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Military Operations Research Society (MORS) Oral History Interview

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John Honig Interview (MORS)

Honig, John

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Oral Histories represent the recollections and opinions of the person interviewed, and not the official position of MORS. Omissions and errors in fact are corrected when possible, but every effort is made to present the interviewee's own words.

INTRODUCTION

Dr. John Honig was the fourth President of MORS and was one of the founding directors when MORS became a society.

John was also Chairman of MAS, the Military Application Section which evolved into the Military Applications Society.

MORS ORAL HISTORY

INTERVIEW WITH DR. John Honig
December 14, 2002
Bethesda, MD

DR. BOB SHELDON, FS, INTERVIEWER

BOB SHELDON: When were you President of MORS?

JOHN HONIG: I was on the Board when MORS was founded at the 11th MORS Symposium (MORSS), May 1963 at the USNA. I was Secretary-Treasurer for the 18th and 19th MORSS in 1966, the first Vice President of the 20th and the 21st Symposium, which was in 1967. And I was elected President for the 22nd and 23rd MORSS, which would be in December 1968 at the PG (Naval Postgraduate) School and June 1969, at West Point.

BOB SHELDON: What is your current job title?

JOHN HONIG: I am an Adjunct Staff Member at IDA. I am retired and a consultant on a number of projects.

BOB SHELDON: Do you maintain a current security clearance?

JOHN HONIG: Yes, at IDA.

BOB SHELDON: What was your birth date?

JOHN HONIG: October 30th, 1923, which makes me 80 years old this year.

BOB SHELDON: Where were you born and raised?

JOHN HONIG: Vienna, Austria. My parents, grandparents, etc. were born and lived there. I'm Austrian by birth. I went to school there. Then in 1938 I went to England. During the war I came to this country in 1941, and was drafted into the Army in 1943.

BOB SHELDON: Your family left Austria in 1938?

JOHN HONIG: No. I did, in September 1938. The Anschluss (Annexation by Hitler occurred on the 13th of March 1938) left us in a precarious position. My parents did not get out until the fall of 1939 and went straight to the U.S.

BOB SHELDON: What did your father do for a living in Austria?

JOHN HONIG: My father was the fourth generation owner of one of the oldest printing establishments in Austria. My great-grandfather and grandfather were the original owners. I would have been the next in line.

BOB SHELDON: Was the name of the printing establishment Honig?

JOHN HONIG: Yes. Jakob Honig & Sohn. The printing plant was confiscated by the Nazis. All of our belongings had to be left behind. My parents left with only ten Marks in their pockets.

BOB SHELDON: You left Austria in 1938. Do you still have family there?

JOHN HONIG: No family. My parents came to this country and they died very early. My mother died at age 50, and my father died at 52. My mother had cancer, my father died suddenly.

BOB SHELDON: Have you ever gone back to visit Vienna?

JOHN HONIG: Yes. I have gone back both with my former family, and I took my wife back a few years ago, for Austria's 1000th anniversary.

BOB SHELDON: Are things as you remember it?

JOHN HONIG: Surprisingly. I went back to the house where I was born. It had been slightly damaged in the war, but not much. My elementary school looked the same as it did 200 years ago. I am sure it is at least that old. Has the same color walls and everything. My high school had turned coed, which it wasn't before the war. There were no coed schools in those days. We had a boys school and there was a girls school next to it. But otherwise it wasn't changed much.

BOB SHELDON: Were you able to meet up with any of your childhood friends?

JOHN HONIG: No, I have no idea where they are. Never met any of them. They're all over the world.

BOB SHELDON: Were you able to recover any of your family's effects over there?

JOHN HONIG: None. They took the factory and they took the house and all personal belongings. All of the household belongings were put in a container to be shipped over here, and during the war the

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container just got lost or rather ripped off. So it never was shipped. The only thing I really have left is my original stamp collection, which goes back to my grandfather who started it. Including some European, Austrian and German stamps, I have now fifteen albums.

BOB SHELDON: Did your family have friends in England?

JOHN HONIG: My aunt (mother's sister) and her husband had fled to England right away. My parents came to the States while I stayed on in England. I lived with a bachelor minister who had taken a number of refugee boys to live with him in his house in London, Thornton Heath and then West Norwood, near Crystal Palace. After the war started we were bombed out and he was bombed out again after I had left for America.

BOB SHELDON: You were about fifteen when you left Austria. Had you finished most of your high school before you went to England?

JOHN HONIG: No. I had completed four years elementary and was in my sixth year (of eight) of high school before I left.

BOB SHELDON: What kind of a school did you go to in England?

JOHN HONIG: One of their public schools. It was difficult because I spoke very little English.

BOB SHELDON: Where in the U.S. did you come to?

JOHN HONIG: I joined my parents who had in the meantime found jobs in New York. We had some family connections from distant family members who had emigrated to the States in the 20's and early 30's. My parents actually received an affidavit from a complete stranger, who knew a family member and guaranteed my parents' immigration to the States. I went to Stuyvesant High School in New York. Stuyvesant was one of the special high schools in New York, where you had to take an entrance examination to get into that school. I graduated there in 1941. Then I went on to college at Drew University in Madison, New Jersey. They gave me a complete scholarship, and, of course, we did not have any money to pay for college.

BOB SHELDON: What did you study?

JOHN HONIG: Chemistry. All the way through I never changed my major.

BOB SHELDON: So then you joined the Army?

JOHN HONIG: I was drafted in January 1943 after completing the first semester of my sophomore year. I ended up in the Signal Corps and in a Signal Base Maintenance Company in Hawaii. As a matter of fact, it got more interesting. Soon after I joined the Army, the U.S. decided to make up a battalion of people who had come from Imperial Austria, as they had "free" battalions for other countries too. We hated it, since we had no desire to fight for Austria, who had kicked us out. We got out as soon as we could. I was sent to South Dakota State College for Army Specialized Training in Electrical Engineering in the winter of 1943. It was nice.

BOB SHELDON: You were there in the winter?

JOHN HONIG: Yes. It was very, very, very cold.

BOB SHELDON: I spent my freshman year at South Dakota State University.

