21 MARCH 2000

WINKLER: Today is March 21, 2000. This is Dave Winkler of the Naval Historical Foundation with Admiral Kinnaird McKee. I'd just like to open by going back to the beginning and talk about being born in Louisville and your parents, the depression, what it was like growing up.

McKEE: I was born in Louisville, Kentucky in August of 1929. The depression really didn't touch my family. I lived with my mother, her sister and my uncle, and my grandparents. My mother remarried in the early thirties. I went through the first grade in Louisville. We then moved to Haddonfield, New Jersey, for a year, where I learned to read in a Quaker school. From there we went to Memphis, Tennessee. My father had been in the radio business from the early days, beginning with Atwater Kent. (You probably don't remember that brand.) He later went with RCA, then with the Zenith Radio Corporation. He was with Zenith for the rest of his business career. He was a regional sales manager, so we moved often.

WINKLER: Now, this is your stepfather?

McKEE: Yes.

WINKLER: Okay.

McKEE: We lived in Memphis until about 1939. I'm not sure of the exact date. Nothing particularly exciting happened in Memphis. I did get as far as the sixth grade.

WINKLER: Did you have any brothers and sisters?

McKEE: I have one sister. She is seven years younger than I. Her name is Kathleen Mercer Trapp. She is married to a physician in Augusta, Georgia: John Douglas Trapp.

As a regional sales manager for Zenith, Dad had the opportunity to live wherever he wanted within his area of responsibility. So we moved to Gulfport, Mississippi. That's basically where I did my growing up. I went through the sixth grade and into the seventh grade in public school.

I was halfway through the seventh grade when the Japanese attacked Pearl Harbor. Zenith asked Dad to come to Chicago (the headquarters), and assume responsibility for the Navy contract work that they expected to have. I wanted to stay where I was; where I had friends. There was a prep school right down the road, Gulf Coast Military Academy. The folks said okay, and I stayed behind as they went north.

WINKLER: Was the fact we're in a war so the military had a very high profile? Was that part of the motivation for your interest in the academy?

McKEE: No, I just liked what I saw of Gulf Coast Military Academy, and the guys who were going there. They had a good football team, had a fine athletic program, a nice academic situation and a very fine reputation.

My mother wanted me to be a doctor. She had in mind that I would go to a prep school called Webb Institute, in Bell Buckle, Tennessee, an isolated but fine academic school. I didn't have a great deal of interest in doing that, so I was glad to find a way to avoid it. Otherwise that's where I might have ended up. Whether I'd have gone on to Harvard Medical School, I really don't know, but I rather doubt it. In the final analysis, Gulf Coast Military Academy was, at least in the beginning, more of a convenience than anything else.

I enrolled at CGMA in the seventh grade, and graduated in 1947. The school was military from grade one through grade twelve; with a thirteenth year for those who wanted it.

I had a good academic career there, and I became interested in sports. My roommate was Hugh Pattillo from Hartselle, Alabama. He went to West Point as I went to the Naval Academy. He had a distinguished career in the infantry. He fought in two wars, with great gallantry. He just died last year. He got me interested in sports. I made the football team and lettered in my junior and senior years. I was the littlest guy on the team, playing center and linebacker. I also made the varsity tennis team. Five of us had petitioned to become a tennis team, and they let us do it. It was an all around good experience.

Gulfport is on the Mississippi Gulf Coast. I grew up sailing from the time we moved there. We had a boat for a brief time before the folks went to Chicago. The boat went into the back yard and stayed there until the end of my junior year. My folks were still in Chicago. Dad let me put it in the water then. That probably was not a good idea, because I didn't do a very good job.

But anyway, my high school time worked out well. GCMA was a fine school. Unfortunately, the school sort of collapsed shortly after I graduated, because the headmaster, a professor named Major Joe Belka, who was principally responsible for its excellence, took his own life on the day of our graduation. The school had been sold earlier. The people who bought it appeared to be taking a lot more money out of it than they put back in. It appeared that Major Belka saw his life's work withering away. The school was gone within a few years after I left. It's now the Naval Home.

WINKLER: That's what I thought.

McKEE: All of that sort of brings me to your question of why the Naval Academy…I don't know exactly why the Naval Academy. It just sort of came along. I had become a

reasonably competent sailor and I had a military background. My roommate and I initially decided we would both go to the Naval Academy. We each petitioned for a political nomination. He petitioned the Senator from Alabama—-Heflin, I believe was his name. Pat was told by the Senator that he didn't have an opening for the Naval Academy, but did have one available for West Point. Pat took it. I petitioned my local congressman and got absolutely nowhere. He told me he couldn't help me, so I went looking for other ways to get an appointment.

As it turned out, Gulf Coast Military Academy was an "honor military school." That may be an archaic term in this day and time. There were seventy-five of those schools then. The service academies admissions programs allowed each honor school to nominate a candidate to take a competitive exam to go to West Point or Annapolis. There were ten nominations available for each, to be filled from among those seventy-five honor schools. I took the competitive exam. (It was called the substantiating examination in those days.) It was basically a civil service exam. Pat (my roommate) stood first in the class and I stood second. He could have had his choice, but he accepted the West Point nomination that he already had in hand, so I became eligible to compete for USNA.

A little sidebar at this point is interesting. The reason I was successful in the competitive exam was because of a remarkable man named Carl Maddox. He was the football coach and math teacher at Gulf Coast Military Academy before the war started. (In those days, football coaches were all educators.) Carl went off to the Navy after Pearl Harbor, served in PT boats, then came back from the war to his job as football coach and math teacher. I took four years of math. When it came time to prepare for the math portion of the exam, I asked him if he would tutor me. He said, "Sure." This occurred during and right after the football season. He took the time to tutor me for several months, several times a week. He would not take a nickel for doing it. To this day I know that I got into the Naval Academy because of that man. I ended up number nine out of the ten who got appointments to USNA.

As a matter of interest, Carl went on to a distinguished career in college athletics. He was a major college football coach, then ended up as the Director of Athletics at LSU.

Carl Maddox came back into my life when I was Superintendent of the Naval Academy. One day Bo Coppedge, our Athletic Director, called me up and said, "I'm the chairman of the NCAA television committee," (a good place for your athletic director to be). "I'd like to have the annual meeting here at the Naval Academy. We have never done that, and it is our turn."

I said, "Sure, go ahead."

He said, "By the way, there's a guy who's a member of the committee who says he knows you." It was Carl Maddox. He came to the meeting and spent a weekend with

us. What an experience! He was truly a remarkable guy in every respect. He hadn't changed a bit.

Anyway, that's how I got into the Naval Academy. I arrived in the summer of 1947 for the class of '51.

You asked about plebe year. I had heard all the legends about plebe year. Certainly, some upper classmen weren't nice to me. But that was all right; it was no more than I expected. I made the varsity sailing team that year. In those days, we sailed the old lapstrake International Fourteen dinghies. They didn't have the range of sailing craft that they have now.

At the end of youngster year I went out for 150-pound football and made the team for the fall of second class year. That was wonderful. I came back early from cruise and started working out, but everyone seemed to get in shape but me. I had come down with mononucleosis, ended up in the hospital for several weeks, and the football season went by me like a bullet. I finished off my athletic career playing intramural tennis.

Our company (13) had a great bunch of guys; good athletes, good academics. We won the colors. My classmate, Jim Winnefeld, was the company commander; I was his exec. Later in life I was the Superintendent and he was my Commandant of Midshipmen.

Let's see. Oh, about academics. I graduated 51 of 725 in the class. I worked hard and did okay. Not much of a story there.

WINKLER: How did that influence you, and I guess you probably heard quite a few stories from the war?

McKEE: Not many. The people who came back didn't really want to talk about it. A significant percentage of our class served in World War II. One had been a Lieutenant in the Army. He came back and started all over again. The average age of our class was considerably older than they are today. As I recall, the age limit was twenty-six.

Plebe year was a very balanced, straightforward kind of thing. There was very little mickey-mouse. (I think that is the term the kids like to use today.) These were mature men, most of them. Plebe year was run differently in those days. We didn't have any upper-class midshipmen around during plebe summer. The whole first, second, and third class went off on cruise together. A handful of Ensigns out of the last graduating class ('48A) stayed behind to act as company officers. As I remember, there were two per company. They got us in shape, but it didn't take a lot of effort because so many guys in the company had already had military experience. We knew how to march. I'd been marching for seven years; I didn't have any trouble with that.

In retrospect, it was a good experience. There was a certain amount of what has been described by conventional wisdom concerning plebe year—we had some of that, but not as much as is done today. For example, nobody screamed at me. Today they do a lot

of that. We knocked that off when I became Superintendent, but it keeps coming back. So it's…Well, anyway, I'm rambling. Does that answer your questions?

WINKLER: It does. Some of the classmates you may have had, that you knew, went on to do great things at the time. For example, Jimmy Carter…, Bill Lawrence…

McKEE: Jimmy Carter was out of '47. Bill Lawrence was in my class.

WINKLER: Okay.

McKEE: Bill was the Brigade Commander. He was everybody's bet for CNO. As you know, he was shot down during the Vietnam War; was captured, and spent a lot of time in captivity. He behaved with great gallantry, came back, got the three stars, then retired. By the time we had all retired, my class had produced twenty-eight USN flag officers, two foreign flag officers, and two USAF general officers. Many of our guys did well. I didn't do very well as a midshipman. The best I could get was two stripes. But things seemed to work out okay later.

WINKLER: Your midshipman summer cruises?

McKEE: Summer cruise was good fun. The first was on the battleship Missouri. We made a Mediterranean cruise. The next was called an "air cruise." (second class year) We didn't go to a ship. We flew around to various aviation activities—Pensacola, Olathe Kansas, etc. We went to the Cleveland air races. My first class cruise was on a light carrier with a reserve fighter squadron on board. (The light carrier was built on a cruiser hull.)

WINKLER: Which one?

McKEE: I don't remember.

WINKLER: Okay.

McKEE: During my second-class year, I became interested in submarines when Cochino showed up for a visit. Cochino, you may recall, was later lost up in the north Atlantic, off North Cape. She came to call when I was a second classman, or late in third-class year. She had just completed a high performance guppy conversion; a big black streamlined machine. I was really impressed. I had gone to USNA wanting to fly, but I made up my mind that if I couldn't fly I would go to submarines. So during my first class leave period, I went to Key West and spent three weeks there in Corporal. She was a sister ship to Cochino. I liked it, but we couldn't go into submarines right out of the Naval Academy as they can today. We had to go to destroyers or some other surface ship to qualify as OOD underway before we could apply.

WINKLER: Well, let's talk about graduation and then you getting on the destroyer.

McKEE: Well, graduation was graduation. It was a wonderful time. Everybody who was supposed to come, came. There was one big disappointment. I was supposed to go to West Point to stand up for my GCMA roommate (Hugh Pattillo) when he married Patsy Danley, a Gulfport girl. I got sick at the end of June Week and couldn't get out of bed in time to be there for the wedding.

By that time, we had already selected our ships. They didn't let us choose according to class standing in those days. We drew what were called preference numbers, e.g. numbers out of a hat. It didn't matter where we stood academically; it was the luck of the draw. I drew number 587 out of 725. I was lucky to get a destroyer. The Korean War had just broken out, and I thought everybody would go West, but the East Coast destroyers filled up first. I think that was probably because that's where the more modern ships were. Anyway, I went to USS Marshall (DD 676), in Destroyer Division 171. My classmate, Jim Winnefeld, went to Halsey Powell in the same Division. Marshall was just being re-commissioned when I joined her. We worked up and deployed very quickly.

We did two tours out there. During the first I was the Fire Control Officer. We did the things that all of the destroyers did in the Korean War. We started off with Task Force 77, screening for the carriers. We also did a lot of time in Task Force 95, the shore bombardment group. During that time we also did some unusual jobs. For example, we supported some of the covert operations being conducted on islands off Wonsan harbor.

That was particularly interesting for me. I was sent ashore with a boatload of material for the army commander headquartered on one of the islands. When we got alongside (I was boat officer) and couldn't find anybody, I thought "Well, I'll go find somebody; must be somebody on this island." So off I went to find the CO, an Army major named Coccanelli. I finally found him, and we got it all done, but it took a while, and I was not in communication with the ship. When I got back, the skipper beat me up (figuratively) for leaving the boat. I said, "Well, how was I going to deliver the goods if I couldn't find the guy to whom I was supposed to deliver?"

The Skipper didn't like that answer. He said, "You never should have left the boat." And I thought, well…I'll see that one come back again. But it didn't.

WINKLER: What was Coccanelli, a spotter?

McKEE: No. He was running a group of infiltrators from the island.

WINKLER: And was this outside of Wonsan harbor area?

McKEE: Yes. His target areas were up and down the coast, just above the Bomb Line. You may remember the Bomb Line; it ran south along the coast, then across—East to West.

We did a lot of shore bombardment and also did some time on the Formosa Straits patrol. We liked shore bombardment assignments better than screening the carriers because there weren't any real tactical opportunities for us in the screen. We ran around hoping to encounter a submarine, but never did.

We came home to Hunter's Point Naval Shipyard after the first deployment. The ship had gone on her first deployment with exactly the same armament she had carried during World War II. She had come right out of mothballs after only a couple of years. So they sent us back to Hunters Point for a short overhaul (it really was an availability) to upgrade the weapons systems. They took off some of the 40-millimeter guns and put on 3-inch 50's. Other 40mm guns were removed to make room for new ASW launchers (hedgehogs). We left with upgraded ASW and anti-air armament. The 5-inch guns were left alone.

We went down to San Diego to work up. By that time I had relieved as Damage Control Assistant. It was during that work-up that we had a collision with the Gregory, another destroyer in our division. I had only been the DCA for about twenty-four hours at that time. The collision gravely damaged fourteen frames of the bow. We were steaming in a tight formation at night, after the day's exercises. The task group commander's night orders said we were going to reverse course at about 0100. I was midwatch OOD. I spent the whole midwatch waiting, listening for the signal. It never came. At 0345 I told my relief, Frank Hanlon, that I was concerned. I said, "Be alert, because what's probably going to happen is the relieving staff duty officer will read the night orders and tell the departing duty officer, 'You were supposed to change course two hours ago.' Then a lot will happen very fast." That's exactly what happened. Gregory, the Division flagship, was on our port quarter. Anyway, Gregory didn't get the word.

It was a classic collision at sea. There were many links in the chain of events. If any one had been broken the collision would not have happened. But it did. The oncoming staff duty officer relieved, then sent the tactical message: "Execute to follow—One eight zero turn—Standby--Execute." All together and very quickly. He did not ask all ships to acknowledge. He just said, "Banknight (USS Gregory's call sign), acknowledge." On another ship in our Division, the officer of the deck had just come from the Gregory (Banknight). He, having just relieved at four o'clock in the morning, heard "Banknight, acknowledge," and out of force of habit grabbed the mike and responded, "Banknight, roger, out," because he'd been in Banknight for two years. The flag thought his message had been properly acknowledged and off we went. Gregory had not gotten the word.

All during my watch, Gregory had been out of station (too close to us). Instead of being at about a thousand yards, they were only five hundred yards on the quarter. I had been worried, because I figured that when we turned, we were going to turn in that

direction (which we did). We started our turn, but they never turned. Frank Hanlon backed emergency when he saw what was happening, so we hit them instead of their hitting us. The Captain of the Gregory was not on the bridge. He had left instructions not to be called for the turn. The oncoming officer of the deck on the Gregory, instead of being out on the wing of the bridge for the turn, was in the pilot house. His JOOD had the conn. They didn't even stop their propellers, much less back, until after we had hit them.

It was a useful exercise for me, as the new Damage Control Assistant. I raced down to Damage Control Central, got on the phones, got all my charts out, and got ready to do the DCA thing. But nobody was talking to me. I thought, "This is nuts, the damage is up there and I'm sitting way back aft doing nothing." So I gave the phones to one of the talkers and went forward, to take charge at the scene.

WINKLER: Had you been awake? Because you had been relieved, I assume that you probably were aroused by what, the collision alarm?

McKEE: I was alerted by the force of the collision. I was just taking off my shoes, sitting on my bunk. There wasn't any question of what had happened. I don't remember a collision alarm. So anyway, I raced forward to work with a reserve first class Carpenter's Mate, who was the head of the damage control team at the scene. We shored everything up so the bulkhead wouldn't let go. We went very slowly back into port. On the way in, the skipper (a different skipper this time), chastised me for going to the scene instead of remaining in Damage Control Central. I replied, "There wasn't anything going on back there. It seemed to me that I ought to be where the problem was." He disagreed. I'm not sure I really took his lesson to heart!

Anyway, we went back into the shipyard, got a new bow, and deployed again. I had been aboard for a year by that time, and had finally become eligible to apply for submarine school. I applied, but didn't make the cut. So I thought well, I've had my tail chewed a couple of times; maybe that's showing up in my fitness reports. (It never did, as a matter of fact.) I thought, "I'm a pretty good destroyer officer, so I'm going to be all right." But at the next opportunity I put in for submarines again. I didn't make the cut that time either.

I had had in mind someday going to MIT for postgraduate work, so I applied. They sent me an entrance exam. It required about eight hours to fill out a book full of problems. I did that, sent it back, and got the word I was accepted. So I thought: "That's okay; I'll forget about submarines and go on to MIT right away." Then the submarine detailer called and said, "We've got a vacancy in this sub class. You're at the top of the list of guys who didn't make it. Do you want the seat?"

I replied, "No. You guys turned me down twice. I'm going to MIT."

He replied, "You can always go to MIT. Come on with us, get your dolphins, then go to MIT."

That's what I did. (I never got to MIT.)

By this time Marshall was back in Japan. I was ready to fly home (I had about two weeks leave on the way to submarine school) when I got a letter from Mother. They had just moved to Jackson, Mississippi. She said, "I know you don't like for me to interfere in your personal life. But there's a nice girl living right around the corner, who has offered to take you to the Debutante Ball so you can meet some folks." (I'd never even been to Jackson, Mississippi). "So I accepted for you." "Oh, okay" I thought. Actually, I couldn't have gotten hold of Mother to say no anyway. I was on my way home. It would take a long time on a propeller driven airplane to come back from Japan.

Well, the short version of this story is, I met Betty Ann Harris the day I got back, and we were engaged the day before I left to go to Submarine School. We were married at the end of Submarine School.

