

COMSAT HISTORY PROJECT

Interview with Joseph V. Charyk

Vol III

Interview conducted by Thomas Maxwell Safely

Interview with Dr. Joseph Charyk  
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TS: I guess the thing I'd like to do to begin is to ask you to reflect on the circumstances under which you joined COMSAT back in the beginning; where you came from and how you came to be selected as President of the Corporation?

JC: Well, at the time of the passage of the Communications Satellite Act, I was the Undersecretary of the Air Force. I had come to Washington at the beginning of 1959 with the intention of staying a year as the chief scientist of the United States Air Force. Six months after I came here I was asked if I would become Assistant Secretary of the Air Force for Research and Development and so I agreed to do that and six months later, I was asked to be Undersecretary of the Air Force. So, I agreed to do that and the assumption was that at the end of the Eisenhower term that I would return to my previous association, which was a Vice President of the non-automotive element of Ford Motor Company that was involved in defense activities and electronics and what have you. Ford had made a decision, oh, back in the mid-fifties, to diversify into non-automotive areas and to bring together their defense-oriented activities and the idea of going into newer technology associated with space, missiles, electronics, etc.

I was the nucleus of a group that was brought together for that purpose.

TS: What is today Ford Aerospace, I think.

JC: What is today Ford Aerospace, right. Then, I had taken a leave of absence for a year to be chief scientist for the United States Air Force. That only lasted six months, as I indicated, because at that time I was asked to be Assistant Secretary. So, I had to then resign from the company, give up all my stock options, etc. That was a bit of a traumatic experience because those options potentially were very attractive. They were not in....they were related to the success of this subsidiary of the Ford Motor Company, so they could have had some substantial value. So, in any event, I then served as Undersecretary of the Air Force through the end of the Eisenhower term. When Kennedy was elected President, shortly after the election, he named McNamara to be Secretary of Defense. Of course, McNamara at that time had been President of the Ford Motor Company for a relatively short time and I had known him in that capacity. So, he called me on the phone one day and asked me if I was willing to continue to serve as Undersecretary of the Air Force for some period--some undefined period of time--which I said I would agree to do, but I didn't want to stay in the government too long, but I

certainly would for a period of time. One of the reasons for continuity in that particular assignment, at that time, was that my office as Undersecretary of the Air Force was responsible for all of the reconnaissance activities of the government in space and aircraft. There were a lot of ongoing, very important programs, and highly classified programs. It was particularly important that in a transition from one Administration to another, that those sensitive, critical programs have a continuity. So, that was one of the reasons for asking me to stay. But, I had indicated to McNamara when I agreed to do that, that I only wanted to do that for a reasonable period of time, until a transition could be effected. I had in mind, originally, maybe a period of a year. But things really warmed up in this area in which I was involved, so the year began to stretch. Then I finally had pretty much made up my mind to leave and we began to become involved in what ultimately became the Cuban Missile Crisis. At that point, I really couldn't leave....

TS: It certainly involved a bit of aerial reconnaissance.

JC: Because that was a very high level of activity. Since I was very critically involved in that, obviously I couldn't leave. After that was resolved....that was one of the most interesting experiences of my life. I mean, that period, which

extended over maybe two or three months. It was one of the most interesting experiences of my life. That's a whole story in unto itself. But, when that was essentially over, I then indicated again to McNamara that I really had been there much longer than I had anticipated; it was now almost four years and I had originally agreed for one year. So, [I told him] I would be leaving and [asked him] did he have any thoughts, ideas, as to what might be interesting things to do. I had had many overtures from various entities. I was hesitant to go into a defense-related area, for obvious reasons, although there had been a lot of those overtures. Along the way, Roz Gilpatrick, who was at that time Deputy Secretary of Defense, said, "Do you know about this legislation that was passed whereby we're going to establish a new company that's going to be involved in the commercial utilization of satellites for communication purposes?" I said, "No, I was not familiar with that." Well, he said, "The President has just appointed a group of Incorporators to try to organize that whole thing in consonance with the legislation." This is about the end of 1962. He said, "If you're considering various things that you might want to do," he said, "That might be one thing to look at. He said, "The guy who has been named the Chairman of the Board of Incorporators is a friend of mine--Phil Graham--and why don't I have him call you?" I said, "Well, I don't know anything about it, but I'd certainly be interested in talking to Phil Graham,"

who I knew more by reputation than by actual contact. So, nothing particularly happened for a few days, I guess. Then, I recall getting a call in the middle of the night and it says, "This is Phil Graham." He said, "Roz Gilpatrick has talked to me and he says you're a great scientist and manager and organizer," and he said, "I got the job of putting together the greatest business opportunity that has come along in just eons," and he says, "This thing is just going to dominate the world. It's going to be the biggest thing that's happened. It's just people don't understand the potential of this thing. It's just fantastic." He said, "I'd like to talk to you about it." He said, "Could you be at the Beverly Hills Hotel in Los Angeles day after tomorrow, for breakfast with me at 7:30 a.m.?"

TS: He was talking to you in Washington?

JC: He was talking to me on the telephone. I was....this was probably something like 1:30 in the morning. So, I then said, "Well I didn't know whether that was possible or not," because I had a lot of things to do, etc., etc., and I'd call him back. He said he'd be looking for me for breakfast at 7:30 the day after tomorrow. So, then I talked with Gilpatrick and I said, "Well, I did get a call from Phil Graham, but it was kind of wierd." I said, "I don't know whether the guy is for real or not. I mean, he calls me at this sort of a wierd hour and

it is the day after tomorrow and I'm inclined to just say, 'forget the whole thing.'" Gilpatrick says, "No, I think that this could be for real. Why don't you go on out there?" He says, "You've got some things that you need to do out there anyway. Why don't you take a plane, go out tomorrow, and see what he has to say?" So I did get the airplane and we flew out to California. So, then I met Phil Graham for breakfast at the Beverly Hills Hotel. He said that he had the job of organizing for the President....putting together this company and he had been thinking through a lot of names as to who the Chairman of this thing ought to be, but both McNamara and Gilpatrick had said that I would be a top guy to really run this thing, that he thought that what they needed was a Chairman who would have a lot of clout, influence, in the financial community, because you're going to raise money for this thing. You're going to have to organize and sell stock, etc. It was going to require a guy with a lot of experience in that kind of thing. But then, they needed somebody who really knew something about the space business who could get the people, the organization together and put this thing on the road and that we had to move fast, because this was an important thing and that the Congress had passed the Act way back in August and the President hadn't appointed the people until finally in December. [Graham said that] it was a very polyglot group, most of the guys didn't know their ass from a hole in the ground about this business,

but he--Phil Graham--did. And that he was going to view this as a personal responsibility to put this thing together and he'd get these crazy characters to accept whatever he thought made sense, but they were giving him a hell of a lot of trouble and....[he told me that]don't worry about that, that was his problem and would I be interested in this thing. He says, "Let's take a walk." So then we walked all around that whole area while we talked more about this thing. He said, "This has got to be the greatest thing that's ever come down the pike." He says, "Satellite communications is going to bring the whole world together." He said, "This is going to have a tremendous impact, the like of which we can't imagine, because whereas the world has been a very discordant kind of a place, this is going to be a way in which people are going to be able to see each other, talk with each other. You're going to bring nations together. It's going to be the biggest influence in bringing the world together that's ever come into being and that this is the greatest opportunity that has been conceived of for a long, long time and that although there's a lot of political and other problems that are going to be around," that he--Phil Graham--knows about all these kinds of things and he's going to smooth the paths. If I would be willing to do this, between the two of us, we'll control the world. So, I said, "Well, what ideas do you have about the Chairman?" He said, "Well, a lot of names have been suggested," he said, "But, we don't



really have a guy focused at the moment." And I said, "Well, I don't know what I might want to do, but in any event, I would want to know who the Chairman is, because if I'm going to work with this guy, it's got to be a guy that I can work with." He said, "Look, you can help pick him out." He said, "I'll bring you a list and you tell me which guys you can work with and which guys you can't work with." He says, "I want to get the guy that you can say you can work with." So, he says, "You'll have a veto power on the Chairman." He says "Don't worry about that." So, I came back to Washington and I said, "I'm not sure this whole thing is for real. I better find out more about it." So then I began to do some inquiries within the Pentagon on the legislation--which I hadn't followed--and I talked primarily with some of the people in the Director of Defense Research and Engineering. Some of the experts there, particularly, I remember talking to Gene Fubini--who is a consultant now, at that time, he was a key figure in the DDR&E--and Harold Brown. Fubini came in with an analysis that says, "This thing is a guaranteed loser, because first of all, the state of the art is just not going to permit this thing to make any economic sense." He says, "There's two ways to go. You can go basically the TELSTAR-type satellites and in order to get any kind of continuity of service, you're going to have about twenty-five or thirty of these things up there. You look at the cost of putting up twenty-five or thirty satellites and

the cost of the earth stations and [the cost of] maintaining this thing. There's no way there's going to be enough revenue to even begin to touch the costs involved in establishing the system." He says, "You go to synchronous satellites....that they're much more complex, because now you have to keep them in one place--that's assuming you can get them there--in position there properly to start with. The odds of doing that are not so hot and secondly, the anticipated lifetime of these things is probably like eighteen months, with the complexities that a synchronous satellite would have to have. So, you do eighteen month lifetime and you start doing the economics of that and that's a guaranteed loser, even assuming you would do the job. But the Bell Laboratory has clearly proven that synchronous satellites are absolutely no good for voice traffic and since most of the international traffic is voice, even if you solve the economic thing, the thing is a loser. So, this was a crazy idea. It's not going to work. The Department of Defense is going to go ahead and do low altitude satellites, because they know those will work and have reasonable lifetimes, but the economics does not enter into the determination of the military needs. But as far as commercial, forget it. That's just a guaranteed loser." So, I then went over all of the data that he had on the subject and I guess I still have that somewhere. In fact, the conclusions were just exactly that: that there was no way in which you could generate enough revenues that would

basically pay for either the twenty-five or thirty satellite family and the associated earth stations or that could make a synchronous satellite system be justified if you were dealing with eighteen month satellites and you had to replace them every eighteen months, given what the launch costs were and given what the development costs were for the satellites. And that assuming that the Bell Labs data was incorrect, that time delay would be a killer in so far as synchronous satellites were concerned. So the key, then, was whether the assumptions that Fubini had used were good assumptions. I had occasion at that time to talk with some people in the Rand Corporation who had done some studies on the subject. Really, [the studies were done on] subjects, prior to passage of the Communications Satellite Act and subsequent. I went out to the Rand Corporation and went over with the people there all their studies on the subject. That's where I came in contact with Sig Reiger....

TS: I was going to ask if he was one of the people that you spoke with when you were there.

JC: Oh, he was the key guy I spoke with. He gave me the completely opposite story from Fubini . He says that he agrees with Fubini that the low altitude random satellites, that's for the birds. He wouldn't do that....and AT&T is going to push

that, because you can only use that kind of a system if you have very large earth stations, very large, expensive earth stations. The AT&T [corporation] would believe in the trunking philosophy, where you have one or two of those in the United States, you would have two or three in Europe, and one in Japan and they would control the major trunks. The economics would not challenge their basic cable strategy and they'd be very comfortable with that and that's what they were going to push. But, he at least agreed with Fubini that the economics of that wouldn't make much sense and you'd be completely in the palm of AT&T. [Reiger believed] that, on the other hand Fubini was all wrong on the synchronous satellites, that his assumptions on lifetime were unduly conservative, there was absolutely no reason why these satellites couldn't be built so that they would last a lot longer, which would change the economics around. The AT&T data was loaded data, that they had done tests within the Bells Labs [and] a limited number on the outside, but the way the questions had been asked of the subscribers was clearly a loaded set of questions and it was clear that the Bell Labs had taken the position that synchronous satellites were no good. The Hughes had now put up the Syncom, which was giving all of the indications that this was going to be the progenitor of satellites that could live long, that could easily be put in orbit and that there was where the real future was going to lie, but that that was not

something that the AT&T was going to buy easily--or buy at all. He encouraged me to take the offer seriously, because he said, "This is going to be one of the most exciting areas of technical development in space that has come along. It's going to be a very challenging thing, very exciting, very unique." He said, "I hope you will do it." So, I went away from the Rand Corporation with a somewhat different attitude on the whole subject.

