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Mr. Jim Ball

3

Oral History

4

Kennedy Space Center

5

Held on June 19, 2002

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Interviewer: Dr. Patrick Moore

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Transcriptionist: Sharon Youngquist

1 Moore: Today is June 19, 2002. I'm Dr. Patrick Moore, University of West Florida and Kennedy
2 Space Center Summer Faculty Fellow and I am speaking today with Mr. Jim Ball who was the former
3 manager of the KSC Visitor Complex and through a variety of position changes, uh, currently the
4 Manager of the ISS Research Park.

5
6 Moore: How are you today?

7
8 Jim Ball: I'm very good.

9
10 Moore: Good. Do a little background with me. Tell me where you're originally from, where did
11 you grow up and what were the stages that led you up to starting here at Kennedy Space Center.

12
13 Jim Ball: Okay. I'm a six-generation Floridian so I grew up here in the state, of course, in Miami.
14 I'm from a pioneer family here in Brevard County where I spent a lot of time as a youngster in
15 Titusville where my grandmother lived and in Brevard and I was from the, my earliest memory, an
16 avid, an avid fan of space exploration and the space program. Of course, I was in elementary school
17 when the, when the program began with the, the Mercury astronauts and I got up early on those
18 mornings when they were launching up here at Cape Canaveral and watched on TV and on a couple
19 of cases was able to come up and be at my grandmother's house when they were launching and I
20 had formulated my interest in space exploration at that time and never lost it throughout all the
21 different things I considered doing as I grew up. Uh, I went to college with, at the University of South
22 Florida first and then finished at Florida International in Miami. Got a Bachelor of Science degree in
23 communications and that was really an orientation towards journalism, it was, it just happened to be

1 in the school of technology so they gave me a Bachelor of Science degree in communications. But I,
2 I graduated with a BS in Communications and Journalism focus and went to work for a daily
3 newspaper, the Orlando Sentinel. I actually had considered applying to NASA and naively wrote the
4 NASA Administrator and got a copy of the standard federal form for an application and about that
5 time was offered a job with the Orlando Sentinel so I put the NASA application aside and decided I
6 really did want to be a working journalist for a while but I oriented myself towards science reporting. I
7 was fortunate enough to be assigned to the Cocoa Bureau here in Brevard County and that was in
8 1975.

9

10 Moore: Was this by luck or did you kind of push for this?

11

12 Jim Ball: Uh, actually it was, it was luck, it was pure luck. The position that the paper was filling
13 happened to be in one of the outlying bureaus. Uh, and, and not on the metro staff and it was in
14 Cocoa, and the day I showed up I expressed interest in covering Kennedy Space Center and
15 activities with NASA and uh, I think my, my first, actually my first assignment was the Port Canaveral
16 Authority and some of the various city councils and police beat and that kind of stuff. But wherever I
17 could I did, I did begin to try to cover what was going on out here and pretty quickly developed a, not
18 only an interest that was recognized but, but some expertise in covering science, such acts and such.
19 So I, I went on to become the paper's science reporter and writer and I did cover NASA as a beat.
20 And uh, I remember distinctly writing a, a story about 1980, '79, '80 at the time the Space Shuttle was
21 still in its final throws of development and trying to get off the ground on its first launch and it was a
22 very drawn out process and I wrote a feature story for the Sunday paper saying the Space Shuttle

1 was characteristically American – It's overweight, behind schedule and running out of money and I
2 figured that seals my fate – I will never work for NASA after...

3

4 Moore: Did you think about that when you wrote this article?

5

6 Jim Ball: No, no, no. I was... No, and actually it was, I'm being a little facetious about that. The,
7 I had, I had a great relationship with Hugh Harris and Dick Young and the people over here at NASA
8 that were, were the Public Affairs Officers, and, and they took it very good naturedly.

9

10 Moore: (laughs)

11

12 Jim Ball: And in fact it was true. So, it wasn't actually very long after that that I got the
13 opportunity to come to work over at Kennedy Space Center as a contractor and I did that for a brief
14 period in Public Affairs support and went to...

15

16 Moore: Now did you leave your position at the Sentinel to come over at this time?

17

18 Jim Ball: Yes I did. I did. I actually left journalism. They, they had promoted me to City Desk
19 Editor and I hated it. I did not like not being a, a science or specialty reporter and I probably could
20 have gone back to that but I just reached that point after about five years of journalism where I, I
21 reached a point where I began to think about what I wanted to do in the future and I made that
22 decision and a lot of people do in that field that I don't want to continue to spend all my time looking

1 for necessarily what's wrong with things. I want to, I wanted to promote the space program. I wanted
2 to take a more proactive advocacy of, of the space program.

3

4 Moore: This position that you took, was it something that was advertised, did somebody come
5 to you and say, Jim you need to come work with us?

6

7 Jim Ball: No. Well I actually knew of another fellow who had left the Sentinel and come to work
8 for this support contractor out here and I became aware a position was available and in talking with
9 the Public Affairs people they were, they were very enthusiastic about my applying for the job so it
10 was a little bit of, of both. You know, as soon as I applied for it I got a lot of support and interest in me
11 being selected so...I was and I left the paper and, and went into that position. And did that for a
12 couple of years and then actually got laid off as being a junior member on the contractor team where
13 many of the people I worked with had been here since Apollo days and, you know, well earlier than
14 that and I was the, the new kid, sort of, on the block and lacking seniority in the way that the operation
15 worked over here. Uh, I got laid off but that was okay, being I did, I did a few various things for a
16 short period of time. Basically worked on my own as a consultant and I worked for, for a hospital.
17 And about, it probably wasn't very long, 6-8 months something like that, a, a position did come
18 available in NASA Civil Service and I talked with Hugh Harris over those months and he said, of
19 course, you'll have to compete for this and there could be many other good candidates and you'll be,
20 you'll be considered but you're gonna have to be selected on your merits and I applied for it and I was
21 selected.

22

23 Moore: What year was this?

1

2 Jim Ball: 1982. So I, I really joined NASA in, I think it was August of 1982.

3

4 Moore: And what was the position?

5

6 Jim Ball: I was a spokes person. I was a Public Affairs Specialist out at the Media Relations
7 Division. They call it Public Information Office at the time. And, uh, my job was to write press
8 releases and talk to the news media and, and generally do, do media relations. Uh, and I loved it. It
9 was, it was just a superb opportunity and doing, doing exactly what I wanted to do. Uh, branched me
10 into a lot of other aspects of, of journalism that and, and of, of communications that I hadn't
11 necessarily thought I would ever be any good at like broadcast, doing radio work, doing some TV
12 work, and I, I had been a print journalist and liked sitting down and writing and, and that was good.
13 So it was, it was skill expanding to be able to do that. And, I liked that work quite a bit. I did that, of
14 course, through all the really early years of the Space Shuttle. It was after first launch of course
15 which was April of 1981. I was out here for that first launch as a contractor and so I really been at
16 Kennedy with the exception of time I spent up at, at Headquarters in Washington throughout the
17 entire Space Shuttle program, from the beginning until today of course. Uh, about the time that we
18 got to the Challenger accident in 1986, uh, I, I had already even before Challenger begun to think that
19 it's really going to be important for NASA to partner more with the commercial sector, with industry,
20 that where, where my vision of where I saw the space program going was – we need to get more, we
21 need to demonstrate more value added to, to the American economy, to, to industry, to the business
22 sector. It seemed to me we had sort of two choices – that there was a waning, kind of a waning
23 amount of, of support in terms of the Apollo era blank checks – you know, go do great science and

1 technology and that we, we either were destined to be – space was sort of destined to be justified by
2 virtue of its importance to national security which one might call the dark side of the force. It's not
3 really the dark side. It's, at that time that's probably the way I thought of it. Um, a militarization of
4 space was not my thing back then or we needed to get more integrated with the, the economics of the
5 country, that space needed to be not only perceived but in reality a contributor to, to business, to
6 industry, to our, to our economy. And, I really believed that it was already and that it could be more
7 so through actively gaining more and broader industry and business interest and what space did for
8 them. So, this whole notion of, of an increasing commercial role in space was already, wasn't my
9 idea, but I jumped on it as I saw it even beginning to emerge. The Space Shuttle was offering
10 industry opportunities through something called Joint Endeavor Agreements. Some of the early
11 companies involved in that were 3M and non-traditional, you know, they wanted aerospace company
12 but they were interested in doing research on materials processing in space – McDonald Douglas
13 was working on a project called electrophoresis and these things were showing great promise and I
14 thought this, this is kind of where I'm gonna begin getting smarter and, and orient my interest.
15 Challenger occurred and that put a, a damper really on, on what had seemed to be fairly promising in
16 a couple of areas and clearly we went into a down time. It was two years, I think, just over two years
17 before we flew again. Not, not too long after that tragedy, and we were sort of in a – we certainly
18 were in a, a down time here at Kennedy. It gave you a lot of time to reflect on what you wanted to do,
19 what one wanted to do with their career. I made a decision that I should go to NASA Headquarters if,
20 if an opportunity presented itself and get more involved in this promotion of the idea of NASA, NASA's
21 greater involvement with industry and commercial activity.

22

1 Moore: Now where you were saying, waning support – are you meaning public support or
2 business support, a combination, political support.

