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ORAL HISTORY INTERVIEW

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Oral history interview with David A. [full name of interview]	Beckman					
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Interview conducted by Robert B. 7	nerifield, Staff					
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January 2, 1968

Dave,

The transcript of your interview, edited to remove extraneous material, is attached.

If you will, please read the statement and mark those sentences with brackets [] that you would not want alluded to in a Center history for reasons of embarrassment to an individual or the Center. As I mentioned during our recording session, this interview is to be part of the source material for the history, and it is doubtful that I will quote from it verbatim. Therefore, please don't worry about a sentence here or there which might not be as polished as would be desirable were it to receive public scrutiny.

If you want to add information feel free to do so. Just tack it on at the end of the statement, unless you prefer that it be inserted into the text.

After you return the transcript to me, I'll send you a copy for your personal file.

Thanks,

Interview with David A. Beckman for MSC History November 29, 1967

I had originally worked for Convair both at Cape Canaveral and Wichita Falls, Texas and had applied for employment at Goddard Space Center. I got a phone call from Chris Critzos inviting me to accept employment at something called Space Task Group at Langley Field, Virginia. I later learned that Space Task Group was a part of Goddard Space Flight Center and there were plans to move the Group to Goddard when construction was completed. This was in September of 1960. I remember arriving that first day and reporting to the building T-107, a temporary wooden building. I was assigned to Flight Operations.

My primary interest was and still is computers and probably the best area for this type of work was in Mission Analysis Branch with John Mayer. That is where I was assigned. My main assignment was to analyze the errors possible in tracking the Atlas Mercury Spacecraft right at the time of the engine shutdown. We were to analyze how possibly a subroutine of a program could sort out what would essentially be wild points or invalid points, and still reach a conclusion as to whether conditions were right for an orbital mission. We spent some time deriving how this might be done, writing computer programs for the Bendix computers we had assigned to the branch to simulate the problem. Just as I got started on that, Carl Huss mentioned there was a possibility that some of us might be considered as Flight Controllers, and he wanted to know if it would be all right if I was.

I said, sure, why not. A few days later I was told that I would be a Flight Controller, and would begin training very shortly. A lot of the work that I was doing sort of fell by the wayside. Fortunately, there were two of us working on the problem, and my partner carried on in my absence.

I spent a lot of time in simulated flights at the Simulator Remote Site console. I think probably 75 or 80% of my time was spent as the Flight Controller and 20% on my original job. The first flight in which I participated was MA-3. Just part of the network was manned for that flight. Another fellow and I teamed up with a man named John Long as sort of a backup team at Corpus Christi. We were to observe a team that had already been on a flight. It was a real shock to learn the objectives of the flight had been changed and suddenly the team that was to do the flight controlling at Corpus Christi was to be sent to Canton Island. I was to serve as the Capcom at the Corpus Christi site. I talked to Carl Huss on the land line about my fear that I might fail to do as well as I should, and he gave all sorts of encouraging words. It was sort of sink or swim by being thrown in the water, I guess.

On the next mission I was assigned to go to the Canary Islands. We had a problem getting there because we went by way of Paris. It turned out they had two airports. We arrived at one airport. Since our luggage was checked all the way through, we presumed that it would be sent by bonded carrier to the other airport in order to avoid customs. We took a taxi to the other airport only to find that we should have hand carried our luggage through customs. By the time the Spanish airport office

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opened it was too late to either go back and get them or have them sent over. All of our clothes and all the flight control equipment was left sitting at the other airport while we went on to the Canaries. After being in our clothes for 2-3 days, we went to the nearest town. unately one of the fellows, a Philco man, knew about 15 words of Spanish (the natives knew no English). We went in and pointed at what we wanted. He was able to tell them to put cuffs on his pants, but I never was able to get that point across. In about 3-4 days our stuff arrived. About 2 weeks later we were ordered to report back to Langley by the most expeditous manner. We thought something drastic had happened to the spacecraft, the flight program or something. We could not get reservations back on the Spanish Airlines for about 2-3 weeks. Fortunately the Spanish Government provided an interpreter or representative there, who brought the prestige of his office or position to bear on the airlines. That evening three of the seats normally reserved on the airlines for military officers were suddenly re-assigned to 3 flight controllers to get back to the United States. When we got there we found that the only reason they called us back was because the flight had been postponed for a few days and they didn't want us sitting out there in the middle of nowhere. So we got back in time to send out clothes to the laundry, get repacked and left again. The doctor on that particular trip, Dr. Ward, I understand was killed about a year or two later in a small airplane crash in Germany. I guess his greatest benefit to the flight controllers was that he carried a large supply of paragoric. The food and water over there wasn't too agreeable to peoples' insides.

