the cost. The THETA engine will be delivered this week on Saturday. As regards the other ALPHA engine, however, I plan to send RUDEY a telegram tomorrow (25th) stating that since the firm absolutely refuses to sell the Soviets less than 1000 machines on bloc, the British specialist who has been in frequent contact with GRIK, had agreed to buy the ALPHA in his own name and subsequently hand it over to me. And I now request RUDEY's agreement to this transaction and request that the cost of the machine in A should be transferred accordingly to LONDON in my name. Such a telegram would increase the Soviets' trust in both DASHKOV and WINE who are apparently listed in INKOV as my potential contacts for close study, and further use. It would be most advisable for me to send such a telegram tomorrow, to justify my stay in the U.K. during the past week. What I need is the price so I can report it even though delivery may be later. A: I will find out tomorrow. Q: Then I can send the telegram a day later.
5. Subject requests additional photographic apparatus (tripod in particular) to save him adjusting the focus every time as he had to do for the 300 pages he has just brought over, i.e. spending 10-15 seconds on each shot. Subject guarantees that he never takes photographs unless he has 100% certainty that he will not be seen or interrupted. Consequently, the shorter time he spends in a locked room the better so as not to arouse suspicion as to why he locks his door. Subject listed all his photographic problems. Q: The photography instructor has been scheduled to come here on Wednesday and we will cover all your problems.
6. Subject explains how he took photographs of secret intelligence (GRU) telephone directories of personnel working in the departments headed by PLAMIN, who is the chief of 2nd Napravleniye of the 4th Directorate, and ZAVRIN, who is the head of the 3rd Napravleniye (in the same Directorate). Q: I succeeded in photographing them while PLAMIN was away sick and I sat at his desk in which I found these directories.
7. Q: The internal extensions in each department of the 4 number system can be obtained when ringing from an outside telephone

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by prefacing them with the prefix K-2 instead of going through the main (GRU) exchange no. K-5 03000 for instance. K-2 is the automatic prefix which connects one to the internal exchange. This is an open or rather semi-closed system. The General Staff Archives' tel. no. is K-7 which indicates that it is located in the RAUWART district (of MOSCOW), these archives being located next to the WEALIN Military Academy for senior officers. (It is decided to revert to this later). (Note: Complete explanation of phone systems given in 22nd meeting).

8. In looking through these directories to find his own name, subject comes across an entry giving his home telephone number and saying he can be found through SHINOV, Anatoli Ivanovich. Subject goes on to explain that SHINOV was one of the senior officers in the 4th Directorate, having served previously to that in Egypt as Resident in Port Said. Other changes are scheduled to take place in the 4th Directorate soon as follows: On SHUDIN's departure, SHINOV will be promoted Head of the Napravleniye to replace Colonel SHININ - the former Resident in IMAN and the present Head of the Napravleniye, who is in turn being promoted to replace SHUDIN as Deputy Head of the Directorate on SHUDIN's departure, although the post actually carries a General's rank, whereas SHININ is only a Colonel. S: We will return to this in detail later.

9. S: As regards the Academy of Sciences directory, this includes the names of the many specialists mobilized for secret work on various defense projects, rockets, explosives, engines etc. These peoples' names could not suddenly be excluded from the directory - which is restricted secret anyway, as it would have aroused the suspicion of the other scientists in the Academy, most of whom are not party members but members of the old nobility or intellectual families. If these Academicians' names would have been suddenly excluded the others would have guessed at once that their colleagues were now working for the Minister of Defense or the KGB.

10. S: Now last time we spoke of the S.P.5, P.5, R.5 rockets, details which I have already listed. I have no further information on the first two but would like to stress that each is a completely different weapon by virtue of their different ranges, carrying and utilization. The details have already been listed in connection with those earmarked for submarine and land forces. I obtained this from PARFOMENKO who had just returned from a course at the Senior Artillery Officers Military Academy in IZHMIRNAD, where he had been studying these weapons at a VAK.

11. S: As regards the R.5, I actually saw this huge rocket with my own eyes and even touched it but it was instantly covered up by a large canvas and those attending the course were not allowed to study it - nor were they allowed to study the R.7 or the R.9 rockets which are all prototypes being tested in the research and development of various sizes and capacities for the production of a greater jet propulsion force ("reaktivno silny").

12. S: As regards these developments, PARFOMENKO as a wise and experienced artillery officer commented that it is not possible to increase by mechanical means the jet propulsion force even further as the metal could not support this increase when the fuel expenditure (consumption) per second remains unchanged, since it would result in the metal burning out and this, in turn, if the fuel injector [foramina] burns out, would result in an immediate fuel leak which would inevitably lead to either of two things. Either an outbreak of fire, or the rocket will cease travelling after the first 150-200 metres. It would be impossible to achieve since the essential scientific natural balance will have been disturbed.

13. S: I'd like to mention something about the Directory listing names on 77 4, commonly known as "troichka", and explain that this Exchange serves the Minister himself, as well as all the Directorates, Departments and Institutes owing under his jurisdiction - i.e. in General Staff of the Ministry of Defense. PARFOMENKO's own Directorate however does not form part of (come under) the General Staff of the Ministry of Defense, but is part of the structure of the Ground Forces which is an

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with the Ministry of Defence and its General Staff via the K. EMILIN line "Kremlevka", which is allocated to all military "rukovodnyashchiy sostav" (R.C.), for important conversations.