WINKLER: Well that answers one of the questions, because I just didn't see where Jackson, Mississippi came in.

McKEE: That's where it came in. Dad had retired from Zenith. He never had any interests other than business. He didn't have any hobbies or athletic interests. In retirement he was not happy. So he started a distributorship there in Jackson, selling radios, TV's, and other types of appliances. They moved to Jackson to do that. I'm not sure why, but I think it was probably because Jackson was more centrally located in Mississippi.

WINKLER: Before I close on your destroyer career…You had a situation where basically you were thrown on board this destroyer with all these other folks, with this re-commissioning crew, and I take it quite a few of them were Naval Reservists?

McKEE: Yes. Most of the officers were Naval Academy graduates who had served in World War II; Lieutenants. They had stayed in the reserves after they were mustered out, then were called right back again for Korea. They were extraordinary men. They served with great gallantry and skill. I never heard them grumble about having to come back to active duty. Truly remarkable. As I recall there were only three or four regular officers on the ship. The crew was about eighty percent reserves, recently called back. I never heard any of them complain about having to return to active duty. They were good, capable, dedicated men.

WINKLER: So because of that previous experience in the Second World War, it really didn't take much to bring this crew together.

McKEE: Not really. One of the questions you had asked earlier was: "How well was I prepared by the USNA to go to sea right after graduation?" In fact, I was very well prepared. The professional courses; navigation, weapons, and all that, were very nicely tailored to going aboard a destroyer right away. I was tired of going to school after four

years. I wanted to get in my new car with green money in my pocket, go to the West Coast and go to sea. It all worked out very well.

To digress a bit, it's unfortunate—necessary but unfortunate—that graduates today must take so long to get to their first ship. And there are also immediate graduate programs that further delay reporting to their first duty station. That is too bad. The Navy needs to find out whether a graduate is worth a damn as a naval officer before investing in graduate education for him (or her).

We were prepared very well for duty in destroyers. I had operated most of the equipment I would have to deal with on the ship. This was a 2100-ton destroyer, one of the older ships. So almost everything they had was exactly what I had been exposed to at the Naval Academy.

WINKLER: It was a Fletcher-class?

McKEE: Yes, DD 676. In fact, take a look sometime at the new YP's at the Naval Academy. Those are the gray boats they use to teach midshipmen the rudiments of ship handling in surface ships. The first of the line is number 676. That is not an accident.

WINKLER: I can see there's some influence there. I imagine the senior officers in the wardroom as well as senior enlisted served as very good role models for you on that first ship. You probably picked up some good experience from those folks?

McKEE: Yes. They were good people to go to sea with. My exposure to the enlisted people was relatively limited because I didn't have a large division in either of my two jobs. But I was involved in everything they did. I did not stand engineering watches, but I stood deck watches almost immediately.

WINKLER: Okay, let's march through submarine school. Now you're going from the West Coast back to the East Coast.

McKEE: That's right. I was so taken with my new fiancée that I left my Jaguar XK120 with her and took the train back to Submarine School. Submarine School was okay. I did well (number two in the class).

As graduation approached, we were allowed to choose a boat by class standing. I chose USS Picuda (SS 382) in Key West. That was a great experience. Tradition says the first skipper you sail with is going to have a lot to do with how you turn out. I'm convinced of that. Ted Swain was the Picuda skipper. He had been the Director of the Engineering Department at the Submarine School while I was there. He left about the time I did. We went up to Portsmouth, New Hampshire, to put Picuda back in commission. She was a Guppy (high performance) conversion. The exec was another submarine school instructor, Ira Glass. It was a great situation. Two of us from the sub class went to that ship. It was a good ship; it did well. We didn't do anything terribly

exciting, but we all did the things that submarines were doing in those days. Picuda was based in Key West.

WINKLER: Was Swain a junior officer during World War II?

McKEE: Yes. He served in USS Pampanito.

WINKLER: Okay.

McKEE: I think Ira was too. I don't know for sure though. Ira was a Lieutenant. He may have come in right at the end of World War II. But Ted was in submarines during the war.

Picuda had a good reputation. I was only there for about eighteen months. I qualified in about ten months. I'm not even sure I was there for eighteen-—I forget the dates. But I was pulled off early because the Sea Cat (SS399) had failed an operational readiness exam. There was not an "E," (battle efficiency pennant), in each squadron in those days. There was one for the force, and each Squadron Commander nominated a boat for the award. Sea Cat was nominated by ComSubRon FOUR. SubLant sent a team to give them a competitive ORI (operational readiness inspection).

WINKLER: So the Sea Cat failed an inspection when it was nominated for the Battle "E"?

McKEE: Right. It probably was embarrassing for the squadron commander, to say the least. ComSubLant wanted to strengthen the wardroom of that ship. So they sent two of us over there.

WINKLER: One thing before Sea Cat. When you were on the Picuda the ship's history said that when you were on there you deployed in the Med?

McKee: Right. We did deploy to the Med. We started in England, working for the Royal Navy ASW school in Londonderry. We spent several weeks there, working with Tally Ho, a British T-Class Diesel submarine. Then we went into the Med, but not for a long tour. I don't think we were in the Med more than about three or four weeks, then we started home. We ran through an unexpected hurricane on the way. That was a lively time. We almost lost the ship.

WINKLER: For background at the time, submarines during World War II were used to going after enemy shipping. But the Cold War emerging with the Soviet Union, the thought was that the submarine could be a primary ASW weapon.

McKEE: That's right. But that was just coming into focus. In fact, I've got copy of an oral history by Admiral Roy Benson. He started Submarine Development Group Two in New London. We just celebrated the fiftieth anniversary of that event last year. I did the principal address. Maybe you would like a copy?

WINKLER: Yes.

McKEE: That address described how the Development Group got started, and how submarines got into the ASW business. (Picuda was not in the Development Group.) We were still just doing an updated version of what submarines had done in World War II, and providing services to ASW forces. We probably did more of that than anything else.

WINKLER: Okay, so you were basically a target ship.

McKEE: Yes. Most of the time it wasn't terribly exciting.

But back to Sea Cat. Shortly after I reported aboard, we had an ORI re-exam and passed. Soon after that a new skipper came aboard. I don't know whether the C.O. who had the boat when it got the unsat left because of the ORI failure or because he was at the end of his tour. The new C.O. was an unusual man. He had been sent to Sea Cat to square her away. He did not do that. I found myself at odds with him several times. (By that time I was the engineer.) We crushed a fuel tank because somebody made a mistake on rig-for-dive. He didn't want to report it. His comment was, "Well, I think we just went through a layer."

Another time, we took the ship to sea to ride out a hurricane that was approaching Key West. I had the deck. I got word that the captain wanted us to steer a course that would take us into the dangerous semicircle. I didn't change course. He came to the bridge and ordered me to change course. We discussed the situation in increasingly heated terms. I told him that his ordered course would take us into the dangerous semicircle. He insisted, so I finally said, "Either relieve me or get off the bridge." He got off the bridge.

After that I decided that I needed to leave the Sea Cat just as soon as I could. I knew the XO of Marlin (SST 2) was about to leave, so I asked for his job. Orders came for me to go to Marlin. C.O. Sea Cat told the detailer he would not let me leave unless they could provide two officers to relieve me. They left my orders in force, and I departed.

I went on to Marlin. I lost track of Sea Cat after that. I really didn't think much more about that tour until the end of my Marlin tour when I received orders to the X-1 as OinC (X-1 was an "in service" vessel). I stopped in Washington en route to X-1 to read my fitness reports for the first time, and found that C.O. Sea Cat had given me a virtually unsat fitness report. My marks were down the right-hand side of the report, but one notch over. In those days if they weren't all the way to the right the reporting senior didn't have to inform the officer concerned so I did not have an opportunity to rebut the report. After reading all that, I went back to the detailer and asked, "What do I do with this?"

The detailer told me to forget about it. "Everybody knows that guy." Later, that CO committed suicide. I came out okay, but it could have been a really bad situation for me.

WINKLER: The executive officer-—it must have been very challenging for that individual.

McKEE: The executive officer—I'm sure it was a miserable time for him. He was a nice guy, and a competent submariner, but he was not the kind of officer they needed in that circumstance.

WINKLER: Both boats, the Sea Cat and the Picuda, were based in Key West. The prime mission for both was to provide ASW services to…?

McKEE: To the Fleet Sonar School. Right. We also participated in fleet exercises. It was pretty routine. Marlin was strictly a target submarine. I had two skippers on that boat: Bert Findly and Warren Detrickson. That was a great tour. I was only on there for about a year. It was sort of like serving on a submersible yacht. We could only go about eight knots submerged, and maybe ten knots on the surface. The boat didn't draw a lot of water so we could take shortcuts to the operating areas. It was an exciting time. We were also allowed to do tactical submarine stuff. We did submarine versus submarine operations in that little boat even though it didn't have any modern fire control equipment. We just had a BANJO and an IS-WAS. Do you know what they are?

WINKLER: No. The term sounds familiar, but refresh me.

McKEE: The IS-WAS was a circular slide rule that served as the position keeper in our fire control system.

WINKLER: Right.

McKEE: The BANJO (it looked like a banjo) was a device with which to calculate gyro angles. We had no way to set gyro angles except manually. It was the way submarines had to do fire control back in the twenties and early thirties. We had one torpedo tube. We could only fire the Mark 27 torpedo; a small acoustic weapon. In spite of that, we had the best hit percentage in the squadron. We even won the squadron's Battle Efficiency Pennant. A lot of folks were surprised, to say the least.

WINKLER: How large a crew?

McKEE: We had fifteen or sixteen, including the captain and the exec. OOD watches were stood by two or three of the senior enlisted men and by me. She had a single screw. I got a lot of experience handling a single-screw submarine well before most other contemporary submarine officers. That was very helpful when I went to the X-1; another single-screw boat. Later, when I reported to Skipjack (SSN 585) I had more experience

with single-screw ship handling than anybody on the boat. That helped me get off to a good start on that tour.

I qualified for command in Marlin. At the time I was about two-thirds of the way through the tour. There's nothing like the arrogance of youth. As soon as I qualified for command, I wrote a presumptuous letter to the detailer, in which I said words to the effect: "I've qualified for command and I'd like one now." I thought nothing would come of that, but why not try? Well, I got orders to the X-1 by return mail. That was great. It was the most exciting set of orders I ever received, including my orders to command of Dace (SSN 607).

WINKLER: Your six months there as OIC of the X-1, which I have January to June, '57…

McKEE: I'm going to tell you about that tour. By the way, while I was on Picuda I was recommended for nuclear power training.

WINKLER: Okay.

McKEE: I didn't make the cut. I didn't even get interviewed. Then I was recommended again by C.O. Picuda after I'd gone to the Sea Cat. I didn't make the cut again. So I went off to X-1. At that point I'd kind of lost interest in the nuclear program. I had my own submarine, and who would walk away from that?

X-1 was an unusual tour. Do you know what the X-1 is?

WINKLER: A midget submarine.

McKEE: Right. I had ten people in the crew but the most that could go to sea at the same time was five or six.

WINKLER: Sounds like the Hunley.

McKEE: Better than that; skipper and exec and three enlisted men. You may have seen the boat over at the Naval Academy. She is a monument today.

WINKLER: Okay.

McKEE: It looks somewhat different there (the picture) because during my tour it had a mine section installed. It doesn't have that section where it is now displayed.

WINKLER: In that picture you look like Holland coming out of the original submarine.

McKEE: That's a commissioning picture of the boat. It had changed by the time I relieved. The boat was in Portsmouth, New Hampshire. The skipper at that time was

Red Hanlon. He had placed her in service. Do you remember what the British X-craft were and what they did?

WINKLER: Were those the ones that went into Norway?

McKEE: Right, they sank the Tirpitz; put her on the bottom.

WINKLER: That's right.

McKEE: As I understand it, in the period shortly after the war, there were a number of new submarine applications under consideration. The submarine community decided it would be a good idea to borrow one of the British X-craft to see if it would be useful in our Navy. Those small submarines carried what were called side charges; big mines. They also had diver lock-out capability. The crew included qualified divers. Those divers would use hydraulically-operated net cutters to enter an enemy harbor, cutting their way through anti-submarine nets, so the boat could enter and place its mines underneath the target ship. The mines were timed to allow the delivering submarine to escape before the explosion. In practice, they rarely did escape. The crews were usually killed or captured. The Italians also had small submarines, as did the Germans and the Japanese. Anyway, back to my X-1. As I understand it, arrangements were made with the Royal Navy to borrow one of their X-craft.

As the story goes, one or more politicians from New York became involved in the acquisition decision. Fairchild Aircraft offered to design and build an X-craft that would be faster and dive deeper. They had never built a submarine. They were an aircraft manufacturer. They won the contract, and spent several million dollars on the project to create an X-craft.

Fairchild did build a very sophisticated small submarine. The configuration was different. It had no bow planes; only stern planes. It had a Hydrogen Peroxide Diesel engine. In fact, it was a Hercules truck engine that ran on air on the surface (like any other Diesel engine) but substituted the decomposition products of Hydrogen Peroxide (Oxygen and steam in about the same proportion as Oxygen and Nitrogen in air) for submerged operation on the engine. Logical. The theory was okay. The boat could run faster submerged than it could on the surface and had a longer submerged range. It was also very quiet. The engine was beautifully sound-isolated.

When I received orders to the boat, it was in Portsmouth Naval Shipyard. After I relieved Red Hanlon, I was told by the squadron commander that I probably would not be there very long. "We're going to put that thing out of commission; it doesn't work." That upset me. This was my first command, and they were going to put it out of commission?

The principal problem with X-1 was that the engine was breaking itself up after only a few hours on Hydrogen Peroxide. ComSubLant would not put any more money into fixing it, so I went down to the Bureau of Ships and banged on doors until I found a

Captain in the Diesel code, who offered to help. He said: "I've got about $48,000 left for this fiscal year. I'll let you have it. If you can get that thing to run, we'll keep it in commission."

I said, "Okay. But I need a free hand. I don't want the shipyard involved except to carry out my orders. I don't want any design help. I just want them to do what I will need to support our test program. We will run the tests. I can't afford the overhead that would go with normal shipyard procedures."

The invulnerability of youth was clearly at work, but he agreed. In retrospect, that was astounding. It didn't make everybody at the shipyard happy, but the Production Officer, Commander Charles Swanson, was a great help. We've been close friends ever since. We set about identifying and solving the engine problem.

X-1 had another problem that the shipyard had already solved. The crew had discovered (before I got there) that the submarine was basically uncontrollable when submerged at slow speed. It would "Chinese." By that, I mean that when you pushed the control column forward to go down, the boat went up. Pull back, and it went down. (The opposite of what airplanes do.) The problem was excess longitudinal stability in X-1's short, fat hull. The designers had not provided any bow planes, and at slow speed, when the stern planes were put on full dive, they couldn't bend the nose over far enough to drive the boat down. Stern plane lift that was attempting to tilt the bow down just picked the whole boat up. The same thing happened in reverse when we put rise on the stern planes. By the time I got there they had finally concluded that the boat had to have bow planes and were installing them.

I had a great exec (Dick Boyle). He later made arctic ice operation in Skate with Jim Calvert. I also had a terrific bunch of enlisted men—a very diverse group. My leading engineman was Harry Brown—they called him Harry "Dog" Brown. He was a submarine Diesel engineman. My electrician was Marvin McCamis. His hobby was small internal combustion engines. Later, he was the pilot of a deep submergence craft (Alvin). They found the lost atomic bomb at Palomares.

We figured out how to solve the engine problem. The designers at Fairchild had not taken into account some of the basic gas laws. They didn't seem to recognize that when the boat was running on the surface in cold weather, the induction chamber would be at the same temperature as the outside air. That was okay on the surface, but when steam and oxygen began to enter the chamber (after the shift to peroxide), the steam would condense in the cold induction chamber and pure oxygen would be fed directly into the Diesel engine. You can imagine what happened; it became very hot. Meanwhile, condensed steam (water) would collect in the induction chamber and eventually overflow into the cylinders. Water is non-compressible. The engine block and/or cylinders and pistons would crack.

The yard did as we asked. They built a tempered glass induction chamber so we could see what was happening (on the test stand) during the shift to the decomposition

products of Hydrogen Peroxide that would replace air for submerged operation. We also had them build a glass collection tank so we could determine how much of the steam was condensing during the shift from air to the Steam/Oxygen mixture. Those observations, with induction chamber temperature measurements, enabled us to keep solid water from entering the engine and thus avoid the cracked blocks and pistons that had plagued the boat from the very beginning. Later, the Yard replaced the glass induction chamber and collection tank with stainless steel versions for operations at sea. Those modifications proved quite successful. There were no more engine failures.

WINKLER: What was the clue that this was the problem? Was this self-evident, or…?

McKEE: There were several clues. One was that the engine lube oil would become coagulated in a relatively short period of operation. That meant that water was getting into the cylinders. It was also obvious that water was getting into the cylinders because of the cracked blocks/pistons. The pistons were trying to compress an incompressible fluid. The question was; where was the water coming from? There could only be one source. I didn't figure that out all by myself. Harry Brown did most of the theory work. I took the lead in figuring out how to fix the problem, but he was the one who said, "I know what the problem is."

WINKLER: Which yard was this?

McKEE: Portsmouth, New Hampshire.

WINKLER: Portsmouth, okay.

McKEE: Initially the engine worked very well. We went to sea, and made what I was told was the first successful deep dive in that little boat. We thought our problems were over. Then a few days later, the other end of the boat blew up. That was the end of its career as a warship.

What had happened was this: The (90% unstabilized) Hydrogen Peroxide was contained in a polyvinyl chloride bag in the bow compartment. There was an arrangement by which that compartment was pressurized to send Peroxide back to a catalyst chamber where it decomposed into steam and oxygen for submerged operation. The boat had had such trouble before the overhaul that the bag apparently had never been fully emptied and refueled.

After the explosion we also concluded that the bag had simply been in place too long. We were running it hard. We were collapsing the bag and inflating it as we burned fuel and replaced it. We had just come back in from a demonstration in the river. We refueled, (expanded the bag to full volume), then left the boat moored to the barge and went home.