JOHN HONIG: The highest point in that part of the state was the campanile (bell tower) in the middle of the campus and the ice-cold wind blew right across the campus. It was very cold. But anyway, we were there for a year and then the Army decided to close the program off. So I got credit for the courses I took when I was there. That was helpful. Everybody in Electrical Engineering went automatically to the Signal Corps, which was understandable. Unfortunately, most of the others ended up in Africa, I understand, where many of them became casualties. Now when I was at South Dakota State College, I had a roommate and when the program broke up, he went down to the CBI theater (China, Burma, India) and I went to Hawaii, where I spent most of the rest of the war. I have not seen him since 1943. We finally got in touch with him, and he is going to be here next week. So it's been sixty years since I saw him.

I was stationed in Hawaii most of the war, with one of only two Signal Base Maintenance Companies. We did maintenance on all signal corps equipment throughout the Pacific. We flew some out of Hawaii to the islands to repair signal equipment, mostly wired equipment. But most of the war was spent on Oahu, which I got sort of bored with. Our barracks were close to the end of the runway of Hickam Field and it got very noisy during air ops. After about a year in Hawaii it gets very boring. First of all, you never get a good night's sleep because it is always warm. It never gets cold. Of course, we

didn't have any windows; we only had screens. It was very humid all of the time. I was discharged on Valentine's Day in 1946 and I went right back to college at Drew University and graduated in 1947 (two years after originally planned). Because of some of my Army courses in South Dakota, as well as in Hawaii, I could finish in three years and a summer.

BOB SHELDON: All those chemistry courses counted?

JOHN HONIG: No, I didn't have any chemistry courses at South Dakota, but the electrical engineering included calculus, physics and so forth and so on. After finishing my Bachelors I went to Michigan and got my Masters there in Physical Chemistry. And then I came straight to Washington in 1948. I have been here ever since.

BOB SHELDON: Who did you go to work for initially in Washington?

JOHN HONIG: The National Institute of Cleaning and Dying, which doesn't exist anymore. As a chemist, I did research on dry-cleaning in synthetic fluids, soaps and so forth. I went from there to Naval Research Lab (NRL) in 1951. As a matter of fact, I was just down there yesterday. They had their Christmas party and they invited all the old timers. Actually, there were half a dozen people who were there in the fifties.

BOB SHELDON: How did you happen to go to NRL? Did you want to get back into military work?

JOHN HONIG: No. I wanted to get back into research. Some of NRL really has very little to do with military. It is very basic molecular forces and things of that nature. I studied non-alkaline and alkaline earth soaps in non-aqueous media, which formed very large micelles, which have high association (hydrogen bonding) phenomena in the absence of water, and with a very, very small trace of water, those forces break down.

BOB SHELDON: Why was the Navy interested in that?

JOHN HONIG: It was basic research. The Naval Research Laboratory was founded by Thomas Edison. And it was founded for the strict purpose of doing basic research. If it is applicable to military that's fine, but it was founded to do basic research. And it is very basic. The work that we did was eventually applied to lubricants, actually the use of lubricants in submarines in very cold weather. We formed the original silicone-based lubricants

that they still use today. We also did original work in Teflon in the same group. We coated the torpedoes with Teflon to increase the speed through the water.

BOB SHELDON: In the 1950s, you were coating torpedoes?

JOHN HONIG: Yes, in the 1950s. That was the early Teflon work. We also tried to coat bullets to see how that worked.

BOB SHELDON: Was that research highly classified at the time?

JOHN HONIG: Totally unclassified. One thing about our division was that anything that we did was publishable. Everything was published in the open, scientific literature. Actually, the work that I did doubled as my PhD work at Georgetown. So my thesis was my everyday work. I was going to Georgetown while I was at NRL. My boss was a visiting professor at Georgetown. I got my degree in 1956. At that time, I felt that I was getting to be the world's renowned expert on a very insignificant piece of the world. So in the summer of 1956, I went to the Navy's Operations Evaluation Group, OEG, where they were doing analytical work on directly applicable problems.

BOB SHELDON: Did you have some friends over there that recruited you?

JOHN HONIG: Well, no. I just looked around at things that looked interesting. I wanted to get away from the lab. Lab work can be very tedious. I mean, I was doing low viscosity work, and then had to take readings sometimes at one or two o'clock in the morning.

It is sort of predictable. But you went home to sleep, and then you set your alarm and woke up, and then you got in your car and drive down to the lab. Fortunately, I lived close to the lab. So you would drive down the road and you would be bleary-eyed and would wait and wait and wait until you take your reading, then you get back in the car, go home and go to bed. It was a very tedious life. Things don't happen very fast and very often. Frankly, I didn't really understand at the time how what I did made a hell of a lot of difference. I wanted to go to somewhere that made a difference. So I went to OEG. That was quite interesting. From then on for several years, I was in anti-submarine warfare. I became fairly expert in that. I went out on submarines to observe exercises. First I took the submarine commanders course (the only civilian) and then went out on submarines, all kinds of submarines, and watched torpedo fir-

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ings, and analyzed test and evaluation results. It was very interesting.

BOB SHELDON: What aspect of anti-submarine warfare did you study?

JOHN HONIG: All aspects. Search and screening tactics, and torpedo approaches, and a lot of acoustics.

BOB SHELDON: Did you work with Bernard Koopman?

JOHN HONIG: Oh, yeah. You don't work with Bernie Koopman, you listen to him. Unless you are a very, very accomplished mathematician, you don't get anything out of it. Bernie came down, I guess, in 1956 just about a few months after I joined. Jay Steinhart was the head of the OEG. Bernie Koopman came down to teach us non-mathematicians about OR. He started out at high-level probability theory and we could barely spell probability. It was totally above my head. I had no idea what he was talking about. I took notes, the notation didn't mean anything, nothing meant anything. Bernie was a nice guy, but you don't suddenly tell him that you don't understand what he was talking about. When did you know Bernie?

BOB SHELDON: We re-published his book *Search and Screening* while I was President of MORS. You've got one of the originals.

JOHN HONIG: That's the original set of *Search and Screening*, *ASW in World War II* and *Operations Research*.

BOB SHELDON: I noticed this one was originally confidential?

JOHN HONIG: Yes. They were all classified. That's Koopman's *Search and Screening*.

BOB SHELDON: How long were your tours on the submarines?

