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February 25, 1980

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Negotiations between Canada and the USSR on Canada's Claim for Compensation Due to Damage Caused by Soviet Satellite Cosmos 954

Meeting of Delegation

1. There was a meeting of the CANDEL at 09:45 hours on February 25, 1980. Mr. L. Legault said that, at the first meeting, CANDEL would press for a formal detailed response of the USSR to Canada's claim. Media inquiries would be directed to External Affairs.

First Meeting

2. The First Meeting of the negotiation was held in the large conference room on the first floor of the Lester B. Pearson Bldg. It opened at 10:50 hours on February 25, 1980.

3. Mr. Legault (Canada) noted that the USSR had agreed to accept Canada's claim under international law. He hoped that the USSR would now give a formal response to the Canadian claim. An important precedent was being set since this was the first time that there had been a claim for damage caused by space objects. Many developing countries would be interested in seeing whether there was a prompt and equitable settlement of the claim. Also, the people of Canada were interested.

4. He then referred briefly to debates on which the documentation of the claim had been presented, described the outline of the statement of claim and pointed out that Canada was claiming only incremental costs of $6,026,083.56 and was claiming less than one-half of the total expenses in the amount of $13,870,926.19.

5. Mr. Rybacov (USSR) said that it was necessary to scrutinize all the facts and events and analyse the factual and legal material. This was the first time in history that such a matter had arisen. He hoped that the talks would have a positive result and proposed to take a business-like approach. The USSR wished to solve the problem through mutual agreement. The activities in outer space were carried on for the benefit of all mankind. That had influenced space law, actions of governments and international organizations in the sphere of liability for damage by space objects.

6. By way of procedure, he proposed that the USSR would give its attitude in principle and would speak openly, although its approach was different from that of the Canadian side. The Canadian side would then want to think about the USSR views and could then give the Canadian position. Next, the USSR, having heard the Canadian argument, would need time, although if USSR managed to convince the Canadian side, no more time would be needed. Before looking at the factual side, it was necessary to clarify the Canadian attitude as to the legal aspects of the case. After the first stage had passed, both sides could work out a method for carrying on the work.

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7. Mr. Legault (Canada) agreed with this procedure and indicated that Canada too wished to continue the business-like approach. He said that, in the right circumstances, a cheque in the right amount would convince the Canadian side.

8. Mr. Ribacov (USSR) said that the question of a cheque was another matter and the USSR side was not ready to talk about a cheque at this stage of negotiations.

9. Mr. Ribacov (USSR) then made a lengthy statement on behalf of the USSR which is now briefly summarized.

10. It was necessary to look at the Cosmos 954 incident in the context of the modern law of space and, in particular, in the context of the 1967 Treaty, the 1968 Agreement and the 1972 Convention. The UNGA had recognized that research in outer space and the use of outer space must be done for the benefit of all the countries of the world.

11. While the 1967 Treaty gave only the general principles on the responsibility of the launching state for damage caused by space objects or their component parts (Article 7), the concrete norms on such damage were included in the 1972 Convention. The 1972 Convention must be viewed as lex specialis and he cited the maxim lex specialis derogat lex generalis.

12. No damage had been caused by Cosmos 954 within the meaning of the definition of the term "damage" found in Article I(a) of the 1972 Convention. Moreover, under Article II of the 1972 Convention, the launching state was absolutely liable only for damage caused directly by its space object, i.e., damage caused by the space object itself. Hence, distant or remote damage was not covered by that Convention. The facts of the Canadian case, therefore, did not fall within the scope of the 1972 Convention. Hence, no compensation was payable under that Convention for expenses incurred by Canada.

13. Nor was the Canadian claim within the scope of the 1968 Agreement (see Article 5(2)-(5). Especially, insofar as concerns Article 5(4) which was concerned with "hazardous or deleterious" material, Canada had refused the Soviets immediate offer of assistance and had invited American specialists to come. But, there was no provision in the 1968 agreement for bringing in a third state. Hence, Canada could not invoke the 1968 Agreement in support of its claim for expenses. Also, it was quite well known that a space object like Cosmos 954 would present a scientific and technological interest for a third state. It was no secret, that, in many countries, big firms hunted for the manufacturing technology of other firms.

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14. The conclusion was that the meaning of the 1972 Convention was that the state of occurrence would either ask the launching state for assistance and the burden of the operation would lie on the launching state or the state of occurrence would carry out the operation by itself. An invitation to a third state was alien to the spirit and letter of the 1968 Agreement. Moreover, there was no real or potential danger or hazard from Cosmos 954. This point was developed at some length.

15. However, the Soviet Union wished to act in accordance with its desire in principle of developing friendly relations with Canada. In accordance with this line of principle, it was ready in good faith and on the basis of good will (with the understanding that this should not touch upon the Soviet Union's evaluation in principle of the legal aspects of the problem or create any precedents) to study the possibility of covering a certain part of the expenses of Canada which were really necessary and reasonable. In this regard, specialists of the departments concerned would have to carry out preliminary work in order to clarify what expenses borne by the Canadian side were really justifiable.

16. Mr. Legault (Canada) expressed some personal concern about the comments of the Soviet side to the effect that there was no damage, no danger, and no compensation. The positive note was that it was agreed that it was Cosmos 954 launched by the Soviet Union which had fallen in Canada in 1978. Although it might not be necessary to look for admissions on principle, a service to the development of international law would be rendered if there were such agreement; but he was glad to hear that the USSR was ready to settle. Canada was not looking for charity any more than it was looking for admissions on principle. There might be such a formula as "without prejudice to the views of each side on the legal principles." One could look for the direct, reasonable and proximate costs of Canada for the steps undertaken by it. The CANDEL needed time to prepare a formal response to these points.

Delegation Meeting

17. There was a short delegation meeting at 14:45 hours on February 25, 1980 to give some advice to Mr. Legault on the Canadian response to the USSR statement.

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Negotiations between Canada and the USSR on Canada's Claim for Compensation Due to Damage Caused by Soviet Satellite Cosmos 954

Second Meeting

1. The second meeting of the negotiation was held in the large conference room on the first floor of the Lester B. Pearson Building. It opened at 10:15 hours on February 26, 1980.

Canadian Reply to the USSR Statement

2. Mr. Legault expressed deep disappointment at the Soviet statement, made on February 25, 1980, to the effect that as a result of a Cosmos 954 incident there had been no damage and no danger of harm; that, therefore, there was no liability of the USSR and that, accordingly, there was no compensation owing to Canada.

3. It was odd to suggest that there had been no danger to Canada on the one hand when, on the other hand, the matter fell under the 1968 Agreement. It was curious that the USSR side said that there was no danger involved in circumstances where there was a danger from the debris.

4. What would be the utility of the 1972 Convention in the event of conclusions such as those drawn by the Soviet Union?

5. By way of preliminary comment, he noted the suggestion of Mr. Rybacov to the effect that Canada had wished to gather debris because Canada wished to have information concerning Cosmos 954 and that, therefore, Canada had refused the Soviet offer of assistance and had asked the U.S.A. to help. Mr. Rybacov had further suggested that this was against the spirt and letter of the 1968 Agreement. Mr. Legault assured the USSR delegation that Canada had taken action solely because of the danger. Canada had respect for USSR technology and, indeed, had a technological agreement with the USSR. Canada had not invited Cosmos 954 to come into the country.

6. Canada believed that outer space activities should be for the benefit of all mankind and it hoped that no launching state would wish to guard information when other states needed it to protect themselves against danger.

7. Canada had appreciated the Soviet's offer of assistance and had asked for certain assistance. Regrettably, Canada had not obtained all the information which it had requested. The Canadian Note FLO-0497, dated February 8, 1978, indicated that Canada had decided what kind of assistance it wished to have. Unfortunately, the Soviet reply concerning the core of Cosmos 954

was incomplete and unsatisfactory. Canada had suggested a meeting with Soviet scientists at the earlist opportunity and the USSR had not made them available. Canada had suggested that it might require Soviet assistance in removing the material from the country. The question of assistance from the U.S.A. was completely irrevelant. There had been no claim for U.S.A. costs. He disagreed with the suggestion that Canada had been operating contrary to the spirit and letter of the 1968 Agreement. It had received assistance from a friendly neighbour. The USSR interpretation placed too much restriction on the rights of sovereign states under the 1968 Agreement. He hoped that motives would not be discussed in the present negotiations. The Canadian aim had been one of self-protection.

8. Mr. Legault then turned to a detailed examination of the Soviet attitude on the legal aspects of the case. The USSR had submitted that there had been no damage and no danger. In this regard, he drew attention to paragraph 15 of the Statement of Claim which indicated that Canada had suffered damage within the meaning of the 1972 Convention. In particular, he stated that:

> "The deposit of hazardous radioactive debris from the satellite throughout a large area of Canadian territory, and the presence of that debris in that environment rendering part of Canada's territory unfit for use, constituted 'damage to property' within the meaning of the Convention."

He then developed the argument on this point as set forth on pages 5 and 6 of Part 5 of the Negotiations Book. In connection with that argument, he drew attention to the Affidavit of Mr. Geoffrey B. Knight of the A.E.C.B. already presented in Annex E to the Claim. He drew attention to the list of items of debris attached to Annex E and pointed out a number of items which had levels of radiation that were not the same as the natural level and which were in a very hazardous range. These items would not have been discovered if they had the same level of radiation as the natural background.

9. There was also a second Affidavit of Mr. Knight which he would present to the Soviet Delegation after his statement. He then read the summary of this affidavit found on page 4 of Part 6 (Brief of Evidence) of the Negotiations Book. It was for Canada to decide that such danger existed and for Canada to take the remedial and protective action required.

10. He recalled that Mr. Rybacov had stated that the area concerned had been sparsely populated. Nevertheless, one radio-active fragment had been discovered, shortly after the Cosmos 954 Satellite fell, in a remote unpopulated area by two persons on the ground at Warden's Grove. It was fortunate that no one had died; but that had been due to good management on the part of Canada.

11. There was a population of 10,000 in the hit zone. At the time, there had been much concern on the part of citizens in the area. There had been restrictions on travel near Snow Drift and radio-active debris had been found near communities and hunting and fishing lodges. Canada had evidence that it would be prepared to put before an impartial third party to the effect that there had been damage and that Canada had carried out its duty in protecting its citizens. He was also prepared to give to the Soviet side the second Affidavit of Mr. Knight.

12. Insofar as concerns Article II of the 1972 Convention, all that Canada need do was to prove that there had been damage due to a space object of the USSR, namely, Cosmos 954. There had been a clear nexus between the entry of Cosmos 954 into Canada and the damage. He also read material from page 7 of Part 5 of the Negotiations Book. In addition, he referred to paragraphs 16-18 of the Statement of Claim.

13. To sum up, he stated that there was damage under the Convention, there was liability under the Convention, and Canada could establish both. Thus, the Soviet Union was absolutely liable to pay compensation to Canada for damage caused by Cosmos 954.

14. In connection with the question of compensation, he referred to Article XII of the 1972 Convention and read from the material on page 12 of Part 5 of the Negotiations Book.

15. He then addressed the question of incremental costs and stated that Canada was claiming $6,026,083.56.

16. He noted that Canada had suffered damage under the 1972 Convention, that the USSR was liable and that Canada was owed compensation.

17. He noted that there had been agreement on both sides that the USSR Cosmos 954 had fallen on Canada and was glad to note that, while the USSR denied liability, it was willing to discuss the problem.

18. The Canadian side was of two minds. It attached importance to both principles and payment. Canada was not looking for charity, but for a just and equitable compensation for damage. All the Canadian expenses had been necessary and reasonable, and Canada was prepared to prove this. This was the essential point as far as the Canadian government and Canadian public were concerned.

19. Canada did not want to prejudice the Soviet legal position. But Canada attached importance to its own legal position and did not want it to be prejudiced. Canada was prepared to submit the matter to a third party. Whatever the outcome, Canada would feel that it had contributed to the development of international law. Canada could introduce, in other proceedings,

evidence of citizens and specialists.