The bow blew off. The bag had become brittle and had cracked. It contained ninety-percent unstabilized Hydrogen Peroxide. The Peroxide was heavier than water, so it immediately went to the bottom of the compartment. A pipe connected to the bottom compartment to pressurize it and move the Peroxide to the catalyst chamber was silver-brazed. Silver was the catalyst used to initiate decomposition of the Peroxide into steam and oxygen, so when the Peroxide collected around the silver-brazed joint, the resulting rapid decomposition blew the nose off the boat.

Fortunately the boat was bolted together. The nose was bolted to the operations compartment just like a torpedo. There was a solid bulkhead protecting that compartment. When the explosion occurred it sheared all the forward section bolts and the nose came off. Chuck Swanson was eating supper nearby. He saw the nose sail through the air and sink. The boat quickly filled with Peroxide fumes and smoke.

I was at home eating supper when all this happened. The phone rang and a second class petty officer (who was the duty officer) said, "Captain, you'd better get down here quick!"

I said, "What's the problem?"

He said, "The boat just blew up!"

I said, "Is it still afloat?"

He said, "I don't know," and hung up.

I did indeed get down there quickly. The boat was still afloat when I got there, so I jumped in, started the engine and ventilated the compartment.

Let me back up for a moment. Right after our successful sea trial, I had finally been ordered to Naval Reactors for an interview for the nuclear power program. I had gone for that interview shortly before the boat blew up. I did have an interview with Admiral Rickover and three members of his staff. It was interesting. I'll have more to say about that later. Anyway, I had been accepted for nuclear power training when the explosion occurred. However, at that time I was not all that enthusiastic about leaving X-1. I had gotten the boat to work right and it was mine. I was supposed to take her to Little Creek (Amphibious Base Norfolk) where I would have what amounted to my own small submarine base. We were going to work with UDTs, (later the SEALs) and perhaps the CIA. It was going to be very exciting.

But back to the X-1. After the accident, the squadron commander sent a team to investigate. I wasn't smart enough at the time to realize that I might have been in a heap of trouble. After all, I was the skipper, and my submarine blew up. His staff scrubbed us hard, but we came away with a clean bill of health. We had the necessary procedures, a solid training program, and good records. Everything was in order. I went off to nuclear power school, and the boat went to Annapolis where the Engineering Experiment Station

removed all of the Hydrogen Peroxide equipment and ran it as a conventional diesel-electric submarine. That's where it stayed until it settled in the Naval Academy Yard.

That was the end of my X-1 tour. I wouldn't take anything for having had that first command. It was an exciting time. And I had tremendous support from people I didn't even know very well. They encouraged me to do whatever I wanted to do to make it work. That was a very unusual situation.

WINKLER: Going back, you had orders then to go to nuclear power school. But go back and digress, the interview…

McKEE: The interview followed the usual process. There was one difference. One of Admiral Rickover's most senior people interviewed me. His questions were: "What is the X-1? How does it work? What kind of problems did you have?" It was not a short interview. I went to the blackboard, drew engineering diagrams and explained in some detail much of what I told you earlier. That was my interview. I guess they decided that I was probably a reasonably good prospect if I could figure out how to make that little boat work.

My interview with Admiral Rickover was short. He asked two questions: Why had I not done better at the Naval Academy and in submarine school? I told him I had stood 51 in the class at USNA.

"That's not what it says here," he replied.

I said, "Sir, you've been misinformed. I stood 51."

Then he said, "And you didn't do well at submarine school."

I said, "Well, I stood number two in the class."

And he said, "It says right here…"

And I said, "I don't care what that says; I stood number two."

Then he said, "Get out!"

I thought, well, that's the end of that. I wasn't feeling too bad because everything was working for me with X-1 at that time. We hadn't had the explosion. And I was really excited. We were about to take the boat down to Little Creek. I was going to be doing all kinds of interesting things with UDT. We were all qualified divers when I left the ship. Somebody later said, "Well, you blew up your boat so you could go to nuclear power school!"

WINKLER: During this time now you're married. Talk just a little about that.

McKEE: Well I did marry Betty Ann Harris. She passed away three years ago. (You just met my new bride - Patti. We were married September 1999.) Betty Ann was two years behind me in school. She was in the class of '53 at Millsaps College in Jackson. We met in December of '52. She stayed to finish college while I finished Submarine School. I went back to Jackson. We were married there, and honeymooned on the way to Portsmouth, New Hampshire for Picuda. Then we went to Key West. Our son Jim was born there in 1954. We had a second son, but he had a congenital heart problem--the kind of thing they could fix today. He didn't make it. She was a rock. She was wonderful.

Interesting—we became engaged thirteen days after we met. A lot of people were surprised about that. We went home to see her mother the night I proposed. We woke her up at four o'clock in the morning. "Wake up, wake up. We're engaged." Poor thing.

She said, "Okay. Let me go back to sleep. We'll talk about it tomorrow." The next morning she got Betty Ann aside and said, "That young man knows what he wants to do. You don't know what you want to do with your life. So you've got to make up your mind that whatever he wants to do is going to be what you want to do. Otherwise you'll be miserable and so will he. He will not be successful and neither will you."

What a wonderful thing for her to do. It pulled Betty Ann up short, but it was what she needed to hear at that time. She took it aboard and that's the way she handled herself for the rest of her life. She was an extraordinary woman. It was not easy for her. I kept having to do things in my career that others did not.

WINKLER: All right sir, and I assume she followed you down to Key West and to…

McKEE: Right. She went with me everywhere. We had a good life. We really did. Our daughter Anne was born in 1959, when we lived in New London. (Skipjack)

WINKLER: She's just about my age. I was born in '58. Okay, the nuclear power pipeline. Let's talk through that.

McKEE: The school was in New London at the time. It was in one of the old sub school buildings. Lieutenant Commander W. W. Behrens was the skipper of the school at the time. He would leave there to become the first captain of Skipjack. (I don't think any of us knew that at the time.) Skipjack (SSN 585) you may remember, was the first high performance nuclear attack submarine. Bill Behrens was a fine C.O. and a tremendous guy. He retired as a Vice Admiral – Oceanographer of the Navy.

I was in the fourth nuclear power class. Before the school came on the line, officer trainees had gone to NR headquarters and one of the NR laboratories.

WINKLER: OJT time?

McKEE: Sort of; study programs and all of that.

Nuclear Power School was tough. I thought I would be well prepared because I had earlier been accepted at MIT and had done reasonably well at USNA. But I had never worked as hard academically as I did at Nuclear Power School. The instructors were young NROTC and OCS graduates with advanced degrees. They were all about our age or younger. Most were very good. Some were better than the others, but that's to be expected. We had a wonderful math teacher. He became a very important part of my life at that time. I was the first officer student who had ever taken sick at nuclear power school. For about ten days Betty Ann and I had Asian flu. (Our four-year old son Jim kept us fed.) The math teacher came every afternoon to tutor me, even though I was contagious. I wasn't much of a student for the first few days, but he was there every day. Without him I would have failed.

After nuclear power school we went to Idaho for training in the Nautilus prototype. Others in the class went to West Milton, New York and a few went to the Tullibee prototype in Connecticut. The Nautilus prototype was in refueling overhaul at the time, so it was hard to get qualified. The plant didn't go critical until near the end of the time we were to be there. I finished in about five months.

Hugh Benton (later Rear Admiral Benton) and I finished at the same time. We were both going to the commissioning crew of Skipjack. Betty Ann was very uncomfortable in Idaho. She was cold all the time. When it looked like we were going to have to turn and burn to get qualified on time, I asked her if she'd like to go on home to Jackson and wait 'til I got out. She said sure; and she was gone.

WINKLER: Then you reported aboard, as you mentioned, the Skipjack. You got the comm-o job. Big difference from the X-1.

McKEE: Oh, yes. Big difference, but not entirely because it was also a single screw ship. Submerged operations were dramatically different, of course. The principal difference in surface operations was because of the location of the propeller. It was forward of the rudder on X-1, so the wash of the propeller would hit the rudder. That made it a lot easier to control the boat at very slow speed on the surface. On Skipjack the rudder was forward of the propeller, so there was no direct impingement of propeller wash on the rudder. But the fundamentals were the same. We just didn't have the ability to correct a ship handling mistake on the surface as well in Skipjack as we did for X-1.

Skipjack was a great tour. That was the first of its kind with the first S5W nuclear propulsion plant. Well over a hundred of those plants were built after Skipjack.

WINKLER: You mentioned you trained on the Nautilus reactor, then you went to this submarine, which had a different plant. Did it take much adjustment there?

McKEE: Not as much as you might think. Both were pressurized water plants, but we had to qualify on the S5W plant all over again. In those days everything was moving

very fast. NR had several plants under design. They were trying to do many things that, when we started qualifying in the boat, we were working from draft reactor plant manuals. We wrote the operating procedures, and sent them back to NR for approval. They returned approved versions for inclusion in the draft manuals. That was difficult, but it was good too. We probably qualified more thoroughly than later SSN's with final documentation. Vice Admiral Jim Calvert probably had to do the same thing for Skate. She was the first of the S3W propulsion plants. It was a good opportunity.

It took a while to get the ship out. We were about a year late because they had to replace all of the main coolant pumps three times. NR had brought in a different company to compete for the contract. Up to that point they had all been made by Westinghouse. The defective ones had been constructed by the new vendor. They were poorly made. They tore themselves up. For the third attempt we put Westinghouse pumps in and from then on we were in business. But it added time to the construction process.

First sea trials on Skipjack were amazing. The ship exceeded every expectation. It went a good five knots faster than the naval architects had predicted. The first sea trial was extraordinarily successful even though almost everything was new. No submarine had performed as well (except Albacore for short periods). But Skipjack – we'd be steaming straight ahead at very high speed, then put the rudder over right full. The boat would bank 45 degrees…just like an airplane.

WINKLER: The fact that you had that feel that you're on an airplane versus the previous submarines—-I guess you didn't have that similar sense on previous boats?

McKEE: No, you didn't have the same sense of it. It was a beautiful submarine and it ran like a top. That first sea trial was eminently successful. On later sea trials, we had some difficulty with shaft seals. The peripheral shaft speed was more than the shaft seal manufacturer had accounted for. But that problem was solved.

WINKLER: Now, during the sea trials I assume Admiral Rickover would come aboard?

McKEE: Oh, yes.

WINKLER: Could you talk about some of that?

McKEE: He rode them all. He was in charge of the first sea trial of every new nuclear warship – as was I much later. He had people with him from his staff. They monitored the test program. The trials went very well. Life Magazine wrote a nice article about that ship and its sea trial.

WINKLER: He must have been pleasantly surprised that the submarine exceeded these expectations.

McKEE: He was, but most first of a class submarines did that.

WINKLER: Okay.

McKEE: It's hard to engineer a submarine to the same exact predictions that are possible for surface ship design. Submarines don't have to deal with a bow wave effect at submerged speed. High performance submarines often go faster than the designer has predicted.

But there's another interesting aspect to my time on this ship. Let's go back to the time before the sea trials. I was an engineering watch officer (EOOW). All of the officers were nuclear trained. We all had to qualify on the power plant, even those who did not have a job in engineering. (I was the communicator.) Up to that point, ships had basically trained themselves, and when it was time to go on sea trials, they went. About that time, Admiral Rickover decided that wasn't good enough. He wanted his team to examine the crew before initial criticality. There would be theoretical exams, and he wanted also to see us operate the plant. It was to be called a Reactor Safeguards Exam. They selected Skipjack for the first exam. We really did not know quite what to expect.

Admiral Rickover came down with the heaviest hitters on his staff at the time: Rockwell, Panoff, and Grigg. Panoff was the new submarine project officer. Rockwell was the technical director, and Grigg was the electrical section head. They interviewed all of the officers and most of the nuclear trained enlisted men. Then we brought the plant critical alongside the pier to run operation and casualty drills. But before that, each of those three (Rockwell, Panoff, or Grigg) took officers on tours of the plant to answer exhaustive engineering questions. They concentrated their examination on officers who were not in the engineering department, figuring that if the officers who were only in engineering part time knew the plant thoroughly, the officers assigned in there full time would be even better.

Mr. Panoff took me through the plant for a couple of hours. He was the S5W Reactor Plant project officer. He knew it like the back of his hand. As we walked around; he would ask, "What's that? What's that? What does it do? What is it for? Why is it there? Why isn't it over here?" I would answer each question, but he'd never say "That's right" or "That's wrong." He'd just say, "Mm hmm." By the time we finished, I didn't know whether I was swimming or sinking. But it eventually turned out okay.

We passed the exam. They did things during the exam that I don't believe have been done since. After the plant was critical, the Admiral said, "Let's have all enlisted watches manned by officers." We had never drilled at that. We all had to qualify on the plant, but we had never manned the feed station, or the upper level engine room, or the lower level; none of the enlisted watches. There was a lot of healthy tension, but it came out all right. That seemed to please the Admiral and his staff.

The ship was commissioned and we became an operational submarine. Later I became the Engineer Officer. I hadn't been in the job very long when the word came that we would have an Operational Reactor Safeguards Exam (by the same NR people). They had not examined an operating ship before and had decided they needed to start doing so. (Later those exams were administered by senior nuclear-trained officers.) This time it would be done by the NR staff. It was decided that my engineering plant would be examined.

So having been given the first pre-critical Safeguards Exam, they came again for the first operational exam. By that time we had a different wardroom. We went to sea this time, and they really wrung us out. I thought we did reasonably well, but by the time they'd finished the critique it began to look like we had failed. Later, we were told we had passed, but we were not treated gently; and for good reason. We should have done better.

When the critique was over I was exhausted. It was a two-day drill and I hadn't been to bed. After we finished the critique (at midnight) I decided I was in the wrong business. I had done the best I could but it obviously wasn't good enough. So I sat down and wrote my resignation. Then, as is customary, I put it under my blotter to cool. I still couldn't sleep.

About eight o'clock the next morning I shaved, got dressed, and went to breakfast. About that time, the word came down from topside that there was a Captain USN up there who wanted to see me. I was a Lieutenant at the time, and thought, now what? So I went up on deck, and there was the Prospective Commanding Officer of one of the first nuclear-powered surface warships. He introduced himself, then asked: "You're the Engineer? You're McKee?

I said, "Yes, sir."

He said, "Admiral Rickover sent me up here. He told me: 'If you want to learn how to run an engineering department, go up to New London and talk to McKee.'"

I tore up my resignation. Skipjack went on to become an important fleet asset and did well. In fact, we did very well.

WINKLER: I think during the time period you made a Mediterranean deployment?

McKEE: Yes, we did make a Med deployment and a special operation under Bill Behrens. Shakedown was to the Mediterranean.

Another important thing was going on while we were building and operating Skipjack. We trained members of the first crew for the Royal Navy's first nuclear submarine (HMS Dreadnought); the skipper (Peter Samborne), the engineer ("Spam" Hammersley), one other officer, and several enlisted men. That was an exciting time too.

They had to learn the S5W plant for Dreadnought. Skate had several RN people as well. We were in the same Submarine Division. One of the officers who was training in Skate became the First Sea Lord during the Falklands Campaign and later the Chief of Defense Staff.

WINKLER: Not Sandy Woodward?

McKEE: No, Sandy Woodward was the Falklands Task Force Commander. He was a Rear Admiral then. The First Sea Lord was John Fieldhouse.

There is an interesting sidebar on that experience. The prospective Dreadnought engineer trained with us. He was newly married, and he had been told he should not bring his wife because Admiral Rickover wouldn't want him to. Well, Admiral Rickover didn't know anything about it. It was just that somebody figured that he wouldn't like it, so he was told not to bring her. So he showed up without his bride. His name was "Spam" Hammersley. (I don't know his real first name.) Spam was a great guy and a fine engineer. His wife's name was Cynthia. We all asked: "Why didn't you bring Cynthia?"

He replied: "I was told not to bring her. Admiral Rickover wouldn't like it if I did."

We said, "Go get her. We don't think he would care one way or the other as long as you do your job. (Which was true.) Spam began to take our suggestion seriously. One day he told us he had sent for Cynthia. Our wardroom wives were dying to meet Cynthia, but they all sort of had a "My Fair Lady" impression of English women. (None of them had ever met one.) They sort of expected a quiet person in comfortable oxfords and heavy tweeds. She would most certainly be a lovely person, but maybe not a lot of fun.

We were all wrong. Cynthia was a dead cold knockout. She was beautiful, lively, well educated, a great good sport-—beautifully dressed. We had a wardroom party to welcome her. She and our wives later became very close, but at the time they were somewhat taken aback. She dramatically exceeded their expectations.

We became very close to the Royal Navy. We can talk more about that later. Admiral Rickover gradually walked away from cooperation with the British, but when I relieved him I decided that we needed to reopen that door, and we did so with Admiral Sir John Fieldhouse. John and I did a lot of useful things together when he was the First Sea Lord and I had Admiral Rickover's job. But we can talk more about that later.

WINKLER: Okay. That's a good place to wrap up for today.

McKEE: Okay, suits me.

19 May 2000

WINKLER: This is Dave Winkler, Naval Historical Foundation. It's May 19, year 2000. I'm here with Admiral Kinnaird McKee and we're going to pick up where we left off with the Skipjack. You were going to elaborate a little about operations. Here you have a new submarine. How was the submarine used?

McKEE: Skipjack was the first of her class. She was the first SSN equipped with the S5W nuclear reactor. That same plant was used in over a hundred of the submarines that followed. It was a very successful design. But the most exciting thing about Skipjack was that she was so different. Skipjack was Albacore with weapons and a nuclear plant. On initial sea trials the ship made just over thirty-one knots submerged. Commander W. W. Behrens was the C.O. He had a bet with Admiral Arleigh Burke that we would make thirty-one knots. Whether or not we actually went that fast has been argued. Later we averaged over thirty knots on a submerged transit from New London down to the Bahamas. That pretty well settled the argument.

One of the reasons Skipjack went so fast during those trials was that she had a very efficient five-blade propeller. That was the good news. The bad news was that it was noisy. That screw was later replaced with a seven-blade propeller; one of the early versions of what most other ships have now. The new propeller did good things for quieting, but it slowed the boat down. It simply was not as efficient.

Skipjack did a lot of test and evaluation. It was a very successful design. Initial sea trials were almost perfect. We returned with very few significant things to fix, other than the main shaft seal. That seal was a new design. It had not been designed to accommodate the longitudinal motion experienced by the shaft at flank speed at deep depth. The shaft moved farther forward than the designers expected it to and the seal couldn't accommodate the displacement or the peripheral speed of the shaft.