[In the] meantime, Graham was working on the subject of a potential Chairman and would occasionally call me up at various odd hours of the day and night and would say, "What do you think about this guy?" or "What do you think about that guy?" or "I've got a guy that I think would be the absolute answer and here he is. What do you think of him?" So, we'd have discussions periodically on various names. At one point, he called me up and he said, "I've got the man for the Chairman." I said, "Well, who is it?" He said, "Well, you be ready to head for Andrews [Air Force Base] at noon tomorrow. We're going overseas." I said, "Who are we going to see?" He says, "We're going to see General Norstadt. We're flying over there tomorrow. I've got the President's airplane and we're going." So, I said, "Well, I don't know if I can go tomorrow. I mean I've got a lot of things lined up and I'll call you back." He says, "Don't bother calling me back, just be there." He says,

"Bring your wife too. Tell her to pack a suitcase, we'll be there a couple days and we'll go and have lunch with General Norstadt." So, I said I'd get back to him in any event. I went to see [General] Curtis LeMay who had the office next to me and I said, "Phil Graham says he wants me to go to Paris to see General Norstad and he says he's got the President's airplane." I said, "He's got to be giving me a crazy story here." So, LeMay, of course--the Air Force controls the Air Force One--so, LeMay says, "Well, that's easy. We'll find out." So, he calls up the appropriate people who control Air Force One and says that, "I understand that the President has authorized Phil Graham to take the airplane to Paris tomorrow." To LeMay's great surprise and mine, the answer comes back, "Yes, the President has authorized. The Plane is scheduled to go to Paris tomorrow." So, at that point, it looked as though I'm going to Paris. So, in fact, I did show, with the bag packed and we went over to Paris, where we were met by General Norstad and entourage. We went out to his castle, or whatever it was, outside of Paris where we had an absolutely magnificent lunch. You know, wonderful French food and wine and the works. Then, we went into the library afterwards and Phil Graham made the big pitch as to why Norstad should become the Chairman of this new communications satellite organization. So, we had a long talk with him. We discussed all aspects of what this would be like and why Phil Graham

thought this was the greatest thing that had shown up in decades. Norstad said that he didn't think he could do that. He thought it was terribly interesting, but he had other things that he had committed to and lined up and this was really not a very practical thing for him to consider at this point, although he thought it was terribly interesting. So, we then spent another day in Paris, we had a dinner the next night. Then we flew down to Madrid to pick up some other people--Paul Nitze and Clark Clifford were there--and then we all came back to Washington.

So, at that point, we're still looking for a Chairman. I was still operating on the premise that, you know, I was interested in the job, but that it depended on who the Chairman would be and our compatibility and all the rest of it. So, along the line, the question of my actually doing this thing had been discussed with the Incorporators. There had been a committee established that was going to supposedly interview potential candidates and sort of set terms and conditions of potential employment. At that point, I was contacted by a combination of George Killion and Leonard Marks and Bruce Sundlun. Leonard Marks and Bruce Sundlun came over to the Pentagon and had lunch with me to discuss this potential job. So, again, we had reviewed all the bidding on this particular thing. They gave me a little bit of the background on the Board of

Incorporators, which in fact was a very heterogeneous group that was having some rather disorderly meetings and that they told me that Graham was basically trying to run this thing like a dictator and that the other members of the Incorporators were resenting that and that they were going to have to assert themselves, because they just couldn't let this guy run off and make all kinds of decisions without consultation. He would go off and make commitments and so on and come back and tell the Incorporators about them. That thing couldn't run that way. But, they were hopeful that I would take this job. We again discussed the Chairman thing and potential candidates to be Chairman. Out of that whole process--and here I'm a little fuzzy on the details--eventually there came a series of resumes that had been put together by, I guess, some executive search firm that had been engaged by the Board of Incorporators, looking at particular chief executives. In that group was Leo Welch, who was retiring as Chairman of Exxon at that point. The arrangement was made to meet with Leo Welch in a hotel room here in Washington. I remember having contact with Leo at that point, in which case I discussed with him what I had learned about the potential economic viability of this thing, the kinds of problems that would be involved, and so on. It was a good contact. He obviously had had a lot of experience in dealing with financial circles in New York and elsewhere. He had had a lot of international experience with the Citibank. He had been



stationed in South America and he spoke Spanish fluently. So, he looked like the kind of a guy with international experience, with good financial experience. [He was] a very gentlemanly man and that could be a very effective combination. So I indicated that I thought that Leo and I could work very effectively together. The Board of Incorporators then met. They interviewed Leo. He was offered the job as Chairman. He accepted. I was offered the job as President and I accepted. The President named both of us to the Board of Incorporators of the company. I got a message from the President expressing his appreciation for my services and his delight that I was willing to take on this new assignment and wishing me the best of luck in the new assignment. So, I resigned from the Pentagon and became President of COMSAT on March 1, 1963.

TS: How did you feel at the time? You stepped into a position of considerable risk [as] the President of a corporation that had no money, no stockholders, and was really intending to move into an area that technologically and commercially was, I think unproven, is not too strong a word.

JC: Well, that's absolutely right. On the other hand, it looked like a very unusual, very challenging kind of an opportunity. I was comfortable in the technical aspects. I was comfortable at this time that I had a pretty good feel for

what the state of the technology was; what could be done, what couldn't be done. Much more uncertain in my mind, however, was would the money be able to be raised? Would you be able to get other countries to participate in this thing in the proper way? Those were things that had to be addressed. It was clear, at least in my mind, that a certain amount of money was going to be able to be raised, because under the legislation, the carriers were going to be allowed to own half of this. Politically, AT&T could not say, "We're not going to put money into this thing." So, it was obvious that AT&T was going to have to ante up, whether they liked it or not, a substantial amount of money. If AT&T, and maybe some of the other carriers anteed up, then it was going to be an insurance policy for the private investor, who was going to say, "Well, this is a potential investment in space, the first such opportunity [for the] commercial application of space. It can't be all bad if AT&T is putting up a lot of its money." Therefore, I thought that there was a very good probability that you could raise the money. The international thing was much more complex. I really had no feel for what kind of success we might have in getting other countries interested in utilizing the system. Just how the international thing would be structured was not at all clear. Nobody had ever really thought that through very much. But, I was convinced that: a) technically, the thing was doable, that we could build satellites that were much better

than the ones that had just been put up up to that point; that at least the question of acceptability for voice communications was an open one, not a closed one; that a reasonable amount of money would be forthcoming; and that it was an exciting enough thing that you could probably bring together a group of people [with] different backgrounds and put together a very attractive team to at least take a shot at this thing; and that regardless of what happened, it would be a good experience. It would also give me a separation between defense-oriented activities and if I wanted to go back into defense--and I'd had a lot of offers from a lot of companies--I would feel comfortable doing it after a period of transition, whereas I would feel very uncomfortable about going to work directly for a defense contractor after being Undersecretary of the Air Force. So, I said, "Even if it doesn't work out, it will be a hell of a valuable experience and at that time I can move into a defense-oriented activity, if that's where the best opportunity might be." So, I looked upon it as an exciting challenge, that even if it went wrong, it would be a valuable learning experience for me in a transition to some other opportunity.

TS: Thinking back about the early Incorporators, a group about which--at least in the literature that exists on satellite communications and COMSAT--not a great deal is said. Certainly Phil Graham was one of the early movers, a very strong

personality, to say nothing more about him. Were you comfortable working with him and after his untimely demise....

JC: No, I was....well, I was never comfortable working with him, because I....you never knew what was going to happen next, starting from the middle of the night telephone calls and so on. But, it was obvious that he was ill at that point. His situation sort of rapidly deteriorated. He was then institutionalized. At that point, Sam Harris, who was a very solid individual, assumed the responsibilities as Chairman of the Board of Incorporators. He had been Vice Chairman. He was a very solid guy, a Wall Street type lawyer. So, he then added a great deal of stability to the activity at that time and it became a much more orderly type of an activity. So that was most reassuring.

TS: Did the direction that the Incorporators were taking--their vision of COMSAT as it would grow--change with the kind of, let's say, the rise of Sam Harris to a position of real importance among the Board members?

JC: Well, no. I think they remained a very heterogeneous group. The way the Incorporators had been selected was, I believe simply suggestions of top people in the Congress to the President. So, I mean, you had sort of the candidate of

Senator X or the candidate of Senator Y and that was about it. So, I don't think there was very much commonality of thought as to what this whole thing was going to be. They had a job to do. I think as they began to learn more about it and as they began to be focused, that there developed a greater excitement and enthusiasm of the potential of this. But, I don't think that there was any commonality at the beginning.

TS: What did you see as your mission in the early years? You had your concerns, but the things that you were most concerned to do and do well as President, to get the thing started up, to get COMSAT started?

JC: Well, the first thing you had to establish is what kind of a system should be established, because as I discussed earlier, the economics of the thing was terribly sensitive to the assumptions that you make on the technology. If you made the Fubini assumptions, there was no way this thing would ever make sense. So, you had to establish what your technical parameters were going to be and that those technical parameters: a) had to be achievable, they had to be achievable in an early timeframe, and the economic connotations of those had to be such that it would make commercial sense. So, deciding what kind of a system was needed [and what] made the most sense, was critical, and configuring that....so, that required a certain category of

people to do that. Secondly, one had to think through how one was going to establish the international service which was going to be the foundationstone for this whole activity. Most people had thought that what would happen is that we'd build a set of satellites and throw them up and offer capacity in those satellites to other countries to use for communications with the United States. I didn't....I hadn't known too much about the communications business. Well, I had known nothing about the communications business, frankly. But, we then--Leo Welch and I--went around and we talked with all of the carriers, because it was clear that, a) we had to establish whether they were going to put money into thing, what their ideas were as to what kind of a system it was going to be, their ideas as to how this system would be used for international traffic. Very early, it became clear that an idea of just putting up a U.S. system and saying to other countries, you know, "We'll let you use it to communicate with the United States," was going to be a non-flyer; that the whole tradition--cables and high frequency radio before that--was the idea that it took two to tango. If you put a cable across the Atlantic, each country contributed half of the hardware and they shared in the revenues 50/50. AT&T had a series of bilateral arrangements with the United Kingdom, the French, the Germans, and so on. So, AT&T very strongly said, "What you've got to do is these guys have got to have a share of ownership in this thing, but

you'd better do it on a bilateral basis. You know, a multilateral will never work and you've got to do it on a bilateral basis and you just work out these bilateral deals one by one and they've got to have the inditia of ownership. They've got to have a say in how the whole thing works and they've got to share in the revenues on an equal basis. That's the way the cable business has always worked. That's the only way that this thing is going to work. And besides, we don't think a synchronous system is the answer, because that's going to be a guaranteed loser. We can't use that for voice and if we can't use that for voice, you'll never make any sense out of the data traffic and other things that this thing might be able to carry." So, that was sort of the AT&T pitch, but as far as the money that they would be willing to put in, they said that if we could develop some understanding with the guys on the other side so they'd have a customer to deal with, then it would make some sense as an investment, provided it was a system that was technically sound and capable of serving their needs. But that if other countries were not interested, then as interested as they might be, they couldn't do a hell of a lot about it, because what are they going to do with it if there's not a guy on the other end? So, their level of interest depended upon having a technically sound system that could provide the proper kind of telecommunications service and that there was a guy on the other end.

TS: May I ask a question at this point?

JC: Yes.

TS: I read at one point that in the early negotiation with the European partners of what would become INTELSAT, Welch used AT&T's interest as a bargaining chip. From what you're saying, it makes it sound as if he essentially bluffed and said, "AT&T is with us on this. We're going to go ahead whether you guys are there or not. You can be partners or customers. Which do you want to be?"

JC: Well, that was a little bit later.

TS: Oh, okay.

JC: You're ahead of my story.

TS: I beg your pardon. Carry on then.