20. Mr. Rybacov said that he had listened to Mr. Legault's remarks very carefully in which Mr. Legault had presented Canadian material as the Canadian side saw it. There had been several supplementary remarks made by Mr. Legault. The Soviet side was willing to give a complete answer on the morning of February 27, 1980.

21. At this stage, the USSR opinion was different from the Canadian position on the legal aspects of the matter. This did not mean that the USSR had not understood what had happened. The USSR understood that when an incident of this kind occurred, one could be properly concerned. When the U.S.A. had told the USSR about the possible re-entry of Skylab, the USSR had also been anxious. There was no doubt that there was the right of a sovereign nation to solve problems. He would like to make it clear that the USSR and Canada understood each other in this regard, although the two sides had different viewpoints on the matter of Cosmos 954. The USSR must base itself on present-day space law.

22. He stressed that the USSR side would develop its case in order to make things clearer. There was a need for consultation on technical matters within the USSR Delegation. A counter-argument would be presented on February 27, 1980.

23. It was agreed that there would be a further meeting on February 27 at 10:30 hours.

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Negotiations between Canada and the USSR on Canada's Claim for Compensation Due to Damage Caused by Soviet Satellite Cosmos 954

Third Meeting

1. The third meeting of the negotiations was held in the large conference room on the first floor of the Lester B. Pearson Bldg. It opened at 10:50 hours on February 27, 1980.

Reply of the USSR to the Canadian Statement

2. Mr. Rybacov replied to the statement of Mr. Legault made at the second meeting.

3. The fall of a space object in a foreign territory gave rise to rights and obligations not only on the part of a launching state but also on the part of the state in which the space object landed. Obviously, the norms of the international law of outer space were based on a recognition of the right of a sovereign state to act within its own territory.

4. Pursuant to the 1968 Agreement, when a space object of a dangerous and deleterious nature fell in the territory of a state, the latter should invite the launching state to carry out operations for the detection and removal of the space object. In this regard, Article 5(4) of the 1968 Agreement applied. Also, the state of landing could carry out the operations of detection and removal independently.

5. The 1968 Agreement took into account the question whether the launching state had been given an opportunity in an effective way to participate in the operation and ascertain whether there was a potential danger of harm.

6. He then drew attention to a story in the Ottawa Journal of February 27, 1980, in which it had been intimated that the U.S.A. had wished to get its hands on the nuclear reactor. Canada, according to the story, had been stampeded by the U.S.A. in the action taken.

7. The satellite had landed in a sparsely populated area.

8. The USSR side had already drawn attention to the fact that, in the 1972 Convention, the expenses of carrying out operations to remove dangerous and deleterious material were not included in the categories of damage therein defined. When the United Nations was formulating the rules of international law on outer space, the question of expenditures had been specifically dealt with in the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee. At that time, mention was given to the

possibility that search and removal operations might be carried out without the help of the launching authority. It had been stated, at the time, that a search for a space object which had landed in the Pacific Ocean could involve a fleet of 100 ships and the expenses for such operations could be astronomical. An operation could be carried out with much less expense if more appropriate technology was used.

9. Article II of the 1972 Convention provided for the Rule of absolute liability, that is to say, no-fault liability, or liability for risk. But this regime involved a division of risk. One of the key elements of this regime was that there should be concrete forms of damage for which compensation would be payable. The drafters of the 1972 Convention had so provided. Article I(a) referred to specific types of damage. Other types of cost, including expenses for operations of search and removal, were not included in Article I(a). The 1972 Convention contained a very clear-cut and definite listing of concrete types of damage for which compensation was payable. If there could be compensation for other types of damage, why had it been necessary to have a definition of the term "damage"?

10. The Legal Subcommittee of the CUPUOS and the CUPUOS had devoted much time to this matter. The USSR side remembered the position taken by the CANDEL (the membership of which had been changing), in particular, at that time. The CANDEL had wished to have a limited and definite list of the types of damage that would be eligible for compensation. He referred to United Nations document A/AC.145/C.2/L.27, sixth session of the Legal Subcommittee of the CUPUOS, Geneva, 1967.

11. The USSR side did not dispute that, during the search and removal operations, Canada had incurred certain expenditures and noted that, in the Canadian claim, there was a reference to expenses for the search for, and removal of, fragments.

12. The USSR had carefully noted that the Canadian claim referred to Article XII of the 1972 Convention. But that Article could not be discussed independently from the whole context of the 1972 Convention, including Article I(a) which defined the term "damage". If Article XII was analyzed, it meant that the principle of restitutio in integrum to which the Canadian side had also made reference, referred only to the amount of compensation, but did not refer to the types of damage, since the term "damage" was defined in Article I(a). It was especially in this context that one had to look to the reference to international law and the principle of equity. It was quite natural that the provisions of the 1972 Convention could not contradict one another. If, in Article I(a), there was a limitation on the types of damage for which compensation was payable, one could not refer, in Article XII, to any type of damage. That would be an absurd conclusion.

13. As a result of the landing of the fragments from Cosmos 954, it was alleged that Canadian territory had been rendered unusable due to possible contamination of drinking water and living resources It was a well known fact that right after the fall of Cosmos 954,

the Canadian side had been notified by the USSR. The radioactive isotopes were not soluable in water or gastric juices. The Canadian side had been had been handed very exact information about the solubility of the parts of Cosmos 954 in the food chain.

14. He then referred to a series of news stories which had appeared in various Canadian newspapers during the first few months of 1978:

> Ottawa Journal, January 27, 1978: the Minister of Defence of Canada had emphasized that the Soviet satellite had fallen in a region that was unpopulated.
>
> The Gazette,(Montreal), February 3, 1978, stated that Cosmos 954 had not caused any damage to Canadian property.
>
> The Gazette (Montreal), February 13, 1978: There had been no physical damage in the sense of destruction of Canadian property.
>
> The Citizen, May 20, 1978: A spokesman of the Department of External Affairs was quoted as follows: "We intend to show that damage was caused, but this is not so easy. It isn't as easy as we might think. Nobody was killed. There was no damage to property."
>
> The Montreal Star, February 28, 1978, also quoted the Minister of Defence to the effect that there were very few people in the contaminated area. The Minister of Defence was then quoted as saying: "Either these are radioactive fragments or the largest deposits of uranium in the world."

15. As to the question of Soviet specialists, the Soviet side had several times expressed its regret that the search and removal of the fragments of Cosmos 954 had been carried out without the participation of such specialists, although the Soviet side, in accordance with the international principles of space law, had offered immediate help to Canada for the removal of possible consequences due to the fall of such fragments.

16. The Soviet Union also expressed its regrets concerning the question of official notification about the location on Canadian territory of the fragments of Cosmos 954. The notification had been made two weeks after Cosmos 954 had ceased to exist and much later than the finding of the fragments had become known to the experts of other countries. Under these circumstances, it was quite understandable that what Mr. Legault had mentioned yesterday about the offer of Canada for a meeting of experts, made in March 1978, had no meaning whatsoever. It had been made at a time when the operations had already finished; and this was corroborated by the fact that American specialists had already finished their work. The Soviet side could not

accept the thesis that the Canadian side had not received enough information from the Soviet side. According to the evaluation of Soviet specialists, the Canadian side had been given all information sufficient for carrying out an effective search for the possible consequences of the cessation of existence of Cosmos 954 over Canadian territory. He also recalled that the Soviet side had officially drawn attention of the Canadian side to certain questions asked by the Canadian side that referred to information that was outside the framework that was essential for the protection of safety, health and security of people and the environment.

17. The position which the Soviet side was now presenting, in the light of its understanding of the norms of contempory space law, was not unexpected. Such an approach was in conformity with international law.

18. He drew attention to an article by Professor Stephen Gorove in the Journal of Space Law, No. 2, Vol. 6, page 167 where the Cosmos 954 incident was discussed. Gorove was quite clear in his conclusion to the effect that the Soviet Satellite had not caused damage to property or people; and that the expenditures incurred as a result of preventive measures were outside the scope of the meaning of "damage" as defined in the 1972 Convention.

19. The Soviet side was ready to take into account the circumstance that the measures taken by the Canadian had been based on the concern of the population about the satellite incident and the desire of the Canadian side to protect its population from any danger. The Soviet side wished to confirm once more "our willingness" to look at the possibility of paying a certain part of the expenditures incurred by the Canadian side. Together, with specialists from the appropriate departments, the Soviet side was ready to carry out preliminary work in order to define what expenditures were really involved.

20. Mr. Legault wished to present his comments as those of a mythical Canadian citizen-layman. That Canadian citizen would ask why a nuclear damage to Canadian territory was not damage to Canadian territory. Was the loss of use of territory not damage to Canada? Was not a population of 10,000 important? Were the concerns of native peoples to be ignored? This was the first time that he had been called upon to negotiate with the Ottawa Citizen, the Gazette and Journal.

21. In 1978, Academician Federov had mounted a vigorous attack against the calumnies of the Canadian press.

22. He found the Soviet argument somewhat specious. Because Canada had cleaned up the fragments, therefore, it had not suffered damage. The average Canadian would difficulty in understanding this. The Canadian side had claimed expenses but only as a measure of damages.

23. The 1972 Convention seemed to be oriented in terms of the launching state, since, according to the Soviet interpretation, the USSR was the one to determine whether Canada had suffered damage. The loss of use of territory was damage.

24. If the law was, as stated by the Soviet Union, that law should be changed.

25. The Canadian side did not share the view of Professor Gorove. The Canadian side was willing to put the Canadian view to the test and to put it to an appropriate international body. One would then find out what the law was. He did not think that the law was as described by the Soviet side.

26. As to the article in the Ottawa Journal of February 27, 1980, the last paragraph referred to criticisms that Canada had gone too far. But almost anything that the Canadian government did was critized. But there were also criticisms that Canada had not done enough, that Canada had not protected the native population. But the government must take its decisions and must govern.

27. Canada was facing new dangers which, it was told, were for the good of all mankind. It was hard to believe that when radioactive material was showered on Canadian territory, there was no damage.

28. It was hard to know how to respond to an incident such as the Cosmos 954 incident. Any government would err on the side of caution in order to protect its citizens. If a government, did not, in such a case, err on the side of caution, the results would be terrible.

29. A victim, by definition, was going to be worried, and would be more worried than the one who had placed him in the position of being a victim. Canada had been given assurances that the material in question was not dangerous, but the schedules of recovered debris showed that there was dangerous and even lethal fragments. Native peoples do not have a Ph.D. in nuclear physics and, on finding a piece of the satellite, could have put it in their pocket.

30. Canada had not been notified by the USSR that Cosmos 954 would fall on Canadian territory. It had been so notified by the U.S.A.

31. He had presented the layman's point of view since he had already presented the Canadian legal case. He hoped that there would be practical grounds for a settlement. But a detailed examination of the Canadian claim in the light of the legal view presented by the USSR side made him wonder if such an exercise would be useful. Canada was ready to explain and justify expenses in detail. He hoped that a solution was in sight and that the matter could be resolved. He suggested that Mr. Rybacov and he have a discussion as to the future procedure.

Further Comments of the USSR Side

32. Mr. Rybocov had listened to the counter-commentary of Mr. Legault with respect to what Mr. Legault described as "this complicated precedent". This was the first time in history that such an incident had occurred. Outer space law was of a specific nature since it had been developed in the essence of a technological revolution. Political, economic and legal factors had entered into the development of space law.

33. It was difficult to approach the problem from the point of view of the man in the street even though the problem of the man in the street was one that could not be ignored.

34. If one said that a convention was victim-oriented, it should be borne in mind that not only a Soviet satellite could be involved, but also a Canadian satellite could fall on the Soviet Union. Moreover, private firms could launch space objects for developing countries. All countries could potentially participate in space activities.

