Preliminary conclusions from the meeting of CISAC in London,
April 1-3, 1989. From JL notes, transcribed 4/6/89

The greatest progress was made on agenda Item 1 - delineation of permitted from unpermitted research under the BWC. This clarification is intended to deal with the ambiguity in the BWC about what constitutes amounts and categories of material that have no peaceful use. The general principles in John Steinbruner's paper of the classification of agents as E(extreme), S(serious) and N(not controlled) was accepted; and in a special working group there was prompt and unanimous agreement about the list of agents and the categories to which they should be assigned.

Further discussion is needed on some definitional details as to the units of measure; how different related agents are lumped or split apart; what about commercial proprietary interests; are we talking about national inventories or a single laboratory and so forth. The precise mechanism of dealing with new agents provisionally until such time as they can be classified and agreed upon is also for further discussion.

In addition, in connection with this and the next topic the other side brought up what should be the overall verification regime? Under what circumstances are inspections to be made? We had given no consideration to this, as most of our thought had been directed towards voluntary visits; but we agreed to have some proposals ready for our next meeting in October. Plainly we would be following the lines being set under the CW negotiations.

In connection with the overlapping status of toxins I presented the thought that we should do some preparatory work as to the implications of summarily adding all of BW to the control provisions agreed to under CW. How deal with much smaller scale, dual use, undeclared sites? This will probably not be attended to in any other place. (It is not our intention to complicate the ongoing discussions on CW by bringing this up as a formal issue.)

There seemed to be general understanding about the double track concept: that a few reciprocal progressive unilateral steps be taken on a voluntary basis towards ever more disclosure. [N.B. the trial inspections being planned for CW]. This would allow the exercise of the principles of observation and verification before they become formalized into treaty obligations. Eventually these would evolve into the multilateral and formal agreement that would involve mandatory compliance.

On Item 2 - (Shelikov's) what can be learned from an on-site visit?: we were somewhat hampered by the fact that Alex had not yet been given clearance to hand over any documents comprising substantial disclosures about Swiftwater [that this is an unclassified facility notwithstanding]; and he had more or less inadvertently promised not to hand over the working paper although its content is innocuous. We therefore discussed this in rather general terms with a promise that Shelikov would be providing a more detailed version in the very near future (that is to say that as soon as he can get clearance). There was again a very prompt consensus about the general principles of the kinds of information that should be disclosed.

Item: Under the definition of toxins we very quickly found that there was no interest on

the other side in trying to clarify the status of chemically synthesized material. Sverdlov was even somewhat vague as to the fact that synthetic polypeptides were covered under the convention and had to be reminded of that by Aburenkov. They thought any effort, including my own, to draw sharp dividing lines was futile so that the matter was better left to be dealt with under chemical disarmament. We both agreed that it was very important to be absolutely sure that toxins would be covered by both the BW and CW and that there would be then no hiatus in their prohibition. I promised to check on the status of the CW negotiations in this regard.

Item: With respect to smallpox - we were surprised to find that both Lvov and Prozorovsky were skeptical that smallpox can be guaranteed to have been eradicated, especially as there remain pockets of isolated indigenous people. However, the Soviet Ministry of Health had decided promptly in 1979 to forego vaccination of the USSR civilian population: which is not what Lvov would have advised. The army continues to vaccinate its troops justifying this on the same contingency and the fact that troops in their barracks anf general hygienic conditions are especially liable to the rapid spread of smallpox should it reemerge. Raiyevsky said this should not be coupled in any way with BW since the main threat of smallpox would be to civilian populations and these are not being vaccinated. Their conclusions on this matter seem quite firm. We agreed that smallpox was not a very rational choice for BW.

They were on the other hand very interested in proposals to continue with the molecular genetic study of variola and to the idea of enabling the destruction of variola stocks once there had been clones of the relevant segments. I stood out on our side, and Ivanov on the other, opposing the destruction of the virus until there were proven means available for reconstructing its genetic identity. (Channock would like to see the early destruction. I'm concerned about making a rule that would be in any case very difficult to verify. The incentive to conceal stocks will disappear when the genomes are properly cloned and eventually sequenced.)

Item - On further measures on epidemiological information -- this was mainly a presentation by Prozorovsky on the status of the development of their epidemiological surveillance. They are trying very hard to develop a system that would match what already goes on in the United States and we propose various methods of cooperation towards that end, including the collaboration of the editor of the Weekly Mortality Morbidity Report and visit to state health laboratories.

In all our discussions we agreed that we would develop prototypes to cover just human disease and that threat to animals and plants would simply be identified as necessary targets for other work by experts more concerned with those issues.

We had throughout the meeting very extensive discussion of pandemic viral threats and the kind of world organization needed to try to cope with them. WHO should expand its activities as an information center and perhaps might also do some careful monitoring about where stocks of sensitive infectious material might be sent both from a BW disarmament and a public health safety perspective.

Item - On proliferation - we are still very puzzled as to what steps can be taken in that direction. We agreed that the prompt example of the superpowers in dealing with CW and in BW openness was a very important example and a necessary step to the development of monitoring an sanctions for the use of BW in third states. They thoroughly shared our concern about this direction.

Item - We discussed the exchange programs -- the steps that the NAS is taking to advertise postdoctoral opportunities. We also pointed to WHO as providing a possible medium for facilitating visas.

With respect to smallpox the persistence of variola in corpses for up to 100 years was cited and the textbooks do refer to 20 year survival of infective crusts.

I promised to get from John Sninsky a list of primers that could be used for viral diagnosis using PCR. {I've written him. JL}

There was an agreement that aerosol research was particularly sensitive and that there should be a mutual commitment that all research on aerosol dispersal of infectious agents be openly disclosed. Raiyevsky wanted to be much more categorical than the rest of us in defining what was and what was not allowed but I think we straightened that out. He had the technologies which are forbidden under the BWC in mind rather than research.

To the list of prospective BW agents Prozorovsky suggested we add Legionella. Lvov that we add IssyKol fever; and we had all neglected to put down variola.

For future activity the workshop has suggested that there be a repository of viruses from patients with disease and also with inapparent infection to study the molecular genetics and evolution of virulence. (This is a revolution in epidemiological thinking). There should also be a bilateral research program along the lines of US and Japan.

Lvov has isolated avian influenza strains that do show high mortality and if these had been adapted to humans and been of a different serological type there might have been a very serious pandemic threat.

The USDA does make it difficult to import influenza strains that might attack birds.

There was a considerable discussion about listing and disclosing vaccine stockpiles. I questioned whether there was much to be added by the listing of amounts but we will have to discuss this further among our side.

Prozorovsky made a very good point that in our presentation we indicate a broader perspective about the problems that we are trying to address. I talked at some length about the role of self-inspection and that disclosure was as much for the benefit of informing scientists within the country to enable them to surveil their own country's programs, was for mutual disclosure.

We have to look into the legal framework of continued research on variola. There are

some meetings coming up celebrating the 10th anniversary of the certified disappearance of smallpox. Tom Monath will talk to Don Henderson about that.

The difficulty of proliferation control is that vaccine development provides a perfect cover: all the technologies are dual use and it will be very difficult to regulate what production facilities a country is going to have.

There was some argument, but the scientists were the ones to be pessimistic that terrorists had sufficient technology to do very great harm.

There will be more detailed notes but perhaps not for another month from Lynn.