JOHN HONIG: A day or two at a time. I was at SURASWDEVDET, Surface Anti-Submarine Warfare Development Detachment, in Key West. There were two detachments down there, the VXI for air and SURASWDD for surface and submarine. We got submarines down there and went out for a day or two, went out on the original Sea Wolf with its original skipper. He was a good friend of mine, a career Navy man but who was a mathematician. He went from submarine command to Op 311, which was the submarine desk in OpNav. He and I did a study which concluded what the Navy needed were many small submarines instead of a few big ones. We went to talk to the great white father, Admiral Rickover, and he immediately threw us out of the office. Rickover didn't want to know anything about small

submarines, he only liked them big. I did a number of submarine studies. At IDA around 1961, I also studied the potential vulnerability of Polaris Submarines.

BOB SHELDON: What aspects of the problem did you study? What was related to your chemistry background?

JOHN HONIG: Oh, chemistry had nothing to do with it. This was all tactics, acoustic propagation and math and probability and so forth. Nothing to do with chemistry.

BOB SHELDON: So you used some of the probability that Bernie Koopman taught you?

JOHN HONIG: No. The stuff I needed I learned without Bernie Koopman, mostly from other OEGers. We had another mathematician, Joe Engel, for example, who was the teacher for a while. I went from OEG to WSEG (the Weapons Systems Evaluation Group), which was part of IDA. IDA provided all the civilians to WSEG. Active military officers were provided to WSEG directly. And it was headed by a three-star general officer in rotation. The first one was Admiral "Savvy" Sides who was very savvy, a very smooth guy. All the civilians were, as I said, from IDA. All the project leaders were civilians. Each project had a military staff officer, generally from each of the Services assigned to them. I was a sub project leader on the Polaris submarine survivability, and I had a Navy captain, and an Air Force lieutenant colonel and an Army colonel working on my project. They worked on other projects too. The top level was the three-star general, a civilian technical director, who was also the director of the IDA, who supervised all the IDA people, and one two-star from each of the services on a review committee, that reviewed all studies prior to approval. Admiral Sides was the Admiral in charge of WSEG. I don't remember exactly who the others were, but after Admiral Sides left, an Army general took over. He was nice enough but new to the ways of the Pentagon. Under him was an Air Force general, who eventually became head of the Tactical Air Command (TAC). A career fighter pilot, very sharp guy, but very low-key, sort of set you up and cut you off. And we had a Navy admiral who was not so sharp. But anyway the Air Force general was a real crackerjack. He used to take great pains in setting up the Admiral and cutting him off at the legs. We were sitting there in the back of the room and it was sort of fun watching these guys. That Air Force General was really something. What used to hap-

pen is, we put out some controversial stuff in those days. We reviewed strategic systems under development, and we worked directly for the DDR&E. We found a number of things wrong with various things that the services had been doing. Our studies then went to DDR&E as well as to JCS. And in order to get it through the JCS, to turn the cover sheet green, representing approval, the main paper had to be reasonably non-controversial. So the idea is to get a study in and have it turn from buff (a draft) to green. Admiral Sides always got his studies to turn green. He laid all the political groundwork. He knew that the way it worked was to say nothing controversial in the main part of the study, and to put all the meat in the appendices, because people didn't read appendices, only the people who should read the appendices. Well, when the Army General came in, he had no experience in the Pentagon. He was an Army general, straight from the field, who had no idea about Pentagon politics. He insisted that our approach was not the way to go. He wanted to have the honest opinions in the main paper. As a result he couldn't turn a study green if it killed him. Everything came back purple, disapproved. And he got so mad, and he didn't understand why, and it was an honest study, and blah, blah, blah. He just didn't understand the politics. Admiral Sides knew exactly what to do. He laid the groundwork, and he got his ducks in order before the thing went up. You know, politics in the Pentagon. If you don't know how to do the politics, you are out in left field. It got so frustrating.

BOB SHELDON: At the time you were working as a government civilian?

JOHN HONIG: No, I was working for IDA. IDA civilians were employed by a consortium of major universities, led by MIT. We had a Board of Trustees of many top-level people. One of them was Paul Nitze, a top-level smart individual, at one time Secretary of the Navy. I had the privilege of briefing him on one of my projects. I had two projects. I studied the survivability of the Polaris submarines, which was very controversial. The Navy didn't want to know anything that was in any way vulnerable, and I had Army and Air Force officers on my project too. First of all, I had written a paper on the subject when I was still in OEG. When I got to IDA, the Navy wouldn't let me read the paper that I'd written. So anyway that got over with. Then I had a big brouhaha with the Admiral in charge of Op31, who was in charge of

undersea warfare. He said we know every place where their submarines are, we know exactly where their submarines are, we know every one of them. I said, great. But then you tell me that they do not know where any of our submarines are? Oh yeah, yeah, we are totally quiet. They have absolutely no idea where our submarines are. I didn't buy that so we had a big go around about that.

BOB SHELDON: When did you first fill a job where you called yourself an Operations Analyst?

JOHN HONIG: When I went over to OEG.

BOB SHELDON: Was it there that you first started attending the Operations Research Society of America (ORSA) meetings?

JOHN HONIG: Yes, in 1956. And that was just about the time when the Washington Operations Research Council (WORC) was forming. Bob Titchen was the first President of WORC. And he died soon after. Now we still have the annual get-togethers of the old timers from OEG, every year fewer survivors.

BOB SHELDON: I think we left off when you were at IDA.

JOHN HONIG: IDA. In 1962 Honeywell came along, and offered me almost twice the money I was making, so I couldn't turn it down. I didn't really want to go to industry, but with a young family to feed I could not turn down the difference.

BOB SHELDON: Was Honeywell in the D.C. area or in Minneapolis?

JOHN HONIG: Honeywell set up a new office here in D.C., the Military Products Planning Office, which was basically a long-range planning office. I was in charge of the Navy part of it. It was our job to determine what technologies to develop in order to get ready for future Navy business. Basically long-range planning. And I had an unlimited expense account, and I traveled all over. It was a nice arrangement, but I got tired of it. I had to go the Minneapolis office about every other month or so to tell them what was going on. And of course, our boss, which was another nice thing, our boss was in Minneapolis and we were here. Our office was on Pennsylvania Avenue, right across the street from the White House. The day that Kennedy was shot, I was in my office. My wife called me because I didn't know it had happened. She told me on the phone that the President had been shot. Over the next hour or so, a very large crowd quietly gathered in front of the White House, lighting candles and so

forth. It was a pretty impressive scene. One you never forget. When I left Honeywell in 1965, I went to the Arms Control and Disarmament agency as an OR officer in the Weapons Evaluation Group. I knew some people there. It was a Civil Service job. That was OR officer, GS-16.