35. There were no victims in the Cosmos 954 incident because it had fallen in a sparsely populated area.

36. The main point was that if one looked at the definition of damage in the 1972 Convention, there were no victims since no one had suffered legally or physically.

37. He recalled that Mr. Legault had said that the man in the street would not understand why Canada had not received reimbursement for expenditures incurred and why there had not been damage within the meaning of the 1972 Convention. But the Soviet man on Gorky Street in Moscow would not understand why the Canadian government had refused the Soviet offer to send specialists to provide a quick and efficient operation under the direction and control of the Canadian side. USSR specialists could have helped in a more efficient manner. He did not suggest that Canada had been obliged to ask Soviet specialists to come, but the non-invitation on the part of Canada had caused expenditures to be raised.

38. As to the remarks about Academician Federov's criticism of the press, that was a criticism of the United States press and not of the Canadian press.

39. He emphasized that those present were, first of all, lawyers and obliged to deal with the matter before them from the point of view of lawyers, not from the point of view of the man in the street.

40. The talks were business-like. The 1972 Convention did not undermine the sovereign rights of states.

41. Insofar as the Commission was concerned, it reflected the delicate balance found in the Convention about a delicate matter. It was necessary to have a patient search for a solution. A combination of lawyers, technical persons and diplomats could work on the matter. Without prejudice to the legal position, it was necessary to search for a constructive solution. The problem could not be solved immediately. Even international courts took half a year to deal with cases. While one did not want to drag out the matter, it was necessary to show patience, patience and more patience. The Soviet side had come with the idea of being patient, discreet and seeking a mutually acceptable solution. He agreed to have discussions with Mr. Legault. These could be carried out in a friendly and business-like way and he hoped that, today, there could be an exchange of views on the matter so as to determine in what form the work would be continued tomorrow. The Soviet side had come to Canada with the intention of trying to find a constructive solution in the spirit of compromise.

42. Mr. Legault said that there had been no individual victims of the Cosmos 954 incident. This was precisely because Canada had taken action in mitigation of damages. He recalled that some radioactive debris had been found in a school yard. He realized that the Claims Commission would only make a recommendation. But, the Commission would base a recommendation on the law. It was for each state to decide whether or not it would accept a finding of the Commission as binding. Canada was prepared to accept a finding of the Commission as binding.

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Negotiations between Canada and the USSR on Canada's Claim for Compensation Due to Damage Caused by Soviet Satellite Cosmos 954

Fourth Meeting

1. The fourth meeting of the negotiations was held in the large conference room on the first floor of the Lester B. Pearson Bldg. It opened at 11:00 hours on February 28th, 1980.

Agreement to Hold Discussions on Technical and Financial Matters

2. Mr. Legault reported on a private meeting which he had had with Mr. Rybacov on the previous day, at which it had been agreed that there would be a meeting of officials to study the technical and financial questions arising out of the Canadian claim. Mr. Rybacov confirmed the agreement and the fourth meeting adjourned.

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March 6, 1980

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Negotiations between Canada and the USSR on Canada's Claim for Compensation Due to Damage Caused by Soviet Satellite Cosmos 954

Fifth Meeting

1. The Fifth Meeting of the negotiations was held in the large conference room on the first floor of the Lester B. Pearson Bldg. It opened at 10:25 hours on March 4, 1980.

Statement of Mr. Legault

2. Mr. Legault wished to be sure that Stage 2 had been completed before proceeding to Stage 3. (Note: Stage 2 had consisted in a detailed examination of the Canadian claim.) A question of principle might arise in relation to Phase 2. His colleagues had informed him that Mr. Rybacov had indicated, in the Group of Experts, that there was no necessity for the Soviet side to examine Phase 2 costs, since, in keeping with the Soviet note of May 31, 1978, there was nothing to negotiate because the Soviet position was that Phase 2 had been unnecessary. But the Canadian claim was not divisible and it would be impossible for the Canadian side to negotiate on the basis of Phase 1 alone. The Canadian operation was only one operation even though it had been described as including two phases. The Canadian operation was a single response to a single incident. The reason for referring to Phases 1 and 2 was because of the spring break-up which forced a hiatus in the operation. Landing strips melted and roads on snow and ice disappeared.

3. Without the snow, a more thorough search could be made for fragments in populated areas, and this could be carried out on foot, so that town-sites would have no fear of continued danger. The facts spoke for themselves. The search in Phase 2 produced 3,008 particles, all radioactive. Some particles were found in a school yard and on a child's boot in one case, in towns, in fishing camps, on highways and near hunting lodges. Also, 7 beryllium rods had been found which emitted radiation of 20 roentgens per hour. Documentation could be provided which would establish beyond any doubt that Phase 2 was part of one comprehensive operation. The Canadian claim was indivisible and the question now raised had not been raised in the initial exchanges during the negotiations. The Canadian side wished to ensure that an examination of Phase 2 was completed before going on to Phase 3.

Statement of Mr. Rybacov

Mr. Rybacov said that his delegation was composed of Marxist-Leninists and started from the position that all frontiers and edges were moveable in nature. The two sides were not talking here of where Phase 1 or Phase 2 finished. The aim was to find the truth and a mutually acceptable solution. So far, certain work had not been carried out and the work was being conducted on a very comprehensive Canadian claim. His side knew the Canadian side had in its possession additional documents and, to date, documents had only been examined on a selective basis in order to give the Soviet side a general impression of certain aspects of the operation. His side did not want to go the through the process of "nickel-and-diming" but had tried to get an understanding of the general approaches and tendencies of the Canadian claim, and to understand, in principle, what was behind such and such an operation. In order to get a full picture, the Soviet side needed more information, but understood that nothing could be determined with total accuracy. Possibly, that would require much effort and time. Nevertheless, the Soviet side had come to certain conclusions. The Soviet side was not forcing anything on the Canadian side but wished to draw to the Canadian side's attention certain conclusions reached in the light of an analysis of the Canadian operations in the light of the Soviet Union's own experience in the light of international space law as it now existed, and in the light of information pertaining to this operation as it had come from different countries. He then proceeded to give his conclusions: (1) Certain parts of the Canadian operation were unnecessary. The basic purpose of the operation was to search for and remove potentially dangerous objects. Some of the operation was not devoted to this purpose. (2) Certain elements of the operation were not sufficiently and rationally organized. (3) In a number of cases, there were utilized an excessive number of personnel, equipment and matériel. Moreover, a portion of the scientific search was beyond the framework that was necessarily connected with the search for and removal of potentially dangerous remnants of the satellite. (4) There was an excessive use of aircraft and the total number of hours of aircraft use was higher than what had been realistically required. Moreover, the method of search used was not directly related to the search for fragments of the satellite, but was intended for totally different purposes. The Soviet side could not accept that it was necessary to take aerial photographs with infra-red equipment, since the utilization of that kind of equipment could only be explained in the context of the interest in the satellite by one of the neighbouring states (he probably meant the U.S.A.). Also, there was an interest in the character of the satellite (see page 68 of Annex C). (5) A number of questions which had a direct bearing on the method and character of the operation which had nothing to do with the fall of the fragments of the satellite had not been answered by the Canadian side. The Soviet side did not insist on these answers and did not deny the right of the Canadian side not to answer the questions. However, the

Soviet side took note of this. (6) The Soviet side noted that, during the operation, considerable work had been carried out which had to do with transportation, packaging, analysis, and storage of objects which were found in the region of the search, but which were not radioactive. In the light of information given by the Soviet side, 97% of all the objects removed and taken out were not radioactive. (7) In carrying out the operation, equipment was purchased which did not lose its usefulness and, therefore, in order to be reasonable, only the amortization of this equipment should be considered. (8) As far as Phase 2 was concerned, the Soviet side took as a basis the Soviet note to the Canadian side of May 31, 1978. In that note, it was indicated, inter alia, that towards the end of the operations of Phase 1, the radioactive situation on the whole of the territory that had been searched could already be said to pose no danger to the population. This was corroborated by materials found in Annex E. (Note: These materials were later supplemented by the Canadian side.) On March 27, 1978, the last radioactive fragment had been removed. In materials presented by the Canadian side, it was stated that the sources of radiation discovered in April of 1978 had the same level of radiation as that of the natural environment. It was noted also that, near the end of Phase 1, American specialists had left Canada.

5. Taking into account all of the foregoing conclusions and on the basis of the analysis of selected additional material which the Canadian side had presented, the Soviet delegation had determined that, in its opinion, the total sum of expenditures which had been incurred as being necessary for the search and removal of potentially dangerous fragments of the space object amounted to $2,119,280. It was to be understood that the Soviet side had only the opportunity of looking at selected items which the Canadian side had made available. On this basis, there could not be a complete picture of all the operations that had been carried out. The conclusions were based on the fact that the figure given was related to what was really necessary for carrying out operations for search and removal of potentially dangerous objects.

6. He reminded the meeting that the Soviet side was ready to compensate the Canadian side partially for the necessary expenses which had been incurred by it. He understood that the sum which he had stated was not itemized and, therefore, did not give a concrete idea of the way in which the Soviet side had been thinking. Therefore, he would ask Mr. Zabozlaev (their finance man) to give a concrete itemization. Then the Soviet side would listen to the Canadian side's opinions.

Statement of Mr. Zabozlaev

7. Mr. Zabozlaev said that the five Departments and agencies had participated in the operation. He then proceeded to give a detailed statement of amendments made to the various figures put forward in the Canadian claim.

RCMP

8. No amendment.

National Health and Welfare

9. Instead of allowing the total costs of the purchase of a vacuum pump and the related engine, there should be allowed only an amortization factor of 10%.

Atomic Energy Control Board

10. The total sum calculated by the Soviet side was $103,593. The new figures for some of the items were as follows: Travel, $34,530; professional and special services, $5,556; materials and supplies, $1,190; equipment, $5,380 (i.e. 10% of total cost of the equipment); other expenditures, $620. The main correction for the AECB was made under the heading of professional and special services. The work carried out at the Whiteshell Laboratory was of a general character and did not have a direct bearing on the determination of radioactive danger from satellite fragments. On the other hand, work carried out by NHW did give necessary information. There was also a correction concerning photographic expenses since it was not necessary to take photographs in order to establish the radioactive character of the satellite.

Energy, Mines and Resources

11. Amendments were made in respect of material and supplies ($3,465); the ice auger (only 10% amortization being allowed); cesium sources which had a lengthy use ($1,142 being deleted); IBM magnetic tape (reduction of $791).

Department of National Defence*

12. New figures given here were as follows: rations and quarters, $38,766; temporary duty, $104,000 (it being felt that five hundred persons were too many for the operation and only one hundred persons should reasonably have been assigned to the operation); fees paid to agencies, $218,681; aircraft costs, $1,013,000; materials consumed, lost or destroyed, $174,400; 10% administration of Department, $162,235.

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* These figures would be subject to verification by Messrs. Jennings and Kelen.

13. The correction for the cost of the aircraft was based on the calculations of Soviet specialists. In their view, a search 40,000 square kilometres with intervals of 1,850 metres with aircraft flying at a speed of 250 kilometres per hour should have required 800 hours of flight and not 1892 hours as stated in the Canadian documentation. The expenditure for 800 flight hours amounted to $495,000 instead of $1,779,000 as calculated by the Canadian side.

14. It was noted that some of the helicopters and aircraft had been used to make a survey of the region with infra-red rays and this was probably not called for. The purpose of the survey was to locate the fragments of the satellite and, from the technical point of view, it was unnecessary to make an infra-red survey. The Canadian side had been informed that on re-entry into the atmosphere satellite would be destroyed.

15. Because of the excessive number of personnel involved, part of the flight-time was not thought to be rational. From the technical point of view, the Baker Lake operation had no meaning since it had been carried out on the basis of a false hypothesis.

16. The sum of $174,400 for materials consumed, lost or destroyed instead of $290,000, was established because some of the objects written off had already been used for 4-5 years. As to rations and quarters, the Soviet side quoted a sum slightly less than the sum in the Canadian claim. The sum for rations used in flight was made in proportion to the expense incurred for aircraft use.

