

ORAL HISTORY TRANSCRIPT

NORMAN E. THAGARD
INTERVIEWED BY RICH DINKEL
TALLAHASSEE, FLORIDA – 23 APRIL 1998

DINKEL: This is Rich Dinkel. I'm here with Dr. Norman E. Thagard in Tallahassee, Florida, on the campus of Florida State University. The time is 1:08 p.m. Today's date is April 23, 1998.

We're here today to discuss Dr. Thagard's early years prior to NASA. I must admit at the beginning of this interview that I have a bit insight regarding Dr. Thagard's earlier years, because he and I once served in the same Marine Corps fighter squadron in Buford, South Carolina, for a short time many years ago.

But let's start at the beginning, Norm. I know you were born on the 3rd of July in 1943 in Marianna, Florida, just down the road from here. Can you tell us a little bit about your childhood?

THAGARD: I didn't grow up in Marianna. My dad was a Greyhound bus driver and that was a bus changeover point, so I was born at a time when he was doing that. But shortly thereafter, my family moved to Jacksonville, Florida, and that's where I grew up. So all of my elementary school and junior high and high school was in Jacksonville.

DINKEL: Anything special about elementary, junior high, high school sports?

THAGARD: I played on the softball and the baseball team in fifth grade. After that I really only played intermural.

DINKEL: Then you chose to come to Florida State University. What made you decide on Florida State?

THAGARD: I had thought I would go to Georgia Tech because I wanted to be an engineer, and my senior in high school I received an invitation from the engineering science and the honors programs at FSU to visit for a spring orientation. So I did it like it, and decided to come here instead.

DINKEL: Can you remember, I know that was a long time ago, but can you remember what your career aspirations were to focus on engineering science?

THAGARD: Actually, I told some of my classmates as a senior in high school that I wanted to be an electrical engineer, a jet pilot, a medical doctor, and an astronaut.

DINKEL: You said that when you were in high school?

THAGARD: When I was a senior in high school.

DINKEL: That's ironic, isn't it?

THAGARD: It is, especially now that I look back and realize that there's no way you can just say that and set your goals and do it. It took some fortuitous circumstances from time to time, too, so it wasn't entirely within my control to do it, but it worked out.

DINKEL: Tell us something about the time while you were here as a student at FSU.

THAGARD: I entered in September of '61 after graduating from high school in June of '61 and declared engineering science as my intended major, basically took a fairly high course load throughout the four years, and graduated in April of '65 with a bachelor of science in engineering science. Basically electrical engineering. There were four options, and the option I took basically made me an electrical engineer.

DINKEL: Did you stay on then, go right into your master's degree program?

THAGARD: Yes, I did. I had to get a deferment from the Marine Corps because I had signed up for the Marine PLC Program in 1961, which means I was commissioned as a second lieutenant the day I received my bachelor's degree and therefore required a deferment. The Marine Corps did that; they deferred me for the year that it took me to get my master's degree.

I actually came here in—at that time ROTC was required, unless you were already connected with some other service. So when I entered, I was in Air Force ROTC and was on the Air Force ROTC drill team, and had always thought that I'd be an air force pilot, but engineering science was a major that took a whole lot of time. I wanted to do something by way of getting a commission and flying, but without having to take up school time in the process.

The Air Force ROTC, obviously, required you to do things while you were enrolled in college. The Marine Corps PLC Program, on the other hand, allowed you to go up to Quantico for six weeks the summer after you signed up, and then another six weeks of summer before you graduated.

DINKEL: The PLC Program was the platoon leaders course?

THAGARD: Leaders class. So I was PLC-A, meaning aviation. So it was understood when I signed up that my goal was to go into flight training.

DINKEL: I was reading your bio. Did you then do pre-med work as an undergraduate also?

THAGARD: No. I had come to Florida State with the intent of getting a bachelor's degree in engineering science, but then going on to medical school. However, there was a draft in those days, and I did sign up with the Marine Corps as a freshmen. By the time my senior year rolled around, it was pretty obvious that with a Marine Corps commitment, I had done myself out of an opportunity to go to medical school. So at that point I had either given up, or put the idea of going on to medical school on a back burner.

DINKEL: Well, that explains my next question. I was going to say, Why the Marine Corps? I know you went to PLC, but why did you go PLC?

THAGARD: Because I wanted to be a jet pilot, but I didn't want to have to take class time, school time, in the process, which is what Air Force ROTC. I would have had to take Air Force ROTC. It would have been another course or two that I would have been required to take most semesters. With the course loads I was taking as an engineering science major, I thought that was not good.

DINKEL: Okay. I understand. So it wasn't the color of the uniform, it was the convenience of the training schedule.

THAGARD: It was that, and the other thing was—and it's an interesting story about how I ever even talked to the recruiter in the first place. My roommate, who was already in the

naval reserve, and I were walking across campus, not more than two or three weeks after I'd entered as a freshmen. This was September of 1961. The Marine recruiter was set up over at the Student Union on the campus. My roommate, who, again, was already in the naval reserve, just wanted to tweak the recruiter a little bit, so he stops and he says to the recruiter, he says, "Is it true that the Marine Corps builds men?"

The Marine recruiter said, "Well, that's true."

He says, "Well, you know the Navy only takes men."

So the recruiter sort of rolled his eyes and looked at me, I guess. I don't remember exactly what he said. It was something to the effect of, "Well, are you just here to give me a hard time, too?" [Laughter]

I said, "No, I just stopped because my roommate stopped." But I did notice the pictures he had, which were of F-8s. I said, "But I've always wanted to fly those things."

So he gave me this story if how if I just sign on the dotted line, they'd put me right in the front seat of fighters. Being the young gullible eighteen-year-old that I was, I believed that was the way the process works.

DINKEL: Unfortunately, that sounds all too familiar. [Laughter]

THAGARD: Well, as we know, in spite of what the recruiter tells you, it's not quite that straightforward.

DINKEL: We'll talk about this off-line later. [Laughter] So when did you come on active duty?