3

4 Jim Ball: I think, I think it was, it was becoming increasingly clear that there was not, we felt there
5 was good public support but that there was not the, the political momentum that had, that had existed
6 before. Uh, or that it was at least something that we were gonna have to work harder at. It wasn't
7 just a given, you know. The space station program was I believe by that time had been embraced by
8 President Reagan so we did anticipate that we were going to have a new, a new significant program
9 opportunity but it was not a foregone conclusion that it, it was going to be easy to keep that program
10 sold and to keep it, and to get it developed, and so in my mind, you know industry and commercial
11 interest was going to be important. I just really believed that was true and an opportunity came up –
12 commercialization had begun to take root in some form at NASA Headquarters. Our administrator
13 just prior to Challenger, James Beggs, was very much committed to this, had created a, an office of
14 commercial programs and the way Public Affairs was structured at NASA Headquarters everyone of
15 the program offices, major program offices had a public affairs person assigned to it – to, to advise in
16 the media and advise in public affairs matters and really to be a resource. And they were, what we
17 call co-located PAOs - co-located Public Affairs Officers, very decentralized. It was really different
18 than they way we did it here at the center and I, and so these jobs were, they, they were career
19 growth opportunities. They were grade growth opportunities and they were opportunities to get
20 focused in a particular area, really sink your teeth in and, and promote and, and help that. And it
21 turned out there was, there was one, the guy who was doing the commercial job in a commercial
22 programs public affairs officer left NASA and went to another agency. A job was open and I applied

1 for it and in July of '87 I, I went up to Headquarters. I was selected and it was fourth of July weekend,
2 hottest weekend I think I have ever experienced.

3

4 Moore: And what, this was in 198...?

5

6 Jim Ball: '87.

7

8 Moore: '87.

9

10 Jim Ball: Yeah, so this was, this was a while after Challenger occurred in January of '86 so this
11 was about a year-and-a-half after the Challenger accident. Uh, I jumped into that job with both feet,
12 uh, wanting it. It was a new organization and I wanted to promote a better understanding in industry
13 about what NASA had to offer. Uh, I believed it passionately and, of course, that kind of resource, it
14 wasn't a big office so I was welcomed right away and given, you know, plenty of license to help. Uh,
15 Ike Gellam was that first Associate Administrator and I was up there about three or four months and
16 Ike left and a gentleman named Jim Rose was selected and Jim had been a McDonnell Douglas
17 program manager for this electrophoresis program so he knew, he knew commercial space activity.
18 We got along really well together. He, he wanted to fend off some of the other federal offices and
19 agencies that were trying to, trying to gain a role of promoting commercial space and industry
20 involvement in space, particularly the Department of Commerce. And really demonstrate that NASA
21 could do this, NASA wanted to do this, saw value in it and was being responsive to both congress
22 and the administration. Uh, however, within, within NASA, the NASA culture, space
23 commercialization was not a popular thing. It wasn't, it wasn't necessarily embraced, and so we were

1 sort of a, an inside group of rabble-rousers that were trying to move towards a, towards a new way of
2 doing things that wasn't necessarily met with a, with a lot of enthusiasm by, even by the Agency
3 Administrator by that time who was Jim Fletcher. So, nevertheless uh, NASA as an agency was kind
4 of in a hard spot because here had both the President, National Space Policy and the Congress
5 saying you, you guys need to do this, you know, this is our policy to, to move more towards, towards
6 commercialization, because I think that the government wanted to, wanted to begin to bring more
7 resources. I mean the, the political leadership wanted to, wanted to bring more value, or try to, try to
8 leverage the private sector's resources more into, into space so that the public sector wasn't going it
9 alone, which it had been for, for all those years. Um, so that was a great opportunity for me and, and
10 I enjoyed it. I got really in that role I got a lot more involved in marketing and in, in targeted outreach
11 and did very little with, very little with the news media in a, in a broad sense. I used the media the
12 way that, that a marketing person would use the media. You know, for example when we were
13 announcing something new, you know I used the business media. I did use the space media but it
14 was, it was more in terms of, of promoting this industry activity and outreach, which may not have
15 anything to do with what you really wanted to talk to me about.

16

17 Moore: No. But, but it connects to it, what, where you ultimately got you here.

18

19 Jim Ball: How I got here.

20

21 Moore: So...

22

1 Jim Ball: So I did that, and uh, that was great. That was really a great experience and I grew a
2 great deal in, in understanding business and understanding especially startups in a very risky, very
3 risky environment. Uh, I actually ended up leaving NASA for about almost two years in 1989 through
4 just the very first part of 1991. I went to work for SpaceHab which was a startup commercial space
5 firm. Their business was, they, they were building, using private money, a pressurized module to fly
6 in the Shuttle cargo bay. It had been an idea that was generated by a, by a fellow out in Oregon or
7 Seattle, I forget which, years earlier as a passenger carrying module and he actually had started
8 selling seats on this thing and NASA looked at it and said – you know, the Shuttle is really not safely
9 designed to carry a passenger compartment in the cargo bay but you could convert this to a payload
10 carrying module and if you did that we could probably work with you if you were able to get... and I
11 don't think they ever expected him to be successful but if he was they figured that this was something
12 they probably could use because the Shuttle was, was frequently...I mean there, there was no doubt
13 that the Shuttle could have use an expanded capacity or pressurized volume and the space lab which
14 was the only alternative augmentation if you will, pressurized volume was took three years to get a
15 payload together. It was a European built. So SpaceHab had a potential NASA requirement or need
16 but the government wasn't gonna go fund it so it was right down the line of this whole notion of getting
17 private sector resources, industry, commercial interest involved in providing a, a capability to. . . Jan
18 do you need me?

19

20 Background voice: Yeah.

21

22 Jim Ball: I was at Space Hab.

23

1 Moore: Space Hab.

2

3 Jim Ball: I was at SpaceHab. So I was so, sort of naively, well I, I don't think I was naive about it
4 but it was, I was so passionately convinced that this was a good idea of getting industry and a
5 commercial sector more involved in space I actually left the space agency to go be part of, of a
6 startup, of a startup commercial space venture. Um, at that time they had no contracts. They were
7 working, they, they had the beginnings of, of the module already under some construction. They
8 were working with the Italians that had built SpaceLab. McDonnell Douglas was a key contractor
9 involved in this. They had equity investment from foreign sources and some US sources and uh,
10 they, you know they offered me a job with a one-year contract and, you know, a salary increase and
11 the opportunity to go off and try to do something that hadn't been done before, so my job was the
12 Director of Marketing and so having no formal training in marketing but having matured in the office of
13 commercial programs and to become very busy, and they watched me, you know, that's why they
14 hired me 'cause they knew me through that interface and they felt – you know, this guy knows the
15 space market, he knows the market – the product, and he's good so, you know they didn't care that I
16 wasn't a marketing professional but I became one real fast. By definition I was hired as the Director
17 of Marketing. So, I set off to sell mid deck lockers offered by SpaceHab. Actually we leased them
18 and it was about a million-and-a-half dollars as I recall – was, was the price, our price, for...

19

20 Moore: Per locker?

21

22 Jim Ball: Per locker. Uh, so in going around the world and trying to sell these things, a locker
23 was about the size of a, of a desk drawer, you're lower file drawer on your desk, almost exactly. If it's

1 like this size, and 1.2 cubic feet, uh, you could, you could put 60 pounds in there, was the weight limit.
2 You got a prorata share of astronaut time which wasn't a lot and your prorata share of power in a
3 flight that would last maybe four to five days and you could put your experiment, you could fly your
4 sneakers if you wanted to but it would cost you a million-and-a-half dollars but I had the only keys.

5
6 Moore: Now was this for a single flight.

7
8 Jim Ball: This was a single flight.

9
10 Moore: A million-and-a-half for one flight to the...

11
12 Jim Ball: There-a-bouts. A million...that's what I remember the selling price was. And I had the
13 keys to the Shuttle. The only person in the world that had the keys to the Shuttle commercially,
14 because by that time you could not buy, uh, a Shuttle flight for a communications satellite. The policy
15 after Challenger was the Shuttle will only be used for those activities that require humans in the loop
16 – that the high value added of astronauts so if, if you've got a Hughes company satellite,
17 communications satellite that can fly in a Delta rocket the Shuttle is too precious a resource to risk
18 flying your Hughes garden variety satellite so go fly it on a Delta rocket. We won't take it. That was a
19 fundamental change in the way NASA handled Shuttle payloads.

20
21 Moore: Well, technically before that wasn't it even less expensive to begin with to go up on a
22 Delta rocket than it was to go up in the Shuttle or could you...

23

1 Jim Ball: Actually...

2

3 Moore: . . . get a portion to cut the cost down.

4

5 Jim Ball: Actually NASA just clobbered the expendable launch vehicle industry. At the time in the
6 early 80s when, when you could fly before Challenger, I mean I remember early on the price to fly a
7 Hughes Satellite on a Shuttle was seven to eight million dollars compared to a, it would cost you
8 eighteen to twenty in the low twenty millions to buy a Delta rocket – that couldn't compete.