Closing Statements

17. Mr. Rybacov said that the Soviet side had come up with the new figures as a result of a study and analysis of the Canadian claim and selected materials. The Canadian side might now want to understand and digest what had been put forward by the Soviet side.

18. Mr. Legault said that he was gratified and "déçu" at the statement of general and particular conclusions. He was gratified because the Soviet side had given some concrete indication of a wish to reach a practical and non-prejudicial solution. But he was "déçu" because the concrete indication left the two sides such a great distance to travel before a mutually acceptable solution could be reached.

CONFIDENTIAL

March 6, 1980

GFF

Negotiations between Canada and the USSR on Canada's Claim for Compensation Due to Damage Caused by Soviet Satellite Cosmos 954

Sixth Meeting

1. The sixth meeting of the negotiations was held in the large conference room on the first floor of the Lester B. Pearson Bldg. It opened at 15:50 hours on March 4, 1980.

Statement of Mr. Legault in Response to Mr. Rybacov's Statement at the Fifth Meeting

2. Mr. Legault said that Mr. Rybacov had stated that the basis for the Canadian operation was the search for, and removal of, satellite fragments. The whole of the Canadian operation was necessary, reasonable and justified. The basis for the operations was, indeed, the search for and removal of, potentially dangerous and even lethal, objects. The basis also included the restoration of Canadian territory to its original condition given the presence of potentially dangerous and lethal objects thereon. Hence, all of the Canadian operation was necessary, reasonable and justified, and the whole of the Canadian claim shared these characteristics.

3. He recalled his statement at the end of the fifth meeting where he had expressed both gratification and disappointment. He noted that the distance between the two sides might be greater than appeared at first glance. On the one hand, Mr. Rybacov had stated what were reasonable expenses and had stated that the Soviet position was to meet part of reasonable expenses.

4. There was, however, a more fundamental and troublesome point to be discussed. Mr. Rybacov had said that a series of elements in the Canadian operation did not relate to the particular purpose of the operation and that Canada had used a method of search which was not conceived directly for the search of pieces of the satellite, but for other purposes. Mr. Rybacov had also said that this could be explained only in relation to the intervention of the United States in the matter and the characteristics of the satellite. He, Mr. Legault, had said in his general statement at the beginning of the talks that there was absolutely no foundation for any suggestion that the Canadian side had any objective other than that of self-protection from danger caused by the satellite. He wished to emphasize this point. If Canada had wanted information, it would have had other means of obtaining it, than having a satellite fall on its head. He again repeated that what Canada had done was for the purpose of self-protection in response to the danger from Cosmos 954. The action taken by Canada was for the purpose of restoring Canadian territory to its original condition and had been taken for no other reason. This was a troublesome

point since he did not want to be obliged to argue it from its other cutting edge.

5. The Canadian side had given careful consideration to the points made by Mr. Rybacov at the fifth meeting and was prepared to establish that all operations had been necessary for the restoration of Canadian territory.

6. In this new field, it was difficult to determine what was reasonable by objective standards. The victim who faced the danger necessarily had to be the judge of the response to be made to the danger which he faced. This was especially true when the victim was not 100% certain of the danger and when the information available to him was limited. Here, it was most relevant to note that, before the entry of the satellite, there was a failure on the part of the Soviet Union to inform Canada that the nuclear-powered satellite, Cosmos 954, was likely to re-enter the atmosphere over Canada.

7. Canada had asked a series of questions designed to assist in the search for the debris and related to the chemical nature of the power source, mass, operating history, the reflector and shield and other parameters. Questions had been addressed to the Soviet side on January 24, 1978, January 27, 1978 and February 8, 1978. The Soviet reply on January 26, 1978 had stated that the power source included uranium enriched in U235 and that the core was designed to disintegrate into tiny particles (which, indeed, had appeared not to have been the case) whose level of radioactivity would meet the levels of International Radiological Commission. Later, this was proven not to be the case. On examination, many of the particles had been found to be sufficiently radioactive to introduce a risk of danger to human beings and wildlife. A Soviet note dated March 21, 1978, advised further that the satellite's power source included heat-emitting elements of a beryllium reflector. This note had arrived after Canada had discovered that beryllium rods had not disintegrated.

8. On May 31, 1978, the Soviet side had confirmed to Canada, in reply to further questions, that all of the beryllium rods had been found. Meanwhile, the Canadian search had been proceeding because these items were dangerous and Canada had no available knowledge of their number. Even in March, 1978, the Soviet side had referred to the design of the satellite as providing for disintegration which would result in the total destruction of the active zone; but this information was provided when beryllium rods had been located and when particles had been found over thousands of square kilometers.

9. The Soviet side had said that the so-called Phase 2 was not dangerous. But during that phase, there had been recovered an additional 3,008 radioactive particles and 7 beryllium rods. Some of the debris had been found in the school yard as late as August 1978.

10. At the fifth meeting, Mr. Rybacov had referred to Annex E

to the Canadian claim and had based his approach on the Soviet note of May 31, 1978. The position taken in that note was that there was no danger of radioactivity in the whole territory. But, even now, even with hindsight, it was evident that these assurances did not correspond with the facts.

11. It was important that there be no misunderstanding about Annex E to the Canadian claim. In the light of the possibility that there might have been some misunderstanding, the Canadian side had prepared three additional notes to the Annex and had indicated some information in the main body of the Annex. These additions or notes, sworn in compliance with the usual Canadian practice, and a copy of the revised affidavit would be supplied to the Soviet side. These items were relevant to points raised with respect to Phase 2 and were also relevant to the suggestion that 97% of the particles recovered had not been radioactive or in excess of permissible levels. As indicated in additional note 6, all particles were radioactive except Hit Number NL10-1.

12. Additional note 7 to Annex E also indicated that wherever a hit number indicated that information on radioactivity was not available or was blank, that did not mean the particles were not radioactive. Information had not been available on the date on which the affidavit had been sworn, or else, in some cases, the hit number included numerous particles and it would have been too complicated to indicate the radioactive fields for each particle.

13. Note 8 indicated that the radioactive fields for most of the particles recovered in Phase 2 had been determined and added to the main body of the affidavit, since, at the time the original affidavit had been prepared, the information had not been received.

14. It was easy to be wise after the event. However, he believed that an impartial and objective third party would agree that the means Canada had taken had been reasonable in the circumstances existing at the time. He would go further. It was reasonable to believe than an impartial and objective third party, even with hindsight, would agree that the measures taken by Canada had been reasonable and necessary and had been directed to the purpose of recovering and removing dangerous and even lethal particles. It was not just a questionable potential danger, but actual danger. Canada owed a duty to its citizens and to itself. Canada had had to make difficult decisions in response to that duty. Canada now considered that the USSR, in the light of the Liability Convention, owed a duty of compensating Canada for the entire Canadian claim. Before returning to that point, he would call upon Messrs. Jennings and Kelen to respond to some of the more particular conclusions that had been stated at the fifth meeting. Mr. Jennings would

address the suggestion that there had been an excessive number of aircraft and an excessive number of flying hours.

Statement of Mr. Jennings

15. Mr. Jennings emphasized most strongly that every aircraft hour flown in the operation had been either directly related to the search for and removal of dangerous objects, or had been used in support services.

16. He did not understand the reference to infra-red photography in Mr. Rybacov's statement at the fifth meeting and amplified by Mr. Zabozlaev, the latter having referred to helicopters using infra-red photography in the search. At no time was infra-red equipment used in any Canadian aircraft during this operation.

17. Mr. Zabozlaev had suggested that only 800 flying hours would have been necessary for the search along the satellite's track. However, Canada contended that the actual time on task represented only a small part of the total time flown by Hercules aircraft at the time. In order to conserve flying hours, a decision had been taken early on to reduce the corridors from thirty miles to sixteen miles. At the same time, a decision had been taken to cease the search in the three eastern sectors of the search area. It must also be realized that, in addition to conducting the search, the Hercules aircraft had escort duties (with respect to helicopters) and had to transport personnel to various sites, for example, Yellowknife, Baker Lake, Cosmos Lake.

18. The next point was concerned with what Mr. Zabozlaev had said to the effect that the operation at Baker Lake had no meaning. But Baker Lake was just a few miles from the eastern extremity of the search area. It had been necessary to conduct a ground search in the community of approximately 900 people in order to ascertain whether or not there was a danger. As soon as it had been determined that the area was safe, the base had been moved to Cosmos Lake. All of the DND flying hours were justified and all personnel and matériel were justified.

19. The departure of the Americans from the operation had nothing to do with the termination of the operation as perceived by the Canadian government. As more Canadian resources had been brought into the operation, it became possible to release United States resources.

Statement of Mr. Kelen re AECB Costs

20. On page 51 of Annex C, the claim of $260,000 was for laboratory analysis carried out by Atomic Energy of Canada Limited. This analysis had been absolutely necessary from the health and safety point of view as well as for the effective continuation of the search. The analysis was necessary for

health and safety because all of the radioactive material could not be identified in the field, e.g. tritium. It was also essential, and this could only be known by laboratory analysis, to have information on the activation and fission products which existed in the debris. Only with this information could the half-lives of the radioactive nucleids be determined. It was essential to determine the length of time during which the danger would continue to exist. Also, the rate of decay which was measured in curies had to be determined. This could indicate the magnitude of the hazard. Further, the chemistry of the debris had to be assessed in order to determine the behaviour of the debris in the environment. The toxicity of the debris had to be analyzed. Beryllium is toxic. The density of the particles had to be determined in order to ascertain their behaviour in the environment. Further, it was necessary to ascertain the solubility of the particles in order to ascertain their transportability in the environment. In particular, the Whiteshell analysis had been necessary to determine solubility because of the presence of particles in the snow. The National Health and Welfare solubility tests were different since they had been specifically directed to gastric juices.

21. But the analysis had also been necessary with respect to the continuation of the search, so that Canada could identify what debris might still exist. The Whiteshell laboratory had been used because it was relatively close to the NWT and had all the expertise necessary for the safe handling and storage of the debris. Accordingly, the Canadian claim in Phase 1 for $260,000 and in Phase 2 for $197,000 was necessary in view of the above-mentioned purposes.

22. On page 4, the claim for the cost of equipment was $53,800, while the Soviet side had allowed only 10%. As to the containers for which a figure of $24,500 was shown, some of these were still in use for storage of the Cosmos debris and Canada had no use for the others. They had been purchased only because of the Cosmos incident. Moreover, with respect to other equipment mentioned on page 54, the 10% depreciation allowance offered by the Soviet side was not realistic because this equipment had been subject to intensive use under weather conditions that had abnormally affected their depreciation.

23. The Soviet side had offered nothing for the cost of developing the film ($11,491) indicated on page 53. But this had been a necessary expense since, before every fragment had been removed from its place of discovery, it had been photographed [in order to have evidence] in case the Soviet Union continued to maintain that no fragments had survived re-entry. These photographs were necessary for the orderly handling and identification of the recovered debris.

24. The travel expenses mentioned on page 48 had been justifiably incurred and the Soviet side had given no reason for arbitrarily reducing the claim by approximately $10,000.

Statement of Mr. Legault

25. Mr. Legault said that he had already indicated the Canadian readiness to establish that all of the Canadian operation had been necessary, reasonable and justified in the light of the danger that Canada had faced and the damage that Canada had suffered, and that the entire Canadian claim shared these characteristics. In other words, the Canadian claim reflected expenses that were relevant as a measure of the damage which Canada had suffered. He could not agree with the division of the claim into one part that was negotiable and another part that was non-negotiable. Canada was looking for a practical settlement. The Soviet side would understand that Canada would have difficulty with any unilateral determination of what was reasonable, necessary and justified, or what was to be paid or not to be paid. Such an approach would be too far removed from principles and too far away from the Liability Convention.