THAGARD: The Marines, again, deferred me for my master's degree and I did that in one calendar year. So I did three semesters, three trimesters. I defended my thesis on a Saturday

in early September 1966, and that afternoon reported for active duty over at Pensacola Naval Air Station.

DINKEL: So you went directly to flight training and not to the basics school.

THAGARD: That's right. The Vietnam War was on by that time and they needed pilots desperately, so they basically eliminated the requirement for basic school for PLCA designates, which is what I was. So they sent me directly to Pensacola from Tallahassee.

DINKEL: Interesting. So you saved—

THAGARD: Six months.

DINKEL: —six months in beautiful Quantico.

THAGARD: Right.

DINKEL: I'm pretty sure that you went through the same pipeline that I did, but why don't we talk about the normal Navy jet pipeline? Did you get right to jets, or did you have to pre-qual in pre-flight?

THAGARD: As it turned out, in spite of what the Marine recruiter had promised me, most Marine aviators starting out were going helicopters, not jets. In fact, the way it worked is, you did your ground school at NAS Pensacola, then you went out to Sofly [phonetic] for primary flight. You got three grades. You got a ground school grade at NAS [Naval Air Station] Pensacola, you got a ground school grade at Sofly, and then you got a flight grade at

Sofly. That was a possibility of a total of 80 each, or 240 total, points out of those three. Based on your performance, your total score out of those, you might or might not get jets, or even have a chance, because there were some weeks that no Marines at all got jets.

I had been told, based on my grade coming out, that they would be willing to hold me several weeks if there were no slots for a couple of weeks, until a slot opened up. But it turned out the week I finished up, eight Marines finished up, including the last of the Mark-Eds [phonetic], and two of those guys had absolutely the minimum grade you could have to go jets and got jets. All eight of us got jets that week.

DINKEL: That's a rarity.

THAGARD: Yes.

DINKEL: Very rarity. We had many classes that went through with zero quotas.

THAGARD: That's right. Again, that's what they told me. That's why they said they would actually hold me over until the quota was there.

DINKEL: I would imagine you were thinking of the recruiter when the classes had zero quotas for jets.

THAGARD: Yes, because it was quite clear that he had indicated that all I had to do was sign on the dotted line and I was more or less guaranteed jets. Of course, as you know, it didn't work that way.

DINKEL: Then it was off to Meridian, I take it?

THAGARD: And then basic jet training at Meridian, right, for VT-7.

DINKEL: One squadron in Meridian, then, I guess.

THAGARD: No, two, VT-7 and VT-9.

DINKEL: Then back for CQ and guns to Pensacola?

THAGARD: To VT-4, then AS Pensacola, right.

DINKEL: Then I remember you talking about VT-21 in Kingsville.

THAGARD: At Kingsville, Texas.

DINKEL: The type of aircraft then was probably F-9s?

THAGARD: F-9s.

DINKEL: F-9FJ?

THAGARD: Yes.

DINKEL: Not that I'm that smart, but I was just a year behind, Norm.

THAGARD: It was T-2As at Meridian, T-2Bs down at VT-4, and then F-9s out at Kingsville.

DINKEL: Now let's talk about when you got your wings. When was it you got your wings?

THAGARD: February 28, 1968, the same day, out of the same squadron that Rick [Frederick H.] Hauck got his wings.

DINKEL: Oh, that's interesting. That's interesting.

THAGARD: As I said, Rick was the senior Navy guy for our class going through the training command, and I was the senior Marine. Rick had been surface Navy and then went back into aviation, so he was a lieutenant. Three weeks after I went on active duty, I made first lieutenant because I'd been getting time and grade for promotion while I was in school getting my master's degree.

Then nine months after that, in July of '68, while out at VT-21, I was promoted to captain. So Rick was a lieutenant and I was a captain for at least part of my training, which was kind of nice, because it meant I outranked some of my instructors from time to time.

DINKEL: Tell me about bringing the F-9 aboard the carrier.

THAGARD: That was a neat experience. Of course, the first time you do that is in the T-2Bs, but the F-9, was, as you know, a bit of an unpowered airplane, so you wanted to stay ahead of it.

DINKEL: Norm's being very polite. It was way under power.

THAGARD: The T-2B, on the other hand, was an extremely responsive airplane. It was a good plane for students to car-qual [carrier-quality] the first time.

We actually had to deploy over to Pensacola, out of Kingsville. The *Lex* [USS *Lexington*] was in dry dock. I had qualified on the *Lex* out of VT-4, but it was in dry dock when I had to car-qual out of advanced. So they had brought the *Randolph*, which had hydraulic cats, not the steam cats of the *Lex*. We actually were flown out on a COD to the aircraft carrier, and I spent a couple of days right under the forward catapult on the *Randolph*. Flight ops would start at 5:00 or 5:30 in the morning, so you didn't sleep very late. We hot-seated the F-9s on the deck of the carrier.

DINKEL: That meant you refueled and changed pilots while the engines were still going.

THAGARD: While the engines were running, exactly so.

DINKEL: By the *Lexington*, you mean the USS *Lexington* (CV-27)?

THAGARD: I'm not sure of the CV, but, yes.

DINKEL: CV is 27 Charlie—

THAGARD: The old World War II carrier.

DINKEL: Right. I bet you finished pretty high in your class, because you got selected for fighters out of the training command. How did that come to be?

THAGARD: Again, you get fighters in the Marine Corps on the basis of the combination of your ground school at Pensacola, ground school at Sofly, and flight grade. I think out of the folks that finished up that week, Navy and Marine Corps, I had the second high grade. I remember there was an Ensign Phillips, Navy guy, who had the high grade. He had a few more points than I did. I had a 208 or 209 out of 240.

Then out of ET-21, I was Student of the Month, which I means, I guess, that I had the high grade of the VT-21 students finishing up, getting their wings that month. I found that interesting, because, Rick can correct me on this, but if I'm not mistaken, that meant even higher than Rick Hauck, who became a shuttle commander later on.

DINKEL: Well, we'll have to interview him and ask him the same question.

THAGARD: You'll have to ask Rick.