9 Everybody, they all wanted to fly on the Shuttle.

10

11 Moore: Just cause they could do multiple at once. It defrayed the cost.

12

13 Jim Ball: There's a significant question as to what degree NASA essentially did not collect full
14 market value or not full market value but did, did not recover full cost. In other words, those flights
15 were essentially subsidized. Is what I believe to have been true. That the cost, that it cost NASA to
16 fly a Shuttle, they probably went through some accounting that came up with the pricing of seven to
17 eight million dollars but I don't think that, that you could only fly two or three payloads at that and so
18 clearly I don't think that a shuttle was being launched for twenty-four million dollars. You know it's
19 always been probably in the range of hundred million or better and today they say it's about half-a-
20 billion, you know, probably every shuttle launch depending on how you count the numbers. But at
21 any rate that's what it was then – so no it was not a, it wasn't a level playing field for one and two
22 they, they were really incentivized to fly on the Shuttle.

23

1 Moore: So at the SpaceHab you were able to kind of...

2

3 Jim Ball: SpaceHab had a, had a deal with NASA to fly its module for X number of millions of
4 dollars per flight and in turn NASA could be a customer but they weren't, SpaceHab wasn't
5 guaranteed a NASA business although they, they needed it. They needed a certain amount of NASA
6 business in order to be viable. That wasn't my task. My task was, 'cause there were other people at
7 SpaceHab that were working very hard the NASA contract, a piece of this. My task was to find other
8 users and market the capacity that was available to the Canadians, the Europeans, the Japanese,
9 domestic commercial users and that's what I did. And that was a great experience too.

10

11 Moore: Was it hard to find enough, did you ever have lockers that went empty?

12

13 Jim Ball: Well actually that was well in advance of the first flight. We, we were selling capacity –
14 ways like pre-leasing a building that hasn't even been built yet – and by the time, when I left we had
15 almost all of the first five flights, six flights filled up. You know I personally did sign contracts for 25,
16 30 over 30, 34, 35 mid deck lockers and you know the value, the value of that would have been about
17 fifty million dollars. Now whether, you know, I don't think SpaceHab ever saw all of that revenue but I
18 was ecstatic of that. The first locker I sold was to a Canadian, was to the Canadian Space Agency.
19 Very first, very first locker sold ever on the Shuttle through SpaceHab, well SpaceHab was the first
20 that ever had a right to sell or lease space on the Shuttle and sold it to another government agency,
21 Canadian Space Agency, one locker, I think it was only one, one locker and I was ecstatic. And all
22 you had to do to reserve one of these, and then, but then you had to make progress payments, was
23 pay, we had a schedule, it was twenty thousand dollars or forty thousand dollars, so I brought in...

1

2 Moore: twenty thousand down and...(laughs)

3

4 Jim Ball: Exactly.

5

6 Moore: Did you give them a great interest rate? (laughs)

7

8 Jim Ball: Hey, it was, they just had to make the progress payment starting, starting 18 months
9 before launch, 24, 24 percent or 30, you know four progress payments. On launch day you had to,
10 you had to have paid all of it. You know, it wasn't like pay us after launch. It was, you know, we want
11 all the money up front.

12

13 Moore: We're gonna open you're locker and empty it in the parking lots. (laughs)

14

15 Jim Ball: That was our, that was our deal with NASA. You know, so our, our contracts have
16 made it that much harder. Our contracts were reflecting, reflecting NASA's terms to us. We just
17 passed them on to our customer, customers. But it was a hard sell. It was a very hard sell.

18

19 Moore: But you left. They were full and you, and you left.

20

21 Jim Ball: They were close to full on those first five flights. They were coming along nicely on
22 those. And, what really happened, I had gotten, I had gotten remarried. I had gotten divorced and
23 then subsequently remarried in these years that I was up in Washington, these three or four years,

1 four years, and I really, what I discovered about myself is: a) I missed being part of NASA and
2 probably more so than that to be perfectly honest I missed Florida and I missed all my family was
3 down here. Daughters by my first marriage were living down here, my parents were here in Titusville.
4 Uh, I didn't want to live my life in commuter Washington. And that became more important to me for
5 personal reasons than were, you know I was, at, in my career although I had a great deal of promise
6 in commercial space and with SpaceHab I asked – can you put me down in Florida and I knew the
7 answer, you know I was Marketing, Director of Marketing, Corporate Headquarters was in
8 Washington, there was no way. They had, they had us, they had a Florida operation but they had
9 one person and the rest were McDonnell Douglas and they had already selected that person. So, I
10 said and, and you know I'm not sure now having lived this for, you know, almost two years that it's got
11 the kind of stability, long-term that I, I wanted anyway but the, the real decision maker was wanting to
12 come back to this state, coming back to Florida. So I began putting feelers out at coming back either
13 with SpaceHab with, actually, you know, talked to Florida Space Authority, the state agency, and, and
14 to anybody I could get a hold back here at Kennedy, you know, I want to come home so please you
15 know find me, find me something to come home. And they offered me this position as Business
16 Manager at the Visitor Center and said – well you've, you probably gained a lot more business
17 experience than a lot of us have down here and it was Public Affairs, it was Public Affairs's role to
18 manage the Visitor Center but it required a lot of business acumen and because if you didn't have it
19 the contractor would just eat you alive. And the person that had done that for many years was, was
20 going to be retiring and actually had announced their retirement, Arnold Richman, was retiring and
21 Arnold had a well respected reputation for being business savvy as well as being a good Public
22 Affairs person and his, his replacement probably wasn't as strong in the business elements and so I
23 was perceived as having, having, coming back really to, to NASA out of the private sector, uh, having

1 and worked in commercial programs office that I had developed a pretty good, a pretty good knack for
2 that stuff. I had been intimately involved in SpaceHab's financing as marketing director. The banks
3 that were loaning SpaceHab the money to build their module, the first term sheet they had said you
4 have to have 95 percent of your capacity under contract before you can draw down the loan which
5 was impossible. And, and ultimately we went, ended up with a different bank but still the market
6 forecast and the market, marketability and the demand for the product was essential to close the
7 deal, the bank deal and so I became intimately involved in that. And I was here for one week, I came,
8 I took the job.

9

10 Moore: So you took the job as the Manager, and who was the...

11

12 Jim Ball: I was the Business Manager and Ed, Ed Harrison was, was the Branch Chief.

13

14 Moore: He was the person who replaced Arnold Richmond.

15

16 Jim Ball: Yes. Yes. And Arnold used to like to go around and say, he'll watch this some day or
17 somebody – he used to go around and say they had to replace me with two people.

18

19 Moore: That's what Arnold liked to say?

20

21 Jim Ball: That's what Arnold liked to say. It took two, it took two people to replace me. It's just
22 that the skill mixes weren't exactly, they weren't a good, a good mesh on the skill mix. But the, the
23 job I got I started in February of '91 and we moved the family down, I moved the family down and we

1 started building on a lot up in Titusville, it was like my dream come true. It was on an undeveloped lot
2 next to my grandmother's house. My parents were living in the house and there is just my brother
3 and I so we made a deal then, you know, I'll take the undeveloped lot, you can have the house and
4 when the day comes and I'll build a home on, on this lot. So I said I'll build a home up there in
5 Titusville and just loved it and came back here and had thought that this is a great job to be involved
6 in the, in the Visitor Center. I was very enthusiastic about getting that opportunity.

7

8 Moore: So you had built a house prior to leaving...

9

10 Jim Ball: No.

11

12 Moore: So you came back and built a house.

13

14 Jim Ball: Yeah, I started it. Yeah.

15

16 Moore: And you say it in the past tense, do you still have the house?

17

18 Jim Ball: Oh yeah, yeah, still have the house. Still have the house. I've lived there, the, let's see.
19 So I got this, this job as Business Manager out at the Visitor Center and was there about, only a week
20 or two weeks and we had a meeting out in the conference room, on the Apollo Saturn Center project
21 which was Arnold's big dream, was to, working with some others, Larry Mock, was to come up with
22 this Apollo Saturn Center, this, this big project that would house the Saturn V rocket and in fact Arnold
23 to his great credit had, and with the help of Larry of course, had enabled the establishment of a

1 surcharge on the tour tickets and his surcharge was two dollars on every ticket, got plunked away in
2 a, in a fund and that started in 1991, I think, uh, or '90. It had started in 1990 just before I came on
3 board, literally only by a matter of a few months and there was a few, few hundred thousand dollars
4 had been put in that account. So we had this meeting and they all turned to me and said – well your
5 first assignment is to figure out how to finance this Apollo Saturn center. I said, okay. And they said,
6 it ought not to be too hard after SpaceHab, ok. So I set out to do that and...

7

8 Moore: The space, the cubit foot cost is a lot less. (laughs)

9

10 Jim Ball: That's right, that's right. That's where that paper takes over and gives you the one page
11 summary of the history of, I ended up exploring the possibilities with, it didn't take me long to zero in
12 on Florida Space Authority.

13

14 Moore: This was the paper, the cooperation between the State of Florida and NASA and KSC
15 and the financing construction operation on the Apollo Saturn Five Center...

16

17 Jim Ball: Right. Right. I said – you guys got the ability to go borrow money, I don't. I have a
18 revenue stream, you don't. What if I take my revenue stream and you borrow the money. And they
19 said – we think we can do that and we started talking and it ultimately it was supple. We pledged the
20 revenue stream, the two dollars a ticket plus some other backups and it was only a share of our
21 revenue out there, but it was very strong. It was generating about, as I recall, two million dollars,
22 three million dollars a year or something like that.

