

Mr. Walt Covington

Oral History

Kennedy Space Center

Interviewed August 16, 2004

Interviewer:

Unknown

Transcriptionist: Mandi Falconer
All Points Logistics

1 [Chatter at beginning]
2 Unknown: Please state for the record your full name, birth date, and where you were
3 born.
4
5 Covington: My name is Walter O. Covington. Birth date is February 28, 1944, and I was
6 born in Richmond, Virginia.
7
8 Unknown: And where did you grow up?
9
10 Covington: I grew up in Richmond until I left high school. I was the middle child of 3.
11 My older brother is a civil engineer and my sister is a math teacher, elementary math.
12 The only interests I had were in music and photography and when I left Richmond it was
13 to go to get a formal education in photographic science, which was a little unique as far
14 as a science goes. The only school that provided that was up in Rochester, New York
15 where Eastman Colack is, but this school, Rochester Institute of Technology had a
16 photographic science bachelor's degree offered. So, that's where I went to college.
17
18 Unknown: So, you stayed in Richmond then until you went up....
19
20 Covington: Yes. I was in Richmond until I left from high school.
21

22 Unknown: Ok. And you talked a little bit about your educational background and how
23 you determined your major, but do you want to elaborate any more on that? I think
24 you've got...

25

26 Covington: Yes. Well, I was pretty much focused on photography because that was a
27 spin off from my interest in photography as a hobby. And so, I went to the only school
28 that offered the photography as a Bachelor's Degree in Rochester and I originally started
29 out there taking illustration photography and after the first year the science side of
30 photography seemed so interesting that I switched majors and went for full graphic
31 science.

32

33 Unknown: Did you pursue any other educational degrees?

34

35 Covington: Later on, once I started working here at Kennedy Space Center, about, I
36 would, say midway through my career, I realized that the conventional photography that I
37 had been trained in was phasing out and heading more towards electronics, towards photo
38 imaging and also the disciplines that I was working were heading more towards the photo
39 imaging toward electronic imaging and I figured that I needed to expand my capabilities
40 and then I took a second degree, Computer Information Systems about midway through
41 my career.

42

43 Unknown: Ok. Did you ever envision that you were going to get involved in aerospace
44 work after you graduated?

45

46 Covington: That was the farthest from my mind and the way that I eventually did get into
47 that, initially after I graduated from college I worked in photo management and then got
48 caught up in the Vietnam War and was in the Air Force for a little over 4 years. I was
49 able to use my training unlike most people. Usually when you go into the military they
50 ask you what your specialty is and then they put you in something else, but I was able to
51 stay in photography and I was initially involved in photographic training for officers in
52 the Air Force. And then I was assigned to a forward reconnaissance squadron and
53 managed the precision photo processing operations. After I left the military in 4 ½ years,
54 I was looking for work in Denver, Colorado, and this was a bad time to find work. The
55 government was reducing their contracts and I had hoped to get a job with Eastman
56 Colack there in Windsor, Colorado. It didn't work out so I came back to the east coast,
57 worked for the naval ordnance lab for a year and then one of my resumes was reviewed at
58 Johnson Space Center in the photographic area and they knew that Technicolor had the
59 contract at that time. They also had the contract for photography at Kennedy Space
60 Center. They passed the resume on to Kennedy Space Center and I was interviewed for a
61 position in the Earth Resources planning, and subsequently accepted the job and came
62 down to Florida and worked with that group for 4 years in remote sensing. And when
63 NASA-KSC abandoned that operation, fortunately I was able to transition into a NASA
64 position as a micrographic manager. Again my background in photography and
65 photographic science included micrographics. So, that's how I began to work for NASA,
66 but I had been here about 4 ½ years working in the headquarters building for Technicolor
67 prior to my work with NASA.