DINKEL: I'm going to have to see paperwork from one of you guys. [Laughter]

THAGARD: I know that Rick was Student of the Month out of VT-7 when he and I went through, so he beat me there, but I beat him at the other.

DINKEL: It'll be interesting to see if he remembers the same story, won't it. [Laughter]

THAGARD: Right.

DINKEL: Well, you had an interesting way that you picked up your type training or your RAG training. I understand you reported to Buford and then they temporary-dutied you up to the RAG squadron, is that right?

THAGARD: Yes, I reported to Buford and was assigned to an F-4 squadron. Went out, got an apartment, came back later that day and there were orders sitting there to transfer me up to the A-6 squadron up at the Cherry Point.

DINKEL: 202.

THAGARD: Whatever it was. I knew that I wanted F-4s, not A-6s, and the group ops officers said, "You're here, right?"

I said, "Yes, sir."

He said, "You got what you wanted, right?"

I said, "Yes, sir."

He took my orders and called up and got them canceled. So I stayed there at Buford.

DINKEL: Another success story.

THAGARD: Yes.

DINKEL: Right place, right time, wasn't it?

THAGARD: Right.

DINKEL: What did you think of the F-4 when you started flying? That was F-4Bs only back then, right?

THAGARD: The RAG had F-4Bs and Js, VMAT-201. So I flew both, as I recall, up at Cherry Point. But the squadron Trip Trey [phonetic] had brand new F-4Js, lead noses, because the aug 10 radar wasn't available then. I flew some F-4Js in Trip Trey that had less than ten hours on the air frame. So, brand-new F-4s.

DINKEL: That's right. Trip Trey was the first squadron to get the F-4J in the Marine Corps, if I remember correctly.

THAGARD: Probably true, because they had F-8s when I got there, although I never got to fly the F-8.

DINKEL: Who were some of the colorful, not the Marine Corps ever had colorful fighter pilots, but who are some of the colorful characters in Trip Trey at that time?

THAGARD: You know, I can't remember anybody's name from Trip Trey. I hate to admit it. It's just been too doggone many years.

DINKEL: Well, let's skip over, then. We'll probably pick somebody up here as we go. Then it was right from Trip Trey to Vietnam?

THAGARD: Well, Trip Trey, not having radar, couldn't train you for the air-to-air work. So I was sent TDY after finishing up my air-to-ground to 312, which was in MAG-32, I think. Because Trip Trey was in 31. So I just went basically from one side of the field over to the other side of the field to do the air-to-air work in F-4Bs and 312. Then after finishing that up, I went back for a short time back to Trip Trey before shipping out to Vietnam.

DINKEL: I know you remember the dates, but they weren't in your bio. What were the dates when you shipped over?

THAGARD: It was December, very late. Well, actually, no, it was right after New Year's, because I got to see the Jets-Baltimore—

DINKEL: The Super Bowl?

THAGARD: The Super Bowl that year. So it was just several days into the new year in 1969 that I went to Vietnam.

DINKEL: You joined VMFA-115?

THAGARD: Yes.

DINKEL: Silver Eagles.

THAGARD: Right.

DINKEL: Where were they, Da Nang or Chu Li?

THAGARD: Chu Li in MAG-13.

DINKEL: I was really hoping you'd say that, because I want you to tell everybody about wonderful Chu Li.

THAGARD: Chu Li by the sea. [Laughter] Actually, Chu Li wasn't too bad. It didn't have the amenities, I suppose, of Da Nang, because it was a base that literally had been built by the Marine Corps earlier in the war. The Americal Division was headquartered there, as well. So there were quite a few Army people. It was actually a fairly good-sized base. There were two Marine air groups, MAG-12 and 13; 12 was an all-attack group, A-6s and A-4s, and 13 was an all F-4 group. It was all Bs when I got there, although they brought in a J squadron, 232, for the Red Devils.

DINKEL: Red Devils, 232.

THAGARD: 232. But they pulled them out after a while because they were losing them and the Marine Corps didn't want to lose its new airplanes. So they took them out and brought another B squadron back in.

DINKEL: The right decision for the wrong reason. We talked about the other services. You're getting all my questions answered before I get to ask them here, Norm. Let's try to remember back to any of the operations and campaigns that were conducted during that time, January of '69 and January of '70.

THAGARD: Okay. It wasn't too long before that, I guess, that the operation at Kaison [phonetic] had taken place. I actually did some missions in the Kaison area, but by that time that battle had already been over, and in--what was the valley with Hamburger Hill and all that?

DINKEL: The Asha [phonetic] Valley.

THAGARD: Asha Valley. Did a lot of stuff in the Asha Valley. Hamburger Hill took place while I was there in 1969. But we weren't flying up over the north. That was probably the biggest thing. So I never flew any missions over North Vietnam. Flew a couple of bar caps for the fleet off in the Tonkin Gulf. Flew some fighter cover for B-52s, but most of what we did was either the old Steel Tiger missions in Laos or close air support for various ground units in I-Corps of South Vietnam.

DINKEL: Well, that's what I was going to get to. I was going to ask you to describe the kinds of missions and you've done that a little bit. Bar cap barrier, combat air patrol, and close air support, CAS. We'll come back to close air support. Any hot pad time?

THAGARD: Yes, did some hot pad time, both airborne and in the trailers.

DINKEL: Can you explain how we did the hot pad in Chu Li?

THAGARD: You were in a trailer and I remember they were kind of dark, but they were air-conditioned and cool. I don't remember that we ever had to actually sit out in the airplane there. What were we on, fifteen-minute notice, or whatever it was, so we just basically stood around with your gear on, ready to go fly.

DINKEL: That was basically an air-to-ground hot pad, wasn't it?

THAGARD: Almost entirely air-to-ground, right. It was units that would come under attack unexpectedly and require air cover. It was any sort of emergent requirement for air cover. We did airborne, too. In airborne, you'd fly a racetrack pattern. Sort of like bar cap, although it was really more for air-ground work rather than for interceptor work protecting a

fleet. You would usually aerial refuel at least once in that behind a C-130. I did not like those missions simply because you could wind up sitting in the airplane for three, three and a half hours.