23

1 Moore: Well two dollars, at...

2

3 Jim Ball: Yeah, add two dollars _____ {talking simultaneously with Moore}

4

5 Moore: At a million-and-a-half visitors a year.

6

7 Jim Ball: It was generating about three million dollars a year. We had, we had a 30-year history,
8 operating history of visitation that showed a consistent two percent annual growth. It was a slam-
9 dunk. You know, from a business standpoint. The difficult thing were the governmental relationships,
10 it's on Federal land, with the Federal Government, working with the State Government, trying to find a
11 bank.

12

13 Moore: But it all worked.

14

15 Jim Ball: It worked really well and we did it. The, the day that we put the Shuttle on the ground I
16 had 12 million dollars in cash in the bank and borrowed 25 million from the bank and the project
17 opened four years later or three years later, or whatever it was. It's all, it's all in there. We started I
18 guess, we actually did the deal with Florida Space Authority in '94, I think we closed in '94 and didn't
19 actually begin construction until May of '95. We went through a re-competition of the concession
20 agreement. So as, as I was Business Manager, uh, I obviously was involved in a lot of other aspects
21 of the concession operation concession agreement. I got to know intimately, I studied it. I knew, I
22 knew its strong points, I knew its weak points. And I set out to fix the problems from a, from a
23 business standpoint that would make and really from a program, programmatic standpoint that would

1 allow NASA to get better value, get a better value out of its relationship with a concession operator
2 because the incumbent had found all the holes and they were taking full advantage of all the holes
3 and I set out to plug all the holes and I, I got involved then in, in the, it was coming up for
4 recompetition, the concession agreement in 1995...

5

6 Moore: And this was with, with TW Services.

7

8 Jim Ball: With TW Services. I did convince Don Hennessy and Company, of course they were
9 interested in, in recompeting and getting selected so they were fairly pliable on convincing them to,
10 uh, go along with this scheme on the Apollo Saturn Center because they, they weren't in a very
11 strong position to say, we're not, we're not gonna do that, so they... and, and I really think they
12 thought it was the right thing to do. I mean, they, they weren't, it wasn't hard to get them to go along
13 with it. And it allowed us to proceed with the recompetition because the financing for Apollo Saturn
14 was independent of the concession operation because what we promised the State was, it doesn't
15 matter who the concession operator is they will collect this money and they'll pay you. We'll just put
16 in the deal, we'll put it, we'll put it in the contract, concessionaire is responsible for collecting
17 surcharge revenues and writing a check to the bank, and we did that. So we...

18

19 Moore: In case I forget, did that ever end once the project was done? Did they take the 2
20 dollars off or they did they continue it for future projects?

21

22 Jim Ball: Let me tell you what I did.

23

1 Moore: And if you're gonna tell I just didn't want loose it, piece of the puzzle.

2

3 Jim Ball: Well, no, no. I wouldn't have probably if you'd hadn't asked. What I did was, as part of,
4 I got involved in the restructuring of the concession deal to put it out to industry for bid and I changed
5 the fixed two dollars to a percentage so that as ticket prices rose the amount of revenue generating
6 into the fund would rise and then it wouldn't be a diminishing value, dollar value and that present
7 value of the two dollars, you know, twenty years from now two dollars a ticket wouldn't be worth very
8 much but I change it to a percentage and now it's worth a huge amount.

9

10 Moore: Do you have any idea what the percentage is now?

11

12 Jim Ball: The projections I saw, well the percentage was worked out to be roughly equivalent to
13 the two dollars at the time and then it got changed. When we went to, just about the time I was
14 coming into this job, it went to an – the concessionaire convinced the powers that be that we, we
15 needed to have a full admission price so it got adjusted for that. But when I saw the amounts that
16 were, were projected to be generated, they were, they were substantial. I mean it wasn't the three
17 million anymore it was like seven or eight or nine, you know, annually.

18

19 Moore: So essentially, there's still...

20

21 Jim Ball: There is still...

22

1 Moore: When people buy their ticket there's, there's a big chunk that's going to future
2 development for projects.

3

4 Jim Ball: That's, that's right. That's right. But, in all of that the way we set up and structured the
5 deal with the State was that all of the proceeds of that surcharge would be applied against the
6 outstanding debt. So it's like paying extra money, you know, on your mortgage. You know, we not
7 only had a minimum payment we had to make but we by agreement said we're gonna pay everything
8 we collect that month against the debt not just the minimum and thereby our plan always was to
9 accelerate the payoff of the twenty-five million dollars and get it paid off in six, seven years, whatever,
10 and what I'm told is we're now less than a million dollars away from paying it off. We opened a, we
11 opened a facility in December of 1996, we began construction in May of '95, opened in December of
12 '96 and, and June of 2002 we're a million dollars away from paying off a twenty-five million dollar
13 loan. They'll roll back up five million dollars to get some buses after, it's like a revolving credit line.
14 We decided we needed some buses so we bumped it back up at one point. So it worked. It worked
15 really well. In fact it worked so well that some people aren't happy about it because the Florida
16 Space Authority was collecting 100,000 dollars as a payment every year annually as long as the debt
17 was outstanding so as soon as the debt is paid off they lose that 100,000 dollars a year revenue
18 stream. So. Um, I got involved in the recompetition and, and the, the deal on Apollo Saturn was still
19 being worked in parallel with this but it was pretty mature and it was gonna happen so.

20

21 Moore: Now what year was, what year did it go up for bid, for the. . . ?

22

1 Jim Ball: It went out in '94. I think we actually went out to industry in May of '94 or thereabouts.
2 We put out a solicitation. Um, I chaired the, I chaired the management committee and was one of
3 seven members of a, of a NASA source, what they call it an SEB, a Source Evaluation Board.
4 Actually Jan, who stuck her head in the door just now, was the chairman of that board and there were
5 three committees of which I chaired, chaired one of them. I did a lot of the, the writing on the
6 business aspects and, and the program requirements too. The statement of work that told the
7 concession operator what, what they were gonna have to do and structured the accounts,
8 improvement funds. Structured a pretty good deal if I do say so myself. And we put that out for
9 industry and we got three bids and far and way in the evaluation Delaware North had the, had the
10 superior proposal. They proposed, uh, investing an additional thirty-five million. They liked the Apollo
11 Saturn, they knew that was already a done deal. They were gonna have to, and they, they proposed
12 advancing, essentially advancing another thirty-five million against some of the requirements that we
13 had put in the deal for...'cause I put so much annually into different funds. And they said, well instead
14 of spreading that out over all these years why don't you, we'll, we'll put another thirty-five million on
15 top of what you've already done with the Apollo Saturn. We'll really improve the Visitor Center up
16 now, you know, and get this engine going. I liked that idea. So we, so we evaluated 'em.

17

18 Moore: Who were the other competitors and, what...?

19

20 Jim Ball: TW, TW Recreational Services, TW Services, the Incumbent and Bionetics that
21 happened to include as one of their members Arnold Richmond was on that team and we, we
22 evaluated those, all three.

23

1 Moore: What was TW Services, status quo kind of approach?

2

3 Jim Ball: I'm not sure I actually even in, even in a historical context I'm not, I'm not sure I can, I
4 can really say what the nature of the proposals were.

5

6 Moore: That's fine. I mean were there strengths, I mean not specifically but...

7

8 Jim Ball: There were strengths and weaknesses. The, there clearly was, there, there had been
9 concerns over some of the performance at TW as an incumbent and they were unable really to, to put
10 in a compelling and persuasive proposal that says, you know, they're a different company and, and,
11 and really just evaluating it on a business basis, the value, which was a very fair objective way of
12 looking at it, value back to the government on, on the merits of what they were proposing, this is what
13 we will do, this is what we expect to get out of it. Just Delaware North had it hands down. And they,
14 they had a very, they had a very high degree of, of vision that was articulated that we liked what we
15 saw in terms of their proposal for how they will change it. It's not uncommon on, so I would say from
16 the, from the Visitor Center side of the participation on the source board and you get, you get a lot of
17 resources on a source board that are from other organizations. Um, I was one of two, two people
18 assigned on there and it's not uncommon that somebody that's on the, that's on a source board ends
19 up then being in tap to be the contract manager because you know the contract, you know what, you
20 know what the intent of it was and in fact in my case I wrote most of it. I could cite page and
21 paragraph of, I knew what the requirements were so I, weren't going to get anything passed me and
22 as the management committee, uh, I'd interviewed all the project manager candidates and
23 essentially, you know, endorsed, or, or picked Rick Abramson, I could have rejected Rick. In fact

1 Delaware North on their first go at it gave us four names and we said that's really not the way this
2 works, you know, you are supposed to identify one key manager, and by the way, of the four that you
3 gave us, don't submit any of them again. So they went out and gave us another single name and it
4 was Rick and we interviewed Rick and I talked to a lot of people and he appeared to be and, and
5 turned out to be a very strong manager.

6

7 Moore: Tell me about Disney. Was there a point when Disney threw their hat into the ring at the
8 last minute and it went to Washington, or...?

9

10 Jim Ball: Yeah.

11

12 Moore: . . . something along these lines.

13

14 Jim Ball: There was a, um, there was a, we had a lot of fun with that. Putting mouse ears on the
15 NASA meatball and stuff, but, the, we did, you know, we, we actually had some. You know, could
16 you do, you're locked away in this Source Board _____ and everything secret. So you
17 know, white board, you put the NASA meatball with the ears on it, you just had kinda fun. Um, we,
18 we were made aware, or we had heard that there was, there was some expressions of interest being
19 made by Disney and in fact we also heard that they had gone to Washington with, I think, some
20 hopes of maybe being able to lock this thing up, and we just waited.