JC: Another memorable contact with the carriers was with General Sarnoff, who was head of RCA. I went to see him. We talked about this whole concept, etc., etc. So, Sarnoff said, "Well, you're talking about doing things that may or may not



work, that may or may not make economic sense. We've got high frequency radio stations all over the world. We've got a major investment in that. You're talking about essentially prejudicing my investment in high frequency radio installations and asking about putting money into something that may or may not work and that is contrary to my business interests." I remember saying to General Sarnoff, "Regardless of how it evolves, satellite communications are going to become the wave of the future and your high frequency radio stations are going to become obsolete." There was great shock in all of the RCA people. They said, "My God, who's this young upstart talking to the General in that tone of voice, you know, and saying his technical stuff is obsolete?" So, two or three of the senior Vice Presidents of RCA immediately popped up and said, "Oh, that's a terrible thing, That's absolutely not true. Satellites have all these kinds of problems and they don't have an economic....how can you say something like that? It's clear that you don't have an objective view of the whole thing," etc., etc. So, there was a big commotion, all these guys defending the RCA position and I'll never forget, Sarnoff finally lifted up his hand and he says, "You know, I think he's right." That was a great meeting with General Sarnoff and he was a very good friend after that and I remember that when we dedicated our station in Hawaii and I found out that he just happened to be coincidentally in Hawaii and I remember calling

him up at the Kahala Hilton and said, "We were having this ceremony to dedicate the earth station and we'd be terribly honored if he could come." He was not well at that time and everybody said, "You know, don't bother the old man. He's resting. He's sick," etc. He said, "I'd be delighted to come." He came down and he wasn't well and he made a speech and it was a very memorable moment in my life. That was many years later, of course.

TS: Excuse me just a second [Turns tape over]

JC: So, at about this point, Leo Welch and I decided that we should go see potential international participants, because it was obvious from our discussions with the carriers that a key point was going to be, "Well, we might want to use the satellite system, but that depends on a guy on the other side agreeing and we can't do anything about that. So, we scheduled a trip to Europe, starting in Canada, Montreal. [We] met with Doug Bowie and then took a flight over to the United Kingdom and then on to France, and I believe, Germany. We gave them the pitch as to what we were trying to do, etc. The general impression that we got was very clear that, you know, they weren't sure that this whole thing was for real. You know, sure, satellites had been put up for experimental purposes and they had done TELSTAR. The British had built a station at

Goonhilly and the French had built a station in France at Vencinne and the Germans had built one. But, this was still in the experimental phase and here we were talking seriously about using this thing for regular commercial communications and wasn't that really somewhat premature? What were the U.S. carriers going to do? Obviously, that was important, but that this seemed to be a little far-fetched at this point, that maybe we ought to have some study groups put together that would study the commercial viability of this thing, technical viability, and they would be happy to participate in research experiments and things of that sort, with satellites that we might put up, or facilities, but that it didn't seem that this thing was really ripe for commercial exploitation. And that in any event, Europe was now moving in the direction of working together on such problems and therefore, they would have to clearly consult among themselves to see how they would approach this; that they had developed satisfactory experimental operating agreements with both RCA and with AT&T on TELSTAR and maybe further extension, expansion of that might be in order. Besides, what sort of a company were we? I mean, what were our financial resources and what kind of personnel did we have? You certainly got the feeling that they said, "You know, these guys are out in left field somewhere. They're talking about the technology which isn't here yet. They don't have any money. They have a handful of

people. Are we supposed to take these guys seriously?" So, we made our rounds and came back and said to ourselves, "You know, this is going to be a pretty hard thing. These guys are not going to be pretty easy to convince and they certainly don't act as though they're willing to put up any money in putting in such a system. Not only that, but they're saying, "Where the hell is our money and how do we raise money," because I've got to write a prospectus and the prospectus has got to say what the hell I'm going to do. If I say, "I don't have any customers, I might not be able to get any. They think the technology is not for real. Who the hell's going to buy stock in that? How do we whip this problem?"

In the meantime, the FCC is giving us a hard time. They're saying, "Well, wait a minute. The Act said that the company was to be owned half by the carriers and half by the public and why the hell don't you guys go out and have a stock offering and get on with it? The Act never contemplated having a Board of Incorporators hanging around here indefinitely, making decisions for guys who are ultimately going to own the company. These Incorporators are just appointed. They're supposed to organize the company and get the hell out and here are these guys who have been hanging around now for a long time. It's all the way through '63 now, going into '64 and why don't you just raise some money and go on?" Welch took a very

strong position on that. He said, "If we're going to raise money, we're going to have to write a prospectus and represent what this is all about. We've got a responsibility. We've got the Securities and Exchange Commission we've got to worry about. We're not going to do it unless we can really spell out what the company is going to do and provide an adequate information basis to the investor." Some of the members of the Commission took a very dim view of that. They said, "Look, you can indicate what the state of this whole thing is. You can raise five million, or whatever it is, and can get on with it. We're not going to tolerate this situation with these Incorporators continuing indefinitely." So, we then talked again to AT&T and we then also talked at that time to the White House and we said, "Look, we've got a kind of a Catch-22 here. We can't raise money until we can write a prospectus. We can't write a decent prospectus unless we can say that the carriers are going to invest. The carriers aren't going to invest until we get the international guys. This whole thing is not going to go until somehow we can break out of this endless loop." So, at that point, the White House called in AT&T. The net effect of all of that was that there was a meeting of the European Committee of Post and Telecommunications Administrations. It was held in a place called Karlsruhe [Germany]. At that point, AT&T either was invited or volunteered to appear. They were now--the Europeans were all

getting together to talk about, "What the hell are we going to do with this satellite communication business." I mean, they had had our visits--the individual visits--and now they were trying to decide how they were going to handle this thing. So, Harold Bodkin--who later became one of the Directors of the Company--and Jim Dingman--who also became one of the Directors of the Company and who had been the AT&T guy to testify in the Communications Satellite Act Case--went to Karlsruhe. Basically, they said to the Europeans, "This is for real. We're going to use it. We're going to put money in. You guys are either going to be in or out. That's your choice." That was a little bit with White House pressure behind it. But nevertheless, they did that. That then took the Europeans from the stage where they said, "This is crazy. This is not going to happen in an early timeframe. We've got plenty of time," to the point where they said, "Well, we've got to deal with this thing seriously, because if AT&T is for real and they're going to put money into this thing and this crazy outfit is somehow going to get money and they're going to get some people and they're going to do something, we've got to figure out what the hell our position is going to be." So, at that time, they decided--after consulting with their respective governments--that Europe better deal with this on a European basis; that no country individually ought to talk to these guys; that they talk collectively or not at all; that Europe's

strength lay in working as a unit and that the European conference of all of the PTT's and the appropriate foreign offices would be the forum. They would deal with us only in such a coordinated fashion. We told that to AT&T and they said, "You guys are in real trouble now. This thing has been politicized and we told you the bilateral was the way to go and deal with the PTT's. Don't get the foreign offices in this thing. Not only are you now out of bilateral and multilateral, but you've got all the God damned foreign offices and you're in deep yogurt at this point." So, that began, then, our series of meetings with this European conference, so-called, as to what kind of an organization should be put together to be the vehicle for getting the show on the road.

At the same time, we now began to focus on putting together a prospectus. Now, with AT&T being prepared to definitely say that they would be users of the system, [we then worked on] finding the kind of a technical system that would be required and giving enough information to the prospective investor that would make us comfortable with regard to the SEC. So, the focus then began to be on developing a business plan, what the financial parameters of that business plan would be. It was obvious that if we were going to get the carriers support, we had to be open on whether it would be a low altitude system or a synchronous system. So, we did our business plan on both

assumptions. Obviously, the synchronous was the low cost one, the other one was the big cost, and we said, "The real cost of the system was going to be somewhere between A and B, which was a hell of a big spread. Also, we can't assume that the Europeans are going to put up a lot of money, so we're going to have to raise enough money so we can be sure that we can at least put up a system initially, demonstrate its capability, even without funds being injected by other countries." That led to the decision that two hundred [million dollars] was kind of a compromise number between a synchronous and a low altitude system, and with modest assumptions as to what additional capital might be injected by other parties and with the carriers always saying that, "You know, if it turns out that's not quite enough, we could always lend you some, but it sounds as if you're trying to raise too God damned much money; that \$200 million, that's a potfull of dough. Why don't you raise something a lot less and we'll lend you the money?" So, Leo and I talked about that a good deal and we said, "This is tough, because if we get the carriers on our Board and we've only got a small amount of our own capital and the rest depends on lending from them, we're really going to be in their pocket and unless we do exactly what they want, that's not going to be a very good situation. On the other hand, they're raising problems with \$200 million. They're saying, 'That's just too much money and if we're going to have to put up 50% of



that--\$100 million--that's a lot of dough and we don't think that's necessary.'" That became, then, a big controversy within our Board of Incorporators. Some of the Incorporators felt very strongly that we should not raise a number as large as 200, that, a) they didn't know that much about the business, that when the carriers got on the Board and we had real stockholders, that they would be in a position to better advise what kind of systems were required, what the financial resources [were] and everything else. It was too much for the Incorporators to make the big decision to raise a lot of money. [The Incorporators felt that] we should raise a modest amount of money and then let the new Board--duly constituted Board, consistent with the Act--make the proper decisions. That was a bitter discussion in the Board.

TS: Who was the principal spokesperson or who were the principal spokespersons for that more conservative financial....

JC: Well, the prominent guy was Jack Conner, who ultimately was Secretary of Commerce. In fact, when it came down to the final decision, he voted against the management recommendation to raise 200 and asked that a statement be put in the record of all of the arguments why he thought this was the wrong thing to do. We also were not sure what the ultimate carrier position would be, because they had also been very strongly opposed to

the 200 million. It wasn't obvious that they were going to put up half of that if that was the decision. But, we forced the thing to a decision in the Board of Incorporators, with strong objections, with a statement by Jack Conner that this was terribly wrong, he wanted to be on record as opposing it, etc. Nevertheless, the Board then voted to raise 200. So, then Leo and I were dispatched to give the word to AT&T and the other carriers that contrary to their desires and wishes, we were going to raise \$200 million and were they going to put up half?

TS: What was their response?

JC: Their response was they thought that they were disappointed at that. They thought that that was a mistake. They would obviously have to consider the situation and decide what they were going to do. We had to then develop the plans for the stock offering and they'd think it over. In due course, we'd find out how much they were prepared to invest, but we should not assume that they were going to cough up a hundred million bucks. So, then we proceeded into a stock offering, not knowing, you see, what the carriers would actually subscribe to.

TS: That original prospectus is a remarkable document--if you

read it today--for the, among other things, for the list of risks involved. It makes a more conservative reader like myself wonder why anybody would buy the stock. Can you recall particular discussions involved with the actual drafting of the prospectus and who the chief people were involved in that process?

JC: Well, I think all of the Board of Incorporators were terribly sensitive to the fact that we had to make full disclosure. I mean, they were....could potentially be sued for misrepresentation. Some of them--and as I indicated, Jack Conner--were strongly arguing that they were way beyond their depth and that if this thing went sour and we had raised an awful lot of money, you're going to have an awful lot of unhappy shareholders and that they could sue the damn Incorporators as exceeding their authority. This was not as contemplated by the law, etc., etc. They were very vulnerable and we'd better be sure that the case had been presented as--and the risks had been presented--as extensively as possible. We had, at that time Allen Throop, as the General Counsel of the Company, who had had a lot of experience at Sherman and Sterling in New York. He was a very meticulous individual in his own right, so he didn't need a hell of a lot of encouragement to be a real nitpicker and an i-dotter and t-crosser. I think you see in the actual document the concern

of the Board on making sure that there had been full disclosure of all of the risks and as compounded by Allen Throop's meticulous translation of those concerns into the written language.

TS: You know, it's clear that one of the things that COMSAT was blessed with in the early going was a very strong initial group of personnel. I mean, the officers of the Company, the initial set of employees were, I think fair to say, quite a remarkable group of people. As you yourself pointed out, one of the important things that had to be done early on was to raise a staff, essentially, to hire these people. Can you reflect for a while on the kinds of talents you were looking for, some of the things that you had to go through? Again, there's a high risk involved here. At the same time, you were required to bring in established, reputable people who would raise the stature of the Company in the eyes of you, know, the carriers and the public at large.