DINKEL: Unfortunately, that's the way the--it became more efficient to do that as the war went on and escalated, and almost all the missions were airborne hot pads.

THAGARD: Probably so.

DINKEL: I know, unless you were very lucky, that you had this great opportunity to fly TPQs.

THAGARD: Flew some TPQs. Not a bunch of them, but probably four or five times while I was there, maybe more than that, but not too much more than that. The bad thing about TPQs is they could occur at any time, and usually would occur at three or four o'clock in the morning, as I remember.

DINKEL: For the life of me, I used to know, but I can't remember what TPQ stood for. But would you just describe how wonderful a TPQ mission was and what it was?

THAGARD: You basically were flying kind of a GCA, ground control, but you weren't doing an approach. You were basically being directed by a controller on the ground using radar equipment, and he would direct your heading and air speed and assign you an altitude and then tell you when to release your bombs. So it was a ground-controlled bombing mission straight and low.

DINKEL: In the middle of the night.

THAGARD: In the middle of the night. And typically we'd be up to, I think, around 20,000 feet or something like that when we'd drop the bomb.

DINKEL: I remember it as not the most rewarding mission I have ever flown.

THAGARD: No, but one of my friends, Mike Walley [phonetic], came back and a few weeks later, I guess, we got word back that on his TPQ, one of his TPQs, he had killed every member of an enemy company. The reason they knew that is because the reason they discovered it is there was no one left alive in the company apparently to bury the bodies. They were still at the site of the bombing.

DINKEL: Is that right.

THAGARD: Yes.

DINKEL: Norm is referring to Mike Walley, who just retired as the Staff Advocate General of the Marine Corps as a brigadier general.

THAGARD: I got an e-mail from Mike a couple months ago.

DINKEL: Oh, really.

THAGARD: Yes. First time I'd heard from him since—

DINKEL: Quite an individual.

THAGARD: Yes. We were in Vietnam together and then we were in 251 together after we got out of Vietnam.

DINKEL: I have to admit I didn't have his name on the list, and until you just said it, I just added it our list here. Well, that's interesting. The missions didn't change much over there through the years. I know you can do this, so let me just ask you. Why don't you tell me about an exciting mission or a situation, a sea story.

THAGARD: Probably the most exciting mission I had was one in which I almost took myself out of the air. We were dropping thousand-pounders and they had us running perpendicular to the hill line. I dropped, I think, two or three thousand-pounders in a string, and the last one walked up the hill and actually got frag on my own airplane from that one. That's probably my most exciting mission, I would guess.

DINKEL: That was probably pretty exciting getting back home after that one, wasn't it?

THAGARD: Well, fortunately, the major damage was to the bomb racks, not to the airplane, so it did very little damage to the airplane.

DINKEL: A little bit of luck there, too.

THAGARD: A little bit of luck.

DINKEL: The O-Club [Officers' Club] at Chu Li is famous and infamous at the same time, isn't it? Was there anything ever happened at the O-Club that we can talk about?

THAGARD: Actually, nothing untoward that I know of ever happened at the O-Club. Once in a while we would have some acts. I remember mostly Vietnamese or Philippine. But sometimes, I remember, we had an Australian group that came through. The best thing about the O-Club is every Friday night we would barbecue grill steaks over there, which was kind of a highlight of the week.

DINKEL: That's so you could remember what day of the week it was, I think, right?

THAGARD: Yes.

DINKEL: I read in your bio that you flew 163 combat missions and racked up a total of eleven air medals.

THAGARD: Right, strike flight air medals.

DINKEL: Yes, in a twelve-month period. That tells me two things: that says that you didn't get sent off to a FAC tour.

THAGARD: No, they trained me for a FAC tour, but they knew I didn't want it in any event, so they didn't send me FAC. They did send me over to the MABS [phonetic] group, but I still continued to fly with my squadron while I was in MABS.

DINKEL: I digressed to a FAC, a forward air controller.

THAGARD: Right.

DINKEL: Usually the fighter pilots don't fight to get a ground position in Vietnam. They call air power in, and they want to be the air power that's called in.

THAGARD: No, but I think it was generally known how much I really didn't really want to go FAC. I was an engineer by training, so they said, well, we'll put an engineer in the Marine air base squadron. So I went to MABS-13, but, of course, I never left the base. So I just wound up continuing to fly with my squadron, albeit not as much as I had done before I had the MABS assignment.

DINKEL: I noticed the 163 missions and eleven air medals. It seems to me that you had a lot of two-pointers, meaning that Norm got shot at a lot.

THAGARD: Well, we took fire virtually every time, I think, we'd go into Laos. In fact, they used tracer rounds. It was pretty obvious when you were getting shot at, and we got shot at a lot on the close air support stuff in Vietnam, too.

DINKEL: Well, that's exactly where I was going to go. I was going to ask if that was because of the type of close air support you were doing. Would you just describe a normal close air support mission?

THAGARD: Yes, you would go out and typically it would be in support of US Marine units, although not necessarily. It could be an Army unit, and sometimes it was even for the ROKs,

Republic of Korea, Marines, who were in the area. In those cases, we would carry 500-pound snake eyes and napalm.

DINKEL: Snake eye being retarded fin.

THAGARD: Retarded fin, so that they don't explode under the airplane like our 1,000-pounders did and frag the airplane. Those could be pretty close. The FAC or the ground forces would usually put out smoke to mark either their position or a reference position, and then they'd give you instructions based on clock positions and distance from that mark to where they wanted you to release your ordnance.

DINKEL: The Marine Corps, I think, it's a fact that they're pretty well known for the degree of goodness of the close air support campaign with the Marines on the ground.

THAGARD: Yes, that was tough for me when I first got there, because, first of all, I hadn't had all that much air-to-ground training. I had the same problem in the training command. There was talk about not letting me get my wings when I did because I had too few hours. Most of the people who were coming through the training command had twenty, thirty, forty hours more than I did, and there was some concern about that. But I had done all right and my flight grades were okay, so they let me through.