20. S: The reason why the Directory, in listing SUREV for instance, does not give his initials - as is the rule for the majority listed in the Directory - is that SUREV being quite a common name, it was thought this would avoid people guessing that the present head of GRU is identical with MERIVA's old deputy.

21. Subject also requests that he be allowed to buy the latest model of the American ZENITH wireless receiver, which having eight wave-lengths bands, Subject could also use as an alternative set to receive messages. He intends installing it in his "dacha" as he considers it would be simpler if he could also listen to music on it. He has no radio at home at all except the transistor we gave him. Besides he wants to improve his English by listening to the BBC. After much discussion regarding the security factors the request was held in abeyance for further consideration.

22. G: Let us work now on our agenda questions. First of all we want to clarify some points on the Berlin question. You said that assuming the roads were blocked - the Allies press on notwithstanding and send through transport planes to Berlin - these planes will be shot at. Who told you this? S: Firstly, this was told to me by VARENNIKOV. Secondly, it was confirmed by Volodya FEDOROV when he was passing through with his battalion. Thirdly, by Yuriy KHOROSHILOV, who is the Chief of Staff of Artillery in the Tank Army, BERLIN under PU II and who was previously a brigade commander of Artillery, but conventional Artillery, unlike FEDOROV (who is Rocket Artillery).

23. S: KHOROSHILOV was in MOSCOW on leave but was recalled back a fortnight earlier than the date originally fixed for his return. Notwithstanding, he found time to ring me and arrange to meet. We went to the Dinamo Restaurant where, amongst other things, he told me (as I have already reported to you) that "the Germans will make a real hash out of us!" So I asked him "But what will happen?" and he replied "this is what we are being told, and this is what we feel ourselves (will happen) and what I, as a Chief of Staff can tell you (will happen)..." and then he (KHOROSHILOV) went on to confirm much of what I had already heard... (as follows):

24. S: As soon as the agreement (with GDR) is signed, a state of alert ('trevoga') will be declared immediately, putting all the GDR forces on the alert for the take over of control in all check-points - the defence and control of which in future will be their entire responsibility. Meanwhile, the Soviet troops will be kept in readiness ('na isgotovke') : the plan being that they should at once come out to occupy these roads, since this would then mean provocation to be followed by bloodshed... What will happen is that the West will be told: "Americans, British and French, please, you are still free to go to BERLIN, but you must now deal with the GDR (for passes)....or if you wish to fly along the Corridor at the agreed height and on the agreed course, please do so, but you must approach the GDRs who now control all flights and grant the necessary permission accordingly for a certain time-table and number of flights...similarly for railways.....

25. S: If however the Americans, British and French refuse to deal with the GDRs and try to force their way through, then the Germans will start firing. And since the GDR forces are evidently not strong enough, then the Soviet tanks will come out and attack the forces with which the (the West) tried to ram their way through to BERLIN.

26. G: There is a small non-sequitur here: although one can block

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off a road or railway, one cannot do so in the air. Consequently, this means that the GDR air force will have to shoot down the transport planes of the Western allies - that is fire the first shot. Q: If the West do not apply for permission or give notice of intention to fly to BERLIN since they do not wish to deal with the GDR and just send off a plane (without prior notification) then the Germans will fire at this plane (from the ground) or order their own planes into the air (to attack it)... although their (GDR) planes are in fact Soviet planes... Q: Yes, but the first shot will be fired by them? S: Yes, (the first shot will be) theirs!

Q: But what happens on the roads? Who will fire first? Will it not be the other way round? S: Wait a minute! Let us say that the scheduled plane didn't fly through since the Germans started firing at it. So then you go along the road - not in tanks or armoured cars - just in ordinary cars or lorries carrying people and food-supplies. You are stopped, but since you do not wish to have any dealings (discussions) with the GDRs, you press on - so they start firing first at you, i.e. "if they (the West) do not recognise our rights - then fire... arrest... destroy them!" Even though the West had not yet sent in their tanks... The West won't be the first to fire, they won't start firing till the others fire first, I fully understand that. But things will happen as I have just told you - this is absolutely certain and cast-iron. I heard this from VARGENTSOV himself - "if they (the West) refuse to talk with the GDR and try to press on to BERLIN regardless, then they will be kicked in the teeth!" I vouch for this with my life that I am telling the truth! And if the Western Command then decides to send in their tanks so as to clear the way through, then they will also send in their (GDR) own tanks!