21

22 Moore: So you were on the outside waiting.

23

1 Jim Ball: We were on the inside looking out and getting some input as to what was going on out
2 there but by the time there was some involvement by them we were blacked out. I never had
3 discussions from anybody from Disney nor did they ever submit a proposal, they decided not to is
4 what I heard. So there was some consideration, to the best of knowledge, and I had no first-hand
5 knowledge of it but from what I understand they did, they did examine it, they considered it, they
6 looked at it, they apparently went to Washington and talked to them about it and then for reasons
7 which generally I was then told just that they didn't want to do business with the government the way
8 it looked like we were going to require it be done. They decided not to, not to submit a proposal.

9

10 Moore: Aside from putting ears on the meatball, what was your reaction? As you were coming
11 from a stance where you took this position and you recognized the educational value when
12 communicating this to the public, what was your reaction to the notion that Disney was going to come
13 in potentially and run this operation?

14

15 Jim Ball: Um, it was not viewed negatively because, I'll say that I was, I was. . . didn't know much
16 about the attractions industry when I came into the job as Business Manager and, and I learned a lot
17 from Larry Mauk and one of the things I, I quickly came to appreciate, and it was sort of intuitively
18 true, is that Disney had set the standard in Central Florida for visitor service and satisfaction and in
19 meeting or exceeding expectations, customer expectations and so the fact that Disney was about
20 making money versus making friends of the space program, they, they were, was non-relevant to the
21 quality and presentation and they were clearly the standard to meet or try to strive to meet as the, as
22 the industry benchmark.

23

1 Moore: So you recognize that even...

2

3 Jim Ball: Absolutely.

4

5 Moore: When you were developing the Saturn V Center?

6

7 Jim Ball: Absolutely. We knew, we knew that everybody, that the vast majority of our visitors
8 coming to Kennedy Space Center had already been to Disney. Our restrooms would be evaluated
9 against what they were, had experienced at Disney. Our landscaping would be, our people, our staff
10 and those are the, those are just the mundane day-to-day details. You get into the professional
11 aspects of storytelling and quality of exhibit and, and communication and impact and leaving a lasting
12 positive impression on somebody and that, they taught us how to do it. They taught us how to do it,
13 by example and if we weren't up to that standard we were never gonna be anything but a second-
14 class attraction and if we, you know, at our tour stops if people got in port-a-potties instead of nice
15 bathrooms that was gonna reflect on their whole experience and it did. That's, the visitor experience
16 in 1990 before Apollo Saturn was you went out to a launch pad viewing site and if you had to use the
17 restroom you used a port-a-potty. Now this was for an agency that had sent people to the moon, you
18 know, but the best foot forward we could put was a port-a-potty out at, out at the viewing site. There
19 is no question. We were pretty excited about Disney. Now we knew that it would be – WOW – they
20 probably had very definite ideas about how they'd like to do it here and they're probably are not going
21 to be real easy to manage, you know, if they are it because they are not used to being managed by
22 anybody other than their own internal processes and I think that's ultimately why, that's why they're

1 not here or why they didn't bid. But, nothing was scary about the quality or the ability that they would
2 capability they would have brought to the job.

3

4 Moore: Was Delaware North in their presentation cognizant of the fact that they were...

5

6 Jim Ball: No.

7

8 Moore: Not that Disney was a participant but the fact that they had to live up to the Disney
9 standard because of the proximity.

10

11 Jim Ball: Yes.

12

13 Moore: Was that part of their proposal? That Disney does such a good job.

14

15 Jim Ball: We wrote it in, we wrote it into the requirements without saying Disney, without saying
16 Disney, we wrote, we wrote into the solicitations for bids our expectations for quality and visitor
17 service and satisfaction and we would evaluate proposals based on their ability to, to have impact, for
18 exhibits to have impact for, for their ability to achieve high levels of visitor satisfaction, that sort of
19 thing. Uh, so we, we established, I think, standards and expressed our expectations in a way that,
20 you know, didn't come right out and say you got to be as good as Disney but – you know it's like an
21 arms race, you can't ever keep up with Disney, they got too much money, but if what you do you do
22 with excellence and you do with their same sort of orientation for pay attention to details, pay, pay
23 attention to the visitor experience, focus yourself on the customer and the quality of their day and the

1 quality of their experience. So Disney's success is that you can go over there and spend \$45 dollars a
2 piece for a family of six and just totally empty your wallet and at the end of the day you leave smiling
3 and you're happy and you were glad you did it and they've taken every last dollar you had in your
4 pocket. You know, in our case what we, what we strove for is when somebody left this place they
5 would go home and tell their friends over the backyard fence what a great program the space
6 program is and you know I learned things that I never knew about how valuable a contribution NASA
7 is making to our lives and to American and you know what I am gonna pay more attention to that and
8 I may even write my congressman about it – that's what we were after, not every dollar in their
9 pocket.

10

11 Moore: I want to continue asking about education. We need to switch the tape.

12

13 Jim Ball: Okay.

14

15 {tape change}

16

17 Jim Ball: I think I got you up to the point where we, we got the new concession operator on
18 board.

19

20 Moore: This is, just to introduce. This is tape two of the interview with Jim Ball, Patrick Moore,
21 University of West Florida, Kennedy Space Center, June 19, 2002.

22

1 Moore: Right. You got the new concessionaire on board, you awarded the contract to Delaware
2 North, go ahead.

3

4 Jim Ball: Uh, and we set about, we set about the activity of, of implementing what they had
5 proposed. And, I was just extremely excited about the opportunity to not only, that was in May of, of
6 1995, I was now the Program Manager, Public Visitor Program Manager for Kennedy Space Center
7 and the Branch Chief for the, for the Visitor Center branch, and uh, Larry Mauk was my full partner
8 and my deputy and I had tremendous respect and still do for, I hope you speak with Larry.

9

10 Moore: I have an appointment with him tomorrow.

11

12 Jim Ball: Larry will, will give you a different, well I don't think he'll tell you anything factually
13 different but Larry, Larry has a different manner about him. Larry is a tremendous resource and has
14 been in the planning of the public visitor program and certainly taught me a lot about, about the
15 attractions industry and about you know, what I think I would have learned on my own but certainly he
16 helped to get me there in terms of understanding the, the bench marking of Disney and the
17 expectations of our visitors. So, with the two of us and, and others on my staff, but particularly with,
18 with Larry and myself having served on the source board, having really been the architects of
19 coconspirators if you will and plugging all the problems that we had recognized that were, we, we did
20 a good job. We sewed it up and Delaware North came in, these guys got a good deal and of course
21 we went through sort of a, a honeymoon period with them and they sat out to do what they said they
22 were going to do and they started planning out, they made one. . . where does this end up going?
23 (laughs)

1

2 Moore: Into the archives ultimately. It's public record but it's, you know I don't imagine anybody
3 is gonna rush out and look at it tomorrow.

4

5 Jim Ball: They, they made one...

6

7 Moore: It's a learning experience. We want to learn from it.

8

9 Jim Ball: ...sort of, I would call it now a strategic error in that they, be careful not to be sued some
10 day, they um recruited as one of their co-subcontractors and, and actually for the part with exhibits
11 and storytelling, they recruited Edwin Schlosberg, ESI, and Edwin Schlosberg is married to Caroline
12 Kennedy so they, I think, and I sort of heard this a couple of times, felt like this Kennedy connection
13 would, would somehow be very beneficial to them or somehow be a plus or a feather in their cap in,
14 in their proposal to the Kennedy Space Center, you know, to have John F. Kennedy's son-in-law as
15 the, as the proposed storyteller, exhibit design and in fact Edwin Schlosberg, ESI, operates a, an
16 exhibit business. The funny thing is we didn't really even know for sure who Edwin Schlosberg was
17 or that there was any Kennedy connection before it was all over with.

18

19 Moore: And a lot of times, a lot Kennedys wandering around sitting on the board here. (laughs)

20

21 Jim Ball: No. No. It had, it had absolutely no bearing whatsoever. But, but, I'll say that a lot of
22 what he contributed to their proposal was very, very good and um we certainly responded to what
23 was, what, the ideas and the presentation and the nature of the experience that they were describing

1 very positively, and what we found when we got into it, in implementation was, let me just say it was
2 very challenging, and uh, so everybody around the board's expectations for what the scope and what
3 it would take, well our expectations were, there were some disconnects there. We are being a little
4 vague purposely. We ended up...

5

6 Moore: I won't pry either.

7

8 Jim Ball: ...all jointly coming to a conclusion that probably, you know, they should find a different
9 way to do this than through EIS, or through, yeah, ESI, and everybody kinda, they ended up leaving
10 the project at some point. We lost some time due to that. Um, I had to as a Project Manager I took a
11 fairly forceful position on that and actually kinda helped, in my view I helped Delaware North with that.
12 Uh, when they didn't initially recognize that they needed it but they later came to, I think, agree that
13 they did and I got my procurement people here at NASA all upset with me, that I was muddling
14 around and, and, really this was their problem, this was Delaware's North problem and they frankly
15 were afraid, a little bit afraid that there could be some unhappy side political consequences of this
16 relationship with ESI. But at the end of the day I think ESI and everybody was adult about it and
17 ended up deciding that they needed to do something else and Delaware North did do something else
18 – they ended up handling the problem and ended up recruiting other parties to help complete the
19 implementation of this vision that really was a very good vision. It didn't fail in the vision. It began to
20 fail in some of the detailed implementation costs, budgets were going through the roof, capacities
21 weren't adequate. There were, there were details that weren't being properly addressed and it was
22 clear the project was gonna be in huge trouble if we didn't, if we didn't. . .