Same thing happened with Buford and the air-to-ground training beforehand. I just sort of zipped through and had a minimal amount less, significantly less than average when I got to Vietnam. I got to Vietnam and, first of all, when we went to Laos we were using 45-degree dives, which I'd never done a 45-degree dive-bombing run in my life before I got there.

In the States, for our 10-degree releases, we were using 500-foot releases, but we weren't allowed to that in Vietnam. The restriction was first 800 and then they bumped it up to 1,300. So I wound up doing diving glide bombing in patterns that I'd never practiced before getting to the Vietnam. I had a lot of anxiety about working close to troops with no real experience in those kinds of dive-bombing runs. So I found that very anxiety-provoking.

DINKEL: I guess so, that 10-degree with napalm releasing at 1,300 feet is kind of unpredictable where that's going to go, isn't it?

THAGARD: I would think so. But the rule was put in--apparently, the day I got to Vietnam we had just had an airplane shot down in 10-degree glide bombing and they lost the backseater. He was actually executed just before the choppers could come up and get him. So they retrieved his body, because the Vietnamese apparently scattered as the choppers came up. So they recovered the body. I took his hooch. He'd been killed earlier in the day and they put me in his hooch. [Laughter] But because of things like that and the number of instances, I guess, in which airplanes, F-4s, had been struck by ground fire in close air support, they were gradually moving the release altitudes up. But like I say, I had never done, first, an 800-foot release, and then later when they moved to 1,300, I'd certainly never done a 1,300-foot release either.

DINKEL: Interesting. I've also noted in your bio that you were awarded the Navy Commendation Medal with a Combat V.

THAGARD: Yes, but I was the awards officer. I wrote up my own awards, so I want to be honest and tell you that.

DINKEL: What was the real basis of the award there?

THAGARD: Actually, I think Navy Achievement or Navy Commendation Medals were fairly standard for company-grade officers coming through the—in all honesty. I mean, I guess I could have gotten an Achievement Medal, but I did a little better and got the Commendation. But, again, I wrote up my own award, because I was the awards officer, too.

DINKEL: It's good to be king, as Mel Brooks would say.

THAGARD: It's good to be king. As you know, the field grades were getting Bronze Stars. I mean, you know how it worked. I mean, there was just a little hierarchy.

DINKEL: Well, they quit that when I got there, though.

THAGARD: Did they?

DINKEL: They really did. The Marine Corps E, was that like the Battle E?

THAGARD: That was the E, I think, for efficiency or effectiveness, and that came from air-to-air work at Rosie Roads [Roosevelt Roads], actually after I returned to the States while on my Vietnam tour. That was because I got a simulated kill on a drone with a Sparrow.

DINKEL: Ah! I remember that.

THAGARD: So it was for the air-to-air work I did down in Rosie Roads.

DINKEL: Well, let's hold that off and we'll come back to that. I want to talk to you about something. Now, you don't have to talk about this if you don't want to, but I'm sure you had some feelings, and perhaps strong feelings, about the war in Southeast Asia at that time. Can you describe those feelings and tell me if you still have the same feelings today?

THAGARD: Yes, I still have the same feelings, and I'd say they're ambivalent feelings. I thought that we were very altruistic. I saw nothing wrong with what we were doing in Southeast Asia, but I saw a lot wrong with perhaps being killed and having people in the United States think that was a good thing: my just desserts. I had a lot of problems with that, being asked to do something for which there was little support in some cases.

I remember when I came back after getting out of the Marine Corps and was back in the Ph.D. program at FSU in '72, and having some folks who learned I had been a fighter pilot, making some rather derogatory comments. So I had problems with that kind. But as far as the war itself, I saw nothing immoral. I thought, if anything, quite the opposite. We didn't have any real thing to gain there. Anybody that thinks the North Vietnamese were good people has a very poor idea about human character. The fact is, that was a pretty bad group we were fighting. There was nothing kind or good to be said about the North Vietnamese, whatever you might want to say about American involvement or Americans who were involved.

DINKEL: Without making comment, I should just go on, but the next question I have is very similar to the first question. It's a curiosity question. If you'd like to talk about the politics that surrounded that war and the things, such as demonstrations that were going on back here in the United States while those of us were over there in Vietnam.

THAGARD: Of course, we were worried. A lot of folks in the United States were worried about what seemed to be the inexorable advance of Communism. I mean, it seemed like countries could go from whatever political organization they had to Communism, but no Communist country ever went back the other way. So I think there was a real concern that if that continued, ultimately the end result would have been all the world would be Communist.

As an American, philosophically I didn't like that idea very much, so it didn't seem to me wrong or unreasonable for us to try to keep a country from being taken over by a Communist regime. From that aspect I, again, had no problem politically with our involvement in the Vietnam War. But it's impossible to successfully fight a war without support at home, and the support eroded over the years, reasonably or unreasonably. The folks who try to appear noble and that they demonstrated against the war and avoided the draft can feel that way if they want to. I think, I felt at the time, and still feel that they were entirely self-serving and that their ultimate motivation had nothing to do with philosophy so much as it did the philosophy that, "Hey, I could get killed. It'll interrupt my nice life, and I don't want to have anything to do with it." I think it was mostly a desire to avoid risk and responsibility.

DINKEL: What about all the help that the military guys got in target selection and movement in and out of objective areas from the politicians as opposed to generals?

THAGARD: Well, politicians can sometimes play a useful role in war. Apparently, Hitler's intervention in the military, while it may not have helped them in a tactical sense, certainly did prolong the war, because his interference in the military matters probably slowed the German defeat, I would think. But most of the time it doesn't work that way. The politicians simply didn't have enough immediate information and timely information to make those kind of determinations, I think. It's difficult to win a war under those political conditions where

the enemy has safe areas, it can freely operate and you can't touch them, yet they can do what they want to, to you.

DINKEL: That's the last question I had on Vietnam. Is there anything else about Vietnam, the war, the country, the people, the grunts, or anything like that that you'd like to discuss?

THAGARD: Didn't have much interaction with the grunts. Since I didn't go FAC, I never got attached to a ground unit.

DINKEL: The grunts, by the way, are the Marine infantrymen.