BOB SHELDON: That was about the year you started becoming more actively involved in the MORS leadership or the WORC?

JOHN HONIG: Well, I was active in WORC all along. Actually, I got active in MORS when I was at Honeywell, because I could go to all the MORSS, you know, just write my own orders. And I had all the clearances. So I still kept active in MORS, and then in 1966, I went to the Army staff. I only was at Arms Control for a year. It was during Vietnam. I studied what our Armistice Requirements should be, and nobody really cared about that. So I joined the Army staff in 1966. From then on, I went regularly to all the MORS meetings.

BOB SHELDON: Did somebody recruit you to join the Board of Directors of MORS?

JOHN HONIG: No. I just like to be active in every organization, obviously. No, I was friendly with a lot of people on the MORS Board.

BOB SHELDON: How long did you work at the Army Staff?

JOHN HONIG: Until I retired in 1984. In 1971, while I was in the Chief of Staff's Office, I chaired a Models Review Committee which performed critical reviews of the major Army OR models. The committee included Col. Bob Blum, Dave Howes, Dick Lester, Keith Meyers, Dick Zimmerman, and then Seth Bonder helped. I put out the final report, which the Army published, and which became a "best seller." Among the things we found was that the Army had spent much effort in having a player simulated division level game developed, called LEGION. The author of that game, a lieutenant colonel, selected reasonable, but fictitious weighting factors in order to try the game, to see if it runs. The game used a large number of actual players and was rarely employed. However, whenever the game was employed the "fictitious" weighting factors were used, and they were never validated, because the game was extremely complex with much detail. After I retired in 1984, I went to ANSER and worked with the Air Force types till 1988. While I was at ANSER General Skantze, who was Commander of the Air Force Systems Command, directed that Project Forecast II be

done. This was designed to look into the long-range future to decide what technologies the Air Force should be pursuing to be ready for future Air Force missions. It was to be his swan song prior to retiring. I was selected to be the ANSER professional on the Steering Committee. We developed models for evaluating technologies and priorities. I was also charged with supervising preparation of the final report and received a nice acknowledgement from the General. Also while at ANSER I participated in a study that examined a future Army Space Command. What it should look like and what its missions should be. Since the effort was sponsored by the Air Staff, the project was not entirely objective. I also worked at MAI (Management Analysis Incorporated) and then back to IDA.

BOB SHELDON: What kinds of studies were you doing for IDA in the 1990s?

JOHN HONIG: Since going back in 1989, I have been entirely in the test and evaluation area. My group supports the Director of Operational Test and Evaluation in OSD.

BOB SHELDON: Other than learning from Joe Engel, have you taken any other OR courses?

JOHN HONIG: I didn't take any courses from Joe Engel. I did take an OR course from Clayton Thomas. I still have those notes. Mostly I just learned from being at the desk next to some smart people. One thing about OEG in those days. We were very cramped. Three desks to each office. There was a lot of chance to exchange ideas and knowledge.

BOB SHELDON: Who were your other mentors or teachers in OR or Ops Analysis?

JOHN HONIG: Jim Larkin, he was a very good teacher; so was John Barry. Jim Larkin died a couple years ago. He was a very good mathematician, was active in OEG for years. Tom Phipps, who was a physicist, was very active. He is still working in physics on his own. He retired. Everybody I know pretty well has either died or retired.

BOB SHELDON: Which kinds of OR tools did you use? Was it probability theory, statistics or optimization?

JOHN HONIG: Yes. All of the above. But my math was never very deep. I mean the kind of stuff that Koopman was teaching us was very theoretical, and I never got that theoretical. Simple probabilities or conditional probabilities and so forth. I liked to set up problems, look at the big picture, identify the issues, select

approaches and constraints, and document everything well, etc. You know, I like the big picture. That's why I got so interested in what Trevor Dupuy was doing. Trevor got me interested in helping with his big tome, *The International Military and Defense Encyclopedia*; it comes in several large volumes. I am the editor of the OR and MS papers and all the Cost and Effectiveness Analysis papers. Trevor was the Editor in Chief and I was one of the Associate Editors. Several of the papers were produced by foreign experts and then translated. I think Trevor's son did some of the translations.

BOB SHELDON: Back to MORS again.

JOHN HONIG: The original MORS, as you know, started out in Pasadena, by OR people at the Office of Naval Research (ONR) Pasadena. They started first sort of informal symposia, and they grew and grew. I think about the 8th MORSS, they started inviting people from the other Services; I'm not sure about that one. But 10th MORSS was the last "private" MORSS. When I say "private" MORSS, it was not generally publicized. The 11th MORSS was the first "public" MORSS and it was held at USNA, Annapolis, in May 1963. I attended that one, and then continued to participate in the most consecutive MORSS of anybody at the time.

The 11th MORSS was still essentially an ONR (Office of Naval Research) run symposium, but the invitations went around to everybody. So anybody with a clearance and a reasonable "need to know" could apply and come. The MORSS were run by Marshall Yovits who was the head of the OR program at ONR at the time. The Executive Secretary was Commander Vance Wanner, USN. Marshall left ONR after the 15th or 16th symposium and went to one of the universities in Ohio. I believe he has passed away since. Marshall's deputy at ONR was Bob Marvin (Dr. J.R. Marvin), who was a mathematician, a very quiet-spoken Southerner, a very nice guy, who took over after Yovits left ONR. The man who actually managed/administered the MORSS at the time was Navy Commander Vance Wanner, who, upon retirement from the Navy continued in the same job as a civilian, as the Executive Secretary. In the early days there was also Navy Captain Gustafarro. Gus was a very live-wire type, very Italian, very full of vim and vigor. Gus was very good.