WINKLER: So in that case you had some water coming in?

McKEE: Yes. On one four-hour full-power trial we had to finish on emergency packing. Things became pretty exciting when the seal blew out, but it didn't take long to set the emergency packing.

Skipjack performed very well in fleet exercises. She reset the clock for anti-submarine warfare. We went to England for a visit during shakedown cruise, then to a Mediterranean deployment. Everything went very well. Our last trip with Bill Behrens as C.O. was a special operation. It proved to be one of the best that had been done up to that time. It was very exciting; very useful.

The Skipjack design included a number of innovative features. Some of our critics like to say that our SSN's avoided new ideas. Nothing could be farther from the truth.

A good example was a new design periscope. It had its problems, but eventually became the fleet standard. When we left England en route the forward area, we found water gushing through the new periscope packing. That was undesirable! This periscope had a new seal; an inflatable boot that was intended to keep the water out and also grab the 'scope barrel so a power assisted training feature could do its work. With a failed boot we could not keep the water out—and even if we could, we could not train the scope—by power or by hand.

The obvious thing to do would have been to turn around, go back into a British port, and fix it. The Captain (Bill Behrens) said, "If we go back we'll never get out of there. Let's fix it here." (At sea) So we did. We replaced the seal, underway in about a state 4 or 5 sea, without removing the periscope. I don't think anybody has done that before or since. When the repair was complete, the periscope was actually easier to train, and tighter.

We got through the entire 30+ day operation with that seal-—even though the scope was up a good ninety percent of the time. After leaving the forward area, we came up to send our operational summary and the scope froze solid. We could get it up and down, but we couldn't train it. Our jury rig repair had served well—but it had lasted no longer than it had to.

I've talked about Bill Behrens before. We all learned a great deal from him. His decision at that critical time was characteristic. "We've got a mission to perform; we're not going back into port. McKee, go fix it."

"But, sir, we'd have to pull-"

"Don't tell me about that; just go fix it." And fix it we did. Most other skippers would have turned around and gone back into port.

WINKLER: How long did it take to repack the scope?

McKEE: It took about twelve hours. We got very wet!

WINKLER: Was it like you had a chief or some of the enlisted A-gang working with you?

McKEE: Oh yes. I didn't do the repair by myself by any means. I can't remember the A-Division senior petty officer's name. None of us had ever seen the inside of the new seal. We had a fairly good draft instruction book; and a spare boot. We were able to stop the leak. We didn't try to rework the power assisted training.

WINKLER: Well that's one of the things, as I understand, you have quite a bit of spares on board.

McKEE: Yes, at least we did at that time.

WINKLER: A lot of your space is actually…a tremendous amount of spare capacity on board, as far as keeping parts and such.

McKEE: Yes, but that is one of the things that changed very soon. In those days new submarines carried more spare parts, at least initially. We took the spares that each manufacturer recommended. They were everywhere. We didn't have anywhere near enough dedicated space to carry what we did, but we made room. Later (and now)…in fact the end of my time in Skipjack, the shore based supply guys had concluded that we wouldn't need to use but a small percentage of what we carried, so a lot of spares were removed from inventory. In theory, that made sense, but in the forward area or under the ice the spare part that you don't have (because the log says you haven't used one before) may be the only thing that will fix a problem. We were the first of the class, and it didn't make sense to reduce the spare parts inventory based on usage data that we did not yet have. That was a difficult time. The system has settled out now, but it is always difficult for a new design.

But I digress. Skipjack got a lot of visibility from her first special operation. Our C.O., Bill Behrens, was awarded the Legion of Merit and the ship was awarded a Navy Unit Commendation.

WINKLER: During the trial period I imagine Admiral Rickover probably rode you a couple of times?

McKEE: He rode for the first trial. I think I've already talked about that.

WINKLER: Okay. And living accommodations—Skipjack versus the earlier boats—-improved? Or…

McKEE: About the same.

WINKLER: About the same?

McKEE: They really haven't improved in SSN's–even today. We always had people hot-bunking, particularly for a deployment.

WINKLER: Okay. On Skipjack did you ever go under ice?

McKEE: No. She was not designed to go under ice. She was the first boat with sail planes, and they would only tilt about thirty degrees. To go under ice safely, we would have had to turn them vertically.

WINKLER: On Skipjack you were the X.O.? Oh no, you were …

McKEE: Engineer.

WINKLER: Engineer. So then you move on to Nautilus.

McKEE: Yes. I went to Nautilus as exec. The skipper was Lando Zech; a legendary name in the submarine force. I regret that I was not able to serve longer with him. He was only there for my first six months. He left to commission a new SSBN—Lafayette.

WINKLER: Okay. What were some of the … Why was he considered legendary?

McKEE: He just was awfully good at everything he did. He was a quiet man, a very handsome man. But he had acquired a broad reputation for professional competence—beginning as a young lieutenant, that just got better and better. Everybody always expected big things of Lando and nobody was disappointed. He returned as Chief of Naval Personnel. Later, he became the Chairman of the Nuclear Regulatory Commission.

WINKLER: I recognize the name because I think it's on my commissioning document.

McKEE: Could well be. He was relieved by Jeff Metzel, another fine C.O. We made a special operation with Nautilus under his command. It was a very unusual one but quite successful. The ship won its first Battle Efficiency Pennant that year.

I was only in Nautilus for a little over a year. At the time, the submarine shipyards were turning out new Polaris submarines in great numbers. I expected to do two years as exec in Nautilus, then go on to command. That's what I hoped to do, but when we got back from that special op I had orders to go as the gold commissioning exec of Henry Clay (SSBN 624). That was one of the few times in my career that I really became upset with my detailer. I said, "Look, I've already had two exec tours—exec of Marlin and exec of Nautilus. A third exec tour means I will have spent almost half of my sea time as exec." I was tired of "learning" how to be exec. In a new construction boat I would have to serve as exec for another three or possibly four years.

I forget who the detailer was at the time but he heard my plea and offered to send me as X.O. of an operating SSBN.

That was fine with me, and I went off to become the second gold exec of Sam Houston; recently out of Newport News. She still had the commissioning C.O. on board. She was SSBN 609, the second ship of the second flight of SSBN's after the George Washington class. She carried the A-2 missile, and other upgrades. She was substantially quieter. That class (Ethan Allen) was the first SSBN to have a quieted power plant, as Thresher was the first attack submarine to have a quieted power plant.

By the way, Bill Behrens (from Skipjack) became Blue C.O. of Ethan Allen. During his tour, he did something nobody else has ever done with an SSBN. Ethan Allen became the only ship to fire a warshot missile with an active nuclear warhead into a test range in the Pacific. The whole thing was done as an operational launch. I don't believe any other U.S. missile system has done that.

WINKLER: So you actually had…

McKEE: I wasn't along.

WINKLER: Yeah. But that would have been before the test ban treaty?

McKEE: I believe so—quite a while before the treaty. That was in the early sixties.

I was told I wouldn't have a long tour on Sam Houston, but I was still worried that assignment would make me almost the last in my class to go to command.

We did three patrols in Sam Houston. I won't say they were uneventful, but they were successful for their time. In those days the inertial navigation systems were nowhere near as stable as they are today. We did not have satellite navigation. We used Loran-C instead.

I had been told I would make three patrols. I was getting ready to go on the third one when the officer who had been Bill Behrens' relief on Skipjack became the detailer. He called me down to Washington and said, "You're going to command after this patrol." I asked for an ice capable SSN that had recently completed a refueling overhaul. I got orders to the Seadragon before we sailed on patrol. I left feeling pretty good about everything.

However, about ten days from port, on the way home, I received a familygram from Betty Ann. It said, "Your orders (to command) are cancelled. You will relieve Dan Summitt in Naval Reactors." That would delay my command tour for two more years. It was almost a guarantee of being the last guy in my class to go to command. I didn't mind going to the job, but the timing was unfortunate. Jim Watkins (later CNO) had something to do with those orders. He was just leaving the senior line officer slot in the NR staff. I would be number two of three line officers there.

When I returned, I asked the detailer who I would have to see to get the orders changed. He suggested that I talk to Admiral Rickover.

I decided to go see him. By this time my old skipper, Bill Behrens, was a Captain on shore duty in Washington. Betty Ann and I went down there, spending the first night with them when we arrived. After supper, Bill got me aside and asked what I was doing in Washington. "What's on your mind?" – he asked.

I told him I was going to talk to Admiral Rickover about getting my orders changed.

He thought about that for a moment, then smiled and said, "Why don't you just shut up and carry out your orders? You'll be a better commanding officer. You'll have a better ship; and your operational opportunities will be livelier when you come out of your shore duty tour in Naval Reactors."

I went back to New London and carried out my orders. That was the best advice I ever got, in my whole career. I would have made a fool of myself otherwise. It would not have helped; it would probably have hurt me.

I've used his words many time since then. "Why don't you just shut up and carry out your orders?" That's good advice for almost any situation.

WINKLER: One thing I notice is: going through the Naval Academy is very competitive, and I think that competition continues afterwards because you note that, well, okay, a couple of times already this morning he says, well, I'd be the last in my class to get command. I guess you keep track of your classmates and how you're doing?

McKEE: No, just my contemporaries in submarines. We kept track of our year group…not just classmates. My year group was still '51 at that time. A number of those officers who had come into nuclear power with me were early selected for lieutenant commander. I was not. That tended to stir my competitive juices. But it had nothing to do with the Naval Academy. It's just a matter of who was in your year group, when that year group was supposed to go to command, and who was going to be the first (or last) to get there.

Of course, there was both merit and hazard in being last. I would certainly be more experienced, but at the time, I was convinced that if I waited two more years I would be too old to do a good job. I was thirty-seven when I finally got command in 1966. I had read a lot about the early days of World War II; how some of the older submarine skippers, though well intentioned and well trained, just didn't have what it took. Some were spectacular C.O.'s; but a number of them weren't. I was afraid I would start becoming too cautious. Even if I were to get some opportunities, I might be afraid to take full advantage of them. I would end up serving my three years in command, then go off to carry green paper around the halls of the Pentagon.

But anyway, I did go to Naval Reactors, and it turned out okay. Bill Behrens was exactly right. I did a better job in command for having been there for two years. And I learned a great deal about a lot of things of which I knew very little. It wasn't just about how to run the power plant. I was responsible for officer selection and training, and a variety of other things.

Jim Holloway and I…He was a Captain, who had just come from duty as CO Enterprise. He and I were told to get Navy Regulations changed to accommodate a Reactor Department in the nuclear powered aircraft carriers. We got to know each other pretty well. Changing Navy Regulations is an ultimate exercise in bureaucratic activity. Lots of people can say no and hardly anybody wants to say yes. But we got it done.

WINKLER: How did the Reactor Department (sic) impact on Navy Regulations?

McKEE: Well, Navy Regulations specifies that there shall be an Engineer Officer; there shall be a Weapons Department, etc.; those kinds of things. When they were written there obviously were no reactors at sea. In submarines, the engineer was responsible for the whole propulsion plant. In the big carriers, Admiral Rickover considered that too broad a responsibility, particularly in Enterprise where they were still learning how to operate multiple plants in a large ship. So he wanted a Reactor Officer, a Reactor Department, and a separate Engineer Officer and Engineering Department. The Reactor Officer would be responsible for the eight reactors in Enterprise.

WINKLER: You mentioned in your article in Shipmate (Relieving Admiral Rickover) that that tour did give you some background for when you would come back twenty years later to relieve Admiral Rickover. Could you elaborate on other ways that gave you some insights?

McKEE: Well, I was exposed to a lot of things that I wasn't directly responsible for. For example, in those days a tremendous amount of activity in Naval Reactors was being devoted to port visits and port clearances; how to get other nations to allow nuclear submarines and surface ships to visit their ports without having to reveal classified information about the propulsion plant. There were a number of other political arguments going on at the time. The French never could understand why we would cooperate with the British in designing a power plant and not with them.

I also became involved to a limited degree in some operational aspects of submarine design. NR was designing the SSN 688 propulsion plant at the time. SSN 688 (Los Angeles) was only supposed to be a one of a kind submarine. If it worked, there would be modifications and the class would go into production.

Basically that ship consisted of a 637 front end and a cruiser propulsion plant re-engineered to fit in a submarine. There were a lot of operational factors to consider to make sure that what came out made sense from an operator's viewpoint. I also had some limited involvement with NR-1, a small deep diving nuclear submarine being designed at that time. (It is still operational.)

But it's important to recognize that, at that time, NR was designing what turned out to be the last new SSN propulsion plant until Seawolf, some twenty-four years later.

One of my other responsibilities at NR was to present to Admiral Rickover the slates for CO, XO, and Engineer assignments in each of the nuclear ships. The BuPers

submarine detailer made the slates, but Admiral Rickover approved the assignment of each CO, XO, and Engineer. In the case of the carriers, he also approved the assignment of each Reactor Officer as well. I was the staff guy who had to take those recommendations to him for approval.

WINKLER: What would be a typical session, like…it wasn't like a tank type deal where you…

McKEE: No. The submarine detailers would send over their recommendations. We would evaluate the officers concerned, based on what we knew about them in the areas where Naval Reactors had a direct interest. We did not comment on whether they might or might not be good tactical operators. That was the detailers' responsibility. On the other hand, we knew most of the eligible people in the submarine community. In addition, the PCO's all came to NR for three months training. Each PCO had already proved himself competent in his Engineer and Exec tours as far as the nuclear propulsion aspects of those roles were concerned.

Some people, usually those who were not fond of Admiral Rickover, tried to make the case that we just approved officers who would be good engineers with no regard for whether or not they were skilled tacticians. That idea was clearly wrong--and recently disclosed information makes that apparent. (See "Blind Man's Bluff")

Everybody kept very quiet about our operations until that book was published last year. You may have read it.

It was rarely fun to do anything with Admiral Rickover. He was very abrupt. He always managed to ask the question to which you didn't quite know the answer. He rarely agreed with anything the first time. He would really grill you about the subject at hand. "How do you know about this guy? What do you know?" and so forth. But that was the way he did business. I really couldn't fault that; I just didn't enjoy it much.

One other thing; he would rarely speak to you for the first six months on the staff. Then, when my orders to leave finally came, he stopped talking to me again because I was going to leave. So for a two-year tour, I had about a year of truly useful time, at least in direct contact with him.

But an interesting thing happened in connection with my departure. I was in a position to exercise some influence over what ship I might get, had I chosen to exercise it. Of course, to some folks on the outside, it might appear to be more than that, so I was very reticent about being ordered to a new boat—something new and dashing. Therefore, I asked the detailer to send me to Nautilus. (I had been exec of that ship.) Nautilus was going through major overhaul. She would be a substantially better warship after that overhaul. Frank Fogarty was the skipper. The detailer sent his recommendation over to us to that effect. Admiral Rickover disapproved it.

I was very surprised. Years later, I learned that the reason he disapproved it was that he thought I should have a better ship than that. But at the time I was upset. There I was, about to meddle with my career again. In the end, it turned out that he had done me a great favor. I went to command of Dace; an almost new 594-class submarine. We'll talk more about that later.

WINKLER: One thing: during that time period you had the loss of the Thresher and, I guess, the SubSafe program was initiated?

McKEE: Thresher was lost before I went to Naval Reactors. I was still at sea at the time. The ships most affected by her loss were 608-class SSBN's, 594-class SSN's, and the ships that followed. The 594's and 608's were designed as deep-diving boats, but most were limited to half test depth after Thresher. The issue had to do with the integrity of the seawater cooling systems.

Most World War II submarines had been built with silver brazed joints in seawater systems. During the war, they obviously sustained very hard operation; depth charges, gunfire, etc. We may have lost several boats because of sea water system failures, but in general those systems performed well. That design philosophy continued as we built post-World War II diesel submarines and the early nuclear submarines. Thresher was the first of the deep diving SSN's. Admiral Rickover was never comfortable with silver brazed (vice welded) joints in the sea water systems in those boats. He took the position that if they were going to dive that deep, those systems should have welded joints.

With a silver brazed joint it is hard to prove that the joint is safe. The joints can present the appearance of a good seal, but there may not be enough penetration to be solid. One of the principal elements of the SubSafe program was a requirement to weld those joints.

There was another design concern. There was too much sea pressure piping in the engine rooms. A large volume of pipe under sea pressure increased the probability of a problem. In later boats, the extent of salt water piping was limited by having low pressure fresh water cooling to auxiliary systems, with a central sea water cooler. That way, the run of sea water piping, which was heavy and all welded, was short. That design allowed most propulsion equipment to be cooled by fresh water at low pressure. That was relatively easy to do on post Thresher designs, but it was difficult in older boats already in operation.

The immediate solution was to limit those boats to half test depth. Some were never fully SubSafed. Dace was an example.

WINKLER: While you were at Naval Reactors, besides Admiral Holloway, at that time Captain Holloway, some of the other personalities that you dealt with, did you have some impressions on?

McKEE: Well, I wasn't there very long with Jim Watkins. He was on his way out the door as I came in. I came to know him very briefly. The officer he had brought into the job as his relief was a Nuclear Power School classmate: Don Hall - a year senior. He put my name on the list.

Admiral Holloway was not in the Naval Reactors organization at that time. He was head of one of the aviation branches in OPNAV. But I encountered a number of different people. I don't think it would do a lot of good to try to list them all. That tour was my first encounter with Admiral Holloway. He later became CNO when I was Commander, Submarines, Mediterranean and Commander, Submarines, SIXTH Fleet. He was also CNO during most of my tour at the Naval Academy.

WINKLER: We'll cover that a little later.

McKEE: Okay.

WINKLER: Did you spend much time in Washington, or did you get out much during that tour to visit submarines?

McKEE: During that first tour at NR?

WINKLER: Yes.

McKEE: That tour was all in Washington. As I said the last time we met, we had developed an association with the Royal Navy through our involvement in Skipjack in training the first RN submarine crews. At that time, we had a program in which Royal Navy officers would ride selected boats on special operations. An officer named Robin Heath, LCDR (RN) rode with us on the second Skipjack mission. By that time, Les Kelly was the CO. He (Robin Heath) later came to Washington the same day I came to NR. His was also a two-year tour. We really got to know him and his family; socially, as well as professionally. That relationship continues today.