23

1 Moore: So that was the problem.

2

3 Jim Ball: That was the nature of the problems. And um, we ended up however coming out of that
4 with essentially what Delaware North had proposed which was in addition to the Apollo Saturn center
5 two new tour stops. One of which was almost identical to what they proposed, the international space
6 station stop and the other one was one that Larry and I for some time had sort of had in the back of
7 our mind and in a sense the one they proposed was impractical. They wanted to take a firing room in
8 the launch control center and turn it into a tourist attraction. We said, well that's kind of a precious
9 resource. There's only four firing rooms and we don't think that NASA operations is really going to
10 want to give one of them up so but we have this other idea and this other idea is a launch tower out in
11 Complex 39. And they said okay we'll go for that and they were pliable. And so we did those two
12 tour stops and then came back actually to the main campus after that of the visitor complex and did a
13 pretty good makeover of that and um, a number of other projects. And the long and short of it is I
14 really got to play a lot and so did Larry and I'll say I, I personally influenced very heavily some of the
15 projects like this Quest for Life, the idea of doing a movie, doing a film about...

16

17 Moore: The Quest for Life's poster on the wall behind you with the astronaut...

18

19 Jim Ball: Right. Right, and if, well I won't take it down but I'll show you later what the inscription
20 on the back of it is. That's the only one of its kind, that particular poster. That was done by
21 Metavision and my thought on doing this film was to again do a story for the public that would be
22 compelling in terms of the search for life beyond earth. And we knew that had potential for being
23 sensitive to some individuals with very strong religious beliefs and we decided we're not gonna be

1 afraid of doing this. We won't you know, go into, we won't do anything we feel is gonna be offensive
2 to somebody's beliefs but the fact is that NASA and science is engaged in a search for life beyond
3 earth – whether it's in Mars or whether it's in the oceans of Europa or whether it's on planets going
4 around other stars and it's a great story and so we call it the Quest for Life. I sort of outlined it. We
5 went out to source. And the movie is done and it is showing all the time out at the Visitor Center.
6 The exploration of the new millennium. Some of the things that are mentioned in here.

7

8 Moore: This article – The Mars outreach at Kennedy Space Center Visitor Complex.

9

10 Jim Ball: Right. And then some that were discussed in the, I think, Apollo Saturn is even
11 mentioned in there. So, the sort of remarkable personal opportunity this gave me and Larry was to
12 really craft what we felt were the important outreach messages for NASA. We weren't told what
13 those were. We really were given a fairly free, or assumed a fairly free hand in determining those
14 stories.

15

16 Moore: Which brings me to the next question. What were you looking for? You're here, what
17 were you trying to tell your audience. You must have had...and it wasn't something coming directly
18 from NASA. How did you determine what it was of the NASA story you were gonna try and
19 communicate to visitors taking a precious day away from Disney to come see you.

20

21 Jim Ball: Well part of it certainly was to respond to their interest and try to understand what their
22 expectations were when they came, and we had some data on that. Larry had data dating back
23 before my involvement from surveys and from written comments that people had sent in. Well, you

1 know, we'd like to know what it's like to be weightless or we'd like to know what it's like to fly in space
2 and so we had some pretty good indications of areas of public interest. And so you take that but then
3 you, I'll speak for myself, you think in terms of where, where is NASA trying to go. Where is our,
4 where do we need public understanding and where are we trying to get the public enthused in
5 appreciating what the opportunities are. And there were, there were a couple areas that were sort of,
6 seemed intuitively clear. They were strong subject matter opportunities for us. Popular culture. I
7 mean it's clear that the public has, and broadly from little kids to adults have an interest in exploration
8 beyond earth orbit – the moon, Mars, Star Trek, just out – exploration out there, out in space, new
9 frontiers and Mars has always been a very popular culture sort of destination. A lot of movies have
10 been made about going to Mars over the years, a lot of books. Um, it's...

11

12 Moore: Like the _____ series.

13

14 Jim Ball: ...and I think I've either, if I didn't write in this paper I wrote it in others – it's because
15 Mars is something that so many people can relate to. When you see a picture of Mars you can
16 picture yourself there. It's not so with the moon or with Jupiter, because there's a sky, there's clouds
17 in the sky, there's a southwestern look, red clay, mountains. You can put yourself in that picture and
18 actually envision being there and walking around on the surface of Mars and so it's very earth-like.
19 And all that we have found out scientifically about Mars is that its very earth-like and there is that
20 tantalizing potential that Mars did or does harbor life and there's – when you talk to people about
21 space and what they're interest might be in space exploration that's very high on the list is the idea,
22 well you know, we might find that there's other life out there. That's an intriguing notion. So things
23 that kind of captivate the human imagination are good topics for storytelling because you've already

1 got a mind that wants, is hungry for this. You know, trying to jam down somebody's brain all the facts
2 and figures about propulsion and the power of a Saturn V, you know some people are gonna be
3 interested in the engineering detail but the thing that made the Apollo Saturn center a huge success
4 was the human drama that we tell out there not the technological drama. And for a lot of years when
5 I first came into NASA in Public Affairs it was clear that that Public Affairs was still dominated by a
6 gee-whiz mentality – that what you do with the press and you put out all this stuff about, you know,
7 how powerful rockets are, how fast they can drain a swimming pool, you know these turbo pumps,
8 and just a lot of fascination with technology itself and that was true back in Apollo that all this was
9 new for the first time and if you think back – you're younger than I, I can tell – but if you go back to
10 Mercury, Gemini and think if you look at historical clips about Walter Cronkite and the media reporting
11 they've got models of the spacecraft and they go into excruciating detail about, you know, when it -
12 hold the model up - when it separates from the rocket there will be five minutes and then the thing will
13 turn around and it's all this - gee-whiz stuff about technology. But now in retrospect the drama of
14 Apollo was that human beings landed on the moon and lived and had that experience and were the
15 first members of humanity to go to another body. It wasn't so important how they got there, that's part
16 of the story, the story is we got 'em there and why we went and what we gained as a society out of
17 their having gone and that's the story we tell at Apollo and the overcoming of tragedy and the
18 overcoming of challenges – it's a human story not a technical story. And so what we set out to do at
19 the Visitor Center across the board beginning with Apollo Saturn was to tell the human story in a way
20 that, you know along with the technical, but capture that human interest and, you know, why should a
21 person care about space exploration. You know, what are their interests and it's not what
22 instruments we used to search for life it's the fact that it may be out there, what nature might it take
23 and how might we find it or where are we looking and those kinds of things.

1

2 Moore: From a historical perspective going to the moon was a Cold War task.

3

4 Jim Ball: Absolutely.

5

6 Moore: Fundamentally, down to the core. Was that a component of how you put together that
7 facility?

8

9 Jim Ball: A component of the story in Apollo Saturn? Uh, yes. Because it was important to put
10 the Apollo program in its context and its context of why this nation made the decision to go to the
11 moon was born of why we even got into the space program initially and this is in the Apollo Saturn
12 pre-show, was sort of born of a fear of our rival, the Soviet Union, you know, if they could – one of the
13 powerful lines in the pre-show is, “If they could orbit a satellite over our heads – you know, could they
14 orbit a bomb over our heads.” And at the response of the American public to Sputnik and the Soviet
15 successes, early successes in space was one of fear and one of, My God, you know, what are we
16 gonna do. They’ve got the ability to put something right over our heads. And the political, you know,
17 decision to respond to that with a demonstration of our own capability and that we wouldn’t be second
18 to the Soviets, that we would make the national investment to uh, to uh, develop our technical
19 capabilities to be at least equal to and hopefully superior to theirs. Uh, yeah, we, we had, and I think
20 more in that case of the Apollo Saturn center we were very fortunate in selecting and hiring a, an
21 expert story teller, Bob Rogers, with a good track record of, came out of the Disney organization.
22 Bob Rogers is, you know, I think he was fired by Disney a couple of times, you know, and came back.
23 But Bob Rogers came out of the Disney storytelling school and he made. . . the Apollo Saturn project

1 could have been a project simply to put a roof over a corroding Apollo Saturn rocket and save it for
2 posterity and air condition that building and paint the rocket and restore it and accurately technically
3 describe its features and how it went into space. It could've been nothing more than that but that's
4 not what we wanted. We wanted to not only preserve the rocket we wanted to preserve the story, the
5 history so that young people that had no idea why this country decided to go to the moon would
6 spend an hour out at the Apollo Saturn center and leave there not only why we went to the moon but
7 why we would want to go, uh, why we did that particular program and what we got out of it and why
8 we should want to consider to go explore space at all you know, now that we've sort of solved this
9 Cold War problem. Uh, it was, it was just a fascinating experience and probably one of, you know,
10 certainly one of the high points in my career to do that particular project and work with with such pros
11 in the industry and I learned so much from that. I think I was able and obviously had some
12 background in communications and journalism and storytelling myself but learning those techniques
13 and those approaches in a project such as that just really got me going on thinking about other things
14 like The Quest For Life and Exploration of the New Millennium and taking that same kind of approach
15 to other subject matter not just the historical, why Apollo Saturn, why did we go to the moon but
16 looking ahead to as we came up on 2000 and the new millennium what are the opportunities of the
17 next thousand years and that was unfortunately, I, I mean I think that's a great exhibit you can go out
18 there and see it and judge for yourself. I'm obviously prejudiced about it and I think it was under-
19 funded. I mean I wish we would have spent more money on that. I wish we would've had more but
20 we ended up kinda running out of pocket cash. You know, I borrowed a lot of money. It was like, you
21 know, you can't keep up with Disney. You know, they spend more but we spent, some people have
22 said you know the Apollo Saturn project done out at Disney would have cost two or three times the
23 amount. They would have spent a lot more money on it for the same impact. We were more