JC: Yes. Well, we attempted to make a list of what were the critical functions. That wasn't so hard to do. It was clear that you needed somebody who had done studies on satellite communications systems, who knew something about the technology [and] economics of these things. That led me very early to Sig Reiger, who I had met in connection with Rand, asking him

whether he would come in and do a sort of a key technical planning job. Then we wanted some solid engineering talent, [someone] who had a lot of experience in the communications business. We needed a good lawyer, who had a lot of experience in stock issues, who was comfortable in the Wall Street environment. We needed international planning experience, somebody who had negotiated deals with other countries. That led us to John Johnson, who had negotiated a whole variety of international agreements as General Counsel of the Air Force and later, as General Counsel of NASA. He had been the guy who had negotiated the various experimental arrangements with the European countries and had had a lot of experience in working out international arrangements. We needed someone with a good financial foundation, obviously. Those were the key areas upon which we had to build and we basically made lists of potential candidates and tried to get such information as we could on the various candidates and then went after them. We were able to attract, I think, a very unique group that--although coming from many different areas--became very early on, a very close-knit, very effective team.

TS: Do you have any notion of why they came?

JC: I think the excitement of doing something new and different. I think that as people began to have contact with

the technology, the concept of a satellite--the exciting concept of a satellite--linking continents, linking nations, the very unusual collection of international problems, financial problems, novel stock issues, novel technical problems, the idea of contracting the government to provide service....[there were] just so many unusual features, that it became a very exciting, pioneering kind of a thing. People who were attracted to a pioneering kind of an activity--something different, something unique--became even more excited as they began to learn more about the various pieces of this thing. That kind of grew and was spread among the people and down in the organization to produce a very dedicated spirit--a real enthusiastic, dedicated, group believing that they could do something that would be historical, that had never been done before and that they all felt sort of a pioneering spirit. It wasn't just go to work for a company, it was creating something, doing something that had never been done before. [There were] lots of big problems, but new technology, [in an] exciting area, involving almost every kind of problem that you could imagine: from financial, to international negotiation, to technical. So, I guess the challenge of a pioneering undertaking was the magnet that drew people. The more they became familiar with it, the stronger that glue, and that enthusiasm became. We're probably going to run out of chapter one here. But, I think we'll just have to do this periodically.

dreamed up the number five million [dollars]. They said, "Divide that by ten. It's only five hundred thousand. You get major banks. Five hundred thousand for a non-guarantee might not be too bad." So David said, "Well, yes. Continental Illinois might go for five hundred thousand on a non-guaranteed thing." So, that was then set in motion; the idea of contacting the ten leading banks in the country and seeing whether they'd each be good for five hundred thousand. The only collateral was the Act of Congress which says, we've got a charter. In fact, that worked out. That five million became the original loan--non-guaranteed--and our original relationship with ten major banks. One of them was changed. The Security First of Los Angeles opted out and was replaced, I believe, by Wells Fargo. But, that then became the nucleus of the banks that we dealt with. That had a pattern that for many, many years; that in our future financial dealings, we felt a special obligation to those ten banks.

TS: Thank you very, very much. [Interview End]

[Discussion Among Participants About Interview End And Future Plans]

One of the interesting problems that the Incorporators had to deal with is where do they get the money to act during this incorporation phase, before money could be raised through a stock offering? The question is: how much money was needed, how long a period was involved? Of course, nobody had any clues to that. So, they concluded very quickly that the only way that this could be handled was some kind of a loan. Then, the question became, "Well, who's going to guarantee this loan? [Would it be guaranteed] individually as Incorporators? There were no assests here, obviously. So, apparently, at a fairly early point, I pointed to David Kennedy, who was head of the Continental Illinois Bank. I said, "David, you should be able to get a loan." He said, "Provided you guys all agree to guarantee the loan." They [the Incorporators] say, "We don't have those kind of resources. We're not about to guarantee any loan." So, then he didn't feel very comfortable about having the Continental Illinois Bank have a non-guaranteed loan for several million dollars. So, somebody suggested, "Well, why don't we get a number of banks?" So then, somebody said, "Well, why not get more than two or three. Let's get a lot of banks and then for them, it won't be much money. So, somebody



Interview with Dr. Joseph Charyk  
COMSAT Headquarters  
February 22, 1985

TS: We can proceed.

JC: The question of who should we go to to be responsible for the \$200 million stock offering was a rather emotional one in the Board of Incorporators. There was a considerable amount made out of the fact that the law said that we should seek the widest distribution. The question of what sort of firm should you then go to if you were going to have that requirement.

TS: You're talking about underwriters?

JC: Underwriters, right. What sort of a firm should you go to that would do the best job in insuring the widest distribution. There was one school that felt that we ought to go to a firm that was very diverse, very well geographically distributed [and] dealt with a very large number of customers. Another group said that we should go with the most prestigious people, so the kinds of names that came to the fore were Morgan Stanley, Goldman Sachs, and Merrill Lynch. This became quite emotional...

Roger Cochetti: Merrill Lynch was the retail distributor....

JC: That's right. That's the widest distribution kind of thing.

RC: Sort of blue chip.

JC: That's right, blue chip thing. There was one school that said, "Let's do blue chip guys." The other says, "Well, over there, we've got this widest distribution." Sidney Weinberg, of course, was a member of the Incorporators. He had the tie to Goldman Sachs. That made it also a little personal as well as a business type of decision. There were some very bitter feelings generated between the Incorporators as that thing....

TS: Why so bitter? Why was it such a charged....I can understand from Mr. Weinberg's perspective, why it would be one of particular interest, but....

JC: Well, he certainly was emotional about it, and there were people who supported his viewpoint or who were close to him or didn't want to offend him or whatever, that felt motivated to strongly support one position as against another. Ultimately, Leo Welch made the decision that we would go with Merrill Lynch and we would then seek, however, to bring in a whole series of other firms as part of the offering. That became, then, the

second round of the battle as to who got what position. You know, the thing that we're familiar with in recent days is who goes to the top of the column on the left and who goes to the top of the column on the right, etc. I remember talking with Morgan Stanley and their position is, "Either we do the whole thing, and we're on top, or we don't play." So, the decision is, "You don't play, then." So, Morgan Stanley was notably absent from the....

TS: Why did Mr. Welch decide to go with Merrill Lynch?

JC: I think for really two reasons: the widest distribution reason, and also I think he probably did not want to go with Goldman Sachs for a lot of reasons that probably go back into his own history. But, as a result of that, there was a certain amount of animosity that developed between Welch and Sidney Weinberg, for example, who had not felt that that whole matter had been very well handled and I think that that animosity persisted as long as he was there. The other....and that was a vote of the Incorporators. Very rarely in COMSAT's history had there ever been a vote of Directors, with the requirement that the Directors say, "And I want to be recorded. I want to be on the record as voting that way." I would guess you could count those incidents easily on one hand. I have given you one, I think, before. That was John Conner voting against the \$200

million stock offering and wanted to be so recorded. The second vote was this question of an underwriter. That was a secret ballot and that came out with Merrill Lynch. The third one was the selection of an outside auditor and that one was, in a sense, even more interesting, because that secret ballot, as I recall, was won by a one-vote margin. Leo Welch, who thought he had all the votes counted properly, was absolutely flabbergasted, because it was not the result that he thought was going to come out and it was not his choice of announcing that auditing firm.

RC: Who was it?

JC: Delloyd, Haskens....well, not Delloyd at that time, but Haskens and Sells was the victor by, as I recall, a one vote margin. It was not Leo Welch's choice or recommendation.

TS: Why should these be such issues? From an outsider's point of view, the....it would seem that certainly is not an issue that would generate a great deal of emotion or controversy--the choice of an outside auditor, for instance. What is it that engages people?

JC: Well, I must say that I was somewhat amazed at the emotion generated on these things. I think it may have had a lot to do

with the fact that the people who formed the Incorporators had come from a lot of different places. They had a lot of different associations and relationships and this was a kind of a visible thing. Here were these people in this very unique role and I'm sure that a lot of their friends talked to them with great interest about this new company and how it was going to go and who was going to do what. So, I think they all felt a certain amount of pressure that they should go in a particular direction and they didn't want to look--to go back to their friends and look as though they had been impotent in doing something in a particular direction.

There was quite a bit of a jockeying for influence and position and that carried over into the situation when the stock had actually been sold and the Board, after the sale of the stock, would move into an arrangement where there would be six public Directors, six carrier Directors, and three Directors appointed by the President. Since the Incorporators numbered fourteen, the question is how do you go from fourteen to six? So, there had to be a determination made as to which would drop out, which Directors would drop out and which would become the final six. That turned out also to be a secret ballot. You can imagine that there was a certain amount of emotion generated there. A number of people withdrew and said they did not want to be considered. Some, I suspect, withdrew because they

didn't want to be part of a secret ballot thing. Other people were prevailed upon to keep their name in, because we felt that they would be very good people and even though their tendency was to want to withdraw, we didn't want them to withdraw, because we thought they would make excellent Directors.

There was a rather sad episode in that situation which had to do with Edgar Kaiser. Kaiser did not want to serve. Leo Welch and I thought he was such a superb Director that we really needed him. We both sat down with him and tried to convince him that he should leave his name in. He didn't want to do it. He said he had too many other things to do. We said, "But we need you desperately," etc., etc. I suspect, against his better judgement, we convinced him to keep his name in, and he lost. That was a terrible embarrassment to him, to us, and it was a rather sad note.

TS: Were there any people who wanted to be part of the initial Board that, say, you and Dr [sic-Mr.] Welch were less enthusiastic about?

JC: Well, let's say that if we had had our choice of six, we would not have chosen the six that survived.

TS: Uh huh.

JC: Now I don't mean that as a negative on....and say, "We got all the wrong six guys"--quite the contrary. But, it wasn't precisely the same six that we would have selected.

TS: Was there much jockeying for position?

JC: Oh, yes. Oh yes. I mean, the Directors were lobbying each other for votes, you know, the "We'll vote for you if you vote for me," kind of thing. It was rather messy; unlike anything I've ever seen.

TS: Well, there really was no procedure for this kind of thing.

JC: There was no procedure for this kind of thing.

TS: I mean, to move from Incorporators to members of the Board of Directors.

JC: No, absolutely not. So, the procedures had to be invented. Since the number of sort of interested parties exceeded the available, the only thing that anybody could come up with was the idea of having a secret ballot.

RC: Did any of the Incorporators wind up being the Directors

from the carrier's side?

JC: No, they couldn't.

RC: Oh, they couldn't.

JC: They couldn't. Even to this day, you know, that if you have an association with a carrier, you're not eligible to be a Director of COMSAT--a series one Director of COMSAT--because you have to be eligible to own COMSAT shares, series one shares. If you have any kind of a carrier association, you are ineligible to own series one shares, so you cannot be a Director.

So, then we moved into the new arrangement with six Directors from each side and then to proceed with the plan of moving out to establish a global system and try to get into business. I guess, that was in the Fall of '64. I guess I had recounted earlier some of the contacts that we made in Europe and Canada and ultimately, the introduction of the tie-breakers--the Canada, Australia, Japan combine--which brought a solution to our dilemma, that we didn't want to be in a situation where the Europeans would have acted as a bloc to veto anything that we proposed. That permitted an interim agreement to be adopted, which was adopted in the Fall of '64. Then, moving on with the plans to actually launch the Early Bird satellite.



TS: We've entered a kind of a grey area in the literature, at least, on COMSAT; that is the time between the constitution of the first Board, which is before the sale of COMSAT's stock....this is an appointed Board--the gentlemen that you're just talking about--and before elections could be held to constitute....

RC: You mean the Incorporators?

TS: Well, the transition from Incorporators to a Board of Directors and then the first....then the sale of COMSAT's stock.

JC: Well, no, wait a minute. The stock....the arrangement for the sale of stock was completely handled by the Board of Incorporators....

TS: Uh huh.

JC: ....because you could not have the carriers on the Board until such time as they owned stock.