68

69 Unknown: You mentioned your military career, so anything else you would like to add
70 about your military service?

71

72 Covington: Well, I found that the military way of doing things was very interesting and
73 it's a good training ground for federal service. You become very disciplined and focused
74 in your work. And some people think that there is a lot of red tape in government
75 operations and possibly in the civil service operation, but there's even more in the
76 military. So, I was well-prepared with my military experience in knowing how things
77 worked in government and the fact that Kennedy Space Center has always been very
78 close in their operations with the Air Force. Additionally, I thought I had a leg up in the
79 work I was doing here.

80

81 Unknown: So, you worked closely with the Air Force as part of your work with
82 Technicolor?

83

84 Covington: Well, when I was with Technicolor, that was an Air Force contract, so we did
85 have involvement with the Air Force; however, my Earth Resources responsibilities were
86 dedicated the NASA portion of that contract. Later on, I had more involvement with the
87 Air Force here locally.

88

89 Unknown: We talked a little bit about how you ended up at KSC and how you got here.
90 What were your initial impressions of the work here at KSC and of NASA?

91

92 Covington: Well, I was very impressed with what was going on here because Kennedy
93 Space Center was on cutting edge technology, was doing things that no other
94 organization was doing and there was, I noticed that there was a lot of pride on the part of
95 the government and the contractor workers in what they were doing. And it was
96 significantly different from any other job that I'd been involved with. There was just a
97 lot of enthusiasm.

98

99 Unknown: Kind of walk through your stages of your career. I know some of this we've
100 touched on, but kind of step us through your career and tell us a little bit about each stage.

101

102 Covington: Alright. I have some notes here so I make sure that I put this in chronological
103 order. I began my NASA career in October 1976 at Kennedy Space Center and that
104 continued through until January 2004. So, it's about 27 years here. I managed the Earth
105 Resources precision photographic lab as a Technicolor employee for 4 years when I first
106 came to Kennedy Space Center. And at that point NASA closed out that program and I
107 became a NASA employee. I began as a micrographics manager. I was actually a
108 documentation specialist and during my early years I spearheaded modernization of the
109 drawing restoration and micrographics programs. This permitted a cost-effective and
110 efficient way to support drawings that were reproduced. And during that time, that was
111 the main thing that was happening. There was so much construction going on in '76 with
112 the transition into the Shuttle Program that virtually everything was being done in a
113 parallel mode. The Shuttle Landing Facility was being constructed, the modifications

114 were going on at the launch complexes, Orbital Processing Facilities were being
115 constructed, and then later the Space Station production facility. And all of those relate
116 to heavy engineering design, engineering activity, and there were a lot of drawings that
117 needed to be restored to work from, to make modifications, as well as to duplicate
118 facilities, or to take similar facilities and then work from those drawings to initiate new
119 facilities. During that period, I would say, that one of the significant things that I did was
120 working with high speed microfilming. The folks in the Launch Control Center, in the
121 firing room, had to have so much access to data prior to and during the launch and we
122 were in a period where the computers were, there were no personal computers back in
123 those early years. In order to provide the data right at the fingertips of those folks in the
124 operations area, what we did is we miniaturized all of the documentation that pertained to
125 each launch, and each launch took about 200,000 pages worth of documentation. So, we
126 looked for efficient ways to take that documentation, to miniaturize it, and make it
127 available. And much of my time was spent working in that area. The next phase of my
128 career was as Chief of the Repro Graphics section and my responsibilities expanded from
129 working in microfilming to also working in the printing and graphic services areas.
130 There was massive demand for launch documentation. KSC had the largest on-site
131 printing plant within the agency. And in the peak operation I was around-the-clock 3
132 shift operation to put out all of the documentation. The key documents were the
133 operations and maintenance documentation and the launch readiness reviews. This was a
134 very timely requirement. There was no way that you could send this work out off-site
135 because the turn around time wouldn't allow it and also the expertise that you needed in
136 working the same type of requirements to integrate these products demanded that you had