THAGARD: The only grunts I saw were the Army variety from the Americal Division. I do know that I was very proud of the Marine Corps when I would see the Army, because the differences in behavior and discipline levels were obvious and apparent.

DINKEL: Well, now that you've endeared all of our Army friends, let's go to the next one. [Laughter] I know how I felt, so I'll ask you how you felt when you saw the Freedom Bird, the one which was going to take you out of Vietnam for the first time.

THAGARD: Probably not as emotional a thing as for some folks, because I actually wound up spending about thirty days of my twelve-month tour out of country anyway. I had to divert over to Thailand once. As a MABS officer, I got to fly for a day over to Uban [phonetic]. Right after I got to Vietnam, I was sent back over to Clark Air Base to go through the jungle survival school there at Clark, in spite of the fact that I had already been through the Albrecht [phonetic] one down in the canal zone.

By the way, let me tell you, back in November I gave a speech to some Air Force folks at Albrecht Air Force Base.

DINKEL: Really.

THAGARD: Yes, I gave the graduation speech. FSU has a campus down in Panama and I gave the graduation speech for them in November, and wound up giving a speech, while I was there, also, to the Air Force there at Albrecht Air Force Base. Which is where I went through jungle survival in 1968. I mean, I couldn't believe it. Here I was back nineteen-- what is that? Twenty? How many years is that? That's almost thirty years. Here I am back again. It's twenty-nine years, I think.

DINKEL: I'll bet the jungle looked exactly the same.

THAGARD: Looked exactly the same, sure did.

DINKEL: I'm sure you can tell us at least one good story about jungle training, survival training.

THAGARD: Actually I can. The last day, toward evening, they released you, and you were supposed to start trying to find your way out of the jungle. But they didn't expect you to be able to find your way out of the jungle, because they didn't release you early enough in the day to do that. We were also told, "But if you do somewhere inadvertently manage to actually get through this thing and out today, you need to go back in because the exercise doesn't end till tomorrow morning."

Well, we were groups of nine, and I was a captain, so I was sort of in charge. This other group of nine had joined up with me, and as a senior person I was in charge. I was determined I was getting out that day. I'd had enough of the jungle. So we went marching along and we ran across another two groups of nine each. Finally, it was getting dark. So we had four groups of nine. The question became, should we all just bed down for the night like they told us, or should we keep going? I said, "I am willing to take charge of whatever group of folks wants to continue to try to get out tonight. The rest of you can stay here and you'll be with whoever the second senior guy would be in charge of that group." And he didn't want to go out that night; he wanted to just set up a camp.

So we did that, and I wound up about eighteen folks with me, and we found this old trail. First of all, we found some kind of hunter's thing, right out there in the middle of the jungle. Then a little later on, we found a trail along the Chagres [phonetic] River and started down the trail. We came a little while, and the river's on our left, and we come to a fork. It's a three-way fork. There's one that goes off to the left, and, of course, the river's just off to our left. There's one that goes off straight ahead and there's one that goes off to the right.

We start down the one that goes straight ahead, because that looks like the most likely one. It goes down maybe a quarter of a mile and ends in the water, just abruptly to a little what looks like an inlet off the river that's off to our left. So we backtrack back to the fork and we take the right fork. It goes for about a quarter of a mile and it ends, basically in jungle. So we're really at a quandary. We know the left fork's not the right one, because if the river's off to our left and the center one already ended in what looks like an inlet of the river, and the right one goes into the jungle, the left one's obviously going into just down to the river.

So we start back down the trail in the direction in which we came, looking for something else, and we see a flashlight up ahead. It turns out it's a Panamanian hunter. It was his little hunting shack that we had found in the jungle earlier on. So we had somebody

in the group that spoke Spanish, and he starts talking to this Panamanian and tells him that we're trying to find the golf course there at--I'm trying to remember, I think maybe it was Gamboa. I think that was it. But our goal was the shooting range that was right at the edge of a country club there in the canal zone.

Of course, we had been told not to carry money and things because everything's wet out there. You jump out of helicopters and all. But some of us had a little money in these little plastic—we'd wrapped it up in plastic. We had all the food that we had left over from the thing, which didn't amount—but we traded it all to this Panamanian hunter. In return, he offered to show us how to get out. So he turns us back around and we're heading back towards this fork again. We get back to the fork and we're thinking, "What does he know that we don't know?" We just tried all this stuff. He starts heading down the left fork. We're thinking, "Oh, he doesn't understand what we mean," because we know that's gotta go in the river.

Well, it turns out what we didn't know is, if you take the left fork it does indeed go to the river and then it goes right along the river and there's just this thin little spit, just barely path-wide. The river's on your left and what we thought was the river's inlet where that center fork ended is on the right. But it is, in fact, a complete trail, goes across this maybe twenty-five-yard stretch, and then you are there at the firing range. We had been right there.

But it's now just at dark and we've gotten out of the jungle. Well, we're not going to go out of the jungle just yet. We don't have any money, so most of the troops just bedded down there right at the edge of the jungle, like we'd been told to do. But this other guy and I go up to the clubhouse. Because it is a country club, so we just go down past the firing range and there's the clubhouse and we go up and we're going to beg food. This member of the club comes up and he says, "Hey, you guys must be in on survival training. Did you just get out of the jungle?"

We said, "Yes."

He says, "Well, shoot, you must be hungry." He says, "Come on in here, I'll buy you dinner." So the guy took us in and he buys us dinner.

DINKEL: You're probably well and tired that this is over.

THAGARD: Oh, yes. I mean, we'd been out in the jungle for three days. He says, "Tell you what, my family's gone back to the States on holiday and they won't be back for a few more days. The house is empty. Why don't you just come back to the house. You can have a shower there. We'll put your clothes in the washing machine and clean them up and you can sleep on the floor in my living room. It's air-conditioned. I'll take you back just before dawn tomorrow morning." [Telephone interruption.]

DINKEL: We'll take a break here.

THAGARD: Okay.

DINKEL: Okay. This is Rich Dinkel again with Norm Thagard again, and we're continuing on the second tape, right where we left off last time, about jungle survival training.