TS: Right.

JC: So, the stock had to be consummated before the Board of

Directors could be constituted. So, the Board of Incorporators was the Board until such time as the stock had been sold, the carriers owned the hundred million dollars worth of stock, and therefore could be represented on the Board. But, the thing that was still open was the appointment of the Presidentially-appointed Directors. There was a lot of discussion as to who the Presidential Directors ought to be.

RC: Lyndon Johnson was President at that time.

JC: He was President and some of his staff had the assignment of coming together with a list of names of qualified people to be Presidentially-appointed Directors. That was kind of a long, drawn-out process. So, for a long period of time there, the Board was just twelve people, without the three Presidentially-appointed Directors. Ultimately, Johnson appointed three people. I don't know whether I went into that or not. Did I?

TS: No, we haven't talked about that yet.

JC: Well, we didn't know too much about it until sometime later--as to the mechanism for the selection--but we heard about it later from George Meany, who was one of the appointees. As I think things fall into place, the staff, after very elaborate

work for many months, came into Lyndon Johnson one Saturday morning and said, "Here's a list of candidates that we have come up with as a result of the very extensive screening process." The story is that Lyndon Johnson took a look at the list and he threw it in the wastepaper basket and he says, "I guess I'll have to take care of this one personally, since you guys have done such a miserable job." He says to the secretary, "Get me the Chairman of General Motors, the head of the AFL-CIO, and the President of the University of California." Those were the three guys. According to George Meany, he was working in his garden--it was a Saturday afternoon--and his housekeeper came out and said, "Mr. Meany, the President would like to talk to you." So, he goes to the telephone in his gardening cloths, and [the President says,] "George, this is Lyndon. I'd like you to do me a big favor." Meany says, "Well, Mr. President, if there's anything I can do to help you, I certainly be glad to do so." He [the President] says, "I'd like to have you serve as a Director of an outfit called COMSAT. Apparently I have to appoint three Directors and I'd deem it a great favor to me if you would agree to serve as my appointee." Meany said, "Well, Mr. President, I don't know anything about an outfit called COMSAT." He said, "But, since you've asked me, I will do a little research, find out a little bit about the organization, it's background, what it's supposed to do and I'll get back to you." Johnson said, "George, I've got to apologize. It is

obviously very unreasonable of me to call you up and try to get an answer from you on the spot like that." He says, "You're absolutely right. You ought to look into it, get a lot of information on it, and make an intelligent decision. I'll call you back in about an hour." Meany said, "Mr. President, don't bother. If you want me to do it, I'll do it." That was Meany's story about how he became a Director of COMSAT.

TS: How did he get along on the Board? I've often wondered how the head of the AFL-CIO, the head of organized labor in this country, got along with so many of the Directors of America's largest corporations.

JC: It was absolutely fantastic. When he was first appointed, I remember many people said to me, "Well, you know, he might show up once or twice, but don't expect him to play any kind of an active role." The fact turned out to be almost the opposite. He was a very faithful Director. He rarely missed a meeting when he was healthy. It was only when his health began to fail that he began to miss meetings, but whenever it was physically possible for him to come, he came. He participated actively. There were probably only one or two occasions when there was any significant difference of opinion between him and, for example, Fred Donner, the Chairman of General Motors, on things that the corporation should do. As a matter of fact, the only one that

really comes to my mind as an area where he felt somewhat strongly and spoke at some length, was many years down the road when the question came up about employee stock ownership. Senator Long had been instrumental in passing legislation which was for the purpose of encouraging stock ownership by employees and gave a one percent investment tax credit if the company established such a plan for its employees. Meany said that he thought that that was a terrible piece of legislation; that when you started mixing up employees in stock ownership and screwing up the relationships between management and labor, you were doing an injustice to the system which had been so successful in this country. Where they had done that sort of thing, like in Germany and other European countries, the thing was disastrous and that was the reason why those industries couldn't match American industry, which had this nice, clean separation and so on and where everybody knew what their objectives were and you didn't start mixing these things all up. He thought that was not a constructive piece of legislation. He had argued long and hard with Senator Long about it, but nevertheless it had been passed, it was law. It was a benefit to the employees, because it cost them nothing. Since there was an investment tax credit, it didn't cost the company anything and he would certainly support introducing this into COMSAT, because it was the law. He thought it was a terrible piece of legislation, but he wasn't going to vote for anything that would deny a benefit to the

employees that they were legally entitled to. That's the closest he ever came to disagreeing with any position that we wanted to pursue.

TS: How very unusual. On that thing alone, you would have expected that he would have been....that a labor leader would be....

JC: I remember another occasion. We had attempts to organize [i.e. unionize] various elements of the company from time to time. [There was] a lot of discussion as to what was an appropriate unit and ultimately a vote would be held. Invariably, the union would lose. After about the third one of those, I remember in the Board Meeting, we had indicated that we had this organizing attempt and that the result was uncertain. So, when the Board met, I said, "Well, I have to inform you that we've had the election and fortunately, the union has been defeated by a vote of such and such." Of course, this is the third time it's happened. Everybody was absolutely silent, except George Meany. He says, "You know, that's the trouble with a God damned union. They never give up." [Laughter] So, he turned out to be a superb Director. He was an enormous help to us. He was constructive. All the other Directors enjoyed his participation in Board activities and he was a real asset to the corporation. I think he grew to like the corporation very

much. After his health was failing, we would check with his secretary and she would always say that, you know, "If he can possibly make it, he'll make it, because that is one of the things that he likes most to do is to go to COMSAT Board meetings."

TS: Was this the first Board he ever served on?

JC: It was the only Board he ever served on.

TS: That's very interesting. I understand that President Johnson at the time set what became sort of a tradition with COMSAT in terms of the choice of Presidentially-appointed Directors--a tradition for a time, in any case--that is to say, a leader of industry, a labor leader, and an educator. Kerr, for instance, and then Donner, and Meany being the first three, but that's....

JC: Yes, well, he set that original idea of labor and a major industry and education. It really didn't persist all that long. Clark Kerr found that his other commitments and the schedule of COMSAT meetings didn't mesh and he actually did not attend a single Board Meeting.

TS: Oh, my goodness.

JC: He did attend, I believe, one committee meeting, but he never attended an actual Board Meeting and at that point, he resigned and....

TS: He was replaced by the head of the Drexel Institute, the name....

JC: He was replaced by Dr. Haggerty, who's still on the Board.

TS: Yes, Dr. Haggerty.

JC: He had been, I guess the Dean of the engineering school at the University of Texas in Austin and had known Johnson through that association. He turned out, of course, to be a very good Director of ours.

TS: That's very interesting.

JC: Of course, Meany continued to serve as Director....There are a number of funny episodes there, too. The Directors--the Presidentially-appointed Directors--are appointed for a period of three years, but they're staggered, so that each year, the President gets to appoint one for a three-year term. At the time that Nixon was elected President, it came time for George



Meany's term to expire. The President nominated Fitzsimmons to succeed George Meany....

TS: Frank Fitzsimmons.

JC: ....on the Board. For whatever reasons, the Senate never got around to confirming Fitzsimmons.

TS: Do you have any suspicions as to why?

JC: Not really, except that Meany would come to the Board Meetings and with a big smile on his face, would ask what we've heard about the status of the confirmation proceedings on Fitzsimmons.

TS: When a silence is worth a thousand words....

JC: So, we kept saying, "Well, we don't know what's happening. Nothing much seems to be happening." Nothing did happen and Meany continued, of course, to serve until a replacement had been selected and one was never selected. So, we were happy about that, because, as I said, he was a very revered and valuable Director of ours.

TS: Well, we're in that period of COMSAT's history, then,

between the actual sale of stock and the constitution of the first Board and essentially, COMSAT's on its feet--at least on paper--and the launching of Early Bird and the beginning of an operational system for COMSAT. As you look back on that period of time, there was a period of, what is it?--about three years, actually--between the sale of stock and the launching of Early Bird. Early Bird was [launched in] '67?

JC: No, Early Bird was '65. April of '65.

TS: So, there's only a year, here. Okay.

JC: Less than a year. From the Fall of '64 to....

TS: I was prepared to ask you....

JC: ....April of '65.

TS: ....what were the issues in that period of time?

JC: Well, the issue at that point was to see if we could actually put a satellite in orbit and begin to determine what was needed to establish a commercial service and begin to take some money in. The main discussions at that time were with AT&T. There was still, at that time, a great uncertainty as to

what type of a satellite system was needed to provide a suitable service. A lot of concern--I don't know whether I mentioned this before--that synchronous satellites would not be suitable for voice communications because of the time delay. The AT&T people basically said that their research had showed that the customers would not find that kind of service acceptable and that if we wanted to put up a synchronous satellite, it might be a system which would not be suitable for voice communications. It was obvious that if you did not have voice communications revenues, you really didn't have any chance of any kind of economic success. So, we didn't feel that that was necessarily the case and the economic and operational advantages of synchronous satellites were so great, that we had made the decision to put up Early Bird. We called it experimental/operational on the basis that if it turned out to be unsatisfactory, we could always say it was experimental. If it turned out the other way, it would be operational. So, it was an experimental/operational satellite.

TS: Well, when you talk about the economic advantages, do you mean that if you put up one synchronous satellite, you have a system, essentially, whereas you needed several medium or low altitude satellites to....

JC: Well, with the TELSTAR-type satellites, you would have

needed a very large number of them, which would be very expensive. But, more important than that, you would have to have very expensive and large stations on the ground, to utilize those satellites, because you have to track the satellites, you have to have more than one antennae, because as you're tracking one and it's going down over the horizon, you've got to pick up another one. So, it would become a much more expensive system and we could never see the economics of that panning out. We could never see enough revenue to justify that kind of an expenditure; whereas with a synchronous satellite, at least you had a chance. But even there, it was questionable, because nobody had had any experience with lifetime of a synchronous satellite. Obviously the idea of trying to keep a satellite positioned at a point in space, and what that was going to take, and how successful it would be, and how long could you do it was an open question. Early Bird was, as you know, projected to have a lifetime of eighteen months. Nobody had ever kept a synchronous satellite in position for very long. So....

RC: Even the military?

JC: Well, the military didn't believe in synchronous satellites at that point. The military was going down the road on medium altitude and the bulk of opinion was that synchronous satellites were kind of an interesting scientific thing, but probably not a

useful device for high-quality communications service.

TS: There's such a large number of unknowns at this point. How did you actually make the decision to go ahead?

JC: Well, actually the decision was pretty easy, in this sense: we felt that we weren't going to make a sound economic business out of this unless synchronous satellites would work. Because if you had to go this other route, the investment was so great and the potential revenues so modest and the market taking such a long time to build up, that we'd just be losing a lot of money for many years and whether we could survive in that situation would be questionable. So, we had to make a big bet that the synchronous satellite would be acceptable. So we then decided to go ahead and actually put up this "experimental/operational" device and we tried to get a commitment out of AT&T to use [circuits]. That finally ended up with a commitment that said that, "If the satellite was up there successfully, if the Europeans were agreeable to utilizing it on the other side, and if it provided satisfactory commercial service, they would be prepared to lease up to sixty circuits." That was the read that we had.

TS: The total capacity, the total number of circuits on Early Bird was....

get anything. In other words, it was somewhat of a commitment to say that they would buy sixty circuits. Of course the proviso was in there that it had to provide satisfactory voice services. AT&T was telling us at the same time that they did not think that a synchronous satellite was capable of providing satisfactory voice service. So when you had a commitment that says it's subject to that and in the same breath the guy is saying, "I don't think that you can provide satisfactory service," that was a pretty big question mark.

But, as it turned out, the launch of the Early Bird was very successful. It was a very memorable day. We had set up closed circuit facilities in our building, tied to the Cape [Canaveral] and invited a lot of key Congressional people and people in the Executive Branch, the carriers. It was a very nervous moment, because I would guess the odds were never considered better than maybe 50/50 that things would go. There was kind of wild excitement when everything went almost perfectly.

RC: Did you talk about the ground sector?

JC: No, we didn't. I remember that....and we have pictures around here somewhere of Humphrey and Mondale were in the front row, which you've probably seen.