But in general, mine was a heads-down tails-up kind of job during those first two years with Admiral Rickover.

WINKLER: The good news is that you get to spend time with the family.

McKEE: That's right. And there was a lot of that. Admiral Rickover's shop opened at eight and closed at six unless there was something very important or unexpected going on. Most Pentagon jobs just went into the late evening hours—every day.

WINKLER: So I guess there was one advantage.

McKEE: On the other hand, we always worked Saturdays, and we also worked most holidays. But it was worth it. I thoroughly enjoyed my association with the people in that organization. They were very professional, very tough, and very competent.

WINKLER: Okay. Well, we talked about you getting orders to the Dace. Let's talk about Dace.

McKEE: During the abortive attempt to put me in Nautilus, the assistant detailer had become Hugh Benton, an old friend from my Nuclear Power School class. Later, he called and asked me about Dace. (I would be the third CO of Dace.)

I told him that would be great. I got those orders and was able to leave NR at the end of my second year in that tour.

Dace was in Submarine Development Group TWO (CSDG2) at the time. Captain Mike Moore was the squadron commander. My timing for coming out of NR was out of step with the SubLant Prospective Commanding Officer Course, and for a while it looked like I would have to wait for the next PCO course. Mike Moore, bless his heart, told ComSubLant that he could teach me more about tactics in the DEVGROUP than in the PCO course. The Bureau sent me straight from NR to CSDG2. The ship was deployed at that time; on a special operation under Commander William Cowhill. I had about six weeks at my disposal to do what Mike Moore wanted me to do. They didn't run a formal program for me; they just gave me access to all their fleet exercise results involving Dace and Tinosa (another 594). I studied for that entire period.

WINKLER: This is Side 2 of the first tape here on May 19; we're going to continue along.

McKEE: At that time, the submarine force was just beginning to use an advanced version of what was to become the standard SSN acoustic system (BQQ-2). Dace had one of the first. The first had gone into Tullibee--no longer in the development group at that time.

WINKLER: This is good. One of the questions that I wanted to follow up is, I guess talk a little bit about the Development Group. I guess the idea is that they have a couple submarines assigned and they just work out tactics and…?

McKEE: That's right. The Development Group was formed back in 1947. This document (oral history of Admiral Roy Benson) is probably in your files. He was the first Commander of the Development Group. At that time (1947) many people in the Navy had decided that submarines no longer had an important role to play. There would never be another major war (they thought).

WINKLER: Roy Benson…

McKEE: Right, Roy Benson.

WINKLER: Was there anything about Roy Benson? I guess he was skipper for Ned Beach during the Second World War—I'm trying to think—it was…

McKEE: Trigger.

WINKLER: Trigger, yes.

McKEE: He had an outstanding war record as CO, Trigger. He lived in Annapolis when we were at the Naval Academy. A quiet, soft-spoken gentleman. Betty Ann would sometimes ask, "Are you sure he really did all that stuff in World War II?" He sure did! It's interesting how some of the people who did the most, do the least talking about it.

The Development Group was a great place to be an SSN CO. I could not have asked for better. At the outset, I learned a lot just studying exercise reports. The Dev Group had set up a big submarine fleet exercise that would be conducted right after I took command. In fact, within a week I would take Dace into that exercise; a submarine versus submarine operation. Dace would oppose four Diesel submarines in coordinated transits.

Up to that time, the SSN's had not done all that well against Diesel boats on the battery because they (the SSN's) were noisy. Even 594's were not doing all that well. Dace had a particular noise that nobody had yet been able to define. It was thought to be the auxiliary steam system, but that had not been proved. When everybody was going slow, the Diesel boats had an advantage on the battery with the 594's operating at slow speed on the main engines. The Diesel boats were shooting first too often. This exercise was an effort to resolve that issue. It would be a "hit shot" exercise with both sides equipped with Mark 37 torpedoes. I had thirty-two. Each of the Diesel boats operating against us had eight. Our torpedoes (with inert loaded warheads) were to be fired to hit the hull of the opposing submarines. The exercise took place in the Gulf of Maine; a close approximation (acoustically) to the Barents Sea—where the Soviet Northern fleet was based.

It was all very realistic. In most operations involving exercise weapons, we were not supposed to shoot unless recovery conditions were good. Mike Moore didn't care what the weather was like. If it was tactically correct to shoot, we would do so. We did not worry about the weather. We might lose some units, but realism was the paramount consideration. Tactical reality was crucial.

Mike sent his Chief of Staff to ride Dace. He was to keep an eye on me as a new CO and help where appropriate. His name was Sam Francis; a bright and helpful guy; probably more knowledgeable in the field of underwater acoustics than any officer in the Submarine Force at that time. We did the exercise, and it came out very well. We had five "kills" and nobody laid a glove on us. We identified the noise that had made Dace vulnerable in other exercises and eliminated it. That gave us the upper hand, because our opposition was looking for a noise we didn't have.

However, we encountered a serious tactical problem with our Mark 37 torpedoes. In simple terms, if we followed the prescribed doctrine the torpedoes wouldn't hit. We

repeatedly had a dead cold shooting solution (proved later in exercise analyses)—and still missed unless we were shooting at a deep-running target. The problem was called "surface capture." It was not a new problem.

Before the exercise I had made a bet with the Squadron Commander. He had said, "It's a hit shot exercise, but you aren't going to hit anything. Those weapons are not performing well and you're new at the game."

I said, "The hell we're not. We're going to…"

He said, "You won't even hit with five of thirty-two." So we made a bet—a keg of beer on five. The exercise ran on, we had a "hit" early in the exercise against a deep running boat on the battery, but we shot a lot of what we had and missed, as he had predicted. Finally, we figured out why the torpedoes were not hitting and changed our tactics. We hit with four of the last five torpedoes—and won our keg of beer. That was a beautiful way to learn; a new CO could not have asked for a better experience.

That was the good news. The bad news was that Dace was scheduled to go into the yard for six months right after that exercise to get an experimental acoustic system for technical and tactical evaluation. We would do only R&D work for about six months to a year, then go back into the shipyard for another six months to take it all off. A few months after that we would go into the yard for a regular overhaul.

The other Development Group 594, Tinosa (Milt Alexich) had just come back from special operations. Tinosa was originally scheduled to be the test vehicle for this R&D system, but someone had decided to put it on Dace because I was a new CO fresh from two years ashore and presumably would need a lot of time to get settled in. (I certainly did not need my whole command tour to get settled in.) I discussed this with Milt and asked him: "Weren't you (Tinosa) supposed to do this evaluation?"

He said, "Yeah, but they gave it to you (Dace)." He seemed mildly disappointed. He was coming to the end of his tour, so I asked him if he would be interested in swapping schedules.

He agreed to do so. So we went to see Mike Moore and presented the proposition. Milt said he'd be glad to do the swap. Mike said okay, so we did that.

Later, it became quite apparent that I owed whatever success we enjoyed to Milt Alexich's agreeing to that change.

We were immediately put on the special operation schedule. We had done well enough in the fleet exercise for the Force Commander to have confidence in the boat and in the new CO. If it hadn't been for Mike Moore and Milt Alexich we would never have made a special operation.

So we went off on our first deployment. It was quite successful, and very busy. We came back with a patrol report about two inches thick, and a lot of pictures.

WINKLER: About two inches thick?

McKEE: Yes. The ship was awarded a Navy Unit Commendation for that trip. That was good for all hands. I was really pleased with the way the ship had performed, and the crew was very proud of her. The ship had two battle efficiency pennants when I relieved as CO, and we won two more in the next two years.

When we returned, we did some routine work for the Development Group (test and evaluation, that sort of thing, and fleet exercises). We also did another submarine exercise in the Gulf of Maine. Our target this time was a nuclear submarine; USS Seawolf (SSN 575)—the ship built right after Nautilus. We were in trail when she hit the bottom during that exercise. She was going at flank speed when she hit, and Dace was about 500 yards astern.

Seawolf had to go in the yard to get patched up. Scorpion, Seawolf, and Dace were on the Special Operation calendar at the time. This assignment would be open-ocean trail for us. Some ships did that sort of thing beautifully, and thoroughly enjoyed it, but it didn't appeal to me; at least, not at that time.

Three new classes of Soviet SSN's were predicted to be going to sea while we were deployed the first time. They didn't appear, so the chances were good that they would be out soon. So because Seawolf hit the bottom, and because of other considerations I will not try to explain (Scorpion was involved as well), Dace ended up going North again, Seawolf went into the yard, and Scorpion went for a Mediterranean deployment. The catalyst for the whole schedule shift was the Seawolf grounding. Dace was allowed to do a second run; and it was good. We got a lot of recognition when we returned.

WINKLER: Another Navy Unit Commendation?

McKEE: Yes; and another battle efficiency pennant (almost two of them). While we were gone, the ship had been transferred to Squadron 10. 637's were coming out of the building yards and the first of each new class would always go to the Dev Group. We had become old hat by that time, so we were moved to Squadron 10 to make room in the Dev Group for one of the new 637's. We finished out the year in Squadron 10, and were recommended for a battle efficiency pennant by both Squadron 10 and the Dev Group. Nobody had ever been recommended for two in the same year before. ComSubLant was not sure what to do with that situation. (Our crew knew what to do with it!) If the ship tallied five "E"s in a row, we would paint a big gold "E" on the sail. We did not get the fifth "E". ComSubLant decided they could not give two to the same submarine in one year. There was some grumbling in the forecastle about that, but Dace still ended up with four "E"s.

WINKLER: Red with three slashes?

McKEE: No – white with three chevrons.

When we returned, we were scheduled to go into the yard. It was to be a one-year overhaul. We went alongside the tender at State Pier, New London for a pre-overhaul upkeep. (We were in Squadron 10 at that time.) It was supposed to be a short upkeep, but Electric Boat went on strike for about two months. We stayed alongside the tender during the strike, so we made a list of jobs the yard had scheduled that the tender could do. We had the tender go to work on those. That gave us a good head start.

But before that, when we found out we weren't going into the yard for another two or three months, I went to the squadron and looked at the Special Op schedule to see if we could get in one more trip. There wasn't much chance, but there was a possibility. I came back and talked to the chief of the boat about it. I asked, "What do you think? Are your guys ready to go one more time?"

He said, "Captain, these guys have given you about all they have to give for a while. We ought to stay here." I took his advice.

WINKLER: When you do one of those things, does that…how much stress does that…I guess you have a lot of excitement. It's a big game. There's an intensity, but I guess that also creates a lot of stress.

McKEE: I don't like words like "stress" and "stressed out." In my view, the contemporary usage of those words is often just a way to excuse people who don't do their jobs. Of course, a deployment is stressful, but it's also exciting. Special Operations are only stressful to a good crew when there's no action, but they can wear you down. I was up almost forty-eight hours for one particular period during that time. I finally went to bed and I told the OOD not to call me for twelve hours, except in an emergency. We almost missed an important opportunity, but the officer of the deck kept telling me they had something. "Is it an emergency?" I asked. "No" he said. I replied, "Tom, just do what I told you."

Characteristically, Tom Ryan could not quite do that. He kept buzzing every few minutes, "It's really something." I told Tom to do what <u>he</u> thought we ought to do. (He was a lieutenant.) I went on back to sleep—sound asleep. Finally the buzzer; "Tom, I'm tired of this."

He said, "You'd better come up and look at this, Captain." It was another opportunity; a big opportunity. If that irreverent Lieutenant had done what I told him we'd have missed it. He was decorated for that event, and later became a Rear Admiral.

In summary, are Special Operations stressful in the contemporary sense? I don't think so.

I was lucky in Dace. Most CO's have about thirty percent of their crew well qualified, thirty percent qualified, and thirty percent learning. We had well over half with long experience. We had very little attrition in the three years I was CO, and virtually none between Special Operations. We had a lot of bright, talented guys. Most were eighteen to twenty-five years old. In the beginning, very few knew exactly what we were about. It would become apparent to them as we went along. They did know that what we were doing was pretty lively, but most knew little more than that. Even so, everyone performed with great skill and devotion, with total confidence in the management without really knowing exactly what we were up to. There may have been some stress, but when you're successful that kind of stress goes away.

WINKLER: When you come off one of those cruises, there's a lot of esprit de corps?

McKEE: Oh yes, but we had a lot before we went. The ship was turned over to me with high morale. There is an old saying in the Navy that a CO should look for a ship that isn't running well, fix it, and get great credit. That's sort of true. But it's a lot better to get one that's running very well and make it even better. That's what happened for us. Dace was a fine ship, running very well, with a good crew that had been there a long time. They got even better.

WINKLER: The Russians. Doing these operations you had a chance to…the assumption that you're traveling up in those waters. What was the assessment of the Soviet threat at that time?

McKEE: While we were deployed three new design (classes) Russian submarines came out for the first time. We encountered two of them. I think we also found the third, but we were already on our way home and could not divert. My orders were quite clear, so we continued home.

Up to that point it had been a one-sided deal favoring our side. Early Soviet boats were noisy. They built a lot of them with that problem. The next generation was substantially improved—but still a long way from where we were at the time. They were clearly beginning to improve.

WINKLER: We were talking about the Russians.

McKEE: There is a quote attributed to me in the book "Blind Man's Bluff." I don't know who gave the authors that quote; I was a little surprised to see it. When we came back we briefed a number of times in Washington. I usually finished the brief by saying, "The price of poker has gone up in the Barents Sea."

The Soviets had clearly made substantial improvements, but several serious deficiencies in their acoustic performance were found that were not detectable by our installed acoustic processing equipment. A bright ex-sonarman (Lieutenant Commander) working in the Dev Group with a Hewlett-Packard device later found characteristics that

we were just simply unable to detect with our equipment. That set the clock back again for the other side.

There's no question that as you follow Soviet developments it is possible to see substantial improvements in each new class. You can also see a substantial lack of improvement in other important areas. One of the things that most people don't seem to understand about comparative noise levels is that noise is not a fixed commodity. When we are at slow speed and they are at slow speed (today) both sides are very quiet. In fact, they have become almost as quiet as we are at slow speed. However, to be tactically useful an SSN must be quiet at all speeds.

The trick is to be fast and quiet. When nuclear power came along everyone talked about the endurance that Nautilus brought to the game. But Nautilus had very little tactical mobility. She could be quiet at very slow speed because she could shut down the main engines and reduction gears and run on sound isolated turbo generators and electric motors. But when she cranked up, she could ensonify the ocean.

The rate of change of noise with speed is a critical factor. We learned that right away. It took the Soviets much longer to do the same. They have yet to become consistently as quiet at higher speeds as we have.

For example, we designed the Seawolf propulsion plant to be quieter at flank speed than a 688 is when sitting alongside the pier on hotel load. That's a big deal. It gave us mobility; tactical mobility, that we wouldn't have without that kind of acoustic profile. The Soviets have come a long way but are probably behind in the mid to upper speed ranges even today.

WINKLER: The Russians kept building Diesel boats I think by the time we ceased building diesel boats – was it in the late '50's?

McKEE: We stopped building Diesel boats with the Barbel class.

WINKLER: The Russians continued with their diesel boat program. Did their Diesel boats, their Foxtrots, give you concerns?

McKEE: Well, any boat that's very quiet is a concern. We had to deal with some during the Yom Kippur war. But when most Diesel boats go more than five or six knots they become very detectable. They had fast turning six-bladed propellers that cavitate at low and moderate speed; even at relatively deep depth.

The Foxtrots were brand new when Skipjack deployed for the first time. The Golf class Diesel-powered missile boats were also new. The Soviets had a big investment in Diesel submarines. They built the Whiskey class (basically a German Type XXI) in great numbers. They seemed convinced that they could control the sea with those submarines, and they might well have been able to if we'd gone to war right away. They have continued to refine their Diesel boats, but the operational numbers are now

relatively small. They do continue to build Diesel boats to sell to other countries. That may eventually create a problem for us and our allies.

WINKLER: Back then, numerically they probably had a three-to-one ratio against us, as far as just sheer numbers. Even though we had quality superiority, did that quantity cause concerns?

McKEE: Yes, but not as serious as you might expect, considering the occasional nature of their deployment cycles.

WINKLER: Okay, so you were mentioning with the Soviets, their deployment…

McKEE: They just didn't run very hard, and we never expected that they could amass a lot of boats on short notice for simultaneous deployment. We probably could have managed. And, of course, it wasn't just up to our submarines. Patrol aircraft and a variety of surface units were also involved. The Soviets had to pass through our barriers. Diesel boats snorkeling through our SOSUS and VP barriers were relatively easy marks for patrol aircraft.

WINKLER: During that time period – good thing you brought that up – how much coordination was there with maritime patrol aircraft?

McKEE: Those techniques were becoming common practice in those days, but Dace didn't do any of those ops. Our deployments were often to areas not accessible to our patrol aircraft. But there was a lot of coordination between patrol air and our submarines in open ocean operations against the Soviets. If you have read "Blind Man's Bluff," Whitey Mack's work out there and tracking operations that followed involved sub/air coordination. Later, when I had Submarine Group EIGHT, during the Yom Kippur War, there was a tremendous amount of cooperation with patrol air; even with carrier based tactical aircraft. Anyone who could fly and had a radio was involved in coordinated operations. We named it Direct Support.

WINKLER: Your turnover for Dace: could you talk about your next set of orders?

McKEE: You mean what did I do?

WINKLER: Was there anything else on Dace that is of interest?

McKEE: Our yard overhaul period might be of some interest. We were scheduled for a one-year overhaul at EB at a time when most boats were being delayed for long periods. I still had an experienced crew. We did a fair amount of SubSafe work during that time, continuing to eliminate some of the small sea water piping and welding some larger sea water systems.

We finished on time and I was given orders to the National War College. Those orders stayed in force for about two weeks, then were cancelled. I ended up going to the

OpNav staff – OP-090 – the planning, programming and budgeting office – in a captain's billet. (I had been selected for captain by that time.) That was the summer of 1969.

WINKLER: So now you're comparing yourself to your peers and now it looks like you're a little bit ahead…

McKEE: I was okay. I had caught up. I wasn't really ahead. I just caught up with a lot of those who had been selected earlier.