137 the same personnel doing that job for each launch. The third phase of my career was as
138 Chief of the civil services branch and I continued to be responsible for the previous
139 services, and the additionally I took on responsibility of the records management program
140 in my branch, management of KSC issuances or policy directives for the Center, the KSC
141 library and archives and mail services. The significant thing here was there was
142 emphasis on enhancing the Center life-cycle management of technical records. As the
143 Apollo era phased out, unfortunately a lot of technical records that the contractors had in
144 their hands went with them. And it became very embarrassing that later on, as NASA
145 was moving more into the Shuttle Program, developing the Shuttle Program, there was
146 some things that they didn't have records on. They had to request those records from the
147 contractors who worked on the Apollo Program. In some cases they were able to get the
148 information they needed. In other cases, they had difficulty getting that information. So,
149 there was a significant emphasis in restructuring the records management program to
150 make sure that all of the government supported documentation, whether it was generated
151 by contractors or the government, was retained as the property of the government and had
152 a formal life-cycle in terms of how long it stayed on the center and it did not leave the
153 center when the contractor left. It would be retired and put into the archives. The fourth
154 phase of my career involved working with the joint performance management office as a
155 contract management lead. And I was lead over 2 particular areas. One was the
156 computer operations and the other was information services, or administrative services
157 area. During this period I participated in the Center's Y2K transition efforts, which was
158 quite involved and we were so concerned that when the year 2000 came here there would
159 be a big blip and we would lose a lot of data. It was just an unknown as to what would

160 happen with the computer date. So, it may have seen like overkill, but it took a lot of
161 time to make sure that we knew what was going to happen and we had back up
162 capabilities during that time. That was just one of the things that I was involved with
163 with the joint performance management office. I also was involved with interfacing
164 between NASA and the Air Force on computer operations that the contractor was
165 involved in supporting. This was the networking for the joint-based operations and
166 support contract. Because the Air Force has a different set of regulations than NASA, it
167 was very difficult to come to an agreement on how you run a network within another
168 organization's network infrastructure, so that took a fair amount of time to work with.
169 The last portion of my career was as Chief of the Logistics and Services Branch and I
170 was responsible for managing KSC's base supply, transportation, administrative services,
171 and propellants programs. I coordinated the local implementation of fuel conservation as
172 part of the government's policy and I also worked to expand the Center propellants
173 acquisition and life support staffing. We found that in reducing staff over the years one
174 of the areas that had been cut too short was in propellants acquisition. And NASA was
175 concerned with losing the corporate memory of the very key elements that go into
176 making sure that you have the propellants that you need for your launches. So, we were
177 successful in turning that around and increasing the staffing to where it should be.
178
179 Unknown: So, you were involved in a lot of very significant efforts to support the Center.
180
181 Covington: Yes. They were all base support functions, but as they say, you wouldn't get
182 the Shuttle launched if it wasn't for the support facilities and infrastructure.

183

184 Unknown: That's so true. That's so true. Did you have chance to spend time at another
185 center or NASA Headquarters?

186

187 Covington: I did not have any long term assignments at other facilities. I took a number
188 of trips to coordinate on programs, primarily at NASA Headquarters and to some other
189 centers. Especially when I was supporting procurement activities for the joint based
190 operations support contract and preparing for that I did go to Johnson Spaceflight Center
191 to look at how they had been working performance based contracts.

192

193 Unknown: Did you have a chance during the times you were traveling or spending some
194 time, like at JSC, to kind of contrast your time, you know, what you saw there with what
195 you saw at KSC?

196

197 Covington: I wouldn't be the best person to give input on how the center's are alike or
198 how they differ, except that one thing I noticed is that because Kennedy Space Center is
199 right at the heart of where Shuttle's are launched, I felt more of a feeling of awareness of
200 how everything came together at KSC, and when I went to other centers it seemed to be a
201 little more remote. You were looking at longer lead times so there was a slightly different
202 way of looking at operations that didn't bring everything as closely together as things
203 happen at KSC.