THAGARD: He did just what he promised. We went back over to his house and he put our flight suits in his washing machine and washed them. We took showers. I decided that I didn't feel comfortable with this arrangement of sleeping there that night and then him taking us back and letting us sneak back in the jungle the next morning, so after I got my flight suit out, I put it back on and everybody else was already asleep. I just walked out of his house and tried to remember how we had gotten there and walked back to the country club, and

actually didn't go back in the jungle, but I stayed right there at the pistol range, which is where the jungle started. Then right after dawn the next morning, did go back in the jungle.

But when we finished up the exercise that morning and were in the buses being taken back to Albrecht, one of the instructors stood up and said there had been reports that some people had found their way out of the jungle the previous evening and had not been seen going back in, and that he certainly hoped that we were ethical enough or whatever not to have done that. [Laughter] I was thinking, well, shoot, I thought we did pretty well. I certainly didn't feel any guilt from doing all we did. [Laughter]

DINKEL: Ethical to go back in the first place.

THAGARD: Yes, I thought, gosh, I thought we did fine. We got out of the jungle in good time. [Laughter]

DINKEL: Let's switch gears again and talk about back to stateside duty with VMFA-251, the Thunderbolts.

THAGARD: Right.

DINKEL: Cusdus colorum [phonetic], the "Janitors of the Sky."

THAGARD: Probably.

DINKEL: Marine Corps Air Station, Buford, South Carolina. That's where we ran into each other. Can you tell us a little bit about 251, what job you had, the type of flying, the people?

THAGARD: My job was AbWeps Division officer and the AbWeps Division, if I remember, was the biggest division in the squadron, actually at one point, I think, had a 125 enlisted troopers and five officers, including another captain. I was a maintenance test pilot, which I liked a lot, because you could take the airplanes out of the barn and wring them out and do a few things with them. That was kind of nice.

I got back there in, I think, probably February of 1970, and my release from active duty based on my original contract, which was three years past completion of flight training, was up in February of '71. So I was there for probably a year before getting out.

It was kind of an interesting thing, in that I had gone from just a year or so before being a nugget myself, now to being someone who trained, or helped train, the new pilots coming out of the RAG up at Cherry Point. And I liked it. You got designated first a section, and then a division leader, and so you could go out and actually do some stuff with some other planes. We did air-to-air and air-to-ground, so we mixed it up a bit. I just found it enjoyable with a combination of things.

DINKEL: I made a list of the people that I remember in that particular squadron. I'll just let you go through that list.

THAGARD: Well, I remember Major Kiley [phonetic]. Hadley [phonetic], I remember the name. Clark Henning [phonetic]. Which one was the Air Force? Because we had an Air Force exchange guy. Who was that?

DINKEL: That was Warren Stuart [phonetic].

THAGARD: Oh, there he is, yes.

DINKEL: I don't remember if you were at that particular time we went to Roosevelt Roads, how he got his call sign, "Smokey." Were you there for that?

THAGARD: I went to the Rosie Roads deployment in July of '70, but not for the one in February of '71. I was left behind as OIC [officer in charge] of the rear echelon in '71, because I was released from active duty while the squadron was on deployment.

DINKEL: I can't remember one deployment from another, but that particular deployment when he got his call sign "Smokey" was when he fell asleep with a cigarette and set his BOQ [Bachelor Officer's Quarters] room on fire.

THAGARD: That must have been in the February deployment. I don't remember him doing that when we were down there. I do remember a thing that happened to me there in that July on the deployment at Rosie Roads. I had flown my wife down there and she was there for several days while we were on deployment. Then I took her up to San Juan to the airport to catch the flight back to the States. I had rented this little VW. Coming back, I was coming down a hill and I passed somebody, but I was going down the hill. There was a solid yellow line, but it was for the uphill traffic, not my traffic. But nonetheless, a Puerto Rican policeman stopped me and I basically, honestly, wound up bribing him. First of all, I shouldn't have been stopped, because what he was trying to say I did, which was park on the yellow line, was wrong. That was for the traffic going uphill; the yellow line was on the other side of the thing. You don't have those going downhill, anyhow. But rather than arguing, knowing that I was supposed to fly back that afternoon myself, take an F-4 and fly back, I didn't want to wind up having to stay around and pay some fine or do whatever.

So he sat in the front seat of my car and I pushed a \$20 bill over the seat and he took it and got out and then he came back and said, "You understand there's no ticket." I

understood and that was it. So, I basically, for the only time in my life, bribed a cop, but it was—

DINKEL: It was successful.

THAGARD: —it was successful and it was the better alternative. [Laughter]

Then, actually, they were a little late. I was flying an airplane, since I was in maintenance, we had an airplane that had had some problems and we were still working on it, so the rest of the squadron had already flown out. They left one nugget pilot behind with me, with a good airplane, and I got this airplane that had just been fixed up. He and I launched out at night. We got maybe 100 miles off the coast of Puerto Rico and he had a radio failure. So we had to turn back around and spend another night at Rosie Roads and then come back for the next day. So I remember the return trip, too.

DINKEL: Well, back in those days there was one airplane that had the radio and one airplane had the tach hand, wasn't it?

THAGARD: [Laughter] It honestly could work that way, sure. The F-4 radio had a problem. I don't know if it was endemic to all high-altitude aircraft, but there is an arcing problem with any high voltages in a vacuum. So they pressurized the radios, but sometimes those radios would lose pressure. That was the old vacuum tube era when you had high voltages on the vacuum tubes. If those things lost pressurization for whatever reason, they would arc over and they would fail in that case. So I had radio failures in F-4s a couple of times. It wasn't common, but it wasn't all that unusual either.

DINKEL: You reminded me, that's probably why they called it the ARC-27, then?

THAGARD: You might think—I do know that ARC is a legitimate acronym, but it's probably not a bad term to use for it. I remember P.J. Lowery [phonetic], he was a major, too, as I recall, right?

DINKEL: I think he made major after you were gone.

THAGARD: Oh, really.

DINKEL: I think he was a captain still then.

THAGARD: Jim Vance, I will never forget, because I saw him crash.