That tour in OP-090 was my first experience in a regulation Navy Washington area job (as opposed to the NR tour). I became a Special Assistant for antisubmarine warfare, strategic warfare, intelligence, and so forth; areas basically associated with submarines and ASW. My job was to keep track of what the rest of OpNav was planning and budgeting for in those areas. Admiral L. E. Bell, a WWII experienced submarine officer, was the Director at that time. I quickly learned a lot about how programming and budgeting worked. I also gained some sense of the way the rest of the place worked, but my understanding was still rudimentary.

Right after I reported to OP-090, I was interviewed for duty as Executive Assistant and Senior Aide to John Warner (later Senator Warner). He was then the Under Secretary. At the time, I didn't even know what an Executive Assistant job entailed. I'd never heard the term. In my interview, the Under Secretary asked if I wanted the job. I told him I didn't really know much about it. He selected somebody else, as he should have.

Where are we on your schedule?

WINKLER: We're at the bottom of the first page.

McKEE: We were discussing my tour as Special Assistant to OP-090. I learned a lot of lessons in OP-090. Would you like an example? You know what SUBROC is?

WINKLER: Yes.

McKEE: It was a nuclear armed ASW rocket. My submarine related responsibilities included the SUBROC program; watching how it was being treated in the budget process.

Shortly after I arrived we received a Program Budget Decision (PBD) from SecDef telling us to terminate the SUBROC program. It was the only long-range ASW weapon submarines had at the time. I thought, "This won't do. I'm not sure we'll ever use it, but we sure don't want to give it away until we get something better." So I talked to people in the Navy and DOD, and in the end SecDef withdrew the termination. I reported to Admiral Bell that we'd been successful.

That was sometime late in 1969. Soon after that, down came another PBD that would terminate SUBROC. I thought we had just solved this problem, so I went back to the boss and said, "Look at this. We just got this resolved and they've done it again."

Admiral Bell replied: "It's a new fiscal year." All the old arguments were dead. All the decisions that had been made at the end of one fiscal year had become fair game for the next fiscal year. That was my first real understanding of how complicated, tiresome, and politically involved programming and budgeting had become.

I continued to soldier along. I don't know whether I did any good, but I learned a lot in those first two years about something of which I knew almost nothing before I got there.

WINKLER: I would think that a tour such as that would prove very helpful in your later years.

McKEE: Sure it was.

WINKLER: Just understanding the decision-making process.

McKEE: It was also a very difficult time for the Navy budget.

WINKLER: It was an era where the budget was being cut down. In your position did you have to interact with the other agencies?

McKEE: Yes. Intelligence was one of my oversight responsibilities, so I kept my special intelligence clearances. That proved to be very helpful later. My work in OP-090 was almost exclusively with the CNO staff and the Secretariat. I did not often get involved down in DOD, and I did not testify before Congress at all.

Then along came 1970. Admiral Zumwalt became the CNO. I didn't know him at the time. He was controversial, but very capable.

Shortly after Admiral Zumwalt became CNO, Carl Trost and I (both captains at that time) were sent down to be interviewed by SECNAV (now John Warner). One of us would be selected as his Executive Assistant and Senior Aide. I didn't make the cut that time either. Later, I found that Admiral Zumwalt had said he wanted one of us (McKee or Trost) to come to his personal staff to start up a new organization. He didn't know me at the time, but there was another submarine officer on his staff (Captain Chick Rauch) whom I had known fairly well. He probably had something to do with my selection for the job.

That became an exciting time for me. The new organization Admiral Zumwalt had in mind would become known as the CNO Executive Panel. It was to be a diverse group of talented and influential people from around the country; well recognized for their experience (and competence) in several disciplines; technical, diplomatic, academic,

and so forth. Initially what Admiral Zumwalt had in mind was to have this group (supported by a small staff that included me, four mid-grade officers, and three civilians) advise him on matters in their respective areas of expertise. One of my Lieutenant Commanders, Ed Kozak, was my executive assistant. He was also an intelligence specialist (cryptography).

The initial idea was that the panel would review Mahan's work and revise it to fit contemporary times. That was a big order.

Admiral Zumwalt suggested that I find a place for the organization to do its work other than in the Washington area; some place where we could work without the distractions of Washington. That left me with an immediate question; where to locate the panel? Vice Admiral Jim Calvert offered facilities at the Naval Academy. We also considered the Naval Weapons Laboratory in Dahlgren, Virginia and looked at one or two other places. But after going through all that, then considering the caliber and other interests of those we were assembling for the panel, I concluded that such people would really prefer to be "close to the throne." I had told Admiral Zumwalt that if he could not be present at least for part of each meeting, we could lose much of that talent. If they were too far from his headquarters they might not want to work with us. So we settled in Arlington, VA.

We did have the first panel meeting in Warrenton, Virginia. The staff prepared, and the panel reviewed, what became a fairly useful document cast in the light of the CNO's original charter. That document has since completely disappeared. Too bad. I'd love to read it again today.

Our final location was in Rosslyn. I agreed to share space with the Center for Naval Analysis, provided that we could ask for help if necessary but not get involved in their day-to-day business. They would not get involved in our work either, unless we asked them to do so. That was important, because none of the members of the panel would wish to be part of a subordinate organization.

As time went on, the Panel evolved into subpanels; Strategic, Technology, Political-Military, and a fourth that I cannot now remember. Instead of trying to rewrite Mahan, we began looking into those more focused areas. Our task became one of attempting to make sure that useful ideas were not getting lost in day-to-day Pentagon interplay. It was successful in that regard.

I fully expected the organization to fold when Admiral Zumwalt was relieved as CNO, but it is still in place today, doing good work. Many of the Panel's functions, responsibilities, and modus operandi have evolved because it has operated as each CNO has wanted it to during his time. The most telling measure of its success is the fact that the Panel continues to attract first-rate people.

WINKLER: An example of the types of people…you mentioned it's a mixture of technical and…

McKEE: We had Charlie Herschfeld, CEO of one of the major technology firms at the time; and Sy Weiss, who was a principal assistant to the Secretary of State and to Henry Kissinger. We had the President of the Naval War College. Albert Wohlstetter was also a member. In the beginning, there was a certain amount of distrust among other senior members of the CNO staff. We heard such comments as, "What are they doing? Who are these guys? They don't have any responsibility for what they advise the CNO. What are they telling him?"

For that reason, it became clear that we should include senior active duty membership. The final organization included a surface flag officer, a submarine flag officer, and two aviators; two- and three-star officers. They were full-fledged members of the CNO Executive Panel. I don't know whether they still do that or not. The active duty officers would rotate every three years, but there was no requirement to rotate the civilian membership. That was to be determined on an individual basis.

Also, to support the technology panel, the CNO asked me to form an organization which became known as the Priorities Analysis Group (PAG). That group would review Navy R&D programs, and seek to understand where priorities should lay; whether we were doing too much here and not enough there; that sort of thing. The Director of the PAG was an aviator Captain named Charles A. Lindbergh Swanson, (you'd have to be an aviator with a name like that); a great guy. The second Director of the PAG was Captain Paul Gilchrist (later Rear Admiral); another fighter pilot.

(END OF SIDE B, TAPE 1)

WINKLER: Today is May 19 still, year 2000. Dave Winkler with Admiral McKee. This is the second tape. We're continuing on with the CNO Executive Panel.

McKEE: The PAG started off as a controversial entity, because at that point we had begun to have some influence on the budget process. Paul and Cal had a small staff; four or five, to look at the whole range of Navy R&D work. In the end they proved to be very helpful. They asked hard questions; not just what were we doing that we didn't need to, but what were we not doing? A good example in the latter category was a Cal Swanson initiative.

At that time our carrier based reconnaissance aircraft were in need of replacement. They were twin-jet supersonic bombers.

WINKLER: The A-3's, yes.

McKEE: No, they were a generation beyond the A-3's; supersonic aircraft.

WINKLER: The Vigilantes?

McKEE: That's the name. They were going out of business. OP-05 was considering a program to design and build a replacement; but there wasn't enough money available to do that. Cal (then Paul) asked a simple question. Why not design reconnaissance pods for F-14's? That aircraft had the performance and could carry the weight. After some controversy, the PODS were designed, built, and deployed. They remain very successful today. That system might not have seen the light of day had it been left to the normal course of events.

Another program that benefited from PAG support was LAMPS (Destroyer based ASW helicopters). That began as a Zumwalt initiative. He wanted to get ASW helicopters on destroyers as quickly as possible. There was already a LAMPS helicopter R&D effort – it had run for some time. That program eventually produced what DD's carry today, but at the time, it would have been more than five years before the first destroyer saw a helicopter at the rate that program was going. At that time, there were a lot of SH-2 helicopters available – smaller less capable, never fully utilized. The aviation community had never liked them, but in the end, the SH-2's were used as interim LAMPs platforms and they performed well.

WINKLER: You mentioned, for example, strategic. OP-06 traditionally does the pol-mil stuff.

McKEE: Our work in this area had primarily to do with Strategic nuclear weapons.

WINKLER: Okay. On the weapons side. So at the time that would have been OP…

McKEE: That would have been OP-02 and OP-06, but our interest there was not in the question of what to design or build. Our principal involvement was in supporting work currently underway in the area of arms reduction and arms control. Admiral Zumwalt was very close to Senator Henry Jackson, and he was a principal voice in that business. We did a lot of work for him. In the final analysis, that was the area in which we did some of our most useful work. In the process, I came to know Senator Jackson well.

Each member of my CEP staff was assigned to support one of the sub-panels. The officer who staffed the Strategic sub-panel was a young aviator lieutenant commander. He became very close to Senator Jackson and his staff. That became a very productive relationship.

WINKLER: Who was the officer?

McKEE: Bill Dougherty. I haven't seen him in a good while. He retired from the Strategic Command organization out in Omaha with three stars.

WINKLER: How often did Admiral Zumwalt meet with these folks?

McKEE: He saw them each time we met. He'd sit in for a wrap-up. Each sub-panel chairman would tell him what they'd been doing, what kind of ideas they were working on; what recommendations might be appropriate.

WINKLER: These sessions would take a day or so?

McKEE: Each was at least a full day. The CNO would usually spend time with us toward the end of the joint session.

WINKLER: During that time you mentioned there was a rapid drawdown, budget constraints. You're working with Senator Jackson. You went to an all-volunteer force. Was that one of the issues that…

McKEE: We didn't really get involved in any of that activity.

WINKLER: None of the Z-grams?

McKEE: No. I only saw them go by.

WINKLER: Again, it was an opportunity for you…This sounds like a job that you spent a lot of time on, but it wasn't taxing as far as working weekends and…

McKEE: No, not really. We did put in long hours during the week. One of the things that made the staff useful to the members was our practice of direct personal communication between the staff and the members. Instead of just sending them material to read, then waiting to discuss it at a regular meeting, the staff traveled extensively, visiting individual members to keep them personally involved. That practice was critically important. If we hadn't done that, we would never have been able to sustain an adequate level of interest by the busy people on the panel. It also gave them a lot of confidence in my three young lieutenant commanders. One of them, Rear Admiral Bill Miller, is today the Academic Dean at the Naval Academy. He was a surface warfare officer. My aviator – Bill Dougherty (described earlier) – retired with three stars. There was also a very bright submarine officer on the staff, and a cryptology specialist with NSA experience. He was later executive assistant and senior aide to CINCPAC.

WINKLER: During this time you moved on to CO Sub Group EIGHT now.

McKEE: Well, I had to be promoted first.

WINKLER: Yeah, we have to promote you. I have that down there, don't I?

McKEE: Yeah, there it is. My selection to flag rank was truly a surprise. It came in my 21st year of commissioned service. I wasn't in the zone or even in the "below zone" area at the time the Selection Board was assembled. There was no way I should have been selected that year (1972). I hadn't had a Submarine Squadron. So it came as a surprise.

Admiral Zumwalt called me up one night about six o'clock and said, "You beat my record."

I said, "What?"

He said, "You've been selected for Rear Admiral. I used to be the youngest guy ever selected. Now you are."

I was dumbstruck. (I did say thank you.) It didn't really register for a while. How could that have happened? Well, the way it happened is this: one of the senior political appointees in the Department of the Navy had an Executive Assistant who was just below the cut. His boss wanted him to have a shot at promotion that year. (He did not attempt to exercise any direct influence on the board.) I gather that he thought that if he could get his guy in a position to be considered he would have a good chance. (And he did.) I was senior to that individual at the time, so when he was made eligible, so was I.

After the selection board reported out, I continued to serve as the Director of the CNO Executive Panel. When it came time to move to my first flag job, I was allowed to choose between Submarine Group EIGHT in the Mediterranean and Submarine Group FIVE in San Diego. I elected to go to Submarine Group EIGHT. That turned out to be a case of being in the right place at the right time. I relieved RADM Pat Hannifin (Class of '45). At the time we were routinely operating one or two Polaris submarines and four attack submarines in the Mediterranean. We were also establishing a Submarine Support Facility in La Maddalena (Sardinia).

(Interruption)

WINKLER: Continuing along, we were at Sub Group EIGHT, just turning over.

McKEE: COMSUBGRU EIGHT included three operational entities: CTF69; the attack submarine task force; CTF64 - the SSBN's, and NATO responsibilities in my role as Commander Submarines Mediterranean. The principal role of the NATO staff involved NATO exercises and water space management. I was also responsible for the Submarine Refitting and Training Group that supported my four attack submarines. A submarine tender had just been established in La Maddalena (Sardinia) for that purpose.

WINKLER: When I was out there it was the <u>Orion</u>.

McKEE: I can't remember the name of the tender. But anyway, that installation was new. Our people were living on the economy. The tender was moored at a NATO base. Shortly after I arrived, my USNA classmate, Captain Al Burkhalter (he retired as Deputy Director of the CIA with three stars) became Commander of the Submarine Refit and Training Group. That operation grew into a remarkably useful entity while Al had the job.

Shortly after I relieved as COMSUBGRU 8 in July 1973, I asked the staff for their contingency plan for U.S. submarine operations in the event of another Middle East war. There were blank looks all around. Nobody had thought much about it. I had a new and very fine chief of staff, Captain Bill Bohannan (another submariner). I said, "Bo, we've got to get to work now."

It was not easy. As I arrived, we had just lost four or five of our twenty-two officer billets on the staff; with no reduction in our operational responsibilities. We set out to do a lot more with substantially less.

WINKLER: Now you were based at AFSouth at Naples?

McKEE: We were in Naples – at the U.S. Naval facility – not AFSOUTH. We started working on a contingency plan, and sure enough, the Yom Kippur War came along in the fall. It heated up rapidly, as you may remember. There were a lot of submarines in the Med at that time. NATO submarines were there, of course. The Soviets were keeping about twelve to fifteen nuclear and Diesel submarines there all the time. We had four SSN's, and there were still SSBN patrols to conduct.

The war started just as a relieving group of Soviet submarines was coming through the Straits of Gibraltar. The departing group stayed on station, so they had twenty-six in place when the war started. We needed more SSN's, and quickly. COMSUBLANT responded beautifully. Six more SSN's were underway within twenty-four hours; fully loaded and ready to work. TF69 built up quickly to ten. The SIXTH Fleet moved to a holding area in the Western Mediterranean.

Our job was to keep track of the Soviet submarines You've heard the term "Direct Support." There wasn't any such thing when we began these operations.. We had 637 and 594 class SSN's to work with: Frank Kelso (Bluefish), Jerry Green (Lapon), John Allen (Silversides), Bob Fountain Sea Devil, Bill Ratliff, (SEAHORSE) - Ralph Bird, (Seahorse), Bob Bovey (SAND LANCE), Guy Curtis (WHALE) , – and others.

One of the first things we did was shuffle the staff to support the new additions to the SSN task force. I had already lost four or five officers from operations, so I put my personal staff officers into vacant operations billets, and turned their responsibilities over to a first class submarine yeoman. He became my aide, flag lieutenant, boat coxswain, driver; he did all sorts of things. The only officers remaining on my personal staff were Captain Bill Bohannan (Chief of Staff) and Captain Herb Cherrier (NATO Chief of Staff).

Our ability to operate the SSN's was complicated by the fact that we still had SSBN's in the Med. We had to keep them out of the sensitive areas as we brought the SSN's in.

A preliminary concept of Direct Support (our name for the tactic) had been around for a while. It did not have a name. It was really just what became an extension

of existing sub-air coordination tactics. It had only been done experimentally on a task group basis; never in an organization the size of the SIXTH Fleet. There were two SIXTH Fleet commanders during that period. Vice Admiral Dan Murphy had the job most of the time. Vice Admiral Fox Turner came in behind Dan, but Murphy was there when it all started.

Captain Chauncey Hoffman (a former Diesel Submarine CO) became my Operations as well as Intelligence officer. (For submarine operations, the two naturally went together, and we had lost one of those billets in the staff reduction.)

We started right away developing direct support techniques with the SIXTH Fleet forces as we went along. Dan Murphy needed to know where all of the Soviet submarines were, and we needed all the help we could get from his aircraft and surface escorts. His problem was complicated by the fact that his force was politically tied to a geographically restricted area.

We basically wrote the Direct Support operation order as we went along. Our procedures involved use of carrier tactical and carrier-based ASW aircraft, as well as patrol aircraft. SSN operations with VP were already well established. A critical task was to get carrier tactical aircraft involved as well. At the same time, we had to preserve the security of our operations. If the Soviets learned that we had SSN's involved, they would have changed their established pattern of operations. We didn't want them to do that.

At that time, we did not have secure communications between surface ships, aircraft, and SSN's, so Chauncey Hoffman came up with what he called his "football code." (He was a big pro football fan.) This was a simple tactical code that used the names of pro football teams. For example: "Redskin" alfa, bravo, charlie, delta, etc. "Redskins Alfa" meant an SSN was in trail with good control. "Chargers" alfa, bravo, etc. meant something else. We relayed reports from those coded messages to COMSIXTHFLT, COMFAIRMED, and to others.

We also made arrangements with COMSIXTHFLT to use one of the circuits that his aircraft were required to guard at all times. If an SSN came up with information that needed to get back to us and/or COMSIXTHFLT, he would simply call "airplane" and pass the coded message. I maintained operational control of the submarine most of the time because we had to manage the water space to keep our guys from bumping into each other. NATO submarines remained our responsibility as well, though they had no direct involvement with U.S. Forces. We were prepared to transfer operational control of our SSN's to COMSIXTHFLT if that became the right thing to do and we could safely do it. I had a CTF69 liaison officer on board the flagship to provide advice and local knowledge.