1 efficient. Uh, but, you know I leveraged; I borrowed against a revenue stream to do that. That was a
2 38 million dollar project. Then we took Delaware North's 35 million dollars allocated that pretty quick,
3 wasted a little bit of it in a false start but then built the other two tour stops, the observation gantry,
4 and the space station stop to kind of tell the space station story. Came back and did what we could
5 at the main campus and we were beginning to get to where, uh, really, we only had 4 or 5 million
6 dollars a year available discretionary left to do projects so Exploration of the New Melenium I think we
7 put a million-and-a-half into that. This movie – Quest for Life was a million-and-a-half I think and
8 those are not big dollars for when you're talking Hollywood talent and the production of media like film
9 or audiovisual, interactives and that kind of stuff. It's an expensive business.

10

11 Moore: Two questions. The first, you keep referring to the main visitor complex area as the
12 main campus which is kind of an interesting term. Is that your term, do people refer to it...

13

14 Jim Ball: It's my term. It's my term and I ended up coming to use that because it is a staging
15 area. The way that the, going back in history a little bit, the way that the Visitor Center started was in
16 the 1960s there was a lot of public interest in coming out here and seeing what was going on and of
17 course Kennedy had decided and the administration, the Kennedy Administration that unlike one of
18 the stark contrasts between our space program and the Soviet space program is we were gonna do
19 ours in the full public view, that was democracy, and we were gonna televise our launches and if they
20 were failures everybody would see it on TV so by the way guys you better not have any failures. But
21 we would provide, we would tell everybody what we were doing, we would share all of our scientific
22 knowledge that we had gained and we would do everything in a full public sort of fashion. Well
23 having a public visitor program was completely consistent with that, it was almost required and at the

1 same time NASA needed a way to assure public safety and national security and safety, you know,
2 nobody knew who was gonna be getting on those buses – we still don't today – if you get my drift.

3

4 Moore: That's why we're not going into the ISS facility anymore.

5

6 Jim Ball: You got it. You got it. You got it.

7

8 Moore: As a result of the September 11th terrorist attack.

9

10 Jim Ball: Absolutely. So you know what was the compromise, what was the way. Well for a
11 while there were opportunities to drive their cars through and on and it was clear that the volume of
12 that was gonna get too big so NASA experimented with a bus tour, with their base operations
13 contractor who fortunately for them was TWA and they just added on a task order to TWA, base
14 operations contractor, to run some bus tours and that worked and it seemed like it was a very viable,
15 and they ended up then, we decide okay now we are gonna do this as a concession agreement and
16 we will grant the concessionaire the right to make some revenue, charge tickets, and, but a nominal
17 amount, you know we can't money on the tour.

18

19 Moore: A dollar-fifty.

20

21 Jim Ball: Right. But they can sell trinkets, you know that is kind of discretionary spending and
22 vending, you know, cokes and whatever, and then the government won't have to pay for this. That
23 was a great concept and it worked and it's worked and it still works today. Uh, they set up over on

1 US-1 on the Titusville side with the trailers, a very small facility and ran some tours and then the, and
2 by the way we can give you a historic chronology, we've got, Larry maintained that for a while and if
3 he doesn't have it to give to you tomorrow I do.

4

5 Moore: Actually they have the original proposals and everything.

6

7 Jim Ball: A time line. I actually went back and listened to Dr. Debus' when we were doing a 30th
8 anniversary of the Visitor Center I listened to his address out at the Visitor Center and what his vision
9 was for the Visitor Center and we did pretty good by Dr. Debus and what his ideas were, where we
10 would go and the value that he saw. That's a good tape to listen to.

11

12 Moore: Where is that tape?

13

14 Jim Ball: Um.

15

16 Moore: I don't believe, it may be in the archives but I haven't come across it.

17

18 Jim Ball: Yeah it is, and I don't know if I have a copy of it or not. Bill Johnson got it for me. Uh, I
19 took excerpts from it and quoted it in print but I'm not sure if it's still around. It's around because I
20 listened to it.

21

22 Moore: _____.

23

1

2 Jim Ball: I listened to it. I listened to it and it was very good. He's got a congressman with him
3 and he talks about the, he had an interesting way of phrasing some things. He called it the
4 confrontation between the human and the great and the technology and the great scale of things, you
5 know, and he's seen it many time where he would bring a congressman here to Kennedy Space
6 Center after they're actually here at the site they go away being enthusiastic supporters of the space
7 program when they might not have been before. But at any rate, uh, they demonstrated the whole
8 idea of staging a public place to park, buy a ticket, get on a bus, go on a tour safely, not be a threat to
9 anything but still to get to see lots, come back get in your car and go home happy. And, uh, and do
10 that in a way that didn't cost the government any money or not, at that time it still did but it was, there
11 was a declining amount of resource required and so they picked a site for the permanent Visitor
12 Center and it was the site where it's at right now and began construction out there I think in 1967 if I
13 remember correctly, you might want to check that. But, that grew from there as the place where it
14 started out as not much more than, actually, a couple of the original auditorium facilities and there
15 was a breeze-way – they're still there. They got a lot of stucco, I mean bondo on rust holes and
16 they've been covered up with landscaping but some of the original structures are still there and we
17 built from there kind of haphazardly. Larry Mauk brought a real degree of site planning and the notion
18 that we really ought to have some idea, a master plan for this site 'cause it was sort of being
19 haphazardly, somebody would get a good idea for a new exhibit there it would go and turn out five
20 years later it was absolutely the wrong place – you know, it should have been over here. So Larry
21 brought in a planning perspective and approach to the Visitor Center that is sorely needed and uh I
22 guess when I got there and we were talking about Apollo Saturn and the tour stops and improving the

1 tour and you came back to trying to talk about where something was I just, kind of in my own mind
2 and then so I used it in talking to people is the main campus 'cause that's where things start.

3

4 Moore: It's a good term.

5

6 Jim Ball: Whether it's an appropriate term...

7

8 Moore: I think, looking from an educational perspective and that's the point of the place I think it
9 is a very valuable term.

10

11 Moore: Tell me about your audience. When you think about the people who are walking in, who
12 are you targeting? Who are you trying to tell the story to?

13

14 Jim Ball: Well you'll get different answers to that but mine personally was and it evolved a little
15 bit. Uh, I think early on I was, I would say, broadly the family you know and thought in terms of we
16 need to provide an experience and tell a story to the adults and children.

17

18 Moore: Both mom and dad.

19

20 Jim Ball: Yeah.

21

22 Moore: People who had lived through the space program.

23

1 Jim Ball: Yeah. Yeah. Well we knew...

2

3 Moore: Boomers, Xer's.

4

5 Jim Ball: Well, we knew what our audience was because we had the demographics on it. We
6 knew that it was probably 40% foreign, heavily British in that foreign component but it was not, we
7 had a very large international audience. European, British, Canadian, Brazilian, Japanese. We knew
8 the large groups so we knew that it was not just the U.S. taxpayer, but we knew in terms of, from a
9 programmatic impact and wanting to, wanting to have a lasting impact, the, the international audience
10 was important because they have space programs in their countries too that participate with us but
11 clearly we were wanting to get, we were wanting to speak to the U.S. taxpayer.

12

13 Moore: So the U.S. taxpayer was at the top of the list but then the 40% international were
14 subsequent. Are you telling them an international story or are you telling them an American story
15 from international view? I don't mean to ask a loaded question.

16

17 Jim Ball: I think we were just trying to tell the story in its most interesting and exciting aspects
18 with some sensitivity to . . . like for example, and we didn't refrain from in the Apollo Saturn center
19 talking about the fact there was a lot of tension between the United States and Russia although by
20 the time that that attraction came on-line there was a U.S. / Russian partnership on the International
21 Space Station. In the International Space Station exhibit we really underscore the international
22 nature and the cooperation that was required in order for Space Station to be successful. We had the
23 Canadian astronaut Mark Garneau talking about Canada's contribution of the station in a little video

1 area. So, but I, I, I would say that we were from a program content standpoint, our focus was the
2 U.S. taxpayer and making sure we were telling a story that imparted an understanding and an
3 appreciation for what the U.S. investment in space had gained the country. And we knew that the
4 international audience was keenly interested in space and that's one of the things that is, uh, you
5 know, so positive around the world among many negative things that are associated with America.
6 You know, there's clearly been a great deal of enthusiasm world wide about NASA's successes and
7 going to the moon and in fact in the Apollo Saturn center in the pre-show for the final show there are
8 images that show audiences around the world from different cultures watching a TV in France or in
9 Japan or in... You know, this was a global, the whole world, I mean that was the notion, the whole
10 world was glued and united for that one small amount of time and are these guys gonna land safely
11 on the moon and survive, come back to be able to tell us about it. But we made no effort to tell the
12 European space story or the Japanese space story or the... you know, unless there was a very direct
13 tie-in to the U.S. space story. So, I wouldn't say we ignored the foreign component from a content
14 standpoint because we really believed why they were here were, was to, like the reason why I would
15 go to, to, the Hague in France, you know, or that's in Holland...