Q: Who was the source of the statement that if KHRUSHCHEV realises that there will be tremendous solid opposition from the West, then he will stop and not sign the treaty? Is this an opinion held by you or held by others or is it a fact based on policy that someone may have heard at any, a meeting of the Supreme Soviet or some other such meeting? S: This is an opinion held by us all and it was expressed to me firstly by General FROLOV as well as by many other officers, FROLOV among them. What VARGENTSOV said was as follows: "we are going ahead in a very risky gamble (idem ne bolshoi risk)... we are going to show absolute firmness because, so they say, history will not forgive the leaders of the Soviet Government and Communist Party, if once again they postpone matters and once again do not sign the agreement (with GDR)..." So I said "but do you mean we are going in on a risk - how so, Sergey Sergeevich?" and VARGENTSOV replied: "Because if they (the West) refuse to talk to the Germans, and the German (sentry) will bar the way and say "give us your propusk" and then the Americans will get excited and so the fighting will begin..." I mean local fighting...(deep sigh)... And many say "what nonsense - what for", and all of them confirmed this to me, FROLOV also... In 1960 this is a well known fact, the people in General Staff HQ know all this and visualise how it is all going to happen... after all we are constantly breathing that atmosphere...! And when I name to you my various sources, I only give the names of people who are known to you and who are actually concerned (take an active part) in all this. Because if I hear something from some IVANOV or PETROV there is no point in telling you about it and even I myself forget about it by next day since these people mean nothing to you or me.

Q: As soon as the agreement (with GDR) is signed, a battle alert will be instantly declared in the GDR... and for what purpose? For the purpose of countering any, as they (the Soviets) say, 'childish' gesture on the part of the Western Military commanders, the Western representatives in Germany as well as on the part of the FRG Germans themselves. And since their (GDR) forces are not sufficiently strong, consequently they are going to be supported by the Soviet forces in Germany who are being put on battle alert, in position of battle-readiness No.1.... And this battle alert will be

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echeloned back to the forces on the territory of the Soviet Union as those stationed on territories of satellite countries.

30. (Because they are envisaging the following) and what if the Americans should suddenly send in several thousand tanks so as to unite the two Germanies - then battle will commence... what sort of battle? A local battle... and to what depth of front will it extend? To the extent of the territory on which these troops will be located i.e. there will be no attack (by the Soviet forces) on the rear, on other countries where our (eastern) troops are concentrated... There will be no such attack... because they (the Soviets) want everything to be decided in this particular sector: the area wherein the highways are and the railroads and in the air... i.e. in the sector where it is expected that the West will show, as they (the Soviets) say, 'disrespect' towards the GDR... where (the West will say to the GDR Gentry) go to hell, I won't show you my propusht...! and so a skirmish will begin in this sector...

31. And if the West send out their tanks, then the Soviets will also send out their tanks in support... and so they will begin firing at each other... For that is how the whole thing is envisaged and planned and there is nothing clumsy in this, everything is absolutely clear cut... So once again I would like to repeat to you what my own ears have heard and how I understood the position... (this is the plan envisaged): They will only show force and bar the way (to the West) only in the event that the West will refuse to talk to them (the GDRs)... and not that, say for instance that as soon as the Germans will take up frontier control positions and the West sees them, the West will start firing at them at once... Neither (is it envisaged) that as soon as the Soviets will see the Western forces, they will start firing at them... But they will say "and on what grounds are you travelling on this territory? According to the agreement you should have permission for this from the Government of the GDR. If you have permission from the Government of the GDR to make a flight at such and such a time, then please go ahead!..."

32. And this is where KHRUSHCHEV, ULBRICHT and GOEBBELS are being so clever. For they will say: "We are not limiting the entry of Americans, British and French (into BERLIN)..." But not forbid that this should lull the West into a feeling that there is no danger... because this is only the first step, i.e. once the time-table of movements (and permission for such movements) is in the GDR hands, then they can dictate the rules of the game, and continue to press through with their own will.

33. It is perfectly clear to us and we understand perfectly well that the Soviet Government has no right to sign an agreement with the Germans, but they are trying to support this action with armed strength... And (it is planned that) should the Americans, British, French and the GDR Germans refuse to talk and negotiate with the GDR concerning regulations for future use of communications with BERLIN, then they will be told: "No, stop, we must defend our rights according to the agreement... the Soviet authorities have gone and we are therefore a sovereign power in this territory..." But the Soviet forces will not leave, they will just retreat some distance nearby... and then, as the German (GDR) forces are weak - they haven't got anything much as a matter of fact I could tell you about it since I personally know more or less what they've got into this sector, into this zone, i.e. over the German territory as a whole. That is how the Soviets want it for the moment, they do not want to widen the area of hostilities, they do not want to turn it into another world war... This is the Soviet plan and this is where the gamble and the risk comes in. This is the risk VASILEVICH was talking about.

34. I could have easily proved all this to you if I could have recorded all such remarks as and when made to me had I been supplied with a pocket recorder. But this should be one of excellent quality, as apparently the GDR model is dreadful and makes plenty of rattling noises. And is consequently not being used by Soviet Intelligence.

35. This is what the Soviets are preparing for. And that is why .../nll

the Soviet tanks and artillery will be thrown in - in great strength -

all manoeuvres and training is being done on a joint basis with all the WARREN Pact countries, that is why there is urgent demand for equipment, for tanks...and especially the tanks are being given particular emphasis. The Western Commands should never suffer from the naive illusion that the Soviet Military and Government Organs have stopped developing tank forces. We have already spoken in April-May that what is taking place in the USSR is a re-allocation and partial reduction in Air Force and Navy, i.e. disbandment of unnecessary elements in Air and Naval forces...and this is done, why - not because the Soviet Government and High Command do not have a high regard for the Navy or Air Forces as such....Not at all, they are doing this because they consider that this disbandment can be compensated by the organising of a smaller but more specialised force with the introduction of new weapons, i.e. rockets of various calibres, diameters, and ranges...