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For MA-5 I was at Zanzibar, and for MA-6 I was stationed on the Indian Ocean ship. We were in Zanzibar for about a month. We stayed in the best hotel in town, which meant there was a bathroom for the whole floor. We slept under mosquito netting, and prepared ourselves by taking anti-malaria pills. There was a lot of political unrest in Zanzibar at that time. On many of thehomes and fences we would see a ZNP (Bangibar maternal Party) red rooster emblem with the letters Z and P painted underneath indicating what particular party each designated. We got a briefing as to the situation from the consulate there. This mission occurred during Thanksgiving 1961. There were a few other Americans on the island such as the team that ran the station and several teachers. We all got together at the consul's house for traditional Thanksgiving dinner. Most of it was canned, I believe. Some movies were shown afterwards, we played some games and had a nice time. I don't recollect anything else unusual on that particular trip, except that it was the rainy season and it rained most of the day every day.

The Indian Ocean assignment was the longest trip a flight controller could take. We were required to fly to Rome and from there via BOAC to South Africa and up to Madagascar. From there we flew Air France to the Island of Mauritius. I was on the Coastal Sentry Quebec (QST). This time we had 2 doctors aboard instead of 1. About 2 days after we left port we ran into the edge of what they call a cyclone on the Indian Ocean, but which was essentially a hurricane. I was flat on my back in my bunk for about 2 days thoroughly green and seasick. On station, we waited and waited and the schedule kept slipping. The rule was that if the

56

117

schedule slipped less than 10 days, you could not return to port, as it was a 5-day trip each way. Fortunately about midway through the time we were out there we did have about a 2 weeks slip.

We had pretty good food and some variety when we first started out, but after about a week out there, every time we had dessert, it was coffee-flavored icecream. We spent 2 days in Port Louis, Mauritius, one of which was lost, as it was Chinese New Year and everything was closed. All we heard was firecrackers all over the place. Normally the ship was not allowed in port because the British Navy claimed that the ship's radio kept interferring with theirs. They required the ship to anchor in a yacht basin. The day before we left the ship was allowed to enter Port Louis and was loaded with supplies.

It was sort of strange being out there for that long because the location was removed from normal shipping lanes. We saw no ships, no airplanes, or any other evidence of human life for weeks. Once a week we had lifeboat drill which was something to look forward to. It didn't last very long but it was something different to do. We couldn't sunbathe on the deck because of soot from the smokestack. The flight control quarters were cramped. Four of us were crowded in a little room with no windows. It was pitch black in there day and night. It took a few days to get used to any sort of sleeping or waking routine. I recall a lot of the flight controllers complaining about the quarters.

There was a discrepancy as to how much perdiem we would be paid.

Because we were in government-furnished quarters, our allowance was cut down to something like \$6.00 a day, then because meals were furnished they cut the \$6.00 back to #3.00.

119

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We kept up with things through a daily bulletin. Once a day the status of the mission news items would be sent over the teletype. We also listened by shortwave radio to programs from Australia and occasionally to the Voice of America. Probably the best running account we had of the flight was from the Voice of America, which gave a lot more details than we were able to get through teletype.

There was only limited voice communications with the Control Center. We were able to establish contact, but it was touch and go most of the time for them to hear me or for me to hear them. We tried to stay busy on the ship which was more difficult as the days went by. A couple of guys brought along their fishing poles but they had limited success in catching anything. For the first time on that particular mission, the ship was given some films just before leaving port, but everybody complained that they were ancient. They showed Postman Always Rings Twice which was vintage 1938 or somewhere back there, that had probably been seen several times on TV. no mail, which of course, we missed. Some of the other sites could get mail but not this one. Essentially, there was no recreation. One guy had a large collection of paperback books which we read and swapped back and forth. We spent a fair amount of time either sitting on the deck or down in the ship itself listening to the radio. Some music had been taped at Cape Kennedy but there were only about 2 tapes and we got tired of listening to the tapes over and over again. The ship was crowded, particularly in the flight control quarters with 4 of us. We had two double bunk beds, and our own bathroom, which was small. We had some problems getting used to the noise of the generators which were just on the other side of the bathroom. They consistently groaned away.

biscuits, sliced ham, cheese, who wished could snack on and other things. But the refrigerator was always crowded and one night when someone opened the refrigerator, apparently a big platter of food slipped out and crashed on the floor. Whoever was responsible neglected to clean it up and it stayed there until the next morning. As a consequence of this, it was decreed that no more leftovers would be made available to anyone. But I guess they got softhearted, as after several days suddenly the privilege was quietly returned. Supposedly liquor couldn't be brought onboard. Since several of the flight control crew felt they couldn't survive long without it, they smuggled it aboard. There was an ice machine somewhere on the ship, and every evening someone would go up and get ice in what was called a TWA bag. TWA furnished us large travelling bags with the letters TWA on the outside, as they did all first class passengers. They made handy crushed ice carriers. There was a crisis on the liquor supply because of the length of time we spent on station. Everybody expected to be out only a couple of weeks and had gauged the usage of the liquor accordingly. As days went by the supply kept getting lower and lower and it was necessary to in-

After supper leftovers were put in the refrigerator so that anyone

In a way it was helpful that we did have the teletype because the daily messages did give us scores of ball games. A couple of times we were sent cricket scores, along with national news and local tidbits from the Cape or Langley. But it was also handy, in sending and receiving

stitute rigid restrictions on usage. We finally made it into port and

19

179/

replenished the supply.

descreet personal messages. In this fashion I learned that one of the couples I knew at Langley had a girl born to them.