The 11th, 12th, 13th, 14th and 15th, I believe, MORSS were ONR MORSS, that is, they were run by ONR, supported by ONR, and "publicly" accessible. Invitations were issued to any-

one with a clearance. With the 14th MORSS a number of things happened that caused MORS to decide to become a society, which I believe it did starting with the 16th symposium. I was already on the Board at that time, and I ended up writing the By-laws and the Articles of Incorporation, both of which I have given to MORS in a recent year in case they didn't have them.

A number of things led to the formation of the society, including business issues, multi-service management issues and others. One thing that kept coming up, and that has been a bug-a-boo ever since MORS started, was the problem that members of the academia, who worked on unclassified problems, or just had an interest in military OR problems and did not have a current clearance, could not attend. There were a number of people that were trying to develop methodology in military OR, who did not have a clearance, at the University of Michigan, Ohio State, Case, Cornell and others. They were very unhappy that they couldn't go to a MORSS to exchange information. The most important thing at MORSS is to talk to other people. They couldn't talk to other people to exchange information, which led eventually to the formation of the Military Applications Society (MAS). [Originally, MAS stood for Military Applications Section.] Well, a whole bunch of unhappy people who couldn't exchange information because of the lack of clearances, who produced unclassified papers, as MORS also does, they felt that they wanted to get the papers out, and have a forum for discussion beyond the classified realm, so that the other people had access to it too. I also helped start MAS and was Chairman of MAS soon thereafter. I was the only person who originally has headed both MORS and MAS.

BOB SHELDON: What years were you President of MAS?

JOHN HONIG: I was Chairman of MAS in 1973-74. MORS, as a society, got started with the 16th symposium at the Sandy Point Naval Air Station in Seattle, and had 28 founders. Most of them, as far as I know, are not alive anymore. Yovits had already gone, and I believe when MORS as a society was started, it was still ONR sponsored. Tri-Service sponsorship started with the 21st symposium in 1969. But Bob Marvin was the man from the Navy, the ONR man. And Bob Miller worked for him. Bob Miller was on the board as well as Bob Marvin, who was the ex-officio member. Miller

was on the Board and he was the Second Vice President at the same time I was First Vice President, and we had a big competition. I guess they liked him less than they liked me, so I got elected President. I think he never forgave me for that. I don't think he ever made it. After retiring from ONR Bob Marvin moved to Florida and has since passed away. I think Bob Miller has too.

So that's how we got started, and I guess I was on the Board continuously for a long time, and that's the early years.

Dave Rist had been Vice President and other positions. He was quiet and very helpful. When he passed away, the David Rist Prize was established in his honor to be awarded for the best delivered paper at a symposium. Years later, Seth Bonder and I, mostly Seth Bonder, produced a battalion level model that I sponsored and he presented at a symposium. We shared the Dave Rist Prize for the best paper. Another award, the Vance Wanner Award, was established after Vance died. Vance was very good. When the Society was sponsored by all the Services, Vance stayed on as the Executive Secretary. (Ed Note: Ed Napier served as Executive Secretary between Vance Wanner and Dick Wiles.) When it was time for the new structure and the establishment of an Executive Director position that didn't exist before, Dick Wiles and I, and one other person, were the finalists on the selection process. I was, at that time, rather eager to get it, but I didn't. And I'm glad Dick Wiles did, because he did an outstanding job. So that pretty well brings us up-to-date.

BOB SHELDON: What were the early days of MAS like, since MAS is affiliated with MORS?

JOHN HONIG: In many ways, there was very little difference. Most of the same people went to both. MAS was a fairly active organization. I was editor of a Newsletter we put out, which eventually merged with MORS to become *PHALANX*. The original Newsletter was just that. *PHALANX* has since grown into a very substantial bulletin, mostly through the efforts of Jack Walker. I was elected to be Chairman Elect of MAS for 1972-73, and then served as Chairman for 1973-74.

I was on the Board of Directors of MORS from 1965-70. Secretary-Treasurer from 1966-67. Second Vice President from 1967-68. President from 1968-69, Past President from 1969-

70. And I got the David Rist Prize jointly with Seth Bonder in November 1971.

BOB SHELDON: What was your MORS Secretary's role, other than taking notes at meetings?

JOHN HONIG: Mostly that was just about it. Although we were already a Society, we were basically administered by Vance at ONR.

BOB SHELDON: Were you the first elected Secretary, or was there somebody who was Secretary the year before you?

JOHN HONIG: Bob Miller was the first Secretary-Treasurer, and I was the second Secretary-Treasurer. The year I was Vice President, he again was Secretary-Treasurer. The year I was President, he was Second Vice President.

BOB SHELDON: What was the order of the magnitude of the funds that you had to deal with as Treasurer?

JOHN HONIG: None. The money was all handled by ONR. The Treasurer wasn't really a Treasurer for all practical purposes.

BOB SHELDON: Your role as Vice President. . .

JOHN HONIG: The role as Vice President, I don't know, I will have to look at the By-Laws of it. Basically to sit in for the President. I don't remember why we had two Vice Presidents, but I remember there was a good reason for that.

BOB SHELDON: Now we have a Vice President for Professional Affairs, and a Vice President for Meeting Operations and a Vice President for Finance and Management.

JOHN HONIG: Well, you're doing a lot more operationally than we used to do, because the Navy did all that stuff for us. So until Dick Wiles' office was established, all the administration that Dick started was from other Services. The Navy ran all the security, all the publications and so forth. It was paid for out of appropriated funds, plus the income from registrations. But the administrative office, per se, didn't exist until Dick Wiles came in.

BOB SHELDON: What kinds of people attended those early MORSS? Was it a mix of military, civilian and contractors?

JOHN HONIG: Yes and academia. Quite a few people from academia. Model builders, all that sort of stuff. As a matter of fact, Seth was President of MORS after me, and he was at the University of Michigan at the time before he started Vector.

BOB SHELDON: The year you were President, and the two symposia that you had, were

there any noted personalities show up as speakers? Any controversial issues?