36. I will try to find out further details on this question...the exact vital moment... but FRODOV has already told me that he is taking his family out of Germany in September and all FRODOV's officers are going to do the same.

37. It would be a very good thing if... actually I would like to meet sometime the RMR Minister JENKINS - although of course I realise I am much too small a mission for a man in his position... to advise him to run special schools organised for teaching diversionary tactics so as to create absolute panic within the garrisons occupied by Soviet forces i.e. by starting fires, blowing up roads, communications, etc.... It would be like a mouse-trap then, and the Soviet forces will then start running round in circles and by the time they will start firing it will then be too late...! And if they are too late, with God's help the advantage will be ours... Because this is what they (the Soviets) are frightened of. And why are they so frightened? Because they know full well what the atmosphere is, how the Germans look upon them, how the Germans hate them... and they know full well that as soon as any skirmishing begins, the Germans will start throwing stones at them, beating them with sticks or guns - if they have them...

38. And just imagine what will happen then. FRODOV has all material in his brigade - FRODOV has two complete firing units: one already fitted with rockets ready to fire and the others are kept in the Brigade rear area. The Brigade actually has four firing units in all allocated for its initial mission although in fact there should be twelve in all spread out in depth, so that it is known that to a depth of several hundred kilometres all these rockets are going to FRODOV's Brigade only... so that if his depots are set on fire, several hundreds of his people dropped up, just imagine the chaos! Everybody moving in all directions at once. There will be no longer a unified brigade, no organised firing... And once they are out in the field they will start firing at once in all directions and at the GDR Germans, and at the ALLIED forces - all at once on a circular front - so they say! Once they are in combat deployment that is bad for our side... So it is essential not to allow them to deploy in combat formation. Because, after all, they are sitting like in a mouse-trap... they are not sitting out in an open field now... because that would indeed be bad for the West if they were sitting in reserve positions so that it would then be very simple and quick to change to combat deployment... but they are doing nothing of the kind! They are sitting in a house - in wonderful accommodation with telephones, baths, bars and jazz bands even... This is what they are afraid of - this is listed as the prime danger. And why should we not make use of this? For if we (the West) do not, history also will never forgive us for missing this opportunity! If we (the West) say: all right, let #5 do it according to the rule, wait for them to take up combat positions and then start firing!

39. Simultaneously organise diversionary groups so as to destroy as much as possible as quickly as possible...and then it would take the

.../brigade

Brigade several days to re-organize itself, and that only after they have received new supplies of firing-units from the second rear area, because everything in the front line would have been burned out....everything - all equipment and material....I do not consider that would be too difficult (for the West) to achieve! Because if some bold and decisive action is taken here, an awful lot of destruction can be achieved!

40. Q: Another item from clarification. You remember you mentioned the existence of anti-missile missiles. Have you heard whether in this connection there exists some programs under MODERATED's direction i.e. Institutes, factories, training courses concentrating on anti-rocket defense with rockets... A: I have taken a great interest in this myself and I know that what I was told is correct and that I have understood the situation correctly as follows. No device actually exists that is in fact a realistic, completed, workable device against a rocket attack. A serious and considerable amount of work however is being done on these lines...but this work which is carried out in the Scientific-Research Institutes, the NIIS, not those under the jurisdiction of MODERATED or VALENTINOV, but those under the Ministry of Defense itself. These Institutes are controlled by Special Technical Engineering Directorates in the Ministry of Defense or in GAV....An awful lot of brain-exhausting work has been done on this problem, but still no stable device that could be put into use as an anti-rocket has been worked out as yet. Some of course have been tested. I can absolutely vouch for that. And since the rocket is Device No.1, this would be Device No.2 - an anti-rocket, but no such device has been perfected yet, although tremendous work and research is being done on this. Considerable sums of money have been allocated, quantities of scientific experts mobilized for this purpose in order to calculate the exact trajectory so as to meet the oncoming rocket with an explosion that would destroy it.

41. Q: But could they adapt for instance, the V-75 or other ZURS rockets for this purpose and if so are any attempts already being made on these lines? A: Yes, of course, they could adjust it, but so far this has not been worked out or approved...of course, they could since they already have rockets for such a height, a rocket that can be perfectly controlled by man... but not explode it on the trajectory of the oncoming rocket. But the whole complexity of the matter lies in the exact calculation of the exact moment of our firing of our rocket and to compute electronically all details determining height at which the other missile is travelling in order to be able to hit it. Even if they know the exact moment the enemy missile is fired they haven't got the means for working out the trajectory. One can't really adopt the method of firing against all possible trajectories for one given missile. It's too expensive. That is a question which is being studied very seriously.

42. Q: Do they know anything about such tests at KAPU TIN YAP or in KAZA... A: No, no-one has told me anything about this. You see, KAPU TIN YAP and similar ranges in the ORONA Military District - I am sure there must be other ranges, we just haven't discovered yet, they are so secret - any way all these places are used for testing equipment which is practically ready for issue to troops, or else equipment already in use which is being perfected. It is also used as a testing ground by Institutes. KAPU TIN YAP is not connected in this matter you are asking about.