We were only prepared for about 2 or 3 different simulations. So if there was a long wait, more were scheduled. The simulations were pretty well dictated by what was on the magnetic tapes that we carried with us. It was a real problem to get some different types of simulations. They would try to do this by sending out patching instructions. As time went on they got less and less realistic. There was also an attempt to simulate the voice of the astronaut, which as I recall didn't work out too well. One of the technicians was supposed to play astronaut. It wasn't very realistic either, as he was sitting right behind us.

The ship had taken on 2 or 3 new crew members prior to leaving the Cape, one of whom was an officer, a chief engineer. While we were on site, he had what appeared to be and was confirmed as a heart attack. There was a question as to whether the ship should go back to port to get him adequate medical attention. The technicians suddenly had lots to do as they tried to take electrocardiogram readings with their electronic equipment. They had rather limited success. It turned out fortunately, to be a mild heart attack, and after a few days rest, he was feeling good again. After we landed at port, they took him off the ship.

We had few problems with the foreign currencies. I remember only two incidents where problems occurred. France had just devalued the franc - with a ratio of 10 to 1 or 20 to 1. When we took a taxi between airports, the driver asked for what sounded like an exorbitant amount of money. When he realized that we had new francs, he adjusted the charges

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accordingly. The other problem occurred in Madrid. We took a taxi from downtown to the airport. The driver apparently spoke no English. He pointed to a little sign at one point and said something. We finally concluded that marked a fare change, and somehow this added an increment to the fare. When we got there, we parked right in front of the airport with people lined up behind us waiting to get in the front door, and for the life of us we could not understand what amount he was asking for. We would have gladly paid whatever it was, but we couldn't understand. We spent 2 or 3 minutes attempting to communicate. Finally a policeman came over and I guess initially thought we were American tourists trying to haggle with the taxi driver. He couldn't speak English either and meanwhile the traffic was backing up and becoming very impatient. Finally, the policeman took out a piece of paper and tried to explain the amount the taxi driver wanted. He put down the amount of the meter, added so much and put down a total so we could see what the man really wanted and we paid it.

I always dreaded that customs officials somewhere would ask that the flight control suitcase be opened and be subjected to examination. I don't know how in the world I would have explained all the stuff that we carried, such as magnetic tapes. Fortunately they never did. Once in Africa I was asked if I was carrying any ammunition or guns inside. They apparently believed me when I said no. We also had a problem once, explaining to a US Customs Agent in New York what was in the suitcase. But on other occasions I believe we just mentioned Project Mercury and NASA, etc., and there were no problems.

There was the problem of writing GTR's for tickets. The Spanish Government didn't know what they were and apparently didn't believe us when we said this was an obligation of the US Government. We were unable to use them to get tickets on the Spanish Airlines. Fortunately, the Canary Islands were also served by KLM and we were able to get our tickets through KLM, who accepted them.

On one occasion we had a problem in getting reservations on TWA from Madrid to New York. We went to the American Embassy and told them our problem and with one phone call we had three first class tickets on that afternoon flight to New York.

Another time we got stranded in the airport in New York all night.

By the time the TWA flight arrived in New York, there were no flights

to Newport News until something like 8:00 the next morning. So we spent

the night in the waiting room of the terminal which wasn't very comfortable.

When the flight control crews were initially organized, a group of perhaps 10 or 12 Philco Tech Reps were included as members of individual teams. The NASA people were concerned about working and living with these people. The rumor got around that they were high paid individuals and most of us were lowly paid government employees. We felt a little strange being team leaders with such highly paid individuals on our teams. The Tech Reps were stuck in one corner of the building that we were in, but it wasn't long until we learned that they were human beings after all. Generally the Philco people formed a very compatible element in the teams. The doctors were sort of interesting. Most of them were Air Force and Navy officers with perhaps one or two from the Army and Public Health

175

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Service. As I recall, the Public Health Service doctors were needed at the Zanzibar site because of the very touchy political situation there. The local officials didn't want any military people so civilian doctors in civilian clothes were used at all times. Sometimes we would meet the doctors before our trips; sometimes we would meet them at an airport along the way; and sometimes we would meet them when they arrived on site. Once the mission was over, they disappeared and we wouldn't see them again until perhaps the next mission. Dr. Ward, who was with us in the Canaries, was normally based in Germany. Drs. Fox and Flood, the two Public Health officials came from the Public Health Hospital in New Orleans (FLOOD) (Fox) and the NIH installation at Bethesda, Maryland (Flood). The doctors were generally very compatible. In some cases we were pleased to have them along, not only because they were able to diagnose and perhaps cure your ills, but in some cases these people had lived or travelled overseas and they knew their way around much better than we did.