JOHN HONIG: Oh yes. The second meeting that I had was at West Point, Hotel Thayer. I chose for dinner speaker Bill Niskanen, the well-known economist, who, at that time, was the Director of Economic Analysis at IDA. A brilliant man. It was about the time that the NSDM would ordinarily appear, the National Security Defense Memorandum, which the President signs and which guides National Security issues. Niskanen normally had access to that stuff, we knew that. But the document had not yet appeared. What Bill did was to present a fictitious NSDM that he wrote, in anticipation of what he thought the real document would eventually say. And he never let on that it was a fictitious thing. Bill's 'fictitious' memorandum focused on opening relations with Red China, a most controversial topic at the time. He read it like it was a straight NSDM with all the introduction and signatures and so forth. Afterwards, I had a bunch of colonels right on my back. "We're going to go straight to Secretary of Defense, this was the highest security violation, and we've never heard of that happening, and the shame that MORS would do a thing like that, and so forth and so on." Bill never said one word that this was fictitious, but it was so real, it was so well done, that we had a real uproar.

BOB SHELDON: It was actually unclassified?

JOHN HONIG: Well, it was fictitious. There was no classified information out yet. The real document was not out.

BOB SHELDON: It was just a big joke.

JOHN HONIG: Well, some people didn't think it was a joke because actually, when the real one came out, it was not all that different. Because he anticipated what the real one would say, not having seen it, but he had a pretty good idea what it would say. I see he made the news this week. He is now the President of the CATO Institute, and he made all the comments in the papers about the new Secretary of the Treasury. Bill is a brilliant guy, but it was something I will not forget.

My dinner speaker at the other symposium was General Maxwell Taylor, who I also knew quite well. It was before he was Presidential Advisor, when he was President of IDA at the time. And he was an artillery man, and fairly deaf, like many artillery men are. Of course he

sat next to me at dinner. He was a delightful individual. He was somehow involved with the building of the Pentagon originally, early in the War, somehow with the Corps of Engineers. I don't know exactly what his involvement was, but he claimed that he was the person who insisted that the POAC, the Pentagon Officers Athletic Club, be part of the building. He wanted to make sure that there was a POAC built when the Pentagon was built. Well, General Taylor was a very interesting individual. I briefed him when he was Presidential Advisor. I was at the Arms Control and Disarmament Agency at the time, only for about a year and a half, and I made a study of what conditions we would demand to negotiate for a cease-fire in Viet Nam. What controls do we need to have in order to be able to control a cease-fire? And, that study went through the Under Secretary of State, and then General Taylor wanted it. So I went over to brief him. And it was a peculiar time, because a few years later we left without any conditions, basically. But at that time, we were still thinking about requiring conditions in order to make sure that the truce was being observed. General Taylor was a very, very interesting individual.

BOB SHELDON: Anything notable happening during your year as Past President of MORS?

JOHN HONIG: Seth Bonder was President.

BOB SHELDON: So you just passed the reins on to him.

JOHN HONIG: Well, we were very close friends. He had been building models for me. I was in the Office of the Army Chief of Staff and he was at Michigan, building battalion-level models for us. I was also at the time, the original sponsor for the Quantified Judgment Model of Trevor Dupuy. And I sponsored that originally. I thought he had a very good idea. I had very high regard for him. He had a tremendous capability for getting data. He had arrangements with the Germans to get data after the war, war data, so that he had data of several battles on both sides. Their data, as well as our data. He also had arrangements with the Japanese and the Chinese, of getting data on both sides. He had data from the Middle East wars, also on both sides. So, he had made arrangements to get those data. And they were very interesting, when you compare with what they thought they achieved and what we thought we achieved, and things that were important to

them compared to us. Very good research. Of course, he wrote over sixty books, some of them coauthored with his father who was also a world-renowned military historian.

BOB SHELDON: How did you happen to sponsor him?

JOHN HONIG: I don't remember how I got started. I think it was in the MORS. I'm not sure. But I was very impressed with the fact that he looked at key unquantifiables. I was very unhappy with the way we were modeling things. I was very hard on RAC's Quick Game, and all their artificial assumptions required to make it work. Quick Game was a later version of Carmonette which was designed by Dick Zimmerman at ORO, the predecessor of RAC. We were doing terrible artificialities at the time, when we were modeling tank companies and so forth. I mean the business that you saw everything out to 3000 meters and beyond 3000 meters you didn't see anything was absurd. There was no mobility in the early models. There was certainly nothing that had to do with morale, training, or so forth. We both agreed that whatever model was run, the Israelis could have never won the war. No way, if it's on numbers of people, if it's on types of weapons, they could have never won the war. It was strictly on training and morale. Some impact of weather. We did a lot of weather. I mean tank campaign particularly during WWII the campaign in Italy was a terrible campaign. The weather awful, I mean everybody got stuck in the mud there. And, again, if you go strictly on models, we should have never won any tank campaign. So he did a lot of things of that nature that I was very impressed with. The non-quantifiables. I don't know if anybody has ever done anything any more on that. He was pooh-poohed, and all that sort of thing, but I think in a lot of ways he was right. I think Andy Marshall liked what he was doing too.

BOB SHELDON: A few years after you were President of MORS, you were Chairman of MAS. Mostly the same people came to MAS as came to MORS?

JOHN HONIG: Yes, basically. Generally fewer military and more academicians. We also got overlap since we met simultaneously with the ORSA meetings; some purely ORSA people came to sit in too. I was Chairman Elect of MAS in 1972-73 and Chairman in 1973-74.

BOB SHELDON: Anything notable happen at your MAS meetings?

JOHN HONIG: Well, I guess I was the first one to put out the MAS Newsletter.

BOB SHELDON: And that's before you merged with MORS on the *PHALANX*?

JOHN HONIG: Long before *PHALANX*. *PHALANX* I think was started by Jack Walker. And that was a lot later.

BOB SHELDON: So you did a joint newsletter?

JOHN HONIG: No, I just did a MAS Newsletter. I think I was the first one and then Bryant did it after me. I'm trying to remember who did it after that.

BOB SHELDON: Who wrote the articles for the MAS Newsletter?

JOHN HONIG: It was basically three or four pages. We didn't have any real articles. As a matter of fact I don't think we really started articles until way after *PHALANX* came along. Of course, the early *PHALANX* was a newsletter also basically. It was much later that Walker succeeded. I put out the *PHALANX* for just one year while Walker wasn't available.

BOB SHELDON: For the early MAS meetings, what were the topics? Were there briefings sort of like at a MORS Symposium?