43. Q: Can you tell us whether there is a programme for anti-ballistic missiles? Do they expect to have them within a year, two years? A: I can tell you that it will not be sooner than from one to three years. But they are working hard on it. Large sums are being spent. The Soviet doctrine in general assumes that for each new weapon a counter-weapon is to be found, once they build a tank they immediately create an anti-tank weapon, having created rockets they are now working on anti-rocket weapons. They also know that the enemy is working on the same lines. And the Soviets assume that in view of the enemy's high-level of electronic-exploding techniques they are ahead. But the intelligence people can't find out the exact degree.

44. Q: Has Sergey Sergeyevich said anything to you about this?

Q: All he has said was that we (the Soviets) are working on it. He has not said anything definite. Sergey Sergeyevich is worrying himself sick on account of the lack of trained personnel and the low level of computing techniques. I'll ask him about this and you can listen to his reply.

45. Q: Answering that the ABM system exists, would it be in the hands of FVD A.A. defence or would it have an independent command? FVD would have it primarily. Their troops are trained for this. There is no point in giving it to VASNETSOV. It has to be near the frontiers. Definitely it would be under the FVD.

46. Q: What other rocket, besides the V-75 was shown at the Day Parade? Two were shown. Q: Was the second one also a ZURG? G: Yes, a ZURG. Q: No, I haven't heard anything. Anyway I was here at the time. When they told us about the Parade they did not say anything about a new rocket. Perhaps it is another type of rocket, not a ZURG. All right, I'll check. Q: As you attended lectures at the Academy on the V-75, does this mean that this rocket will be issued to troops for their own defence? G: Yes. When you'll get the sketches you will see that it is used for defence of troops. This is also mentioned in the 1959 manual I gave you, but the exact type of rocket is not mentioned. The following troops are covered: large 2nd echelon troop concentrations, Army front HQ, troops preparing for attack. Other troops, if means are available. The same system which was applied during World War II.

47. Q: In the case of improved types of the same rockets, would the FVD be the first to get them? Yes, of course. They have always the first priority. Marshal of Artillery, VASNETSOV, Commander of FVD ground forces, his people are equipped for the defence of troops he has rifled A.A. weapons, he has some aircraft, and he will get the V-75 as and when it is produced. He probably has some already, I feel sure he has.

48. Q: You said you were told at the lectures that you can have the rockets operate at 3,000 metres and up to 20 kilometres. Does this mean you can't operate at lower levels? Q: You use other calibres for lower levels. The rockets developed velocity must be employed at high altitudes. At lower levels fighters or A.A. are used. I've already told you all about it.

49. Q: The other thing I've given you is the rocket launched from an aircraft. There are 4 rockets carried by the plane.

50. Q: There is one thing that is not clear. When they say that the range of the rocket is 40 km, the guidance is 10 to 30 km, which means that it can fly another 20 km after the 7 seconds, how is it guided then since it has been out off from ground control? G: Let us refer to the materials (G. is shown his notes). Which range are you referring to, horizontal or vertical? The second-stage assemblies of the rocket give you 40 km, the guiding ends after 20 km, as it is considered that after this height it will continue along the fixed trajectory, and it can be exploded by a special explosive device say at 25 km so that it flies 5 km without any guidance. It will fly for those extra 5 km if 25 is set; or 10 km if 30 is set along the direction in which it had been guided.

51. Q: In this way by using the possibility of the flight of rocket V-75 for 40 km, the troops using it for firing say at a height of 25 km, accelerate it to the limit of control for 20 km, calculating that the control up to 20 km will give absolutely accurate flight in the same direction for the remainder of 5 km, with the help of rudders, the correcting assemblies etc. will come into action, it can operate at 25 and 30 km. That is why it is considered that the important thing with regard to this rocket is to keep it under control for those 20 km.

52. Q: It is very important to know what happens when it explodes. G: I've written you in accurate detail about this. The only thing I have forgotten to tell you is the depth of the grooving (of the fragments). These

.../grooves



grooves can be smaller and deeper, they don't all have the same depths. It is rather like jeweller's work. Here the grooves are smaller it will explode sooner, with a smaller number of fragments. The angle I have mentioned is achieved with the help of this cutting or grooving, as well as the number of splinters required. I gave you full details, the only thing I didn't speak about was the relationship between the depth of the grooving and the fragmentation. I repeat the type of grooving on the jacket, the number of fragments, and the method of "refining" (refinирование) the whole which breaks up into fragments, I've written you a detailed report about this, about 3600 fragments or as the notes stated. (Subject explains similarity to a hand-grenade). The grooving is done in such a way as to obtain a cone of fragments in the predetermined direction. The depth of the grooving is also one of the controlling elements.

53. Q: Here is another detail, as you are so interested. During this "refining" of the sections which gives you the fragments, they try to make all the fragments angular and to cut out wastage. The effort is to make the maximum number of fragments effective. They have been successful in this. They should disappear by predesignation in a cone toward the approaching target. Dispersal angle is  $2^{\circ}$  -  $3^{\circ}$  for fragments. The bursting angle of the whole is  $10^{\circ}$ . (This is all written in notes). The action of the fragments is guided, at a distance of 50 metres they can pierce steel armor. The distance is calculated on the guided action cone. It is always directed straight ahead. (Subject gives a demonstration during the conversation).