JC: It was about 240.

TS: ....240 as I recall.

JC: Early Bird had a capacity for 240 voice circuits or one television channel, but not the two things together. So, if you had television, you had no voice and so on.

TS: Visa versa.

JC: Now, the 240 circuits was more capacity than existed in all the cables that had ever been laid across the Atlantic. So, even though it was a pretty modest first step, its capacity was prodigious by the standards of that day. So, on that basis, we went ahead towards the launch. Of course, a lot of people had serious questions, that: a) the launch would be successful, and b) that even if successful, it would prove satisfactory for voice services.

TS: Were you pleased with the carrier's support? On the one hand, sixty circuits puts you in business. On the other hand, it isn't 240 circuits and that's what the bird will carry.

JC: Well, sixty sounded [like] a lot, because we were lucky to

TS: Yes, I've seen the picture. A very young Walter Mondale.

JC: Very young Walter Mondale, yes.

RC: A new Senator at that time, that's right, '64.

TS: That must have been.

JC: A brand new Senator at that point.

RC: '65, right?

JC: [He was] sort of a protege of Hubert Humphrey. So, that was a very memorable event and then we proceeded to actually do a variety of tests on the satellite to make sure that everything was functioning and those all worked out well. The plans were then laid for a sort of a grand opening, if you will. At that time, the three television networks were quite interested in working together. We developed, working with them, a program--an inaugural program--which would bring to both sides of the ocean pickups from a lot of different places and demonstrate the capability of this new medium. Frank McGee was the moderator, he came to our control center and watched the final injection into orbit of the Early Bird and then ultimately became involved in the program itself. That was also a



memorable event, when that inaugural program for Early Bird took place in late June....

RC: June 28. We're looking at anniversaries now. This is all exactly 20 years ago.

JC: Right. Then, shortly thereafter, we said to AT&T, "Well, let's try it out for the sixty circuits." The Europeans had also agreed to try and see whether this service would be satisfactory or not. So, they went on with some number of circuits and began to use it and then, little by little, the traffic increased and there were still mutterings that this wasn't great service, but it filled some kind of a need and so they would maintain the commitment.

TS: Did it strike you as heel-dragging?

JC: Not so much heel-dragging as, I think, the beginning of some doubt of their previously positive position that this thing wouldn't provide satisfactory voice service. If you put the right kind of echo suppressors at that time and you took care to do something about the quality of the lines, it was not an unacceptable....it was not as good as a high quality cable, circuit, but nevertheless, it wasn't bad. And besides, there was a commitment to support the development of satellite

communications and they certainly weren't going to walk away from that. So, that then became the introduction of commercial service and we then began to think ahead as to what would come next and were also very pleased that it now looked as though you could build a system out of synchronous satellites and that maybe you did have a chance for an economically viable business if you could get satisfactory lifetime. We still didn't know whether Early Bird was good for a year, eighteen months, or something longer.

TS: This brings us to a topic that I was hoping that we could talk about, that is COMSAT's relationship with the common carriers over time, but I'm looking at the clock over here and seeing that we're coming very close to our time period and we're wondering if that might not be better to carry on at a later date.

JC: Probably so, I would think. [Interview End]

Interview with Dr. Joseph Charyk (Conducted By Tom Safely)  
COMSAT Headquarters  
April 29, 1985

TS: I guess what I'd like to do is reflect on some of the issues that some of the first Board of Directors--the first elected Board of Directors--faced and how these issues were approached and resolved from the Board of Directors perspective now.

JC: Well, the overriding consideration, of course, was the development of plans and the writing of a prospectus for a....well, no, we're now talking after that, aren't we?

TS: Uh huh.

JC: The key decisions faced by the new Board of Directors was to now implement the plans that had previously been put in motion. On the immediate horizon, of course, was the launching of the first satellite, which, as you recall, we had described as an experimental/operational satellite, because at that time it was still unclear as to whether a synchronous satellite would, in fact, be able to be in a position to provide acceptable voice services. So, we were looking forward with great anticipation to the launch of the satellite and the determination of its adequacy for voice communications. So,

most of the focus was on that satellite--on a program for its commercial exploitation. There was the discussion with AT&T as to its interest in utilizing the satellite. Out of a long series of discussions came a commitment from AT&T that they would agree to lease up to sixty circuits if the quality of the voice traffic was acceptable and if their foreign correspondents would be willing to accept the use of the satellite for that many voice circuits.

TS: Were there criteria established for the "if" of this? I mean, "if" it's acceptable. Who was to determine in the end, what acceptable meant?

JC: The implication is that it would be the customers. In other words, that if the customers who were put on these circuits routinely rejected that service, that would be the kiss of death. On the other hand, fortunately it was found that the acceptance level was very high. So, that led to the conclusion that, in fact, synchronous satellites would be acceptable. Therefore, the lower economic cost of establishing a synchronous satellite system was the attractive way to go and thinking began to be directed towards what the next generation of satellites should look like and how long it would take before we could have another generation of satellites in being and what kind of technical specifications and capacity those

satellites should have. In the meantime, it appeared possible to do a sort of an upgrade, if you will, of the Early Bird satellite that would have a substantially improved capacity over that of the Early Bird and that could be available much sooner than a whole new generation of satellites. The question there was whether there would be a utilization of that satellite that would economically justify the procurement of such a satellite. It appeared that on a purely commercial demand for AT&T and the record carriers needs, that such a thing could not be justified. We then, however, we had the idea of exploring with NASA the possibility that NASA might have an interest in having such a capacity available for communications between some of its stations in Europe and on this continent. Therefore, we entered into serious discussions as to whether that might provide an economic basis for proceeding with this upgraded INTELSAT I. Those negotiations were ultimately successful and very important, because they then permitted us to go ahead with INTELSAT II, to provide a service to NASA and to have a greater capability for traffic growth, greater efficiency above and beyond what you could get out of the INTELSAT I, and gave us another experience and another set of revenues prior to the introduction of the satellites that would form the first global network. Now, there was objection to that, as there has been all along in this trail; the argument from the carriers that we should not

be allowed to deal directly with NASA--that if, in fact, NASA needed such services, that they should get them through the carriers and we should be a carrier's carrier. So, all through our history, that's been a theme song and was also present in this case. But, in this instance, it was decided that we could, in fact, deal with NASA. That provided really the foundation for the INTELSAT II satellite.

TS: Do you think that the rate of the growth of business for COMSAT would have been substantially different had you been allowed to be a carrier in your own right? That is to say, has the rate at which the carriers acquired circuits or rented circuits through COMSAT been significantly less than the business that was actually out there?

JC: Well, I think the key element there was the government as customer. I don't think we would have had much difference if we were trying to market services directly to the small, ultimate user because by and large, most of the traffic was voice traffic and we weren't about to be selling voice traffic directly to the ultimate customer. The big customer was, in fact, the government. There, I think it could have made a difference, because I think I earlier recounted the situation where we had offered thirty circuits in the Pacific at a fraction of the existing costs. The Department of Defense was

very anxious to go that way, but the decision was ultimately made that we were not to be able to deal directly with the Department of Defense and so they settled on paying a lot more for those thirty circuits than they otherwise would have. I think that also inhibited their interest in a greater utilization of satellites. I think had they seen a success in that first round and had they seen that you could get satellite circuits to all parts of the world at a fraction of what they were paying for cables, that that would have stimulated the government use. Yes, I think that that would have had a very significant effect, because the government business is substantial. But, with that deflated, then we didn't have the impetus and then pretty much had to rely on the basic growth of telephone traffic and the regulatory interest in making sure that there was a reasonable allocation of traffic between the satellite and cable; Which, of course, has always been another theme song. I mean, how should new traffic be allocated as between cables and satellites and when should new facilities be authorized? That introduced a whole new question which the carriers argued for in the [Federal Communications] Commission, namely that whereas INTELSAT was presumably free to proceed and make plans and build satellites and that the Commission then retroactively sort of authorized the participation of COMSAT in that INTELSAT procurement, that In the case of cables, the carriers could not go ahead with a cable until they had

actually received approval from the Commission and that they were faced with a long, tedious process that they had to go through. Whereas COMSAT didn't seem to have that kind of inhibition in its activities and that that was unfair and that we ought not to be permitted to proceed without formal Commission approval before the fact, or else the cable procedure ought to be changed. So, that was another longstanding controversy which went on for years.

TS: I've been curious about COMSAT's success in front of the FCC. It seems that at a number of points, decisions have been made by the Federal Communications Commission--critical ones--for instance, this notion about being a carrier's carrier, the allocation of business between cable and satellite, things of that sort, that have not worked to the business interest of COMSAT. Do you feel that the regulatory agency has a history of hostility toward a new technology or was it more a matter of COMSAT's, say....you can't really call it a public corporation on the one hand, and yet it seems to be dogged by this aura of being a public corporation; that it was kind of neither fish nor fowl before the Commission.

JC: Oh, I think the Commission was responding in a kind of a human way. Our only customers were the major carriers. Of course, the major carriers have great clout with the



Commission. I mean, there are many representatives, they have many connections with the Commission and its staff. Their basic objective was to limit the scope of COMSAT's activities. Here we were, a very small company--a handful of people--and I think the average staffer, Commission guy, you know, getting his ear full every day from any one of a half a dozen carriers, and then hearing a little plaintive voice from COMSAT, can't help but to a certain extent, be influenced by the imbalance of that input on him.

Roger Cochetti: Who handled the company's liason with the FCC back in those days? Was there one office or person?

JC: Well, we never really had a single focal point. The Legal Department, obviously, was the most active and, as far as contacts with key Commissioners and staff, that was simply left to officers of the company, the Corporate Vice President of the company and myself.

TS: You also had a private firm of attorneys on retainer, who represented the company before the FCC, as I recall.

JC: Yes, we had Cutler--Wilmer, Cutler, and Pickering--and, of course, they had all of the formal proceedings before the Commission. But, you know, being realistic about it, the

Commission doesn't necessarily make decisions based on the quality of the argumentation and the formal documentation submitted to it. A lot of the informal discussions and mind influencing that's done before the issue becomes a formal one, had got a lot to do with the way they ultimately think about the problem. There, we had the handicap that I've indicated; that the amount of contact that we would have would be miniscule compared to the kind of input that they would get from people who would have a vested interest in keeping our activities as confined as possible.

TS: To shift the focus back for a moment, but to stay with the relationship with the common carriers, what are some of your recollections--with the first Board of Directors, now--some of your recollections regarding the role played by the representatives of the carriers; men like Jim Dingman and Horace Moulton, and I think Ted Westfall was on the first Board as well, for ITT.

JC: Yes, I think we basically would have three AT&T Directors, two ITT, and then one independent. I think that the AT&T Directors were generally very sophisticated people who took a sort of an objective, constructive approach to the problem. I mean, they weren't about to make big presents to us, but on the other hand, they weren't going to go out of their way to be

difficult.

TS: Does that suggest conflict of interest? Some people have alleged that it simply wasn't possible for these people to be officers--executive officers--of a common carrier and at the same time, directors of a company potentially in competition.

JC: Well, I do remember one incident where one of the Directors--not an AT&T Director--basically said that: a) They didn't believe that COMSAT should ever have been created. It was an unnecessary creation; that, however, it had been created and his objective was to make sure that it played the narrowest possible role that it could possibly play.

RC: I'd say he was looking out for the interest of COMSAT as a Director of COMSAT....

JC: His interest was very clear; he was speaking for the stockholdings by that company in COMSAT and [he was] interested in what was in the best objective for that investor and the best objective of that investor, presumably, was to keep COMSAT small and limited in its scope of activities.

TS: So, what did he do on a critical vote, say the vote to enter into negotiations with NASA over the [inaudible]?

JC: Well, by in large, the carriers would not participate.

TS: Absent themselves from voting?

JC: They would absent themselves from voting on those kind of questions. That was the standard pattern. In many cases, where it was a particularly sensitive item, they would absent themselves from the room. They would actually leave the room when the item, came up. They simply would say, "We'll be happy to answer any questions that the other Directors might have, but we don't want to participate in discussion on this item and we will not vote on the item and we will leave for the discussion on the vote.