In general, the way it worked was this. A Naval aircraft would see or otherwise detect a contact.

WINKLER: How about the E-2's, Hawkeyes?

McKEE: Sure. Every aircraft guarded that circuit. If any of them detected anything they thought might be submarine related, they would relay it back to COMSIXTHFLT and to us. The master plot was in our place. On the other hand, if one of our SSN's had a message he had to get back to us or to COMSIXTHFLT he would come to periscope depth briefly and say (in effect), "Hey, airplane." (No names used.) The aircraft were told not to ask who was calling. The calling entity (SSN) never identified himself as a submarine. He would pass his message in the "football code." The receiving aircraft would pass the message to both command centers, then continue. The process was a little ponderous at times, but it became much less so as everyone got used to it. In fact, it soon began to work like a charm.

We were able to maintain good control of the subsurface tactical situation. The Soviet force was a mix of Diesel boats and nuclear submarines. We were able to keep almost continuous track of the nuclear submarines, and we were able to find the less mobile Diesel boats periodically. That was enough. Once a Diesel boat was found and identified, we knew he could not get far from that point without making noise, so we did not normally send an SSN to stay with him. Only one of the Diesel boats was a significant threat to the carriers. It was an SSN-2 firing missile boat (as were the Echo's), but Diesel-powered.

WINKLER: Juliet?

McKEE: Juliet. That's right. He had to be treated with special care because he had such a long tactical reach. We might have had trouble with that guy. Fortunately, he didn't move around a lot. We finally got a sniff of him. We were able to tell Dan Murphy where the threat axis was, and it seemed to stay there.

Our SSN's stayed on the line straight through the crisis period (about six weeks), unless they had a special problem. One SSN (Bluefish – Frank Kelso) developed a garbage ejector seal leak that might have limited his ability to go deep. The outer door was leaking badly. Ordinarily that's a dry dock repair, but we brought him in for a short visit, laid him alongside the tender, and fixed it in the water. Captain Harry Schrader (later Rear Admiral) was skipper of the tender at that time. He, Al Burkhalter and their people in La Maddalena did the job in about two days and sent Bluefish right back out again. They were terrific!

All in all, it was a remarkable performance by our SSN's and by everyone associated with the operation. We took a lot of pride in that.

After the operation, we produced what amounted to a patrol report for the task force (CTF 69 Patrol Report). It was also structured as a "child's guide" so others could put our experience to work right away. We made and distributed about a hundred copies. We called it the Blue Book (because it was in a blue binder). Nobody seems to have seen

a copy since about 1976. We sent them all back to Washington and they seem to have disappeared. I should have kept one.

Vice Admiral Stansfield Turner (COMSECONDFLT) undertook to develop a more structured version of our Direct Support concept. Out of his exercises came a number of recommendations, the most important of which had to do with the need for secure communications.

SSN's and Battle Groups work together routinely today, but it all began with our guys – a group of bright, experienced SSN CO's working with a great bunch of aviators, flying all sorts of fleet aircraft, working together, inventing procedures as they went along.

WINKLER: That sort of experience you can't even…You can do exercises and such, but for those submarine skippers and crews involved, as far as getting the types of experiences that would strengthen our capabilities in future years, that was a very good experience.

McKEE: We'd have taken at least three years to have gotten as far along as we did with the concept in six weeks – if it hadn't been for the urgency of the situation, and the talent, understanding, and initiative of those young officers and men.

One factor that really made a difference – made the concept work – was our communication philosophy. Aviator and surface commanders are used to talking on the radio whenever they want to. However, minimal communications between them and the SSN's was absolutely essential to the success of the technique. It was critically important that our SSN's remain undetected and that they not be tied up at periscope depth by unnecessary communications.

Initially, COMSIXTHFLT, and particularly his staff, were concerned because they would not be able to talk to the SSN's whenever they wanted to. They preferred to be able to call up a submarine and hold him at periscope depth for as long as they considered necessary. We did have provisions for VP aircraft to put PDC's in the water in the general vicinity of an SSN as a signal for the SSN to come up and communicate. But that wasn't too good either, because that…

WINKLER: …that tells the other guy something.

McKEE: Right; it does tell the other guy something. In some ways, all this came close to becoming a cultural thing.

(END OF SIDE A, TAPE 2)

The tactical situation has to dictate what the SSN can do. The TF commander simply cannot expect to be able to talk to his submarine for long periods and at will without adversely affecting the SSN CO's situation. C6F and his staff had to have absolute

confidence that each submarine skipper would come up and report if he had something they needed to know. They soon developed that confidence.

If SSN's are called to communication depth arbitrarily they may lose the trail. They have to come up when they have such firm control that they can afford to lose contact for short periods, then go back down and regain contact. Dan Murphy understood that right away, but it took some of his staff longer. Some seemed to think it was just that submarine guys don't like to talk to anybody; "all that silent service stuff." But Dan understood right away, and the system worked. Everything reported by the SSN's got to C6F and his staff very quickly. In general the message went up to an airplane, then both ways (to us and to C6F). The system worked well.

Today there are much more sophisticated ways of doing basically the same thing. That is good, but I remain a little worried about the cultural aspects. It may one day become too easy to talk to an SSN, or too easy for them to talk back, and they still must communicate from periscope depth. I don't know for a fact, because I've been gone too long, but I have an uncomfortable feeling that our security culture may become degraded. I have the uncomfortable feeling that tactical units talk too much today just because they can. The better communications are, the more people want to say.

WINKLER: Oh, they're not doing e-mails back and forth to each other.

McKEE: I hope they are not doing that.

Right after the Yom Kippur War came the Cyprus Conflict. You may remember that event.

WINKLER: Right.

McKEE: The Greeks and Turks went to war on the island of Cyprus.

WINKLER: Okay.

McKEE: The Greek lobby in Washington was much more powerful than that of the Turks – so the U.S. Senate responded by voting to cut off military aid to Turkey. We almost lost Turkey as a NATO ally because of that.

U.S. and NATO forces didn't have a lot to do with that conflict. The Soviets didn't either. We stayed out of the way. But one event that involved CTF69 was instructive. I received orders from higher authority to put an SSN in the Aegean Sea to keep track of what was going on there. I responded by asking: "Who is the enemy? What kind of rules of engagement do I give that CO?"

The admiral responded – in effect – "Don't worry. That will work itself out. Put him in there."

I told him that I could not put a CO in that position.

He told me to pack my bags (or words to that effect).

I said, "Okay," then went home and told Betty Ann to pack up.

The next morning the boss called again. He said, "Did you put an SSN in the Aegean Sea yet?"

I said, "No, sir. I told you I wasn't going to do that."

He replied, "Good." The subject was never mentioned again.

That crisis went on for a while. During that time, I had an interesting conversation with a U.S. Senator who was traveling in the area. I was taking him in a Navy plane from one place to another. We talked about the crisis, and the U.S. response. I said I didn't understand what the Senate had in mind back in Washington. As I understood it, the Greeks invaded Turkish Cyprus, but the Senate voted to cut off aid to Turkey. We almost lost them as a NATO ally.

He replied, "We didn't mean for that to happen." I guess he thought that made everything all right.

WINKLER: In your NATO hat you had opportunities, I guess, to meet with a lot of your counterparts, with the Mediterranean nations?

McKEE: Not as many as you'd think. The British sent HMS Valiant to work with my SSN task force to learn the Direct Support business, and to learn other things about what we were doing. Admiral Sir Terry Lewin was First Sea Lord at the time. That was a good thing. Valiant was treated just like a U.S. SSN. We told them all the things we had learned up to that time about Direct Support (ASW).

WINKLER: The French and the Italians?

McKEE: As I recall, we ran two or three NATO submarine exercises during my tour. But we didn't do anything with NATO submarines during the Yom Kippur War. We didn't tell them what we were doing, but for the most part they seemed to know that we were busy, and they understood. Except for the French. They want to be in on everything. I had a French "liaison" officer on my staff, but they were not in NATO at the time.

WINKLER: You've got me a little confused. The Italians and the French. Okay, the French…

McKEE: We had Italians, French, Greeks, Turks – officers from those four countries on my NATO staff.

WINKLER: Okay.

McKEE: At that time, we also got a sense of how strong feelings ran between the Greeks and the Turks. Prior to that crisis, a young Greek officer and a young Turkish officer on my NATO staff had became fast friends. When the crisis began they no longer spoke.

Even after the crisis, I was not allowed to visit Greece. We were not allowed to go to Turkey initially, but that loosened up right away. I never was able to visit Greece.

I went to France a couple of times to discuss water space management. They wanted to set aside a portion of the Eastern Mediterranean where they would control all submarine operations. That was unacceptable to us. We had a fairly lively time with that issue, but everything worked out all right.

WINKLER: I interviewed Vice Admiral Duke Bayne who was there during the '67 war. The French – it's the same issues.

McKEE: Yes. I had a French "liaison" officer on my NATO staff. He was not in a staff billet. It was an unusual arrangement at best.

WINKLER: We covered the Cyprus crisis and the Yom Kippur War. Any other notable events?

McKEE: I don't really think so. The rest of it was fairly straightforward. We laid the groundwork to expand our SSN support facilities in La Maddalena. They are still there.

WINKLER: The boomers – when did we pull them out? Was it late '70's?

McKEE: I can't remember; it seems to me that they were there almost the whole time I was in the job, then came out later. But I'm not certain of that.

WINKLER: Okay. Well, your next tour of duty.

McKEE: The Naval Academy.

WINKLER: How did you find out about that?

McKEE: It was interesting. I first got a hint of it when Admiral Rickover, his Deputy, and one other member of his staff came over to inspect our operation in La Maddalena. It was the first time NR people had ever been there. We didn't know exactly what was on their minds, but Al Burkhalter and Harry Schrader did a great job, showing them what they were doing, why and how. There were also a number of diplomatic issues at that time. Those two had to deal with the Sardinians as well as the Italian Navy. The Sardinians do not consider themselves Italians. Our facilities were located in an area

where there was a significant communist influence. The mayor of the town was a member of the communist party.

Admiral Rickover and his people were interested in the political as well as the technical aspects of our operation. They were impressed with what they saw. By the way, Al and Harry both were selected for Rear Admiral the following year.

That visit came toward the end of my tour. At one point during the visit I was asked what I was going to do next. I really hadn't thought a great deal about it, expecting that I would have to go back to Washington. What I really wanted to do was to be Superintendent of the Naval Academy – but I had no real expectation of that. In fact, I had never told anyone that I wanted that job.

Admiral Holloway had become CNO during the latter part of my tour in Italy. I had an opportunity to show him our facilities and tell him about our operations during the Yom Kippur War and the Cyprus Crisis. He seemed pleased with what we had to say. I had known him before (as I mentioned earlier), but this aspect of my career was new to him. He would be the one to select the next Naval Academy Superintendent. I got orders shortly after that. I was delighted.

At the time (1975) my son was a second classman at the Naval Academy, about to become a first classman. He called me one day and asked where I might be going next. I told him I had just been informed that I would be the next Superintendent. There was a long pause. "Oh, good for you, Dad."

Jim was a little uncertain about this new development. Then the Annapolis newspaper got into the act. They had heard that Jim was a member of the Brigade of Midshipmen, due to graduate in 1976. They decided to interview him. One or two reporters came. One of their questions was, "What kind of Superintendent is your Dad going to be?" (or words to that effect).

Jim is a very quick young man. He replied, "I don't know him professionally." That was the end of the interview.

My time as Superintendent was wonderful, but my arrival was preceded by some apprehension among the faculty and staff. The Deputy Secretary of Defense had initiated an "Excellence in Education" program, directed at the service academies. His Executive Assistant and Senior Aide was Army Colonel Pete Dawkins, a West Point graduate, Heisman trophy winner, Rhodes Scholar, etc. He was a bright, talented man, and a fine combat soldier. He exercised substantial influence on his boss and they seemed to have decided we should change our academic and professional programs to make them more like West Point; replace the civilian faculty with military officers, etc. At the same time, Congress had leglislated access to the service academies for women.

When I arrived there was a sort of buzz around the yard that because I was a nuclear submarine officer, I would probably fire the civilian faculty and abolish athletics (because Admiral Rickover "didn't like" athletics).

WINKLER: You also had the women coming in.

McKEE: Not everyone was happy to see me arrive at the Naval Academy. I was only forty-five years old--the youngest officer who had ever become Superintendent (although Vice Admiral Jim Calvert was about the same age when he took the job), and I was going to bring women into the Brigade.

Shortly after I arrived, I had my first Superintendent's call (lecture) for the first class (seniors). That was Jim's class (1976). I told them what I wanted to do, and how things were going to work. Jim was there of course. He, as well as I were under a lot of scrutiny from his classmates. After the meeting he came over to the house and said, "It's going to be okay, Dad."

All in all, it proved to be a great tour. We even had a winning football team with George Walsh as our coach.

The admission of women went without incident (we had a year to get ready). There had been a lot of opposition to the legislation, but there it was. Our mandate was to give them exactly the same training and education as the men, but at the time Congress had not yet acted to allow women to serve as line officers at sea. West Point and Annapolis are the two service academies where each physically qualified graduate must go into the line. At the Air Force Academy, only about fifty percent go to the line.

WINKLER: Oh, okay.

McKEE: That made the problem at USAFA significantly less than ours, because they had more places for the women to go after graduation.

Shortly after I relieved VADM Bill Mack I went to see the congressman who had been the catalyst for the legislation that admitted women: an amendment tacked on to an appropriation or authorization bill late in the budget cycle. I asked him why he had done it the way he did. I said that it would seem logical that a decision would have to be made to allow women to serve in sea billets first, since that was what they would be trained to do. I asked him: "What are we supposed to do with them when they graduate?"

He replied, "Admiral, I don't give a damn what you do with them. The Naval Academy is a government-funded installation. They have to be admitted."

That should of give you a sense of the politics involved in the decision.

There was a lot to be done before the class of 1980 arrived. We put together one team of staff and a second team of second-class midshipmen (class of '77) who would

work the problem from the standpoint of Bancroft Hall. I told them, "This is going to happen. We're not going to get into whether this is a good idea or not. It's going to happen. The question is, how do we do it the best way we can?" We picked a very bright midshipman named Sam Locklear to lead the midshipman group. He, by the way, has recently returned to USNA as the Commandant of Midshipmen (Sam is now a Rear Admiral).

Those midshipmen were very helpful. They developed a balanced view of what had to be done.

We worked on our plans through the academic year '75-'76; and were ready in the summer of 1976 for the first class that would include women (the Class of 1980).

Meanwhile, we worked hard to improve the curriculum (not because women were coming, but because it was time to do that). I met with the faculty frequently--a practice that continued for my entire tour. My purpose was to help make them understand what I was trying to do with regard to the academic program; and there was a lot that needed to be done. We could talk on this subject for hours. I'll just hit some highlights.

There was the question of how to integrate women into the Brigade. There were questions concerning the scope and content of the curriculum. There was also the question of whether or nor we were going to be able to sustain the mix of civilian and military faculty that USNA has always enjoyed (fifty-fifty). There were also questions concerning the quality of the officer staff, and a question with regard to the quality of professional education. In that area, the professional faculty was still doing much the same as they had done when I was a midshipman. At that time, everybody was learning how to be a destroyer officer. That was okay for that time. We all went straight to destroyers, or some other kind of surface warship, before being allowed to apply for aviation or submarines. But now we are at the stage where there are direct accessions into each warfare specialty.

WINKLER: They go straight into the community now?

McKEE: Yes, but each path does include a long pipeline.

There were other issues. An important one had to do with whether the Naval Academy was recruiting adequate numbers of minorities. In my first year, the class of '79 had met their accession goal for minorities. I was told that everyone was happy about that, but by the end of the first year there had been a significant loss of minority midshipmen who could not handle the curriculum. Through no fault of their own; they had not been brought up in academic environments that would support what they had chosen to do.

One thing that's important to understand about the Naval Academy is it's a tough program – as many as 22–24 semester hours at a time. We get young people from all

over the country, most of whom are very bright, but from very diverse school backgrounds. Most have stood high in their high school classes, and many haven't had to work very hard. They're bright people and they've never failed. Most have been near the top of their classes; including some minority midshipmen. The first year is a cultural shock for many, regardless of their backgrounds. All of a sudden, they're in a competitive environment like they've not seen before. Some adapt to it; some don't.

There was high attrition among the minorities in that plebe class. We devoted a lot of effort trying to understand why. I finally concluded that the goal we should seek was not how many minorities we could admit, but how many we could graduate. Attrition among minorities should not be higher than in the rest of the Brigade. We finally got to that point, but it took some doing.

WINKLER: Was the BOOST program in place yet?

McKEE: I believe so.

Many of the faculty concerns about the new superintendent began to fade away when it became clear that I was not going to fire any civilian professors to make room for military officers. But there were still problems for us to deal with.

Let me shift gears and say something about the curriculum. During the Vietnam War, the Naval Academy – all the service academies – had a tough time just filling their classroom seats. There were not 10,000 candidates for 1,000 slots, as there are today. Vice Admiral Jim Calvert was the Superintendent then. To make the Naval Academy more competitive he put the academic program into a "majors" configuration. He did a great job. There was grumbling among some old grads who had graduated from the prior "lock step" program, but Jim made it work. The majors program helped correct the recruiting problem, but by the time I got there it had become apparent that there were too many different majors for a small college. When we looked carefully at individual majors, we found that some of them were just premature specialization. "Russian Studies" was an example. That really should be a graduate program – taken by a student who has demonstrated a solid grounding in geography, political science, and other pertinent disciplines. When I would try to talk to students in that or similar majors (in terms of such fundamentals) they simply were not able to do so. It wasn't a good situation.

WINKLER: Well, it takes a lot of resources to support a program.

McKEE: Sure it does. The school has always been (and still is) an Engineering school. Also, the Navy's professional programs still require that each student in other than an engineering program must graduate with at least a basic engineering background – the equivalent of an engineering sub-major such as are available at some universities.

WINKLER: A minor.

McKEE: That's right. I decided we should hold the technical and engineering programs as they were, and strengthen the humanities majors, consolidating them into four strong programs: Economics, Political Science, English, and History. Those programs were designed to provide a sufficiently strong fundamental education for graduates in those majors to build upon (specialize) later in graduate school (if they choose to do so).