204

205 Unknown: Interesting. In you view, what do you thing your greatest contribution was?

206

207 Covington: Well, I'll have to go back to my early years, and I was mentioning to you
208 earlier that I thought that in you interviewing retirees that you probably would find that
209 you will see that most folks will indicate that there are 2 different phases to the Shuttle
210 Program, to the Space Program. One is the Apollo Program where there were so many
211 firsts, initial starts on thing, and then the Shuttle Program kind of piggy-backed on the
212 knowledge that was gained through the Apollo Program. In my career, I thought that the
213 things that I did closer to the Apollo era, and in preparing for the Shuttle era were more
214 significant to assisting the operation and in my later years there were a lot of things that
215 went on that were important to the continuity of the programs, but I don't think that they
216 were quite as significant. And the things that I would point to in my early years would be
217 the working with the microfilming operation and the drawing restoration to prepare the
218 immense amounts of documentation that were required in the planning and construction
219 of all of the facilities and maintaining those facilities, also the documentation that was
220 required as part of the countdown sequence for every launch. The contributions that my
221 organization and that I made for those things I thought helped to keep our budget in
222 place, within budget we found ways that we could do more with less, save money, work
223 with the existing budget, but meet their expanding requirements of the program. And we
224 also made sure that we could do that within acceptable risks since the documentation
225 wasn't an immediate operational entity we had a little bit of flexibility there, there was
226 less risk involved.

227

228 Unknown: What key moments, events, or memorable experiences took place during your
229 tenure at KSC that really impressed you?

230

231 Covington: Well, I have noted 2 things here. One is the entire unfolding of the Shuttle
232 Program. I was fortunate to be here during that entire period from construction of the
233 Shuttle Landing Facility to Launch Pad modifications, Orbital Processing Facility
234 construction and Space Station Processing Facility construction. And then the second
235 element was that I witnessed the pride and the enthusiasm that the government and
236 contract employees exhibited throughout this entire period. You have to remember that
237 in the early stages we had less of a concern about funding. There was long term goal to
238 get things accomplished and we were able to do things and plan things very well. In the
239 latter years we had so much to work with in terms of reduced funding availability and
240 there were a number of different priorities that had to be worked. But I feel that those
241 two elements were the key moments.

242

243 Unknown: So, that first Shuttle flight was especially sweet for you after all the work.

244

245 Covington: Yes. It was just a lot of history that went into that when you saw that first
246 Shuttle take off, you knew what it took to get there.

247

248 Unknown: Who were the key people that you worked with and, perhaps, you feel should
249 be interviewed as part of this oral history project?

250

251 Covington: Well, there was one particular person that I have known over the years that
252 has been here longer than I have. He's been here ever since the, well, prior to Kennedy
253 Space Center, he began his work here over in Cape Canaveral supporting launches. And
254 he's currently the KSC Printing Manager for the Center. As far as base support functions
255 go, I think he would have some very beneficial knowledge of how operations went during
256 the early years, especially prior to the completion of Kennedy Space Center.

257

258 Unknown: That's Ted Drake?

259

260 Covington: That is James Ted Courson.

261

262 Unknown: Oh, Ted Courson. I'm sorry, that's right.

263

264 Covington: C-O-U-R-S-O-N

265

266 Unknown: Is there anybody else you'd note?

267

268 Covington: No. I think that'd be the primary person.

269

270 Unknown: Can you describe ways KSC has changed since you began work here? And
271 this can be anything from physical changes, such as buildings and roads, to
272 organizational, cultural or programmatic changes.

273

274 Covington: I have some comments about the infrastructure, the buildings and roads, as
275 well as the organizations cultural and programmatic, so I've broken those down into each
276 of those areas. In terms of the buildings and grounds, in the early years there was
277 attention to, a lot of attention to the infrastructure and that changed from the early years
278 from how we maintained an immaculate to how, because we were fully funded, to
279 significantly deteriorated during the budget cutting period. And I must say that
280 fortunately in the past 5 years, I think we've have turned the curve on some of those
281 problems and we're heading in the right direction. But that is an ongoing concern that
282 you always need to look at your infrastructure to make sure that somehow you keep that
283 maintained. In the early organizations, as far as changes go, organizational change has
284 been continuous but gradual over the entire period that I have been here with one
285 exception and that was round the year 2000. Other than that time there was 1 or 2
286 organizations that would make some changes each year, but during the period of around
287 2000 just about the entire Center changed, reorganized at one time. And this massive
288 reorganization took longer than usual time for the workforce to readjust. I would hope
289 that we don't have to go through many of those massive reorganizations in the future in
290 the Space Program. The benefits, of course, of not having so much change at one time is
291 that you have improved communications across the Center if there is some stability there.
292 Now, culturally I feel that the Center workforce has always taken pride in their mission.
293 They've exhibited a can-do attitude. But again, the added constraints that we've seen in
294 the latter part of my career has promoted management actions that conflict with optimum
295 safety and facility hardware maintenance. I would emphasize that there needs to be a
296 promotion of the best cultural traits from our senior managers an government officials.