JOHN HONIG: In general the big difference, as I remember, was that MORS dealt in real data and MAS generally didn't. MAS was more theoretical. Innumerable variations of the Lanchester equation, etc.

BOB SHELDON: Did you get more academia participation?

JOHN HONIG: Yes, because they tended to attend the ORSA meetings. There was no classification clearance required. We generally got a lot fewer military at the MAS meetings. It was more of a real professional society. There is one big difference in my mind. To me MORSS was not for papers. To me MORSS was Working Groups, primarily, discussing real tests, real tactics, real numbers. Where you talked to different people doing the same job. A lot of exchange of data. They didn't have any need-to-know problems to speak of in those days. You could exchange classified data freely. That was to me the biggest boom to MORS. You went to the meetings and you say we find these things. And the other guy says, well you know, we tried it doing it this way, and so forth and so on. That to me was the biggest thing about MORSS, free exchange of information, regardless of classification. MAS was different because you could not deal in anything classified. So first of all, you didn't have any classified models. Your

data was very thin, because you didn't have any classified data. MAS was a lot more theoretical, academic, and fewer military attended.

BOB SHELDON: Where did you usually hold the MAS meetings?

JOHN HONIG: They were always done in conjunction with the ORSA Meetings. It was just another track.

BOB SHELDON: Now let's get into some of the local chapter stuff, the Washington Operations Research Management Science Council (WORMSC), now WINFORMS.

JOHN HONIG: I was one of the founders of the original Washington Operations Research Council (WORC). Actually the first President of WORC, Bob Titchen, was a classmate of mine in college. After the war, he went to the Sorbonne and got his degree there. Bob also worked for the Operations Evaluation Group (OEG), like I did at the time. Bob was the first President, and he died a few years later, very very young, of cancer. I was the Newsletter Editor of WORC and then Secretary 1964-65. The year Boyd Ladd was President, 1965-66, he quit in midyear, I was his President Elect. I finished his term and then served my own term 1966-67. So I served 1-½ years. Then I was Past President. I believe Joann Langston was Newsletter Editor after me. She also became President of WORC, as Gene Visco also did. I put out a Newsletter for the 25th Anniversary of WORC, which has all that archival information in it.

BOB SHELDON: So this was the same time you were President of MORS?

JOHN HONIG: Just about, a little earlier.

BOB SHELDON: Were some of the same people who came to MORSS also members of WORC?

JOHN HONIG: Yes. The early people. WORC was started largely by OEG types, ORO types, some RAND, OA in the Air Force. Leroy Brothers was the head of it for years and years. It was the predecessor of Air Force Studies and Analysis. Original war people came from that, and there was also STAG, which was in existence about the same time. STAG, the Strategy and Tactics Analysis Group. But STAG only existed for a short period of time. Their purpose was to develop sand table war games. And they were quite active in getting programs going for WORC. I believe I was followed by Joann Langston, who I just saw last week. Joann worked on the Army Staff and the Army Secretariat for many years, working for Walt Hollis, the

DUSA(OR). She also had the Army Chair at the Defense Systems Management College in Ft. Belvoir. She now works for Walt Hollis again, in Transformation. She heads the Transformation office in Hollis' office. Joann followed me as President of WORC, and I think Gene probably followed a couple of years later. A number of the original people in WORC are still around. For example, Al Blumstein, Joe Engel, Ed Cushen, Frank Trippi, and others.

In parallel, but separately existed the Washington Chapter of The Institute of Management Science, and many people belonged to both. TIMS was separate from WORC. And a number of the TIMS officers were at various times, WORC officers. We were largely the same bunch. A lot of people belonged to both organizations and it got to be too many meetings, so eventually we joined. It got to be a little difficult because TIMS was a local chapter while WORC was very intentionally a separate organization, not part of ORSA.

WORC was never part of ORSA. We were very careful that WORC was an independent organization. And we were not part of ORSA until much, much later. We were formed, basically, by a bunch of idealists who believed that we could apply Operations Research to local problems. And, in fact, we did a study, the development of Rosslyn, on the other side of the bridge in Virginia.

Rosslyn used to be the end of the car tracks, and there were a lot of used car lots and junk stores in there, it was a very junky neighborhood. We had a committee that put together a study on what to do with that area, how to build it up, redo the traffic, etc. And that was actually quite successful. I'm not sure if anybody is still alive. Anyway, we had intentions of using OR for the public good. We felt that we did not want to be tied down to ORSA, or have ORSA tell us what we can and cannot do. So WORC was founded strictly as an independent organization. One of the driving factors for the establishment of WORC was that those of us doing military analysis wanted opportunities to work on unclassified projects (in the public interest) to influence local matters and to publish in the open literature. The effort collapsed partly because of the demands of time (we could work only at night or weekends on the local projects) and partly because our 'free' labor conflicted with the private sector firms that wanted to work on local projects and be paid for the work.

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BOB SHELDON: How many people in WORC were military-related, percentage wise?

JOHN HONIG: Probably a small number, although most of us did military-related analysis. Most of WORC members were military work related, because in fact, there was very little OR done outside of the military. Now, you get people like Saul Gass, who was very active and headed analysis at IBM Federal Systems. You heard of Jim Mayberry who was at Mathematica, people like that. The work was military related, but we had very few uniformed officers as part of WORC.

BOB SHELDON: Did you hold daytime meetings or nighttime meetings?

JOHN HONIG: Nighttime. One of them was the one that I gave you. The year that I was President in 1966, I held a very rare evening meeting, and that included a panel of Finn Larsen, who at that time was the DDR&E; Glenn Kent who was at that time a brigadier general, and of course eventually earned three stars, and is still around. I knew him quite well. Oskar Morgenstern, the world famous economist and father of Game Theory; Bill Niskanen, another famous economist I mentioned earlier; and Jim Mayberry who was in Mathematica, at the time. The four of them held a round table discussion, which was recorded and transcribed. And I have the transcription, and I am trying to edit it into a form to publish in the journal. This is now thirty-five years ago. I think it will be interesting as to what people thought in those days. As far as I've gone through it, I can't say that many of the problems that they bring up have been solved. No agreed value of human life type of thing, for example. The overall theme was called Cost Effectiveness Analysis and Oscar Morgenstern started saying that he can't really discuss cost effectiveness analysis in the way we discussed it, because as far as he was concerned, there was nothing new in the last fifty years. It was all published before, and the problems that they had at the turn of the century were still the same problems we were discussing today. I think he had just written a book on the history of economic analysis. He said there ain't nothing new and that was a long time ago. Somebody could still get up today and say, hey it's nothing new today.