RC: So, unanimously, en bloc, they would--not just three of them--but all five [leave]?

JC: Or six, yes.

TS: It seems like a great deal of attention has been focused on the possible, let's call them negative aspects of having representatives of the common carriers on the Board. But, it strikes me, or it has struck me on occasion, that there must have been some real positive aspects, too. These were men of

considerable experience in telecommunications. What....can you recall some instances in which their presence really was extraordinarily helpful to the corporation?

JC: Well, I think I've already mentioned perhaps the most dramatic one, which is after we had made our original contact with the Europeans....

TS: Just so.

JC: ....and they had been very sceptical of whether this whole thing made any sense and so on. AT&T called a special meeting. They went over to Europe and they simply said, "Whether you guys like it or not, this is it. We're going to participate and you're either a part of it or you're not." That was fundamental. Had AT&T not done something like that, then the whole idea of convincing these people that they should join up, that they should become participants, that they should invest, that whole possibility would have been delayed for, I think, a long period of time. But, it was that active step by AT&T that, I think, made the whole concept move ahead much earlier than it could have ever moved ahead. It gave us credibility--instant credibility--which on our own we couldn't have had.

TS: Can we go beyond that? Perhaps something more mundane,

more daily and a little less dramatic? I'm not sure that we could top that as an anecdote if we wanted to.

RC: But, also that's not a Board member doing it. That's the....

JC: That actually was a Board member.

TS: Well, that was Dingman, that was Dingman as I understand it--as I recall.

RC: Oh was it? So, it was a Board member doing something.

JC: It was actually two Board members that did that. So, that is a very dramatic case. But, above and beyond that, I think that their knowledge of the foreign correspondents, not just the organizations, but people in the organizations; that that kind of information and intelligence was certainly of value, because we had had no contact with these foreign telecommunications administrations. Yet they [the carriers] dealt with them all the time. They knew the people. They knew the relative relationships with the people. They knew attitudes. That kind of information, of course, was very, very critical. When we would talk about potentially traffic growth to various countries in the world, they were in a position to know what was realistic

and what was not realistic. What were going to be the inhibiting factors? In many cases, it was budgetary. In other words, that in order to increase the number of circuits, you had to install new switching equipment. New switching equipment required money. They would say, "In this case, of this country, it's just not realistic. They don't have the money. They're not going to have the switching equipment. They're not going to buy the circuits, because they can't use them." So, that kind of information, I think, was very helpful in the planning. So, there are a lot of different ways in which that experience....also, I think we learned a great deal from them directly and indirectly of how to work with the FCC. After all, they were pros in how to work with the FCC. So, we could see how they operated and that,, in turn, was very educational.

TS: Were there ever any instances where you weren't kind of on the other side of the bench from them, in which they actually came around and said, "Look, you know, we would like to see this initiative pass the FCC and we think that these are some of the things that you might do, some of the people you might speak to." Did they ever....the immediate way I can see what your saying is kind of....you go up against the carriers and you watch them, you know, before the FCC--how they deal. But, were you ever on the same side of an issue so they could actually get in and participate with the planning of a legal brief that would

go....

JC: Well, I can recall many instances where ultimately we sort of worked together to find a solution, because I think, ultimately you get to the point where it was not worth simply taking your chances with what the FCC might erratically do. It was best to try to guide the thing. Both sides would compromise in the hope of finding a solution which would permit something to go ahead. So, when we were looking at an impasse for which there was no quick answer out of the Commission and both sides concluded that it was worthwhile to find a way to get the FCC to adopt some sort of an intermediate position, then we did work together and very successfully, obviously, in those cases. That was important, because you could have just gotten yourself at cross-purposes and have nothing happen. So....

RC: Was somebody at COMSAT the liaison with the carriers, or was that again, sort of something that was....

JC: Well, John Johnson was the key guy in dealing with our international partners and, of course, therefore incidentally, in working with the carriers who would be the correspondents on this end. So he, probably more than anyone else, was involved in those kinds of interfaces. Now, on sort of an operational basis, George Sampson, of course, worked very closely with the



carriers in making sure that all the technical and operational aspects worked well together.

TS: Would you say, on balance, that COMSAT's relationship--I want to say relationship, but more than that--the impact of the carriers on COMSAT, for good and for ill, let's say, has been positive or negative over time? Do you think it's made the company a better one? Has it held the company up? And how? There seems to be two sides to the issue, good and bad. What would you say the balance is?

JC: Well, I think it's hard to gauge, because I think it's time-dependent. In a sense, the experience in this business that the carriers brought at the beginning--their knowledge of the business, their knowledge of the foreign administrations--was extremely valuable. As time went on and we began more and more to be competitors, if you will, in going after new kinds of services and new customers, then, I think, it tended to become counter-productive. So, I would say at the outset, the background experience was certainly of value. Later on, it became, I think, dominated by other considerations which were not necessarily healthy to COMSAT. So, I think that the fact that certain carriers sold their shares at a certain point, was probably a good thing. I think it would have been much better if that had been on a somewhat more ordered basis than

simply selling out at a high price.

RC: Was it all at one time that they did this?

JC: No, ITT divested in several pieces, but at extremely high prices compared to what probably the real value was. I think that sort of did a bit of a disservice to the average shareholder, who really was not in a position to make the kind of assessment that they clearly were in a position to make. Now, AT&T did not divest, as you know, until much, much later, when basically the Commission simply told them that if they were going to authorize AT&T to have a role in satellites domestically, they couldn't maintain an ownership interest in COMSAT. As a result, of course, they then divested, but at a price substantially lower than the price at which some of the other carriers had divested. So, having that sort of an erratic process in there, I think was probably not too good. I think having the carriers in initially, but then a somewhat more orderly phased exit, would have been a better answer.

RC: Did you go through a period when you had just AT&T Directors and no ITT or anybody else?

JC: We had a period when we had an independent Director and we didn't have the ITT Directors.

RC: Right. The independent plus the AT&T.

JC: AT&T, yes.

TS: You mentioned just in passing, kind of initially the influence of the carriers on the company was very good and later it was less so....

JC: Plus the fact that the kind of people that AT&T assigned to be their Directors were first-class people. I mean, Dingman and Bodman--I mean Botkin--and Moulton. I mean, they were very high-gauged people and very responsible individuals, very knowledgeable, very sophisticated. I think that was....

TS: And Richard Huff was well thought of, too.

JC: Dick Huff, he came in later. Of course, he was also very high-class. He was involved in charge of all their international telecommunications. We were well served by the selections.

TS: Well, what I was thinking was beyond what we have already talked about, what were some of the problems that cropped up later that may have made the carriers less effective for COMSAT

than they were initially when their expertise and.....

JC: Well, basically, in a sense, we began to be more competitive. In other words, COMSAT was looking to areas of growth and the areas of growth was domestic. Now AT&T made it very clear that they did not consider our charter to automatically extend over to domestic and that they were going to be in the satellite business domestically and that therefore, we were clearly on some sort of a collision course there.

RC: They would say this? I mean openly that....

JC: Oh yes, that our charter did not extend to the domestic and that there we could very well be moving in contrary directions.

RC: [They're] sitting on your own Board and....

JC: Absolutely, absolutely. So, we knew that that was going to be a problem, and, of course, the big question was what should the policy of the United States be in regard to domestic satellite communications? It was interesting, because at the outset--at the very beginning of COMSAT--the statement was that satellites really don't make much sense domestically, because we've got a well developed network of terrestrial facilities; you really don't need satellites. But, pretty soon, the

argument began to change and the question of who's going to be....what kind of a role are various people going to play domestically became a burning issue. We proposed at one point that since the picture was somewhat unclear and the total capacity that would be needed would be unclear and so on, that there ought to be established a pilot system; that we would undertake to establish such a pilot system and to provide service to all the carriers on a non-discriminatory basis. On the basis of that pilot program, the powers that be would be in a position to determine what policy made the most sense for the United States. Should it be free and open competition --everybody putting up satellites; would it be that the economics justified only a single satellite system; maybe more than one, but not unlimited; and what should the ownership pattern be; how should they be operated? These questions could be addressed when you had some experience. So, we had suggested this kind of a pilot system. There had been a commission established under the chairmanship of Gene Rostow, by Lyndon Johnson, to study this question. They deliberated for a good many years and they basically came out sympathetic to the approach that we had suggested.

RC: What was Rostow's position then?

JC: He was at Yale University, I believe as a professor. Then,

they submitted the report to Lyndon Johnson, shortly after his defeat, or after he had withdrawn, let's say, from....

RC: April of Sixty....

JC: Well, no. Actually, I think....

TS: I think it was later than that.

JC: I think the report actually didn't go in until December of the year in which he left the Presidency. So, he wasn't obviously in a position to do anything about it. So, when the Nixon Administration came in, they weren't going to automatically accept the Rostow report. So, they set in motion a whole new study of their own. That thing went on for a number of years and finally ended up with a letter from the White House to the Federal Communications Commission advocating basically, an open skies policy.

TS: Yes, open skies. That was Clay. Was that the fellow?

JC: That was Clay Whitehead.

TS: Clay Whitehead, yes. That was the genius behind that.

RC: He was the White House person on that?

TS: Well, he was the head of the Office of technology....

JC: Of Telecommunications Policy, the OTP. So, there was a period there of, I guess, of six years, where the whole question of what the domestic policy was going to be, was up in the air. We were scrambling around for ways to get a foot in the door, establish something, and we still felt that the idea of a pilot system made good sense, because we were basically taking the position that if ultimately you wanted to decide to have an open skies, we had no preferential position by virtue of having been the operator of the pilot system. We were prepared to take the chance of just being another one of the boys. I suspect, in retrospect, that that would have been a good decision to have gone ahead with that, because we would have learned a lot about domestic satellites and requirements. I think we probably would have had today, a better domestic [system]--and much more logical and ordered domestic telecommunications satellite network than that appeared the other way.

RC: I guess the first domestic commercial satellite was about '72 or '73.

JC: Well, the first company that was authorized was Western

Union. Of course, we were in a difficult position, because it was argued, initially, that we shouldn't be allowed to have any role, by virtue of the fact that we were in the international business and had a unique charter there; that we would utilize our international charter to be an unfair competitor domestically. Therefore, we should be foreclosed from being in the domestic area.

RC: That was no doubt what Western Union would say.

JC: Everybody, everybody. So, we were always the odd man out in these kind of things, you see. So, figuring a way to get in was difficult and that's when we talked with AT&T about the potential possibility of the two of us getting together to provide an initial domestic satellite service. That we thought was attractive, because in the first instance, everybody was opposed to us having an entre on our own. Secondly, I think AT&T was very nervous about going in for a system of their own, because everybody would jump on their application and argue that this was going to produce a monopoly. So, they didn't want to be front and center on that one. So, we worked out this arrangement whereby we would undertake to put up a satellite system and lease it to them, which was the genesis, of course, of COMSTAR. Then, we went back to the Commission with two applications; that one and a second one that says, "Above and



beyond this, we want to put up a system of our own to provide a full spectrum of service to all interested parties." The Commission says, "You can't have both. You've got to chose which one of those two you wanted." Well, of course, one of them was a flyer and one was a sure generator of revenues. So, that was a relatively easy choice.

RC: Did that indicate that they would accept the other if we had opted for it, or that....

JC: Well, that was the implication. On the other hand, I suspect that had we said, "We'll choose option two," there would have been a pot full of people trying to put clamps on us on what we could do in option two. Whereas on the AT&T option, if they authorized that, that we could really move out on that. That was clearly of interest to the company and a sure producer of revenues--assuming we could put the satellite up and it would work satisfactorily. But, then we began to meditate on how we could still have another foot in the domestic door as compared to just the COMSTAR satellite. That, of course, brings us to the encounter with what, at that time, was a joint adventure of MCI and Lockheed. They had been among the most active opponents of COMSAT having any role at all in the domestic arena. But, they also weren't going anywhere, because the financial fortunes of both companies, at that time, was not very good. So,

although they had succeeded in keeping us out, it was a bit of a pyrrhic victory, because they didn't have anywhere to go.