54. Q: Has the V-75 got an atomic war-head? A: No, and they don't consider it necessary for it to have one. They consider it a much too expensive entertainment just for one aircraft.

55. Q: Have you heard anything about R-25? A: It exists, but I do not know any technical details. It is older than V-75, but it has never been developed. It is one of the first. It appeared to be successful and they may go back to it. But you know they have so many variations.

56. Q: Will they develop missiles for low-flying aircraft? A: If you mean rockets, the answer is No. They believe that the enemy will not risk expensive new aircraft on a plate to the opposition (Soviets) by flying low and exposing it to ground fire.

57. Q: Are they considering developing more powerful rockets? A: To engage the U.S. B-70 planes? A: No. They consider that at the present stage they've got sufficient, they have the V-75, they have aircraft with a ceiling of 3 km, these aircraft can carry rockets which will add another 4-5 km. Of course it would be nice to develop and have them, but you can't do everything at once.

58. Q: Do they intend to instal the V-75 or similar aids on naval vessels? A: Yes. This is happening. These same rockets are being used. The same principle. I'll find out about the submarines for you. It has just not been one of the subjects I have dealt with at lectures, or anywhere else. I do not know where it is mounted.

59. Q: Did they give the V-75 to the satellites because they have something bigger and better themselves? A: No. The reason why they have been given the V-75 is because KHRUSHCHEV has decided it is time they had their own trained personnel and knew how to use this weapon. It does not mean that the Soviets have anything better. Anyway let me tell you that they only give very little to the satellites. All that is happening is that this rocket is issued to the Soviet troops occupying these countries. But they do train the satellites in the use of them. Anyway they don't give them all the rockets. The more powerful and long range ones they keep for themselves, saying that they will be fired from Soviet territory by Soviet Troops.

60. Q: Have you heard anything about there being tiny hand operated rockets which could be used as A.A. by a soldier? A: The A.A. have certainly not got anything like this. I am certain of this. Perhaps they exist as new anti-tank weapons and haven't been issued to the troops yet. That I'll have to check on. There are a number of prototype weapons which have not been issued to the troops. I mean machine guns, automatic rifles.

61. Q: It has been noticed that around Leningrad they are building very many A.A. guided missile (V-75) defences. But they appear to be a new type of defence not like the V-75 installation. Could you tell us anything about this? A: I think that your information that there are other types of rockets there is incorrect. The building is all done for the V-75 but also includes shelters, underground storage areas and platforms. Leningrad is not the only city affected. Such A.A. defences will be also built near Moscow, and other industrial centres, political centres, etc. It is all done for the V-75. Of course, it is possible that it will later be used for other rockets. I also doubt that anyone could have seen either the V-75 or any other rockets. Who ever gave you the information made a mistake, probably due to the fact that he is not a rocket expert.

62. Q: Could you get us some rocket designs? A: Yes, of course. The instruction manuals had blue-prints attached. I had wanted to copy them as I told you in the Spring, but I didn't have the time to do it. I also thought that if I gave you all the figures you would be able to do a sketch. I'll keep this in mind for the future. All you need to do is to blow up the shape of the rocket to actual size. Q: Of course all projections of the rocket such as stabilisers are of interest. A: I will do this. There are sketches folded in all rocket material. Stabilisers are all fairly standard for rockets.

63. Q: When you gave us those figures for fuel pressure so many tons at a temperature of 50°, and for 27 tons a temperature of 40°, did you mean this to be minus 40°? A: I will check (looks at his notes). Yes, of course, it should be minus. How can such a huge thrust difference occur at only a 10° change.

64. Q: Do you know what S.N.R. 75 means? This refers to the radar equipment. A: I think it is part of the launching assembly (pustovaya ustanovka) but here it is written rocket "aiming station" (stantsiya navedeniya) (radar station). In this case S.N.R. 75, is the aiming station for rocket V-75. This is connected with the V/T control. Let me tell you, it was jolly lucky for us that I was not sent to the Leningrad Staff courses. They would only have given me distances, combat possibilities, and tactical considerations in general. They would have taught us nothing at all about the rocket itself. These are all engineering details. All this is being studied at the Physics Academy - Faculty No. 5, radio-electronics.

65. Q: Did they compare the V-75 to the Western A.A. guided missiles? A: No. They only had general review lectures, right at the beginning, on the German, French, English and German rockets. I told you that for the German ones they talked about the "V". They gave us very little information on Western rockets. And I can judge by the assignments given to the Residenturas that we have little information.

66. Q: Now, we have finished the chapter on V-75. We will now go on to unconventional weapons. Have you heard anything about this new wonderful weapon you have, about which ZHUKOVSKY has spoken, besides the atom powered engine? A: No. That is the only thing he could have meant. They are pressing to develop this atomic powered engine and the accident occurred because they were in such a hurry. He could have meant new types of aircraft. Let me tell you how I understand his statements as a General

.../Staff

Q.34

Staff officer. He has in mind atomic and hydrogen bombs, new types of aircraft, rockets which have already been approved, this he considers sufficient to brag about. But it is all very thinly spread. Not massed and directed against one target it could of course be effective. But he has no capability of hitting many targets. He is yelling for peace to gain time.