297 There is only so much that at the working level that you can accomplish when you have
298 mixed messages here of do certain things, but by the way, you've got to do it with these
299 constraints and in some cases there may be a conflict. Senior management needs to be
300 sensitive to that possibility. Then on the programmatic side, notice that KSC has changed
301 from an agency that has intimate involvement with all aspects of their contracts to
302 operations, to one that has significantly reduced interfaces. And this trade off has
303 accommodated dwindling government funds and staffing. The approach was worked
304 better in areas that have minimal risk. I would say a number of the areas in base support
305 could possibly do better in looking at cutting funds; however, there is a point of no return
306 when you begin to dip into the infrastructure where the facilities are not maintained. So,
307 you need to keep a compromise here. On the operations side, the Shuttle operations or
308 the launch operations side, you don't have as much that you can play with. It's a very
309 high risk area and programmatically, I think, in the latter part of my career as we've seen
310 in a number of instances, this has been the most difficult thing to deal with: to look at the
311 safety issues, to try to balance out safety with funding and with goals that are in the
312 program. I'm glad to see that our President, President Bush, has come out with some key
313 elements that he wants to pursue and, hopefully, we'll get congressional backing in terms
314 of funding to accomplish these things in the future.

315

316 Unknown: Any best practices or lessons learned that you feel were particularly important
317 while you were at KSC?

318

319 Covington: Yes. From my own personal work I have boiled this down to 3 elements that
320 I thought were quite important, but actually very simple: keep the lines of
321 communications open, listen to others before you take your final action be open to
322 feedback, and seek ways to do the job better and in a more cost-effective manner if it
323 down not increase the risk. Those are the 3 that I would say I felt are the best practices
324 that I've come across.

325

326 Unknown: Any lessons learned out of your experiences?

327

328 Covington: I would say relating to these elements, I have seen how there might be a
329 tendency to go in one direction and not coordinate across all directorates. And you can't
330 possibly do the best with you resources if you don't know everything that is going on in
331 each directorate. There are some situations where you can consolidate your requirements
332 and get a little more for the money you are putting in, but I think that's one of the lessons
333 learned. We've had some stove pipe operations in the past that have been more
334 expensive than working together, working in a matrix environment.

335

336 Unknown: Are there any special insights or experiences that you would like to share
337 about the US Space Program as a whole?

338

339 Covington: I feel that the U.S. Space Program reflects the broader culture of the US in
340 terms of the desire to take on new challenges and to excel. So, I think the attitude that the
341 average worker has in the Space Program is that type of reflection of the USA.

342

343 Unknown: If you were to look ahead 50 years from now, what do you think we will see
344 in terms of spaceflight?

345

346 Covington: I think we'll see a dynamic presence in space. We'll have more involvement
347 with space based processing activities, mining of resources and also further exploration.
348 I think there are some pluses in the future. There's still a lot of significant value out
349 there.

350

351 Unknown: Ok. Do you have any final comments about anything we covered?

352

353 Covington: Simply that I've been very glad to be a part of the Space Program. I wouldn't
354 trade it for anything. I think it's been a great 27 years down here.