26. He understood that there were differences between Canada and the Soviet Union with respect to administrative structures and procedures and with respect to their perceptions of the Cosmos incident. These could lead to honest differences of opinion and Canada was prepared to negotiate on that basis. Mr. Rybacov had rightly pointed out that neither side could impose a solution; hence, it was necessary to find a solution together.

27. In the light of the presentation of the Soviet side at the fifth meeting, and in the light of differences which he could understand and appreciate, he would like to respond to the critique of the Soviet side made at the fifth meeting and the suggestion of the Soviet side as to what was reasonable and necessary. For this purpose, he would ask Mr. Jennings to outline the Canadian point of view.

Statement of Mr. Jennings in Reply to the Analysis of the Canadian Side Made by Mr. Zabozlaev

28. Mr. Jennings said that the Canadian claim had been based on an honest and fair appraisal by Canada of the costs relating to the recovery and removal of the satellite debris. However, as an expression of goodwill, and in order to emphasize the desire of the Canadian side to reach a just and reasonable settlement of the claim, Canada was prepared to make certain compromises in relation to the statement of Mr. Zabozlaev. The Canadian side would do so in spite of the firm belief, as expressed by Mr. Kelen, that the claim for compensation had been substantiated in every case.

29. He then referred to Annex C which contained a schedule of costs for Phase 1. He would identify the areas where the Canadian side was prepared to compromise.

30. Page 96 - Ice auger, reduced to $230; cesium sources, reduced by 50% to $571. Page 97 - material purchased from A. Crawford, reduced by 50% to $9,328; material purchased from Carrol Electronics, reduced to $6,301.50. The Canadian side was not prepared to reduce the amount for equipment purchased from Data Gen since consumable parts were involved.

NHW

31. Page 130 - Reduced the vacuum pump and all its parts by 50% to $238.

AECB

32. Page 51 - The Canadian side was prepared to eliminate from the claim for salaries, $164,621. Page 53 - Canadian side was prepared to reduce the claim of the N.W. Colour Lab Limited by 50% to $5,746. Page 54 - The Canadian side was prepared to reduce the cost by 50% to $26,901.

DND

33. Page 112 - The DSS service charge could be reduced by $3,000.

34. Page 102 - The Canadian side was prepared to eliminate the 10% charge for DND administration in the amount of $336,979.

35. He then turned to Annex D - Schedule of Costs-Phase II. On page 5 of AECB's affidavit, the amount of $197,695 for the AECL's salary costs could be reduced to $118, 617.

36. DSS amount of $14,641 for accounting services could be eliminated. Also, the amount of $11,186 could be eliminated for the item for Environment Canada - Fisheries and Marine.

37. On page 6 of Annex II to the AECB affidavit, the amount shown for scientific services of the AECL could be reduced by subtracting $1,180.

38. On page 8 of Annex II to the AECB affidavit, the amount of $336 could be eliminated for the National Research Council and the amount of $201 could be eliminated for DSS.

39. On page 9, under Material and Supplies, the amount for Northwest Colour Labs could be reduced by 50% to $1,524.

40. On page 10, the amount shown for DND for photographic support could be reduced by 50% by substracting $1,119.

41. It was indicated that the Canadian side was prepared to reduce the amount for equipment by 50% by subtracting $59,628.

42. On page 14, the total amount for all other expenditures could be reduced by $5,000.

43. He then returned to the DND affidavit in Annex D. The Canadian side was prepared to eliminate the cost of DND administration by subtracting $8,041.

44. The total amount of adjustments to the Canadian claim would, therefore, be $776,146, and these adjustments to the total claim left the claim amount to read $5,249.937. He re-emphasized, that all of these costs were justified and they represented extra costs incurred by Canada. However, in order to arive at a practical and negotiated settlement, the Canadian side was prepared to make this expression of goodwill.

45. Mr. Legault said that at this point a lawyer would normally rest the case. He thanked the Soviet side for their courtesy and patience. This adjusted claim by the Canadian side represented a compromise without prejudice. It was a sum to be paid by the Soviet Union and not to be shared by the two countries. It was an attempt to bring the two sides closer to a mutually agreed settlement.

46. Mr. Rybacov thanked Mr. Legault for his comments and for all the comments made by the Canadian side concerning the comments of the Soviet side made at the fifth meeting. The Soviet side appreciated the fact that the Canadian side had also found it possible to make the gesture towards further progress.

47. The present situation was that both sides were far from one another. He, also, was somewhat disappointed and somewhat gratified. He was disappointed because the two sides were so far apart, but gratified that during this short first stage of negotiations, there had been a movement forward on both sides. He had paid attention to what had been stated by Mr. Legault with respect to the claim presented by the Canadian side, although all the information necessary had not been provided. Also, the Soviet side would have to study in great detail the additional information presented by the Canadian side.

48. He emphasized the need for patience if a pragmatic solution was to be found. That was the only possible solution for the question before the two sides. If one was going to look for other forms of solution, then the problem could only become more complicated or impossible since it would be quite natural for both sides to be defensive and cover themselves with principles. In this case, no solution would, in fact, be achieved. Therefore, he attached great practical importance to the present negotiations.

49. He stressed once more that it was very important for the Soviet delegation that the Soviet Union had not been able to take part in the operation. But he also stressed once more that he quite agreed with the Canadian side and did not quarrel with this, since it was entirely the right of Canada to invite or not to invite the launching state. But the Soviet Union took the stand that, in international space law, the principle was reflected that if a third government was invited, the launching state had a prior right to take part in a matter involving its own space object. This was a very important circumstance.

50. He quite openly stated that he could not understand the situation where a third party was invited when the launching state was not invited. Representatives of states were invited to military manoeuvres and there was no question here of military manoeuvres, but of search and recovery relating to a space object which had fallen because of an accident. The Soviet Union attached the greatest importance to this circumstance and not only in the context of the case of Cosmos 954, but also in the broader context. He wanted to repeat that this argument was based on the standards of space law.

51. He agreed that a pragmatic solution had to be found. Insofar as Mr. Legault had touched upon this question, the Soviet Union was ready to cover certain expenditures of the Canadian side, even if only partially.

52. The Soviet side was satisfied that, even though the positions were far from one another, it noted that, in the case of the present negotiations, a very noticeable step forward had been made. The Soviet side was ready to carry on with constructive negotiations at a time and in the form which might be convenient to the Canadian side. It could be a discussion as to the best way to continue the work. He expected that each side would examine with great attention the opinions and statements made by the other. Both sides would sleep on the matter and continue their work.

53. Mr. Legault said that it was necessary to bring the intervals closer together. He agreed that if one began to explore other forms of solution actively, this might make a negotiated solution more difficult. But both sides wanted to preserve their positions and not give them away in advance. The next meeting would be at 10:00 hours on March 5, 1980.

CONFIDENTIAL

March 7, 1980

GFF

Negotiations between Canada and the USSR on Canada's Claim for Compensation Due to Damage Caused by Soviet Satellite Cosmos 954

Seventh Meeting

1. The seventh meeting of the negotiations was held in the large conference room on the first floor of the Lester B. Pearson Bldg. It opened at 11:00 hours on March 5, 1980.

Statement of Mr. Legault

2. Mr. Legault said that both sides were still far apart. The Canadian side had made a genuine effort at the sixth meeting to take into account the comments of the Soviet experts. There was no fat in the Canadian claim and there was nothing more that could be taken out. The Canadian side would make every effort to ensure the success of the negotiations. However, it seemed that it would be necessary to have a second round and, in contemplating that, the Canadian side reserved all its rights under the Liability Convention and understood that the Soviet side reserved its rights.

3. He suggested that a joint communiqué be prepared since there would be a lot of questions from the press. He then read the paper attached hereto, called "Agreed Minute". This draft had been prepared from the Canadian point of view and he knew that there would be suggestions from the Soviet point of view. A copy of the text was handed to Mr. Rybacov.

Statement of Mr. Rybacov

4. Mr. Rybacov shared Mr. Legault's evaluation of the negotiations. The question was not an easy one and the problems complex; but each side had made great efforts to understand and study the problems encountered by the other side. The gap between the two sides was rather wide, but both sides had shown a desire to move forward in the search for a solution.

5. He noted the fact that the Canadian side reserved its rights under the Liability Convention with respect to the second round. The Soviet side also reserved its rights under the liability convention and under the principles which were included in the conventions and agreements which regulated the acts of governments in the exploration and use of outer space.

6. As to the paper which had been handed to him, he understood that it would be given to the press. He was in favour of the least formality possible and had a preference for having no formal statement. He was grateful that the Canadian side

had shared the draft with the Soviet side and had asked for an opinion on it.

7. He thanked Mr. Legault and External Affairs and the Canadian officials for their very constructive and friendly attitude during the talks and noted the business-like character of the negotiations. His delegation had also enjoyed the stay in Ottawa. The two sides could discuss the form and date of the next meeting. He promised a warm welcome in Moscow should the meeting be held there.

Statement of Mr. Legault

8. Mr. Legault said that he was quite prepared to discuss the question of the joint communiqué a little later and was prepared to see improvements. There had been two occasions when he had signed joint protocols with Soviet authorities. It might not be necessary to give such a document to the press. The essential point was that the sides could base themselves on the document when dealing with the press. It was useful to have an agreed press line since each side would know in advance what it would say to the press. He thanked Mr. Rybacov for his kind words and was sorry that it had not been possible to conclude the negotiations in Ottawa, when the time was particularly appropriate for a settlement and also it might have been useful to give an example to the world at large of a prompt settlement in the field of space law. Unfortunately, there might be more such incidents in other parts of the world. Today, for example, Canada was sending a brief, factual note to the Embassy of the Soviet Union in Ottawa, stating that, in September 1979, what was believed to be a piece of a Soviet satellite (bearing Cyrillic lettering) had been found in Canada. He suggested that the second round take place during the period 26-30 May, 1980.

9. Mr. Rybacov then reverted to a discussion of the Agreed Minute and wondered if it could not be entitled "Statement of the Chairman" who, of course, was Mr. Legault. It could possibly be a statement of heads of both delegations. But it should be understood that the document was one of an inner character agreed between the two sides. He preferred a short document and suggested certain amendments. He did not wish to sign the document. Nor could he agree with the "without prejudice" formula since that imported a negative element.

10. Mr. Legault then withdrew the document.

11. Mr. Rybacov suggested that the dates of June 2-6, 1980 would be more convenient for the Soviet side for the second round of negotiations. The meeting adjourned after gifts had been presented by External Affairs to the members of the Soviet side.

AGREED MINUTE

OTTAWA, March 5, 1980

Delegations from Canada and the Union of Soviet Socialist Republics met in Ottawa from February 25 to March 5, 1980 to commence negotiations on the claim presented by the Government of Canada on January 23, 1979, as supplemented by further documentation on March 15, 1979, in respect of the incident damage caused to Canada by the disintegration of Soviet Cosmos 954 satellite over and on Canadian territory.

The two delegations, having expressed their views on the matter and made some progress in clarifying the various issues involved in this claim, had a useful exchange of views on such negotiations and agreed to continue them on an appropriate date. The continuation of negotiations will not, in the view of the two delegations, prejudice any right either of Canada or the USSR under relevant international law to pursue, in due course, appropriate remedies under relevant international law, and in particular, recourse, under Article XIV of the 1972 Convention on International Liability for Damage caused by Space Objects, to the establishment of a claims Commission.]*

FOR THE DELEGATION OF CANADA	FOR THE DELEGATION OF THE UNION OF SOVIET SOCIALIST REPUBLICS
L.H. LEGAULT	Y.M. RYBAKOV

* The continuation of negotiations beyond March 15, 1980 will not, in the view of the two delegations, preclude Canada from subsequently pursuing, in the event of failure of the negotiations, its claim in accordance with the provisions of Article XIV...