RC: Their venture was in satellite communications?

JC: The MCI and Lockheed was to be a....

TS: It was a paper venture.

JC: ....it was supposed to be a very high capacity satellite, you know, doing everything for everybody kind of thing. [It would be] very expensive, however, because, you know, [it was] a very high capacity satellite, more capacity than anybody ever put up at that point. So, it was a very ambitious satellite, very expensive. Of course both companies never had the financial resources. So, it came to the point where we explored with them the possibility that we could have a role in a joint venture with them and that it would be a minority role and that we'd put some money into the enterprise as a result. That worked out successfully, to form the combination of COMSAT, Lockheed, and MCI. They then, actually went to the Commission and said, "We really didn't mean all those things we said before. It's okay to have COMSAT in provided they're in a minority position, you see," and so then they got the Commission to reverse the previous thing. It says, "Well, it's okay for

COMSAT to have a role here, but only as a minority party." So that was then the foundation for CML. So, we then proceeded to look at the plans for the satellite....

RC: What does CML stand for?

JC: COMSAT, MCI, and Lockheed.

RC: That's all?

JC: Yes.

RC: I doubt it [Laughter]. I thought there was something more....

JC: We began to look at their grandious plans and try to get the thing down to size, but even that still left a very substantial amount of money that was really needed in order to do something. So, at one point, we went to MCI and Lockheed and said, "Look, we have a nice friendly relationship here, but we're not going anywhere, because you guys don't have the money and we've scrubbed the satellite system costs and here it's still completely out of sight and what do we do now? Would you guys be interested in being bought out if we could find somebody to buy you out?" At that time, they expressed some interest in

having some cash, which they could use very much. We undertook the role of going to find a partner that would buy them out. That led us to the door of IBM. After many, many discussions, IBM agreed to buy them out. The deal was struck. Joe McConnell was an architect of this thing, running back between Bill McGowen and IBM. A deal was agreed. So, then we went to the Commission and asked for the substitution of MCI and Lockheed by IBM; an arrangement whereby IBM would be 55% and we'd be 45%. That's when the Commission....

RC: We were 33% of CML?

JC: That's right, but this would have us going up to 45. We went back to the Commission and the Commission said, "We didn't mean that kind of a deal. In other words, you can't have a deal where IBM is going to be a dominant owner. So, you guys have got to find yourself a third partner, with nobody having more than 49%." That set us off on a long chase, with a lot of different companies, trying to see whether somebody would like to join IBM and ourselves in a joint venture with a limit on ownership in both directions. I mean, you couldn't be below a certain percentage and you couldn't go beyond a certain percentage. I guess we must have talked to seriously, I guess, maybe a dozen different companies....

RC: Did you use an investment banker, or did you do it yourself?

JC: No, we went directly to a whole series of companies.

TS: Why Aetna, in the end? I've often wondered that they seemed an unlikely partner for a venture of this sort. Was it strictly financial, they had the income [inaudible]?

JC: Well, not so much that as in the framework in which this was going on, you had to find somebody without warts. In other words, a guy that had no connection with telecommunications, who had no interest in satellites. I mean, a real Mr. Clean.

RC: Why no connection with telecommunications?

JC: Because you would then get into another argument. If we went to the Commission, in this environment, with a guy who had a stake, then everybody else would go and argue against that.

RC: So, IBM and COMSAT and ITT....[inaudible]

JC: Oh yes, you'd know that would be a big, long proceeding....

RC: Yes, an oligopoly....

JC: ....and nothing would happen very quickly. So....and we did have some people who had an interest and specifically, we said, "Well, we're just afraid that if you were to be a part of this thing, that we're just going to get hung up at the Commission for who knows how long."

TS: Who from the telecommunications industry did express an interest in joining IBM and COMSAT? That's interesting.

JC: Well, we didn't go directly to a telecommunications guy, because that would have been a guaranteed....

TS: Yes, but they approached you is the....

JC: But, we talked with a lot of companies that had a interest in the business, but peripheral to the thing.

TS: I see.

JC: For example, the Ford Motor Company. Henry Ford came here personally. That was a terribly interesting meeting, because he came....he sat right where you are Roger and they basically said, "We want to invest in your deal with IBM...."

RC: The satellite makers, the carrier, and the equipment

people; all three together.

JC: Yes, and we had to say to Henry Ford, "We're not interested in your money." He's not accustomed to having people tell him no. But, there was an example where I think there would have been a very powerful combination.

RC: Did IBM have the same sensitivity, or were they more....

JC: They felt that that would not be a good arrangement. So, we didn't pursue that beyond that meeting. But, we dealt with a lot of other companies, who went into it in various levels of depth and where we tried to evaluate what kinds of complications they would bring to the picture. We got more and more to looking for Mr. Clean, who would have no axe to grind and nobody could conceivably have anything to say against him.

RC: On the theory that you could move quickly once you had found them?

JC: That's right. That was the whole idea. Of course, when we finally got to Aetna, they were also in a position to negotiate a fairly good deal. They got a very good deal in the sense that the amount of capital that they had to put up initially, was limited to 15%, but they had an option to come up to the full

one-third at the time that the system had been proven. Their negotiating position--which was a very good one--simply said, "Look, we don't know anything about communications; we don't know anything about satellites. We're kind of interested in this, but we can't afford to take the risk of things that we know nothing about. You guys know all about satellites and you know all about communications and so, you put that satellite system up there and it works and you provide service to customers and at that time, we'll have to exercise the decision as to whether we come up to the full one-third or stay a 15%." So, from their point of view, that was a very fine arrangement.

RC: I remember the head of IBM Public Relations told me one time, not even realizing what he was saying, "That we"--IBM--don't do joint ventures. We either do it or we don't." But obviously, they did. Why would they have gotten into a joint venture when it's just not part of their culture?

JC: Well, IBM is....wants to keep as far away from the regulated world as possible. It would have been totally been contrary to their philosophy to go into the Commission and ask for authority to put up a satellite system. This way....

RC: You mean, have all those regulations descend upon them?



JC: That's right. This way, they were at least partially removed through a subsidiary which owned a piece of....they, of course, were concerned that, I believe, that if they were going to be developing equipment which was going to be the right kind of equipment for the future, the interface with the communications network was going to have to be known. It was obvious that AT&T was moving in the direction of going into the computing business and that they were looking at AT&T as a potential competitor down the road.

RC: Even in those day?

JC: Even in those days. And you couldn't have a situation where you would have to depend upon your competitor for the interface details. He was building the same kind of equipment that you were building and he had the ability to set the interface standards. They were familiar with that problem in their own business, of course, where all the peripheral manufacturers continuously hound them about revealing the interface standards and not having an unfair competitive advantage, etc., etc. So, they at least needed to have an association with a communications system such that they would either know or be able to control what the interface standards would be against which they would be able to develop and design their own equipment. So, that was the real reason for their

interest in having some sort of an involvement, but ideally an involvement where they could have a big influence, but not where they would become a regulated body.

TS: Excuse me just a second. [Turns Tape Over]

RC: In the end, did the theory hold? Did it fly through the Commission?

JC: Well, the Commission had no trouble, then, with the Aetna--the one-third, one-third, one-third--because that fulfilled everything.

RC: So, it was right. So, the theory was right. You could move quickly.

JC: The theory was right.

TS: I've read somewhere that at the time this venture was being put together, IBM already had switching equipment that they were anxious to see applied in communications. In particular, switching equipment that could move very quickly between data, voice....

JC: That's right. They had been experimenting and they were

anxious to see this equipment actually utilized. The basis for what became the systems communications controller of SBS was equipment that had already been developed within IBM. So, when the joint venture really moved out to establish its plans for the kind of a system that it should have, the IBM approach to the systems communications controller was already there.

TS: Very interesting. I would like to shift gears a little bit. We started the session--this might be a good place to break it if we are going to break it--but, we started the session dealing with some of the big issues that the first elected Board dealt with. We talked about the NASA negotiations and that kind of led us into the relationships with the common carriers and that....as kind of carried out. I'd like to go back at this point and kind of pose the question that if you were the historian writing the highlights, you know, after that negotiation with NASA that led to INTELSAT II and helped, you know, brought in extra revenues and built the business. What would be the next high point that you would focus on that has really shaped COMSAT? Is it, in fact, DOMSAT? Because it strikes me there's a fair gulf of time....

JC: I think the whole approach to the domestic would have to be considered a highlight, because it was clear that the potential applications of satellites were going to be far more extensive

than simply international links. So, we had to decide whether we were going to try to move COMSAT in the direction of these other kinds of applications of satellite communication, or whether we were going to sit in the corner and simply say, "Okay, we're just an international carrier's carrier."

RC: Is maritime in that same category?

JC: Yes. So, we saw a number of applications. The domestic one was clearly the biggest. We saw aeronautical. We saw maritime. We saw broadcasting, as I mentioned, I think last time. We had held a meeting, either in '64 or '65 with the television companies, saying, "This is the ideal way to do television networking." So, we saw these other applications. But, it was also clear that we were going to have an awful lot of opposition to doing any of these things, because everyone was going to argue that, "You were set up for only one limited purpose and you ought to stay there and that if you went into anything else, as a minimum, you were in territory that you had no particular rights, but you also were potentially an unfair competitor. So, we better build a ring of steel around your basic business, so that somehow you don't use the advantages there to get unfair advantages elsewhere." On the other hand, if COMSAT was going to grow, it couldn't stay just as an international carrier and we had to line up those areas where we

thought where we wanted to move and how to get there. The biggest one, by far, was the domestic one and that's where we spent most of our energy. We talked a little earlier today about some of the attempts there and....

RC: What about the aeronautic one? You may be able to wrap that up a bit. I've always been fascinated that there was something back and never happened.

TS: I think it's a nice example of the ways in which an international joint venture can fall apart, in point of fact. I was going to ask the same question.

JC: Well, the aeronautical one is an interesting one, because that was potentially an area of cooperation between Canada, Europe, and the United States. Originally, it was being pursued by NASA. It was then argued that the technology had pretty much been developed. You didn't need to develop any new technology to begin to experiment with a satellite system for aeronautical applications; that it was mostly studying how the technology could be useful to the airlines and to air traffic control and not a question of new technology. Therefore, NASA was not the proper vehicle. So, exit NASA and enter FAA. FAA then moves in and starts talking about all of this stuff. Then, the conclusion is reached that if private industry is willing to

undertake responsibilities for this sort of thing, the taxpayer should not be required to put money in, so it should be private industry not the government. So, exit FAA.

RC: What Administration was this under?

JC: Nixon. So, the question is, "All right, which private entity?" Now there are lots of private entities in the United States and [they] all said, "Oh, yes. We're all very much interested in this. We want to be the vehicle," and no mechanism for deciding which of the private U.S. entities should be selected to be a partner with Canada and the Europeans. This was a real dilemma, because, you know, [in an era of] free competition how do you go about selecting? Well, the United States government could figure out no way to make a selection of which private U.S. entity should do it. So, they finally said to the Canadians and the Europeans, "You select." The guys were somewhat bewildered. They said, "Wait a minute. You are asking us to select the entity which will represent the United States. Are you serious?" And our government said, "Yes, were serious." So, the Europeans said, "We never had a situation like this."

RC: Who was doing this for the U.S. government. Was it the State Department at that point?

JC: The State Department. So, they said, "We don't know how to handle this one." But, finally they convinced them that they really meant it. So then, the ESA, which was the lead horse in the case of Europe, said, "Well, we've got to have an RFP." So, they generated an RFP and sent it to all interested U.S. private entities as to which one wanted to represent the United States, a decision to be made by ESA and the Canadians.

RC: Oh my God.

TS: Well, why? What was the government's reasoning in turning the business....

JC: It had no mechanism for selecting a private U.S. entity. It was free and open competition and they had no mechanism for selection. They didn't want to make that selection. They didn't want to say, "It's RCA or it's COMSAT or somebody else." They didn't know how to proceed, so they simply said to the Europeans, "You decide." So, the Europeans ran an RFP. We submitted a response and we got selected.

TS: I think we're going to have to break here for a minute.  
[Interview End]