355

356 Unknown: To think that you started out in photographic sciences and look where you
357 came.

358

359 Covington: Yeah. There's been a lot of change.

360

361 Unknown: Well, thank you very much, Walter.

362

363 Covington: Your welcome.

364

365 [Chatter about tape and length of interview]

366

367 Unknown2: Well, I was wondering could you talk about the changes that we went
368 through to go to performance based contracts? What kind of contracts did we have
369 before then? Were they award fees?

370

371 Covington: Well...

372

373 Unknwon2: Is that worth talking about?

374

375 Covington: Actually, I would say non-performance based versus performance based,
376 outcome oriented versus level of effort.

377

378 Unknown2: Ok. I think that's what we're talking about because we went through that
379 change.

380

381 Unknown: Yeah, that was a big change.

382

383 Unknown2: Right. And the other thing is what do you think about NASA having to be
384 the insight instead of oversight.

385

386 Covington: You want to get into some political things, don't you?

387

388 Unknown2: I mean, from an institutional perspective. You not in the [hard to hear this
389 speaker is not on a mic 473]

390

391 Unknown: Yeah, and I think that's important.

392

393 Unknown2: ... that kind of thing...

394

395 Unknown: That's a good point.

396

397 Unknown2: It's just a couple ideas.

398

399 Covington: Ok. You want to pose some questions to me or just in general, like what do
400 you think?

401

402 Unknown: Ok

403

404 Unknown2: You've already got this one.

405

406 Unknown: Ok. Very good.

407

408 Covington: Something to do with contracting, the types of contracting, and...

409

410 Unknown2: Yeah. We're in a position we can just go ahead.

411

412 Unknown: Ok. Could you talk a little bit about the changes as we moved from the
413 contracts prior to performance based contracts to the performance based contracts that we
414 see now, strictly from the institutional perspective?

415

416 Covington: Ok. I'm trying to put some thoughts together here. I've been involved in the
417 base operations contracts in all of the integrated contracts since their inception. And it's
418 interesting that in the early years, you had level of effort contracts. NASA's always
419 wanted to keep the necessary control, to keep their finger on the pulse of operations and
420 they've felt it has been very important to have the government interface working very
421 close with the contractors. They realized that the government can't do all of this work.
422 The contract structure needs to take place to get all of the work done that's required in the
423 space launch business, but they've always put emphasis on writing contracts that were a
424 little open-ended. There was a level of effort, there was so many dollars were being
425 thrown to this effort, there would be a general scoping of the topics of what's required,
426 but not in the infinite detail of the limits of how much is to be done and shortly very little
427 fixed price contracting. There was move a number of years back, and the joint based
428 operations support contract was one of the earlier, beginning major contracts for
429 performance based at Kennedy Space Center. We received a lot of guidance from the
430 DoD, procurements, factions of how to proceed with performance based contracting.
431 Kennedy Space Center folks did a lot of review before going into the performance based
432 contracting. We visited other facilities, other centers within the agency, as well as
433 outside of the agency, to see how performance based was working and we found that

434 there were slightly different definitions of performance based. Pure performance based
435 was supposed to be fixed price contracting and we looked at all elements that we could at
436 that time and before we proceeded with the joint based operations support contract... It's
437 very interesting, the difference in the approach is when you write a performance based
438 contract you're supposed to be outcome oriented, outcome and quantified, something that
439 you can identify objectively and not subjectively. In producing a contract like that, I
440 think we came up with some good desirable outcomes and the intent was to allow the
441 freedom of the bidders to indicate how they would approach that in a cost-effective
442 manner, but I think the reality of the situation was that when bidders respond to a
443 contract, it appears that no bidder is going offer anything more than they have to because
444 they are looking at profit. They're not going to give you their best ideas if you don't ask
445 for them to compete for that contract. They're only going to give you what is required
446 and we find that it's difficult to effectively compete a performance based contract that
447 gives you major savings. You have to look for some ways to drive those savings other
448 than simply a statement of an outcome that's desired and we've seen that expenses have
449 been a lot higher than what was anticipated of hoped for in going to performance based
450 and you end up having to modify those contracts. Now, there are many areas where fixed
451 price might be your answer, certainly the closer you get to the actual launch portion of
452 your contract the less you can do fixed pricing. But if they're commodity type services
453 and products that you want, just like going to a McDonald's to get a hamburger, perhaps
454 you can get closer to fixed price. Many of the support services, printing, graphics
455 operations, mail services, where you have a high volume of very dependable way of
456 determining what the cost is going to be, fixed price could be your answer there if you're