D R A F T

February 27, 1980

Proposed terms of settlement ad referendum

1. The Government of Canada and the Government of the Union of Soviet Socialist Republics have, in an atmosphere of understanding and goodwill, agreed to settle the total claim which the Government of Canada has made [for damage allegedly caused by Soviet Satellite Cosmos 954]* for a lump sum payment to the Government of Canada by the Government of the Union of Soviet Socialist Republics of dollars.

2. The Government of Canada on its part will not further prosecute its claim and will recognize this payment as being in full and final satisfaction of its total claim [for damage allegedly caused by Soviet Satellite Cosmos 954]*

3. This settlement has been arrived at on the condition that it be without prejudice to the legal and factual positions maintained by the parties and without precedential effect.

4. The two Governments recognize that this agreement constitutes a compromise settlement of the matter considered a solution equitable and just to all interests concerned.

5. If either or both Governments fail to approve the proposed settlement within days of the initialling of these terms of settlement or if, within days of the approval of the terms of settlement by both parties, the Government of the Union of Soviet Socialist Republics fails to pay the amount specified in paragraph 1 above, the Government of Canada reserves the right to invoke Article XIV of the Convention on International Liability for Damage Caused by Space Objects and to request the establishment of a Claims Commission which request shall, by and with effect from the date of these presents, be deemed to have been made by the Government of Canada [in compliance with Article XIV aforesaid].

*in connection with the entry of components of Soviet Satellite Cosmos 954 into Canada

CONFIDENTIAL

NEGOTIATIONS BOOK

Canada/USSR Negotiations: COSMOS 954 Claim

(February 25 - 29, 1980)

Cahier des négociations

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Délégation canadienne

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M. Brian Swartz,
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(Ministère de la Justice)

Mlle Liudmila Pavlovna Pichugina,
Ministère des Affaires étrangères de l'URSS.
Secrétaire de la délégation.

COSMOS 954: La négociation diplomatique

La réclamation pour les dommages causés par un objet spatial est présentée à l'Etat de lancement par les voies diplomatiques. Lorsque les dernières pièces justificatives de la réclamation sont remises, un délai d'un an commence à courir; durant ce délai, les parties essaient de parvenir à un règlement par la voie de la négociation diplomatique. A l'expiration du délai, une des parties intéressées à la faculté de requérir que d'autres moyens de règlement soient mis en oeuvre, c'est-à-dire qu'une commission de règlement des demandes soit constituée.

L'idée que l'on retrouve dans la Convention sur la responsabilité d'engager des discussions diplomatiques préalablement à la poursuite d'autres formes de règlement avait été érigée il y a plusieurs années en "condition de recevabilité tenant à l'existence de la réclamation". La C.P.I.J. dans l'Affaire Mavrommatis avait reconnu qu'il était nécessaire qu'un différend ait été clairement défini au moyen de pourparlers diplomatiques avant qu'il ne soit possible d'intenter un recours en justice. Les négociations diplomatiques ont pour caractéristique la discrétion et la souplesse; elles relèvent avant tout d'un exercise politique. Comme le mentionnait la C.P.I.J. dans l'Affaire Mavrommatis: "La Cour ne peut pas se dispenser de tenir compte, entre autres circonstances, de l'appréciation des Etats intéressés eux-mêmes, qui sont le mieux placés pour juger des motifs d'ordre politique pouvant rendre impossible la solution diplomatique d'une contestation déterminée." Ce caractère particulier de la négociation diplomatique devrait mettre en garde les Etats qui s'y soumettent contre une emphase trop prononcée pour l'argumentation juridique à ce niveau, surtout si l'on considère que des engagements pris lors des négociations pourraient gêner l'Etat responsable lorsque la cause en viendrait à être présentée à une Commission ultérieurement.

La négociation diplomatique directe est le mode le plus simple pour parvenir à un règlement, surtout lorsqu'elle est exclusivement bilatérale. La discussion entre les deux gouvernements peut prendre plusieurs formes: échange de dépêches, explications verbales, envoie de notes etc. Le rôle de la diplomatie dans ce contexte est d'aplanir, prévenir ou résoudre les conflits qui pourraient surgir entre les deux Etats.

> "Après que l'Etat défendeur a étudié la plainte, une période d'une certaine durée est réservée aux négociations ou à la discussion. Pendant cette période, l'Etat plaignant aura à répondre à toutes les objections soulevées par l'Etat défendeur, et ne devra manquer à aucun des égards exigés par les rapports internationaux." (1)

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1. STOWELL, E.C. "La théorie et la pratique de l'intervention" p. 91 à p. 105.

L'Etat demandeur pourrait se buter tout d'abord à un refus de négocier, ou, si les discussions s'engagent, il se pourrait que l'Etat de lancement refuse la réparation du dommage. Quelle forme pourrait prendre ce refus? L'Etat défendeur pourrait tout d'abord utiliser des tactiques dilatoires visant à prolonger indûment les délibérations. Il pourrait de même faire preuve d'instransigeance en refusant obstinément toute concession ou encore manquer de courtoisie, en employant par exemple un ton arrogant envers les représentants de l'Etat demandeur. Enfin, il pourrait réfuser de se soumettre ultimement à la procédure de règlement par tierce partie prévue à la convention.

Les négociations diplomatiques peuvent permettre le règlement de la réclamation: dans ce cas, la forme de l'accord est indifférente du point de vue juridique:

> "...soit qu'il soit constaté par un véritable traité, ou par un échange de notes identifiques, ou par un autre acte quelconque. C'est le contenu de l'accord qui intéresse le droit international. Il peut renfermer la reconnaissance de la légitimité de la prétention adverse ou le plus souvent une transaction entre les deux Etats, ou parfois la renonciation de l'Etat lésé à sa réclamation." (2)

Dans certains cas, la négociation pourrait n'être qu'une première étape dans une stratégie plus globale de règlement: lorsque la négociation directe ne permet pas un accord sur le fond du litige, les Etats pourraient négocier un recours à un quelconque mode indirect de solution ou à une reprise ultérieure des négociations directes. En fait, la période de négociation diplomatique offre la souplesse nécessaire pour parvenir à un accord sur des points précis, par exemple sur le droit applicable à la réclamation, ou sur l'acceptation du caractère obligatoire de la sentence rendue ultérieurement par la commission ou même sur la dérogation à la procédure prévue dans la Convention sur la responsabilité en faveur d'une procédure d'une autre nature. L'article XXIII(2) permet expressément la conclusion d'accords internationaux confirmant, complétant ou développant les dispositions de la Convention.

En cas de recours imminent à la Commission de règlement des demandes, l'Etat demandeur devra juger de l'opportunité de saisir les autres Etats du caractère et des détails du litige en vue de permettre à ces Etats, si nécessaire, d'intervenir pour sauvegarder leurs propres intérêts. Cette information peut prendre plusieurs formes, notamment la correspondance diplomatique, la publication de documents ou de communiqués officiels, l'adresse à l'Assemblée législative, etc. Il faut tout de même considérer

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2. CAVAGLIERI, A. "Règles générales du droit de la paix", (1929) 26 Recueil des cours, p. 565.

qu'une telle publicité pourrait avoir un certain effet au niveau de l'opinion publique et pourrait même pousser les parties à cristaliser leurs positions. Enfin, soulignons que la négociation n'est pas nécessairement interrompue par la demande formulée par une des parties à l'effet de constituer la commission de règlement des demandes, ni même par la saisie de l'affaire par la Commission: "si la négociation échoue les parties n'ont pas à craindre de se voir opposer dans une discussion de droit les projets d'accomodements qu'elles auraient consentis aux intérêts adverses dans une phase de négociations." (3)

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3. REUTER, Paul. "Principes de droit international public" p. 632.

COSMOS 954: Negociations

Les négociations auront lieu:

- à la grande salle de conférence, Edifice L.B. Pearson, Tour A, 1er étage.

lundi, 25 février 1980: 10h30 à 16h30.

mardi, 26 février 1980 au
jeudi, 28 février 1980: 9h30 à 16h30.

- à la salle de conférence, Edifice L.B. Pearson, Tour A, 10e étage.

vendredi, 29 février 1980: 9h30 à 16h30.

note: Il y aura déjeuner, le lundi 25 février 1980, Edifice Lester B. Pearson, 9e étage, de la Tour A, auquel sont conviés les membres des deux délégations.

CE PROGRAMME EST SUJET A MODIFICATION

Liste des documents à l'usage des négociateurs canadiens

A) Documents constituant la réclamation

i) présentés le 23 janvier 1979

- Note no. FLA-268 from the SSEA to the Embassy of the USSR, Ottawa, January 23, 1979.
- Annex A: Statement of Claim.
- Annex B: Texts of Diplomatic Communications between the D.E.A. and the Embassy of the USSR.

ii) présentés le 15 mars 1979

- Note no. FLA-813 from the D.E.A. to the Embassy of the USSR, Ottawa, March 15, 1979.
- Annex D. Schedule of Costs, Phase II.
- Annex E: Schedule of Recovered Debris.
- Summary of Phase I and Phase II. Total incremental costs included in Canada's claim as shown in Annex C and Annex D (unofficial).

B) Conventions et traités

- Vienna Convention on the Law of Treaties (23 May, 1969).
- Treaty on principles governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (1967).
- Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects launched into Outer Space (1968).
- Convention on International Liability for Damage caused by Space Objects (1972).
- Convention on the Registration of Objects launched into Outer Space (1976).

C) Documents préparés en vue des négociations Cosmos 954

- Negotiation Book
- Book of Affidavits: Re Liability

Réclamation Cosmos 954

A) La réclamation dans le contexte des relations bilatérales Canada/URSS. (GEA)

B) Répercussions sur les relations Canada/Etats-Unis. (GNG)

C) La réclamation et son influence sur le travail du C.U.P.E.E.A. au sujet de l'utilisation de l'énergie nucléaire dans l'espace. (FLO, EBS)

D) La réclamation et les relations de défense du Canada. (DFR)

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COSMOS 954: Canada/USSR Negotiations

Working document on legal questions

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CONFD

INTRODUCTION

Canada's claim is based jointly and separately on (a) the relevant international agreements and in particular the 1972 Convention on International Liability for Damage caused by Space Objects (Liability Convention) to which both Canada and the Union of Soviet Socialist Republics are parties, and (b) general principles of international law .

For the purpose of the negotiation, the legal argumentation is based primarily on the Liability Convention.

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PART ONE

THE CONVENTION ON INTERNATIONAL LIABILITY FOR DAMAGE CAUSED BY SPACE OBJECTS

I. LIABILITY OF THE USSR

A) The Liability of the USSR is absolute liability

1. Argument

Under Article II of the Liability Convention, "A launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface ot the earth...". The Union of Soviet Socialist Republics, as the launching state of the Cosmos 954 satellite has an absolute liability to pay compensation to Canada for damage caused by its satellite.

2. Source of argument

Statement of claim, para 15.

3. Development of the argument

In the case of absolute liability, under the Convention no proof of negligence is required. The claimant state only needs to show that (1) damage was caused by the space object (2) which belonged to the launching State, in order for the launching State to be liable to pay compensation for damage caused on the surface of the earth or to an aircraft in flight.

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B) USSR is the launching State

1. Argument

The USSR is the "launching State" of the satellite Cosmos 954 within the definition of Article 1(c) of the Liability Convention.

2. Source of Argument

- *Statement of Claim, paragraph 2.*

- Lt. Col. William Yanchek, Chief of Space Operations, NORAD. Affidavit dated March 21, 1979. Tab 1. Not released to the USSR.

3. Development of Argument

(a) Article II of the Convention specifies the absolute liability of the launching State for damage caused by its space object on the surface of the earth. Article I contains the following definition of the term "launching state":

" i) a State which launches or procures the launching of a space object,

ii) a State from whose territory or facility a space object is launched;"

(b) The Soviet Union is, by its own acknowledgement, the launching State of the satellite Cosmos 954: The Secretary General of the United Nations was officially informed of the launching as is evidenced in document No. A/AC.105/Inf.368 of November 22, 1977. (1)

4. Notes

(1) One or several of the following criteria may be used in determining the launching State which is the State (a) which registered the space object, (b) which used its own territory for the launching (c) which used its own facility for the launching. (d) which controls and owns the space object, (e) which sent the space object on its orbit and controlled its trajectory, (f) which took part in the launching of the space object, (g) which benefited from the launching. The USSR satisfied all these criteria. (LACHS, Manfred. The Law of Outer-Space, p.129, note 12).