Q: Has he got bacteriological weapons? A: Yes, he has.  
Q: Can we have any details about this? What types? Methods of employment? Storage depots? A: There is a manual dealing with chemical warfare, it may be dated 1959, but I will get it for you. I believe this is the latest. Q: Have you heard whether it is the Soviet intention to use these weapons? A: I've already told you and am repeating, there is a special Directorate dealing with this matter; there are chemical troops, there are secret firing ranges, where chemical and bacteriological warfare are being tested. They intend to use these jointly with other types of weapons in order to increase the effects of the attack. Q: Do they intend to use it in response to the enemy's using it, or do they intend to be the first to do so? A: They have two actions planned: in the case of a surprise attack everything will be thrown in, otherwise should the enemy during the course of a war use chemical and bacteriological means they will reply. If on the other hand they adopt the doctrine of being the first ones to disrupt everything, to prevent receiving a decisive hit from the enemy in response, they will throw in chemical and bacteriological weapons. A lot is being prepared. You can't disregard this in your planning.

Q: During the last world war the Germans and the other combatants did not use poison gas. A: The Soviet troops were equipped with chemical shells. I had them myself. They were not supplied to the firing positions, but I knew that my regiment had rear area supplies. In the same way that all artillery had been ordered to destroy the enemy tanks, in the same way the chemical troops would have had orders to go all out. I held one of these chemical shells in my hands, but there were none at the front, they were at the "my group held against emergency. Now, you have asked by what means the bacteriological and chemical weapons are going to be used. Of course, the most important part is to be played by the air force. Special tanks, which will be fitted to aircraft, are in existence. The dissemination will be by spraying certain determined areas. They also have chemical shells which can be fitted to rockets to the war-head. VARGASOV has these. There are special containers for fitting to the war-head, filled with chemical or bacteriological solutions. All the "rocket carriers" (raketni nositeli) will be chemical-bacteriological carriers. All this has already been studied; there is a Directorate at GSHQ headed by a Colonel-General dealing with these matters (VARGASOV).

Q: Have you heard that the Sputniks can be used not only for military purposes but also can be used as an atomic weapon? A: I have not heard this. But I have heard that it is very difficult to adapt the sputniks for correcting the aiming of atomic weapons, due to the cosmic speed at which the sputnik travels. I know that they are working on this. GARGARIN has made his flight on which he took photographs of certain sectors (otsechki), although they said there were no cameras installed. There was a complex of various types and sizes of cameras, which he switched on automatically. KHRUSHCHEV and the press lied when they said at the time we launched the man that nothing was photographed and no information collected. Q: Who told you this? A: A number of people told me that on this sputnik, and in fact on every sputnik, they try to instal all sorts of optical instruments, photographic instruments, for taking photographs. GARGARIN was given all equipment. By the way, I must tell you that General Staff was livid when they learnt that the Americans had launched a sputnik travelling over Soviet territory. They said that this was a spy-sputnik.

.../They

areas in the mountains, where tests are being prepared, but they have no concrete information that bombs have actually been tested in these places.

17. Q: Have they got intermediary atomic shells between 5 and 30 kilotons. A: Yes. They have them. I have fired them (simulated problem). They have special tables, for 10, for 15 kilotons. I didn't have my Minox otherwise I would have photographed the tables. These weapons are for use with rockets, for "R-2" and "R-11". For atomic guns they used 5 kiloton shells. There were no 10 kiloton shells mentioned, only 5. (Subject makes a drawing showing where the troops are located and what the troop safety line is).

78. Q: Are great numbers of these atomic guns in operational use? A: Yes. Q: Have they got them in GDR? A: I think so. I don't know for certain, but there are a great number of them being produced. Q: Are all your troops using them? A: Yes, I think so. Q: Did FRODOV tell you whether there are such guns there? A: I didn't ask him, you hadn't told me you want to know (joking). Q: Under whose command do they come? A: Under VARENNOV. They are the GDR reserve (RGA) for ground forces. For GDR they are in FRODOV's hands, but FRODOV is subordinate entirely to VARENNOV. VARENNOV knows these guns and has told me he believes in them, they are good guns. VARENNOV has been given the 5-ton atomic gun. I don't think there are any others. They have not been tested with atomic shells; they have been tested with High Explosive shells, pretending they were atomic ones. For how they used them for mortars.

79. Q: How do they know that the gun won't blow up when they do use atomic shells unless it is tested? A: Well, they have made all the calculations. (Subject repeats vehemently a number of times that no atomic shells have been fired. He had asked instructors and CHERNOMYD (he thinks), who has worked in GDR). The task was to test the gun and its reliability using High Explosive shells. They have had other trityl equivalent tests, but not by using guns and mortars. They have dropped these bombs from aircraft, very accurately, as the trajectory was computed from the ground, after release. I've told you about this. I will check on this; you have confused me, although I am very sure that the guns were not tested with atomic shells, but the dummy shells were calculated to the last millimetre to represent the atomic ones. We were shown films dealing with Soviet atom tests. All sorts of structures, animals, vehicles etc. were placed at various distances to test destructive effects. Pressures developed during an atomic explosion were recorded by a steel assembly made in the form of a steel shaft, a steel pad and a membrane which records by grooves on the metal. These grooves register the pressure, say a hundred thousand kilos.