We did that. Some of the faculty was not happy with that decision in the beginning, but in the end it was well supported. Those majors are still in place at USNA.

I was also worried about the core curriculum. We had various degrees of difficulty in the core course to accommodate a wide range of high school graduate competence at entry. That was to be expected, but what was happening was that many students who hoped to major in the humanities were selecting the weakest core science and math courses. But it was my view that a good humanities program should be just as tough as a good engineering course. USNA humanities majors should have to work hard. Some were not doing that. They weren't putting in near as many hours as the engineers.

I had a number of talks with humanities faculty members about all that, but most insisted they were not recruiting enough in the humanities as it was, and if their courses became more difficult things could get worse. What was happening was this: students would decide on a humanities major early, so they could sign up for the least demanding core math, chemistry, or physics courses.

We changed that. We began to use our validation examinations to place students in the toughest core course they could handle – without regard to their eventual interest in the various majors. It took almost the whole time I was there to get that done. I do not know whether or not that philosophy has survived, but it was the right thing to do – and most students rose to the challenge, just as you would expect.

Another problem had to do with the fact that the relationship between majors and some supporting core courses had begun to diverge. Core courses provide the tools for the majors. Because the Naval Academy is a technical school, each student must have an adequate engineering background to support the Navy's technical requirements. That means it is imperative that what is learned in the first two years of math, chemistry and physics directly supports the rest of the programs, no matter what major is selected. I had an uncomfortable feeling that that wasn't the case, but I couldn't prove it.

We decided to conduct a wide ranging audit of the core curriculum, the majors, and the professional programs. Captain Bill Miller was my executive assistant (He later retired as a Rear Admiral and is the Academic Dean at USNA today.) He ran an audit of the entire academic program. I sat in on a number of the meetings.

The first phase of this exercise was an audit of core curriculum courses (the basic tools), followed by audits of the majors program that would <u>use</u> the tools.

There were initially some grumbles about these audits among the faculty; some citing "academic freedom" and so forth. I told them that in my view academic freedom has to do with the width of the road to higher education – and in this place fleet requirements would define the width of the road.

(END OF SIDE B, TAPE 2)

WINKLER: This is still May 19; Dave Winkler with Admiral McKee. This is the third tape. We're continuing on with the Naval Academy, over lunch, and continuing on as far as the curriculum at the Academy. Now we're in the road, so to speak.

McKEE: I didn't really seek to narrow the road as much as to insert discipline in the process. An important thing that happened during the audit provides an illustration of what we were trying to do (and what came to be recognized by the faculty as the right way to do it).

We were reviewing the plebe Chemistry course. The faculty sponsor for the course was making a presentation to majors course sponsors who would use his product. The lecturer was describing elements of his program. When he got to a discussion of solubility products and dissociation constants, he told his audience that two hours were devoted to that part of the curriculum.

Nothing was said for a moment, so he continued his briefing. Then a metallurgy professor stood up and asked: "Wait a minute; is that all the time you spend on that subject?"

"That's all the time we've got" the sponsor replied. "Well, it won't do," said the metallurgy professor. "No wonder I'm having trouble teaching alloys. We need more time on that subject."

What he got was the standard answer; there isn't enough time.

Bill Miller had told everyone to make notes on these concerns as they arose; where were we short and what did we need to do.

As the plebe chemistry briefing came to a close, we found that four or five hours of class time had been devoted to naval nuclear propulsion (for freshmen!).

At that point, I asked why we were doing that. What could be taught about something as complex as nuclear propulsion in that length of time in a freshman chemistry course?

The course sponsor replied that this was necessary because not every officer would serve on a nuclear ship but some would eventually be squadron and task force commanders and would need some sense of how nuclear power works.

I asked, "In four classroom hours you're going to give them that? In their freshman year? And they're going to remember it all the way out to the twenty or thirty-year point? Is that what you're telling me?"

"Well actually, sir," he said, "Admiral Rickover wants us to do it."

I said, "Okay, let's go call Admiral Rickover and see what he has to say." (Nobody wanted to call Admiral Rickover.)

That broke the logjam. The core curriculum sponsors adjusted their programs so that their customers (those teaching at higher levels) were getting students that had what they needed. I believe Bill Miller is doing a similar audit at the Naval Academy right now in his role as the Academic Dean.

I left the Naval Academy after three years and became the Third Fleet Commander. While I was in Hawaii, one of the USNA professors came out there for a vacation. He asked me to lunch. We did that. I asked him how everything was going. He told me that the faculty had come up with a new concept. He then proceeded to describe what we had set in motion the year before I left. "It's really great", he said. "We're getting ready to do it again." The audit had become a faculty idea! That was just as it should be.

You asked about women at the Naval Academy…. The first two years were difficult in some respects, but not unmanageable. The most immediate concern was how to get the first year off to a good start. We expected to encounter a tremendous amount of press and media coverage that would focus on the women in the class. But the young men had also worked very hard to get into the Naval Academy. They were proud to be there too, but it was becoming obvious that all of the public attention would be focused on the women.

This concern was exacerbated by the fact that USNA had more media visibility than the other service academies. West Point is off in the boondocks; as is Air Force…. The Naval Academy is right in the middle of at least two major media centers. We could envision a summer of close attention; people walking around with TV cameras and microphones. That would have been terribly destructive.

My senior public affairs officer was Captain Bob Lewis. Retired now, he lives in Kentucky. Bob was an unusual public affairs guy, in that he was very soft-spoken. He was experienced and well connected with various elements of the media, in our geographic area. He worked through those contacts to develop support for what we wanted to do and the way we wanted to do it.

The first media event would be Induction Day for the class of 1980 – there would be children, mothers, fathers, and friends all over the place. The first class midshipmen on plebe detail weren't at all sure how they were going to handle that. The first woman

candidates were bright and talented. Most were dedicated, but there were also some in that first year who were more interested in being "first." That was too bad, but not unexpected.

Bob Lewis worked with several principals among the Washington/Baltimore media. We would allow press access on Induction Day. There could be unlimited numbers; interviewing candidates, wandering around, shooting pictures of whatever they chose. We would put no restraints on them for that day. It complicated our lives for a while. It was tougher on the young women because they were under a media spotlight for that whole day. Some seemed to enjoy it, but most did not.

At the end of that day all of the media folks agreed to go away. They also agreed not to come back until Parents' Weekend at the end of plebe summer. In the meantime, if we saw someone attempting to get an unauthorized interview, Bob would make a call to the agency concerned and they would tell him or her to leave.

We went through the whole summer with little media attention. Everything settled down nicely. The men and women worked hard. Most were consumed with just trying to survive plebe summer. They were gradually reaching out to each other in the process. Parents' Weekend finally came, and everything was wonderful. The parents were excited to see what their children had accomplished in that six weeks.

Media people came (but not as many as the first time). Most were gone by noon because there was little to report. We had a press conference at the end of Parents Weekend with some heavy players. Bob and his gang had been training me for that event. He collected about a dozen bright people to play media roles. Nobody at the real press conference was as tough on me as those people had been.

WINKLER: Well, that's the other thing, is your background. You weren't in positions of high vis…

McKEE: That's right. I had had very little contact with the press.

Ike Pappas was one of the visiting media members. His questions were very balanced. He finished with a question: "How do you think one of these young women will do when she becomes the skipper of a battleship?"

I thought for a minute and then replied, "Well, I haven't the foggiest idea. I doubt if we'll have battleships by then. But it's like asking me to look at a baby in a carriage and tell you what kind of president he or she will become. I just don't know. That's the only honest answer I can give you." That was a useful question, and my answer was accepted.

The football team did very well during my tour. We beat Army the first two years. In fact, we were at the point of losing television coverage of the series because the game was being considered by some as becoming uninteresting. We began to worry. We

didn't want to lose, but we sure wished Army could do better. Toward the end of my tour, they began looking to replace their Athletic Director. We sent one of our assistant athletic directors to be interviewed for the job. He was selected, and did a good job. Too good! We lost the next year's game!

WINKLER: Recruiting midshipmen – did you have that blue/gold team in place?

McKEE: I believe Admiral Calvert put that system in place as part of his program to improve recruiting. He did a lot of things that carried the Naval Academy through a very difficult period. They were still there during my tour.

WINKLER: Relationships. Obviously Admiral Holloway is CNO and then you're dealing with Admiral Rickover. When you're talking about curriculum, was there any phone calls from Admiral Rickover expressing concerns about…

McKEE: No. Admiral Rickover left me alone. I did a lot of things that I thought he would approve of; not because they were his ideas, but because they were things I agreed with. I was careful not to discuss any of them with him. I didn't want him to tell anyone I was doing a good job because that would just raise old ghosts. (The people who wanted to say that Rickover's guy is over there.)

Only one time did I get into a bit of difficulty. By the time I was in my third year, Admiral Rickover apparently had begun to worry that he didn't know what I was doing - except what was in the public domain. I did not communicate with him. I don't think I heard from him, and I don't believe I called him. None of his staff really knew either.

This was during President Carter's time in office. Mr. Carter and Admiral Rickover had a prior association when he (Carter) was in training at Naval Reactors for duty in a nuclear submarine. Admiral Rickover talked to President Carter frequently. I gather that he mentioned a concern about what I might be doing at the Naval Academy. That wasn't helpful. I got a call from a member of President Carter's staff, who told me about this concern. (That individual had been on the Naval Reactors staff when I was there in 1964–1966.) He said he had been asked by the President to figure out what to do with this bit of intelligence. I asked him to leave it alone. I would take care of it.

I called Bill Wegner (Admiral Rickover's Deputy) and told him what I had been told. I don't remember whether he knew anything about it or not at that time. He understood what I was trying to do. I offered to send over a white paper that would outline what had been done to improve the Naval Academy since I had become Superintendent. (The outline was not something I wanted in the public domain for reasons cited earlier, though the substance was all in my congressional testimony.) I was proud of what we did, but public disclosure from that quarter could create a problem.

Wegner took the paper to Admiral Rickover. I guess that everything came out all right because what followed was the only phone call I received from Admiral Rickover

the whole time I was there. He said he had been told what we were doing and asked: "Is there any way I can help you?"

I said, "Yes, sir. Please stay out of it." He said he would; and he did.

WINKLER: Okay. Tangentially it brings out the fact that you were there when we had the first and only Naval Academy graduate in the White House. How did that…

McKEE: It didn't make any difference. He came over occasionally. He and his wife came when we played football against Georgia Tech at the Naval Academy. He spoke at graduation in my final year, and did a good job. It was interesting. He started off ad-libbing, then went into his prepared talk. I was really impressed by his extemporaneous first ten minutes – really good.

WINKLER: Building programs – the infrastructure at the Academy. I think it was probably the early 70's. Were most of the new buildings…

McKEE: Rickover Hall was already built. The Nimitz library was built as well. The only major project we had was Lejeune Hall – an athletic building for swimming and wrestling. We did have other significant expenses. Yard Patrol craft (YP's) were all old and out of date. They needed replacement, so we obtained authorization and an apppropriation for the new ones that are there now. That was an interesting drill. We began by trying to decide what they ought to look like, and what they should be able to do that the older boats could not. We used our own Naval Architecture academic faculty and students to do some of the initial work. In fact, we had the graduating class in Naval Architecture take on that task as a project. They came up with useful concepts. I don't know what happened after that, but the final design looks very much like what they recommended.

We spent a lot of time upgrading the midshipmen sailing program. The officer who had that responsibility was Captain Alex Grosvenor (USNA class of '50). I had sailed in competition with him when I was a plebe and he was a third-classman. He turned our sailing program around. We had been near the bottom in national competition when he arrived – and we won the national championship three years later. Unfortunately, Alex died of cancer near the end of his tour.

He did a lot of good things that did not require a lot of government money. He took the old seaplane base hangars at North Severn that had been full of supply materials, and turned the space into a small shipyard. We had been spending far too much money using local boatyards. We always had to take the low bidder. They were usually late and the work wasn't good. Alex hired an experienced yard manager from one of the best boatyards on the bay to make it all work. He was still there when I retired from the Navy.

Another initiative involved midshipmen who were involved in big boat sailing (ocean racing). During the winter they went over to North Severn and did the kind of work that has to be done in winter while boats are out of the water. Those midshipmen really had a stake in the performance of the boats.

These and many other initiatives turned the program around. When Alex died, another aviator Captain named Ned Shuman replaced him. He had been a POW in Vietnam. He did a great job, picking up where Alex left off.

The program has remained healthy. All of the yawls have now been replaced with new ocean-going sloops (Navy 44's). They were just a gleam in our collective eye when I left.

WINKLER: One thing which people were concerned about with your arrival was that the athletics programs would be dissolved. Obviously with the football program and you mentioned sail, that was clearly not the case.

McKEE: No. We strongly supported our athletic programs. But we couldn't accept a situation where athletes were not held to the same academic standards as non-athletes, as happens at many civilian colleges. We put forth a lot of effort to help athletes with academics (extra instruction) because those people have to put in so much time outside of class. It was hard for them; all that time on the practice field; sometimes in therapy. Carol Ulrich, the man I mentioned earlier (went as USMA Athletic Director) followed the midshipmen who were struggling, making sure they got the help they needed. As a matter of fact, by the time I left the Naval Academy the football team had a slightly better academic average than the Brigade as a whole.

WINKLER: I had a note here. Women, we covered that. Admiral Watkins, I guess he was at BuPers at the time.

McKEE: He was a key player. He made sure I got the right kind of officers and enlisted men for the staff.

WINKLER: It's a constant challenge because the Navy's traditionally been operationally focused, and I think even today there's initiative to try and get good people in there, such as this program where you can go in and teach and you can retire there as an instructor.

McKEE: Yes. That idea probably came from West Point.

There is one other thing I should have mentioned earlier. One of the tools that proved very helpful to our efforts to focus the curriculum on fleet requirements was a document signed by Admiral Holloway that laid out in clear terms what he expected from the Naval Academy; his goals, objectives, and policies. It was brief; there wasn't a lot of boiler plate. It was almost an outline – two pages as I recall, maybe three. Admiral Jim

Watkins and I worked on the initial draft. The final document proved very helpful, particularly when an occasional political appointee would try to influence the curriculum.

WINKLER: Oh?

McKEE: Political appointees (and others in government) often sought to influence the curriculum at the Naval Academy. I'm sure the other service academies have faced the same sort of thing. For example, if a Secretary of the Navy is a humanities graduate, he may think we should devote less time in the curriculum to engineering.

When I took over as Superintendent we were under CNET (Chief of Naval Education and Training). One of the things I asked Admiral Holloway to do was to let me report directly to him.

WINKLER: So as far as the decentralization, that explains something there. It's interesting, you have three sources for commissions in the Navy, and I was just kind of curious if the NROTC's had those same kinds of marching orders from Admiral Holloway as…

McKEE: I think Jim Watkins drafted one for the NROTC program and Admiral Holloway signed it. I know that was on his mind.

WINKLER: At this time, are there any other issues as far as the Naval Academy that…

McKEE: I don't think so. I've got a shelf of books over there that contains speeches I made at the Naval Academy. I don't think you want to spend any time going through them. However, there is one piece I would like to show you. It's a letter that the Superintendent received just before I got there. Here it is, I used this a lot in talking to the staff:

"Dear Sir:

When I became aware of my son's intention to apply for admission to the Naval Academy, I was greatly disappointed. Indeed, I discouraged the pursuit of a military career and questioned your institution to be little more than a sophisticated boot camp. I tolerated his application solely on the strength of his own determination.

Following Admission Day, my personal impressions were unchanged. That early exposure tended to compound the negatives I had harbored, and I hoped for his early return to a productive education program.

> Now these opinions have changed. I've been impressed by reports from my son during plebe summer, but my appreciation of the Academy's total program and facilities was culminated through a most valuable and intimate insight gained during Parents Weekend.
>
> Perhaps our most reliable criteria at this juncture is the son we have loved and raised these past 18 years. We readily noted striking results from his short tenure as a midshipman."

This parent then went on to say:

> "My earlier opinions of the Naval Academy were unfounded and incorrect. We are most proud that our son is a midshipman, and grateful that men of such high caliber and dedication guide his professional development."

Who is he talking about? He wrote the letter to me, but he's really talking about you all – the men whose efforts he saw reflected in his son's performance.

The author of that letter is president of a corporation – a self-made man, probably not given to idle compliments. That kind of an opinion, expressed by a competent outsider with no ax to grind, is worthy of careful consideration.

WINKLER: Good.

McKEE: Isn't it terrific?

WINKLER: One follow-up question. I had an opportunity to meet, the last time I was here, the Commandant of the Midshipmen.

McKEE: Oh, Rear Admiral Jim Winnefeld?

WINKLER: Yes.

McKEE: He was my Commandant.

WINKLER: Yes. Could you talk a little bit about the Superintendent-Commandant relationship? Especially with Admiral Winnefeld?

McKEE: Well, with Jim, it was an ideal situation. He and I were classmates in the same company at the Naval Academy. In our final year, he was the company commander and I was company sub-commander. We went to the Korean War in the same Destroyer Division. We've been friends for a long time. He's a very thoughtful, articulate, tough-minded guy. As soon as I knew I was going to the Naval Academy and learned that I would need a new Commandant, I thought of Jim Winnefeld. I asked him if he wanted to come and he said, "Sure." He did, and it couldn't have been better. Whatever success

we enjoyed in every aspect of professional education, including the introduction of women, was really his doing. He had just the right balance of toughness and sensitivity. That's leadership, and it's always a variable. There's no way you can write an equation that will produce the shape of that curve. It's a matter of individual experience, understanding, professional competence, integrity, and gumption. Jim had them all.

WINKLER: Intuition.

McKEE: Intuition, that too. Jim was just great. As far as I'm concerned he was the best Commandant yet. They've had some good ones since too. The current Commandant, Rear Admiral Sam Locklear, was one of Jim Winnefeld's midshipmen (Class of '77). It will be interesting to see how he does. We'll get a real measure of Jim's effectiveness as we watch Sam Locklear do the job.

Our working relationships were a pleasure to see. He and I had many a frank discussion; (after all, we were contemporaries) but we never disagreed on matters of principle. We occasionally argued about the best way to go about accomplishing a particular task – and he usually had the right answer.

WINKLER: Okay. I think that's a good place to wrap it up for today.