457 willing to accept something less than the best performance at all times. But, the
458 performance based contracting has been a difficult nut to crack in terms of having it
459 produce everything that the government had hoped it would. I think the government is
460 continuing to look at how that can be improved upon, but it wasn't the cure all in the past
461 and, I think, one problem is that the bigger you make your contracts, the more
462 consolidated you have everything. There are some benefits in terms of reducing
463 redundancy, but you also have difficulty in really adequately defining everything in a
464 contract to get the lowest dollar competition out of it.

465

466 Unknown: Do you see any unique challenges of institutional performance based contract
467 versus, say, the Shuttle or payload processing contracts which are performance based?

468

469 Covington: Well, I think in general I think the right approach is to try to look at a more of
470 an institutional operations for performance based. There are too many unknowns,
471 especially in the space business, to in working performance based contracts when you
472 have so many safety concerns. You need, I think the bottom line is you need a lot of
473 oversight the closer you get to high risk operations than you do some of the institutional
474 operations. The insight, which generally was broadcast as being part of the performance
475 based contract, was that the government should be able to put out there requirements in
476 output expectations and then stand back and grade the contractor on how well they
477 performed against those expectations. Well, in the real world, in terms of the space
478 launch business, you don't have the privilege of being able to grade someone after the
479 fact. After the fact is too late in a high risk operation. Some of the institutional areas you

480 might be able to afford to have the contractor fail and then ding them financially, but in
481 the long run no one wins with that type of operation and many of the support functions
482 that directly effect the timing of a launch, the scheduling of a launch. So, even in the
483 institutional operations you have to be very cautious as to how thoroughly you can work
484 performance based and not have it directly the outcome of a launch in terms of the
485 scheduling.

486

487 Unknown: And you really, I think, touched a lot on the oversight to insight and how the
488 NASA job has changed over the years. Is there anything else you'd like to add on that?
489

490 Covington: Well, to the extent that we are increasing our safety concerns. We'll also be
491 correlated to the amount of oversight or parallel involvement of government with
492 contractor operations. It just appears that you need real time review and consultation
493 with many of the operations that are in the Space Program at this point.

494

495 Unknown: So have you seen over the years, from your start as a contractor and your
496 relationship then with the Air Force and NASA and then as you moved over to NASA,
497 have you seen just a change where you're maybe working more as partnership and then
498 moved more to this oversight/insight situation?

499

500 Covington: Well, most of my career has been related to contracts that are level of effort.
501 And I have felt that in some cases that it may be more expensive to have a level of effort,
502 or you may not be able to put your finger on the exact cost of everything, but I think it's

503 facetious to think that you could've confined those costs anyway. They're just so many
504 unknowns in the Space Program. There are always new things that are developing. I
505 quite frankly found that the operation in level of effort with more NASA involvement
506 has been more effective. You learn as you go and you can perfect and I think you can get
507 more synergy that way in the Space Program. I think we have been less successful with
508 performance based on a broad scale. We need to be very selective in how we feel and
509 how we look at each procurement tool. And there are places where a small contract is
510 much more effective, whether it's performance based of fixed price, then a large contract.
511 You just need to look instead of shot-gunning your approach, being very selective
512 depending on the risks involved and the particular functions that you are contracting out.

513

514 Unknown: Very good, thanks. Walt, I don't know if Elaine or anybody has any
515 additional questions.

516

517 [chatter again]

518

519 Unknwon2: One political question that I didn't ask, now that we're done...

520

521 Unknown: As the tape's still rolling.

522

523 Unknown2: How is the NASA/Air Force relationship...

524

525 Unknown: I was going to ask that

526

527