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C) Identification of Recovered Debris

1. Argument

The debris found on Canadian territory as a result of the search operations (phases I and II) were the remains of the Soviet satellite Cosmos 954.

2. Source of Argument

- *Statement of Claim, paragraphs 12 and 13.*

Affidavits

a) Lt. Col. William Yanchek, Chief of Space Operations, NORAD. Affidavit dated March 21, 1979. Tab 1. Not released to the USSR.

b) Dr. W.K. Gummer, Coordinator for Atomic Energy Control Board, Search and Recovery Operation. Affidavit dated August 18, 1978 and supplementary affidavit dated February, 1980. Tab 2. Affidavit dated August 18, 1978 is part of Annex C. Supplementary affidavit not released to the USSR.

c) Mr. Geoffrey B. Knight, Radiation Physicist. Atomic Energy Control Board. Affidavit dated February 5, 1979. Tab 3. Annex E.

3. Development of Argument

(a) The debris found on Canadian territory comes from the Soviet satellite. In proof of this statement, Canada puts forward two sources of evidence:

- *The Soviet Union's admission: (a) Academician Fedorov in his speech made to the legal sub-committee of the C.O.P.U.O.S., February 14, 1978; (b) USSR note of May 31, 1978.*

- *Independant scientific verification: Affidavits relating to the electronic surveillance of the satellite's return to the atmosphere and the breaking up of the debris on Canadian territory.*

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II. DAMAGE

Canada suffered damage within the meaning of the Liability Convention

1. Argument

The deposit of hazardous radioactive debris from the satellite throughout a large area of Canadian territory, and the presence of that debris in the environment rendering part of Canada's territory unfit for use, constituted "damage to property" within the meaning of Article I(a) of the Convention, and such damage was caused by a space object belonging to the USSR (see Article II).

2. Source of Argument

- *Statement of Claim, para 15*

- Affidavits:

(a) Mr. Geoffrey B. Knight, Radiation Physicist, Atomic Control Board, Affidavit dated February 5, 1979 and Supplementary Affidavit not released to the USSR. Affidavit dated February 5, 1979 is Annex E.

(b) Mr. Dan Billing, Chief of Emergency Measures, Government of the Northwest Territories. Tab 4. Not released to the USSR.

3. Development of Argument

(a) Definition of "damage" in the Convention: Article I(a) defines "damage" as meaning "loss of life, personal injury or other impairment of health; or loss or damage to property of State or of persons, natural or juridical, or property of international intergovernmental organizations". As the definition of damage is unqualified as to the source of the damage, it can on a plain reading of the text of Article I(a), be interpreted to include nuclear damage. This is confirmed by positions taken during negotiations that led to the preparation of the Convention.

(b) The damage to Canada consisted of damage to the property in the form of the immediate and direct devaluation of Canadian property caused by the intrusion of Cosmos debris. On January 24, 1978 when the Cosmos 954 Satellite fell there was concern that radioactive material had fallen from the Satellite in the Northwest Territories on an area which included several communities and in an area which was used by trappers, hunters and campers. There was also concern that such material might be emitting radiation that could result in members of the public receiving doses in excess of the maximum permissible stipulated in the Atomic Energy Control Regulations. If such material was present, it would be expected that it would include radioisotopes with radioactive half-lives ranging from

a few seconds to many years. The presence of the radioactive material on Canadian territory constituted damage to Canada to the extent of the real or apprehended danger on the property rendering the property unfit for use. To remove the damage to the property, and to restore the property to the position it was in before the damage occured, Canada undertook the search and recovery operation to remove the radioactive material so as to restore the property. The search and recovery operation removed many radioactive fragments and thousands of small particles, many of which were emitting radiation that could result in doses to members of the public in excess of the limits recommende by the International Commission on Radiological Protection (which limits have been adopted by the Governments of Canada and the USSR.) Early in the operation some fragments were found with such high levels of radiation that they could be lethal to any human who was exposed to them at close contact for a short period of time. These findings confirmed that extremely dangerous radioactive material had survived re-entry and fallen on the Northwest Territories. There were several other finds of radioactive material which could cause serious injury in the short term or even death in the long term as a result of the development of cancer, on prolonged exposure. Therefore the property was not fit for use until the search and recovery operation had removed all radioactive fragments and particles of concern and thereafter confirmed that the area was safe for ordinary use.

(c) Pursuant to Article II, all that the claimant need do in order to obtain compensation is to prove that the damage was caused by a space object of the USSR. In this case, there is a clear nexus between the damage caused to Canada and the entry of the USSR space object into Canada.

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III. MITIGATION OF DAMAGES

A) Action of Canada

1. Argument

(a) General principles of international law, impose on Canada as a claimant State a duty to take necessary measures to prevent and reduce the harmful consequences of the damage and thereby to mitigate damages. Moreover, similar duty could also be inferred from Article VI of the Liability Convention.

(b) Action on part of Canada to alleviate the existing damage and prevent further damage was reasonable and was required due to the hazardous nature of the radioactive debris from the satellite.

2. Source of Argument

- *Statement of Claim, para 16, 17 and 18.*
- Affidavits:

a) Dr. W.K. Gummer, Coordinator for Atomic Energy Control Board, Search and Recovery Operation. Affidavit dated August 15, 1978. Tab 2. Annex C.

b) Colonel David F. Garland, Commander, Operation Morninglight, Department of National Defence. Affidavit dated January 22, 1980. Tab 5. Not released to the USSR.

3. Development of Argument

(a) The intrusion into Canadian air space and land surface of a satellite carrying on board a nuclear reactor and the break-up of the satellite over Canadian territory caused damage per se and created a clear and immediate apprehension of further damage, including nuclear damage, to persons and property in Canada.[1] ...Thus, with respect to the debris of the satellite, it was necessary for Canada to undertake without delay operations of search, recovery, removal, testing and clean-up[2]. These operations would not have been necessary and would not have been undertaken had it not been for the damage caused by the hazardous radioactive debris from the Cosmos 954 satellite on Canadian territory and the reasonable apprehension to further damage in view of the nature of nuclear contamination[3]. The governmental departments and agencies involved incurred considerable costs in carrying out these essential operations.

(b) Under general principles of international law, Canada had a duty[4] to take the necessary measures to prevent and reduce the harmful consequences of the damage and thereby to mitigate damages. The behaviour of the victim should be taken into consideration when assessing the compensation to be awarded: this is a recognized principle of international law and of Canadian Law.

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(c) *"Article VI of the Liability Convention, by denying the claimant State compensation when damage is caused by its gross negligence, implies that a State should take reasonable steps to reduce damage that occurs.*[5]

(d) *Furthermore, the Liability Convention (1972) must be viewed in the context of the general principles of international law. This is consonant with Article III of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (1967) which provides that activities in the exploration and use of outer space shall be carried on "in accordance with international law".*

(e) *The responsive activities undertaken by Canada can be entirely justified as a reasonable measure to mitigate damages by reducing existing damage to Canadian property.*[6] *In addition, since the activities were essential as a measure to prevent future damage to Canadian persons and property, the costs of these operations would be entirely recoverable under general international law.*

4. Notes

(1) Statement of claim, para 16.

(2) Statement of claim, para 17.

(3) Statement of claim, para 18.

(4) Consult United States vs. Nicaragua, 1900 For. Rel. 824, p. 826-833 and Affaire de la société Petrol Block. Both cases reported by WHITEMAN, M., Damage in international law, p. 203. What is the degree of diligence required?:

> "A certain degree of diligence was required in a number of decisions and it can certainly be held that the injured party must display a reasonable amount of diligence in order to prevent all the harmful effects from occurring: a purely passive behaviour would not exempt the victim from a certain liability. But it is impossible to be any more demanding of the victim without unduly favouring the party responsible for the unlawful act." (Traduction: SALVIOLI, G., v. "La responsabilité des Etats et la fixation des dommages et intérêts", (1929)28 Recueil des Cours, p. 266).

(5) Article VI of the Liability convention does not expressly state that a claimant is entitled to his expenses in taking steps to reduce his damage. However, it is noted that the Liability Convention

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(i) generally establishes that the costs to others of an ultrahazardous activity should be borne by whoever is carrying on that activity

and

(ii) encourages claimants to take steps to reduce their damage by denying them the right to recover damages for that damage which they could have prevented or reduced, but for their gross negligence.

(6) It is a principle of Canadian Law that a plaintiff must take reasonable steps to mitigate his damages in an action in Tort. (M. Kelen, letter of March 9, 1978). "Since it is the duty of a plaintiff to take steps to limit his losses, reasonable expenses incurred which result in mitigation of plaintiff's damages should be allowed". (The Canadian Encyclopedic Digest, 3rd Ed. Vol. 8 at p. 42-141).

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B) Soviet Offer of Assistance (Reply of Canada)

1. Argument

On January 24, 1978, the Ambassador of the Union of Soviet Socialist Republics to Canada expressed his Government's readiness to render urgent assistance by sending to Canada a group of specialists. Canadian officials replied that their urgent need was for immediate and complete answers to questions already posed by Canada. The information requested was not made available on a timely basis. Accordingly, the Canadian refusal of the assistance offerred is not prejudicial to the Canadian claim.

2. Source of Argument

- *Statement of Claim, paragraphs 3 and 5.*

- Affidavits:

Dr. W.K. Gummer, Coordinator, Atomic Energy Control Board, Search and Recovery Operation. Supplementary Affidavit dated February 1980. Tab 2. Not released to the USSR.

3. Development of Argument

(a) Canada had complete discretion to either accept or not accept an offer of assistance (this was recognized by the Soviet Union). Canada never refused the Soviet offer. In fact, it took advantage of the opportunity to request more precise information about the technical characteristics of the satellite's energy core; this request was satisfied only in part, and long after it had been made.

(b) Even when there is a large scale danger to human life, the discretion of the victim state to determine whether any aid by the launching State will be accepted is recognized by Article XXI of the Liability Convention. Paragraph 4 of Article 5(4) of the 1968 Agreement on the Rescue and the Return of Astronauts again recognizes the discretion of the victim State to reject or control assistance by the launching State.

(c) Canada took appropriate steps to mitigate the damages and did so in circumstances where:

(i) The USSR offer of assistance did not come until 12 hours after the fall of the space device on January 24, 1978. At that time, preparations for search operations were already under way and proceeding at a good rate.

(ii) Canada's repeated request to the USSR aimed at obtaining information about the satellite was never fully satisfied.

(iii) The expenses incurred in the operations of search, recovery, removal, testing and clean-up were reasonable and were limited to what was necessary. The situation brought about by the satellite's fall was indeed an emergency one. The dangers had to be assessed as quickly as possible in order to limit the extent of the damage.

(iv) *Les Etats-Unis ont fourni au Canada des données techniques sur la chute probable du satellite avant le 24 janvier et ont présenté une offre d'assistance, lors d'un appel du président des Etats-Unis au premier ministre du Canada environ une heure après la chute du satellite en territoire canadien. Le caractère d'urgence de la situation a encouragé le Canada à accepter la première offre d'assistance qui lui était faite. Il s'est avéré que les Etats-Unis avaient les possibilités techniques d'offrir au Canada une assistance de haute qualité et cela sans délai.*

4. Notes

(1) Recognized by Academician Fedorov in his speech made to the legal sub-committee of the C.O.P.U.O.S., February 14, 1978.

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IV. COMPENSATION

Canada is entitled to payment of compensation by the USSR

A) Article XII

1. Argument

The compensation payable shall be in accordance with the provisions of Article XII of the Liability Convention.