BOB SHELDON: You were also active in some of the other societies. Can you talk about the Washington Academy of Science?

JOHN HONIG: The Washington Academy of Science is 105 years old, so that was before me, not much, but some. I then became a Fellow of the Washington Academy of Science in 1968. And the Washington Academy of Science is, in addition to a regular Academy, an affiliation of 54 local science and engineering societies. When I was President of WORC, I wanted to make sure that WORC became one of the affiliates, and I brought it in as an affiliate at a time. It has been an affiliate ever since. Of course, WINFORMS now is still affiliated with the Academy. I have been the WORC/WORMSC/WINFORMS whatever it is, representative to the Academy ever since, around thirty-five years. I was also President of the Academy in 1981, and I've been on the Board for thirty years. We used to bring in two or three additional affiliates every year.

BOB SHELDON: What kind of a role does Washington Academy of Science play?

JOHN HONIG: It has diminished greatly. Twenty years ago the Washington Academy was very active. We had monthly Board meetings, and monthly membership meetings, generally in the Cosmos Club, on different subjects of broad interest. We had quite good attendance. We published a journal quarterly, four of them a year without fail. It was a pretty active organization. The last ten or so years, we've become pretty inactive. We put out a journal maybe once or twice a year. We haven't had regular monthly meetings. It's not as active as . . . Well, for one thing we used to share an administrative secretary, whatever you want to call it, an administrator with two other societies, so we had a full time person answering phones and sending out notices and so forth and so on. We don't have anybody full time or even part time now. Well, part time yes.

BOB SHELDON: How is the Washington Academy of Science affiliated with the American Association for the Advancement of Science (AAAS)?

JOHN HONIG: The AAAS is a professional organization in its own right. The largest in the world, I believe. Separately, as one of its functions, it administers an organization called the National Council Academies of Science, and for \$85 a year, all the academies throughout the country, all the local academies, are part of this federation. But our main association with AAAS is that we rent our office space from AAAS. Because we rent, we get privileges. There is also a World Academy of Science,

which I have been Fellow with for about ten years. Their headquarters is in Minneapolis, and there are only about five or six Fellows in the Washington area. But they cover the whole world, and they are sort of a bit of an idealistic group. They put out papers on how science can help the world.

We had something called the National Council of Associations for Policy Science, and I don't know if that still exists anymore, NCAPS. My wife calls it Kneecaps; that is not the official name. I was President of that organization also in 1977-78, after a term as Secretary, and a term as Vice President.

I also headed the Membership Committee of ORSA in 1970-72. I was Associate Editor of OR/TODAY and the Organizational Liaison Coordinator for ORSA in 1978-79.

I was a Member of the Governor's (Maryland) Science Advisory Committee since 1969, and produced a factual report on the drinking water situation on the Eastern Shore. The whole Eastern Shore of Maryland is essentially dependent on ground water for potable water. It is using water at a much greater rate than it is replenished.

I didn't make any money.

BOB SHELDON: How do you feel about your impact on those professional societies?

JOHN HONIG: I think they were active when I was active.

BOB SHELDON: And they died away when you left?

JOHN HONIG: I am not quite that arrogant! I think MORS has been doing a very good job. I think Dick Wiles did a real great job getting it started in its current form. But, in general, I think our professional societies are faltering. They have a limited life and people start losing interest. Too many societies exist now and people can't attend them all. You just can't go to all those meetings.

BOB SHELDON: Do you read the *PHALANX* and the MOR journals?

JOHN HONIG: I read every issue of the *PHALANX*. I do not read pure MOR journals. On the other hand I have been on the editorial board for many years for *Computers and Operations Research*, the journal that Sam Raff publishes. Are you familiar with that? It's a journal that was started by Sam Raff on computer applications to OR. And I assume it still exists, I don't know. I got out of it a couple of years ago.

I just didn't feel like being an associate editor anymore, so I got out of it. But that was doing reasonably well, because it dealt with real applications. For many, many years the *Navy Research Logistics Quarterly* was very readable and useful. Sy Selig was running it for many, many, many years. He was the editor. I think now it went to a commercial publishing house, didn't it? It used to be put out by the Navy ONR. But that for many years was a very good journal, and it was relatively non-theoretical. I mean, it didn't do any more equations than it needed to.

BOB SHELDON: Since you have been a leader in these professional societies, what kind of advice would you give to a relatively young director or trustee or leader in MORS or WINFORMS?

JOHN HONIG: Well, you've got to keep the people active. Give them specific responsibilities and make sure they know what they are doing. Organizations must represent a real reason for the members to belong. Organizations must provide a service, e.g. informative meetings, journals, opportunity to publish, prestige, etc. You've got to provide a service that people are interested in, you have got to do marketing and you've got to work at it. Now, MORS is extremely tied to the financial, the economic situation. I mean, that's the facts of life. There's nothing you can do about that. Again, it's a bit of a chicken/egg problem, because industry still has some money. You'll have to develop things that people are willing to go to hear. If you keep it too narrow, you're cutting your marketplace down too far. I think we have to broaden out beyond the strictly military area, and move into the application area. Bring in people who are applying OR to other areas. I like a lot of things that World Future Society is doing. I'm also a member of that. There's a lot to be said about looking into the future and finding out what will people be interested in. And I think you've got to live in the future. Too many societies live in the past. But it takes a lot of work, and it takes people who are willing to do the work.

One of the key factors that used to keep the WAS active was a strong Board of Managers, that included active representatives from many organizations who carried the message of WAS back to their organizations. The managers were also active, participated on active committees. I believe MORS has always been successful as

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long as it included active members on the Board from widely different organizations and representing divergent fields of view.

Again, it's a marketing problem. If you are a successful society, a going society, with a lot of interesting meetings and so forth, people will

come. And the more people come, the more volunteers you have. I think that the way we're going in WINFORMS now with those bigger meetings, I think it is exactly the right way. We're getting more people. We're giving people something for their service.