80. Q: What is the ratio of High Explosive to nuclear warheads for "R-1", "R-2" and "R-11"? A: I can't give you the exact ratio, but this is the principle they work on. Everything has first got to be prepared for the conventional, High Explosive warheads. If a crisis arises and they decide to bury Capitalism, then the lot will be transferred to atomic warheads. If the war is a chivalrous one, not an atomic or hydrogen one, then the rockets will carry High Explosive warheads, trityl or cardol, etc. I don't know the exact figures, but I think that the ratio is for say 100 rockets, you will have 10 atomic warheads for 30 High Explosive warheads. This is what I gathered from lectures, although no specific figures were given. The atomic warheads are manufactured and stored separately. Of course, what can happen is that they decide to fire atomic rockets in a certain theatre of war, and then they will supply only atomic warheads, for the 100 rockets. However, this is only conjecture; this must be questioned.

81. Q: Who is in charge of the distribution of nuclear warheads? At what level? A: GDR controls their production, and stores them. The .../front

brought this matter to your attention now is that it is possible I will be leaving the Committee in a few months time. That is why it is important for me to have firm foreign acquaintanceships established with whom I could continue working, with the knowledge of my superiors, and not in the line of my work for the Committee, receptions to which I would go as a personal friend.

95. Q: What can happen to me? They might prepare to send me to England - please God! Or KROV might give the order "return him to the 'Apparatus', to GUR". He can either make me the Deputy Head of a Nagravleniye or even the Head of a Nagravleniye. That would also be a good thing, please God. I would then remain in KROV, and could go on seeing old acquaintances from time to time. It would still not cause comment; after all, I must be polite, greet people if I meet them, keep up 'diplomatic behaviour'. Should someone go away, you could introduce someone else to me. It was not by chance that I, for this reason, proposed ~~something~~ to you. I say this as an example. My proposals may be the right ones or the wrong ones.

96. Q: Would you be in uniform if you returned to GUR, and could you then meet foreign military attaches? A: No. I will be in civilian dress. Even in KROV, and even in the 'Apparatus', I will serve in GUR, but will walk about (in the same dress) as I am doing now. Should there be a war then I will be back in uniform. Q: In reverse, could you put on uniform in KROV to meet, say a military attaché? A: I would have to consult my superiors about this. They might reply: "This would be difficult. Why should we try to throw dust in their eyes. They have already acknowledged you, and let you into England twice already as a man who has had his discharge (uvoleny) and here you are again appearing in uniform in front of them". Q: Yes, that is true.

97. Q: I can maintain friendly relations with people who might be useful if I once had a solid introduction. I do not need to engage in agent activities; I can study him for a year. A: How would you meet such individuals? In a restaurant? Q: I will tell you the chain. I will tell you how we are instructed in this, and what is required of us. Well, I have become acquainted with a man at a reception; I've met him once or twice. I have already reported that I am acquainted with him. He appears to be a sympathetic individual to whom it is worth paying attention. This is already the art of the intelligence officer, whether it is worth cultivating him for three months, six or a year. After a few meetings he (the Intelligence Officer) suddenly receives an invitation from the contact to a celebration, say the birthday of contact's wife. They are interested in the man, so he goes. Or I can ask for official funds to entertain the man in a restaurant, in order to get to know him better, i.e. I can keep closer contact on my own initiative with a man on whom I am known to be working.

98. Q: On seeing a group of Americans or British in a restaurant, my diplomats, you could scrape acquaintances with them? A: It would not be well looked upon if I had never met them before. We are not permitted to associate with people if we are not acquainted with them, i.e. no pick ups with foreigners.

99. Q: If after proper introduction, I were to say that I think it would be worth while to spend some time on a foreigner, who might be of interest and use, I would be told to go ahead, as this is my active initiative. I need firm acquaintanceships of this sort on which I can be actively working in view of my possible change of occupation this autumn, after my holidays. Officers working in GUR do invite diplomats to restaurants, as for instance, the 1st Secretary of the Afghan Embassy was invited, and others. KROV, for instance,

.../who

182. G: Let us stop on the 2<sup>nd</sup> to-day, we will continue tomorrow. S: So it was a good idea to have photographed this?  
G: Yes, of course.

183. G: Is there a LAMATEV there in Madrid? S: Indeed he is Colonel LAMATEV.

184. S: LAMATEV is to go to the 1st Hotel, he has been promoted Colonel, while LAMATEV is probably there too.

185. G: Do you remember AGW? S: No, I can't.

186. G: Do you have a DUCHESNEV there, he has gold teeth, he is a Colonel. S: Yes, I know him and incidentally how about my dentist? G: To-day an appointment is being booked for you.

187. Subject makes his request for tape recorder, including a pocket model, etc. Subject says he is free when he wants to be free in relation to his missions. If he can fix the 'ANITA' matter up quickly, he'll 'spit' on them! He arrives at the Embassy every morning at 9, 'he' sees him, at ten to ten he has finished breakfast and goes out for ten minutes. At the Embassy he has discussions, answers any questions they may have for him, drops in to see them from time to time, etc., sits there for a time, but after that he has his own business to attend to, both the Committee's business and GUR's business, after all, he has to take care of his missions.

188. Subject lists his local program, purchases he wishes to make, etc. Subject says he will be free anytime during the afternoon the next day to see the Doctor. Subject left at 1915 hours on 24th July, 1961.