16

17 Moore: Netherlands.

18

19 Jim Ball: I'm sorry it's in the Netherlands.

20

21 Moore: I know what you're thinking.

22

1 Jim Ball: I'm thinking of the Louvre and different attractions in another country would be to get
2 their culture. Well, people are coming to Kennedy Space Center, they are not here because Japan
3 has a space program, there may be interest in that. They're interested because America had a space
4 program. America landed men on the moon.

5

6 Moore: Well then perhaps, is, in some respects, the people who come here come for America's
7 perspective, that they have an ownership in this program.

8

9 Jim Ball: Absolutely.

10

11 Moore: They have ownership in NASA.

12

13 Jim Ball: Absolutely.

14

15 Moore: Do you equally perceive that while it was not foreigner's taxpayers that went in there's
16 an international ownership in the quest for space, something that's bigger than us.

17

18 Jim Ball: Absolutely. Absolutely.

19

20 Moore: And I just gave you the answer that you were supposed to say yourself.

21

22 Jim Ball: Okay. (Laughs) You know I think there was a, I, I think it wasn't just words that the first
23 crew on the moon, and I think it was probably Neil Armstrong - "We came in peace for all mankind."

1 We came in peace not for America, they planted the American flag, but we came in peace for all
2 mankind, and that, that's a global message that this was for all people everywhere not just for citizens
3 of the United States even though we footed the bill for it. Um, I, I, certainly in my, my time out there
4 was from, from '91 but I mean as the person that fully had their hands on the controls instead of
5 partially, 1995 to 2000 – I had five years – and as I had a very strong passion going in, my goal was, I
6 felt that the Public Visitor Program's mission was to have a lasting positive impact, was to have
7 impact on our visitors such that they would leave this experience more enthusiastic about space,
8 more, uh, more aware, more likely to be supportive. As some time went on I began to recognize that
9 we had not done a good enough job with the young people, that our audience especially those that
10 weren't old enough to read exhibit copy on their own, you know, and we hadn't done that. We weren't
11 family friendly enough. We hadn't, we hadn't done enough to make sure that we were interesting and
12 being interesting to and addressing the full audience, and in fact I commissioned and told Delaware
13 North to commission a family friendly study. You know, went, went to themed entertainment
14 conferences and I became aware of, {phone rings} I don't need to answer that. That you know it
15 wasn't just us, you know, that there, there, this was not an uncommon thing in theme parks or other
16 places. Disney of course covered the whole family, always...and I should've recognized that just from
17 them, you know, 'cause they got Fantasy Land for little kids and then things for the adults as well.
18 But, it was clear that, you know on the younger, we, and we, it became important to me that we do
19 more that was oriented towards the family and towards young people and I probably, that came a little
20 bit late but not too late and I think I embodied a lot of that in the Exploration of the New Millennium,
21 and when Metavision that did that, first, for example when they recommended or suggested that one
22 of the exhibits in there be an astronaut and they in some sort of like pioneering, you know on Mars or
23 something, a molded astronaut or some astronaut figure in there, I said let's make it astronaut family.

1 Let's make it a man and a woman and let's really capture the imagination a little, let's put a little child
2 like 6 or 7 or 8 year – young, somebody obviously you don't know how old they are, a kid. And then
3 somebody wanted to put a dog in there and I said no to the dog because I felt, yeah, that, you know a
4 lot of people would be amused by that and it would be, they would get it, but I didn't want to turn it into
5 a joke so, you know this is the kind of influence I exerted over the outcome there and for better or
6 worse, whether it was good or bad, I was in a position to be able to do it and I did it and I'm glad I had
7 the opportunity for that five years to do it. I said no that was, that would cheapen the effect I'm trying
8 to have. I'm trying to do this so that people will look at this family and when they leave, and that
9 moms and dads and kids, they might talk about that in a serious fashion, not, you know, gee did you
10 see that little dog with the space helmet on. That would have gotten away from the point. The point
11 was – the day will come when space travel and space exploration is a matter, is a family matter not
12 just professional astronauts. And my wife I will give her the credit for having seen Blues Clues on
13 Blues Clues, Steve did a segment about the plants and this is a program for 3 and 4-year-olds, so we
14 approached Nickelodeon and Blues Clues and asked them for a license to show that segment and
15 that's in Exploration for the New Millennium, in the New Millennium because my kids watch Blues
16 Clues. That's a great way, so, so, while some of the parents are maybe looking at other exhibits in
17 there the kids can enjoy watching Blues Clues. We put in a lot of elements like touching a piece of
18 Mars. I told Delaware North to go out and find, coming out of these experiences with the Mars
19 society and the wanting to promote the idea of Mars exploration. When it became scientifically known
20 that some of the meteorites that have landed on earth came from Mars and they are identifiable which
21 ones and they are identifiable because of gasses caught in the meteorites, I said, go buy a piece. It's
22 available. It's on a commercial meteorite market, you can buy documented pieces from some of
23 these 13 meteorites, get a piece, cut it, put it in plexiglass lexon, let people touch a piece of Mars. Let

1 'em touch it. It's still out at Apollo Saturn one of the most, and one of the really popular things is the
2 moon, you know, some of the moon rock that the astronauts brought back, we have a touch stone out
3 there. You know, you can sit out there and watch, not everybody goes but a lot of people go over it
4 and invariably when they see you can reach in and touch it they reach in and touch it because they
5 have touched a piece of the moon, and out at the Exploration of the New Millennium they have
6 touched a piece of Mars. And so I think, you know, I hope that continues out there and I don't know
7 since I left two years ago, really I've left pretty totally and have had no involvement with it so I don't, I
8 don't where they've continued down the road but we needed to broaden the message to excite and
9 attract very young people and not have the young kids being bored while they were there because
10 their parents are adult. Their dads remembered space when they were kids and we didn't want the
11 women, the women were important to NASA, getting women more interested in space and we
12 realized that, we had some data in fact that suggested that, you know, when we did get families
13 visiting there were, it was a fair amount of time when it may have been the male member of the group
14 say I want to go to Kennedy Space Center, you know I've always like space, I want to see this stuff, I
15 like the rockets, okay honey we'll go. You know and the teenage kids, Oh, my God, you know, do we
16 have to or...but when you get out on the tour and you get around and you watch people they are
17 having a good time by and large I don't see too much boredom, and when we sat in the movie
18 theaters and I always enjoyed listening to what was going on around me. At Apollo Saturn the impact
19 was very, very strong but I do think we needed to broaden, I think in the rocket garden exhibit was
20 heading there too to have more things for very young kids so that we made it more of a family, and I
21 wrote about that in this Space Congress paper that I didn't get my hands on before you walked in.
22 But it was the idea we were trying to appeal, appeal to families and stimulate inter-generational. Part,
23 part of the rationale for that became one that somebody told me and I believed it to be true that young

1 people have had an enormous influence on the environmental movement by what they have learned
2 in school and embraced as save our planet and come home and share it with their parents that may
3 have never had that same level of appreciation and involvement in the environment but to hear their
4 kids saying, you know mom and daddy why don't we recycle, you know, I learned, we really outta be,
5 you know, don't throw that away. And then when you hear that coming from your offspring – and I do
6 want the world to be a better place for them. It's different than if you hear it on a public service
7 announcement or you read it on...so if we can get, if the youngsters are enthused about exploration in
8 the new millennium, going out into space, about the idea that there could be a mom, a dad and a little
9 kid going out in space and they, they can convey that enthusiasm to their parents and I've seen it
10 many times in many different ways. Expressed just like that, you know, I had no real interest in the
11 space program before little Roger here was interested in, and you know I've gone to things with him
12 or her and I've learned more and that makes the parents enthusiastic supporters so we're missing the
13 boat if we ignore the kids. So that's my long-winded...

14

15 Moore: No that's, this has been fabulous.

16

17 Jim Ball: The question about who's your audience. It's a lot of different audiences out there.

18

19 Moore: I hope I can, you can track down your Space Congress paper.

20

21 Jim Ball: Yeah I'm sure I can.

22

23 Moore: I appreciate this. I know I've taken almost two hours of your time there.

1

2 Jim Ball: Yeah that's alright.

3

4 Moore: If possible, one I would like to be able to come back and ask some more questions if
5 necessary and second I was wondering if with camera we might be able to go over the Saturn V
6 Center and do a walk-a-round and you can kind of talk about it and maybe if you like we can bring
7 Larry as well.

8

9 Jim Ball: Sure.

10

11 Moore: We can get you kind of interplay in a very real setting.

12

13 Jim Ball: Sure.

14

15 Moore: This has been great. I appreciate every minute you've given me.

16

17 Jim Ball: Sure. My, it's, it's fun to talk about. You can tell that it's a special place in my career, in
18 my life. I'm so proud of what we did out there and I'm having fun now. I mean, the park, the research
19 park is, is sometimes I think in terms of the Apollo Saturn Center and things I did besides the Mars
20 things I was preserving history and telling history and maybe with the Research Park I'm making
21 history to some extent.

22

23 Moore: I think so.

1

2 Jim Ball: We'll see.