2. Source of Argument

Statement of claim, para. 19.

3. Development of Argument

(a) The Liability Convention is victim-oriented; Article XII of the Convention reads as follows:

> *"The compensation which the launching State shall be liable to pay for damage under this Convention shall be determined in accordance with international law and the principles of justice and equity, in order to provide such reparation in respect of the damage as will restore the person, natural or juridical, State or international organization on whose behalf the claim is presented to the condition which would have existed if the damage had not occured".*

(b) The fourth preambular clause of the Liability Convention confirms "the need...to ensure, in particular, the prompt payment under the terms of this Convention of a full and equitable measure of compensation to victims of damage caused by space objects."

(c) Having regard to (a) and (b) above, Canada seeks to be restored "to the condition which would have existed if the damage had not occured".

(d) An award to Canada of its expenses in eliminating the damage and in restoring itself to the physical condition which existed before the damage occured will accomplish what Article XII, in particular, and the Liability Convention as a whole, must contemplate as the proper outcome: The claimant State is restored not only to the physical condition, but also to the financial condition, which would have existed had the damage not occured. To leave the financial burden on Canada would contravene the stated purpose of Article XII (which contains the concepts of justice and equity and restitutio in integrum) and reflects the preamble's call for "full and equitable compensation". Equity dictates that all reasonable expenditures incurred by Canada in the circumstances must be reimbursed. (Emphasis added).

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4. Notes

(1) See "Travaux préparatoires", Statement of the Canadian representative, U.N. Doc. no A/AC.105/C.2/S.R. 146 p. 49 (June 26, 1970).

B) International law

1. Argument

Article XII stipulates that compensation shall be determined in accordance with international law.

2. Source of Argument

- *main source: Statement of Claim, paragraph 19.*
- *secondary source: DEA study, May 31, 1978, p. 7*

3. Development of Argument

(a) In calculating the compensation claimed, Canada has applied the relevant criteria established by general principles of international law and has thereby limited the costs included in its claim to those costs that are reasonable, proximately caused by the intrusion of the satellite and deposit of debris and capable of being calculated with a reasonable degree of certainty.[1]

(b) Canada is entitled to claim for all expenditure incurred in restoring the property to the condition which would have existed if the damage had not occured. These are expenditures incurred in ascertaining the existence, cause and extent of the damage and the taking of necessary remedial action. These were essential measures given the nature of the radioactive debris. They are distinct from costs incurred in preparing the claim.[2]

4. Notes

(1) Statement of Claim, para 19.

(2) D.E.A. Memorandum of May 31, 1978, p. 9-10.

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C) Restitutio in integrum

1. Argument

Article XII contains the concept of restitutio in integrum.

2. Source of Argument

- *Main source: Statement of Claim, paragraph 19*
- *Secondary source: Appendix D of DEA study may 31, 1978.*

3. Development of the Argument

(a) The principle of restitutio in integrum which was developed in particular in the judgement of the P.C.I.J. in the Chorzow Factory Case (1928),[1] is reflected in Article XII of the Liability Convention which provides that the compensation:

> *"shall be determined in accordance with international law and the principles of justice and equity, in order to provide such reparation in respect of the damage as will restore...the person...(or)State... to the condition which would have existed if the damage had not occured."*

(b) According to this principle, as incorporated in the Convention, the reparation must, as far as possible, wipe out all the consequences of the incident and reestablish the situation which would, in all probability, have existed if that incident had not occurred. Because of the hazardous and deleterious material on board the satellite and the apprehension that there could have been wide-spread radiation damage, it was necessary for Canada to undertake the costly operations that were undertaken. Thus, the costs of search, recovery, removal, testing and clean-up are recoverable under Article XII.

(c) In its application of the principle of restitutio in integrum, Canada has limited its claim to incremental costs, i.e. those which would not have been incurred except for the Cosmos 954 satellite incident.

4. Note

(1) P.C.I.J., Ser. A, No. 17 (1928).

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D) Principles of Justice and Equity

1. Argument

Article XII also refers to the principles of justice and equity. Pursuant to these principles, Canada is entitled to receive compensation for the costs incurred by it with respect to the damage caused by the Cosmos 954 satellite.

2. Source of Argument

- *Main source: Statement of Claim, paragraph 19.*
- *Secondary source: DEA text, May 31, 1978, p. 12-15.*

3. Development of Argument

The concept of justice and equity is to ensure a broad and liberal construction of the nature of the costs that are compensable arising out of the incident, including these incurred in restoring the status quo ante. Equity would be applied where it could be argued that the strict rules of law exclude the compensation claimed by Canada.

PART TWO

GENERAL PRINCIPLES OF INTERNATIONAL LAW

V. LIABILITY OF THE USSR TO PAY COMPENSATION TO CANADA

1. Argument

As an alternative to the foregoing, if the USSR refused to consider Canada's claim as falling within the scope of the Liability Convention, Canada still holds the USSR absolutely liable under general principles of international law for damage caused through the Cosmos 954 satellite incident and the USSR is obliged to pay compensation for such damage.

2. Source of Argument

Statement of Claim, paragraph 23.

3. Development of Argument

General Principles of International Law

21. The intrusion of the Cosmos 954 satellite into Canada's air space and the deposit on Canadian territory of hazardous radioactive debris from the satellite, constitutes a violation of Canada's sovereignty. This violation is established by the mere fact of the trespass of the satellite, the harmful consequences of this intrusion being the damage caused to Canada by the presence of hazardous radioactive debris and the interference with the sovereign right of Canada to determine the acts that will be performed on its territory. International precedents recognize that a violation of sovereignty gives rise to an obligation to pay compensation.

22. The standard of absolute liability for space activities, in particular activities involving the use of nuclear energy, is considered to have become a general principle of international law. A large number of States, including Canada and the Union of Soviet Socialist Republics have adhered to this principle as contained in the 1972 Convention on International Liability for Damage caused by Space Objects. The principle of absolute liability applies to fields of activities having in common a high degree of risk. It is repeated in numerous international agreements and is one of "the general principles of law recognized by civilized nations" (Article 38 of the Statute of the International Court of Justice). Accordingly, this principle has been accepted as a general principle of international law.

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23. *In calculating the compensation claimed, Canada has applied the relevant criteria established by general principles of internationa law according to which fair compensation is to be paid, by including it is claim only those costs that are reasonable, proximately caused by the intrusion of the satellite and deposit of debris and capable of being calculated with a reasonable degree of certainty. (Statement of Claim, para 21-23).*

4. Note.

It is not proposed to develop this argument in more detail this time, but to concentrate on the arguments under the Liability Convention.

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PART THREE

CONCLUSIONS

VI. COMPENSATION CLAIMED

1. Statement

On the basis of the facts asserted and the legal principles referred to by the Canadian side whether in written or oral form, the Government of Canada claims payment from the Government of the Union of Soviet Socialist Republics of the sum of $6,026,083.56 (1)

2. Sources of the Argument

- *Memorandum FLA-268, January 23, 1979 from the SSEA*
- *Appendix A, Statement of Claim*
- *Appendix C, table of costs incurred during phase I. As supplemented and amended by:*
  Memorandum FLA-813, March 15, 1979
  Appendix D, table of costs incurred during phase II
  Unofficial summary of costs presented March 15, 1979.

3. Development of Argument

(a) Canada has not included in its claim the total costs of operations, but instead only incremental costs. It has included in the claim only such costs of search, recovery, removal, testing and clean-up operations as would not have been incurred except for the Cosmos 954 satellite incident. Incremental costs, however, may be considered to include tangible, quantifiable losses caused by the diversion of resources from normal tasks to and related to the Cosmos 954 satellite incident, even though the costs thereby incurred would in any event have been incurred in relation to normal duties. Canada in fact, suffered such losses.

4. Note

(1) Ajusted from the figure of $6,041,174.70 originally given in the Statement of claim.

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VII. RESERVATIONS

1. Statement

25. *The Government of Canada hereby enters reservations as follows:*

(a) *The Government of Canada reserves its right to present additional claims for compensation to the Government of the Union of Soviet Socialist Republics in respect of damage not yet identified or determined or damage which may occur in the future as a result of the intrusion of the Cosmos 954 satellite into Canada's air space and the deposit of hazardous radioactive debris from the satellite on Canadian territory;*

(b) *The Government of Canada reserves its right to claim from the Government of the Union of Soviet Socialist Republics all costs that Canada may be obliged to incur in the event of the establishment of a Claims Commission under the provisions of the 1972 Convention on International Liability for Damage Caused by Space Objects and the presentation by Canada of its claim to such a Claims Commission; and*

(c) *The Government of Canada reserves its right to claim from the Government of the Union of Soviet Socialist Republics payment of interest at an appropriate rate on the amount of compensation declared payable by a Claims Commission, such interest to accrue from the date of the decision or award of the Claims Commission.*

2. Note

Statement of Claim, para 25.

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ANNEX

How Canadian Law Would Apply to a Case Analogous to the Cosmos 954 Incident

Occupier's liability

There is a duty at common law in Canada owed by the owner or occupier of property to take reasonable steps to enable trespassers, licensees and invitees to avoid contact with an unusual and lethal danger. In the case of the possible landing of radioactive material in the Northwest Territories from the Cosmos 954 satellite it was the duty of Canada to take reasonable steps to ensure that persons avoid contact with this danger. This involved locating the danger at, as it so turned out, considerable expense. Aside from the refinement of the law in this regard there is and was a duty on the Government of Canada to take reasonable steps to protect all persons against the grave and unusual danger posed by the radioactive material which, it was suspected, lay somewhere in the Northwest Territories and, as it transpired, elsewhere. The only reasonable step was to find the material and remove since no warning would be effective for obvious reasons.

Although under the Crown Liability Act, R.S.C. 1970, c. C-38 ss. 5(1)(b) the Crown will not be liable in respect of a breach of duty attaching to the ownership of property unless the Crown has in fact entered into occupation of that property, it is possible that the Crown would continue to enjoy prerogative immunity from tort with respect to that property. On the other hand, it is not impossible that the Crown could be held to occupy the property on the ground that it exercised a certain degree of control over it.

There are three areas of law which may be useful in establishing the principles of justice and equity relevant to the case: public nuisance - when a public right is interfered with which causes special or peculiar injury to an individual in comparison with the injury suffered by the public as a whole; the rule in Rylands v. Fletcher whereby the occupier of the land brings and keeps upon his land anything likely to do damage if it escapes, is bound at his peril to prevent his escape, and is liable for all direct consequences of its escape, even if the occupier has been guilty of no negligence; and the amendment ot the Canada Shipping Act R.S.C. 1970, (2nd Supp.), c. 27 concerning the liability of the shipowner for the cost to the federal government in cleaning up oil spills (section 734) (including oil) in waters.

In establishing the principles of justice and equity which can be called upon in argument under the 1972 Convention, there are three areas of law in Canada which might be useful. They are as follows:

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(1) the law of public nuisance which provides an individual with a right to sue for damages when a public right is interfered with which causes him or her special or peculiar injury. The public right to use the Northwest Territories has been interfered with and any individual who suffers injuries would be able to sue the person responsible for the public nuisance;

(2) the doctrine of strict liability in Rylands v. Fletcher whereby the occupier of land who brings and keeps upon his land anything likely to do damage if it escapes is bound at his peril to prevent its escape, and is liable for all direct consequences of its escape, even if the occupier has been guilty of no negligence. The analogy would be that the Soviet Union has allowed a dangerous substance to escape from its property, and that the Soviet Union is strictly liable for all consequences of its escape; and,

(3) the Canada Shipping Act, R.S.C. 1970 (2nd Supp.) c. 27, s. 734 provides for the liability upon a shipowner for the cost to the Federal Government of cleaning up any oil spilled from a ship. The analogy in this case is that the spill of radio-active material from the Satellite can be cleaned up by the Canadian government and the owner of the Satellite is liable to the Canadian Government for the cost of the clean-up operation.

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