DINKEL: Why don't you tell the story about that flight.

THAGARD: We had a division of four. Again, not only was I the last one to come back from Rosie Roads, but I was in the last group of four to go down there. The rest of the squadron had already deployed earlier. I had already pre-flighted my airplane and signed off the yellow sheets for it. Jim Vance came to me and said the major—I don't remember which major it was—who was our division leader, had thought it was a bad idea for my section, the third and fourth airplanes, to have both the travel pods. So I wound up swapping aircraft with Jim Vance, because, again, my section had both the travel pods and their section didn't have any travel pods. So he and swapped airplanes. It was an Air Force base that we were flying into as our refueling stop going down there at Homestead. We, of course, going into an Air Force base as a Marine fighter division, we want to look real spiffy. We had a nice sharp echelon coming into the break.

So we are in left echelon and we are going to do four-second intervals. So the lead breaks, and Vance breaks, and I count off four seconds and I break. As soon as I break and look up, because, as you know, what you try to do is, you don't care whether the lead in the second airplane are on altitude, what you care about is that whatever altitude they're at and you're at their altitude. So you line yourself up on the first and second airplane. But I noticed already that Jim was significantly below the altitude of the lead aircraft. I didn't think much of it at that point. I figured he'd bring it back up. But he stayed in an angle of bank and he continued to get lower and lower. At some point, and I don't what point that was, probably too late, obviously, I realized that there's something going on. He's far too low. This is not only just looking bad breaking at an Air Force base, but something's wrong. I yelled, "Get out," or do something. But I never keyed the mike.

My backseater, who apparently was also watching this, finally did key the mike and started yelling, "Eject! Eject!" We saw the flash and we knew that there'd been an ejection, we didn't know who had ejected. It turned out Jim never tried to eject. The backseater had tried to eject, but apparently due to the altitude and the angle of bank, he actually ejected into the coil down there, and we were told that he was severed at the waist, his body was. He was still not totally out of the seat when the seat and him impacted the ground.

The plane erupted in a huge fireball. The Air Force tower controller immediately closed the runway, so we weren't allowed to land there. We had to divert over to Miami International and land and refuel at Miami International and then later on come fly back over to Homestead.

We stayed around an extra day to give depositions to the Accident Board that had convened to investigate the accident. Then we flew down, and as we were flying this time, just as a, it seems—I can't remember, it seems like we were only a two-ship for whatever reason after Homestead. I think that's because the skipper had flown back from Rosie Roads

when he heard of the accident. Then, I guess, he and my wingman had flown down to Rosie Roads.

Then the major, who'd been the original division leader, I flew as his wingman, and we started out as a separate section going down. I noticed as we got a beam, Hispaniola [phonetic], the Island of Hispaniola, Haiti, the Dominican Republic, that there was fuel streaming out. I can't remember which wing tank it was, but obviously he had a leak between the wing and the wing tank, and he was streaming fuel out of one of his wing tanks. You couldn't make that Homestead to Rosie Roads with that sort of problem. We wound up having to turn back and divert and land at Guantanamo Bay. I'll never forget that either, because—

DINKEL: The entry's a little tricky down there, isn't it?

THAGARD: We came in VFR. I remember asking the tower, I told him, whatever my call sign was, and, "I'm coming in for visual approach. Are there any special instructions?" He advised me to come in flying to the north, and then break sharp right and land on the runway, I think, landing to the east. I think the runways are calls more or least east-west.

He said, "Cuban territory starts," I think he said a half mile off the approach end of the runway. He said, "The Cubans have a 40-millimeter gun emplacement there. Do not overfly Cuban territory."

I thought, "Oh, okay, that is something to know about."

So it is a tricky approach. You come in there and you have to do a sharp right turn, and come in and land with almost no straight in at all. In an F-4, you wind up carrying a lot of power in that turn and then having to suck it all off and slow down enough to land.

Then the other thing I remember is when we landed finally later in the day, almost at dark, at Rosie Roads, this car came out and followed us and waited there while we went

through the fuel pits and hot refueled. Followed us in, and when we shut down, these guys get out of the car and they're Customs agents. Guantanamo Bay apparently was a free port or whatever, and so we had to clear Customs and tell them we didn't have anything to declare as a result of stopping to refuel in Guantanamo Bay.

DINKEL: Must have thought you pretty fast airplanes for [unclear] or something. [Laughter]

THAGARD: [Laughter] Well, he was very diligent, because he followed us. He made sure he was there and followed us all the way back in, so that nobody hopped off the airplane and went off and hid the drugs or whatever we were supposed to be carrying.

DINKEL: Did you overfly the 40-millimeter?

THAGARD: No.

DINKEL: Back in the war zone again.

THAGARD: Yes.

DINKEL: Let's see, that was probably the same trip to Rosie Roads when you finally got down there that you killed a Firebee, I guess. Was it a Firebee or a TDU?

THAGARD: It was a Firebee.

DINKEL: Tell us that story.

THAGARD: We had air-to-air exercise. Was it Viega Diegas or whatever it was, the island down there?

DINKEL: Viegas?

THAGARD: Viegas, for air-to-ground. But we also did air-to-air, both with Sidewinders and with Sparrows. With a Sparrow, I actually got a simulated kill, because I think I was either five or eight meters off, according to telemetry. The skipper actually knocked a wing off the Firebee, so they actually lost the drone. And when he came back in, he came into the break and did an aileron roll in the break, which, of course, is aerobatics in a control zone and is a flight violation, but nobody said anything about it. [Laughter] But that's the thing for which I received the E Award and he probably got one, too.

I went out later on to fire the Sidewinder. I can't remember whether it was at a parachute flare or at a drone or what it was, but I got the good tone lock-on and pulled the trigger, and nothing happened. We came back in, and it turned out that that little motor, because it's some kind of a rocket charge or something, it fires a motor generator that provides the power for the thing, that had fired, but there was some problem in the firing mechanism, so that it never got down and fired the rocket motor. So it fired the little generator, because we had smoke coming out of the thing indicating it had gotten the start signal, but never fired the rocket motor. So it was still hung up on the rail.

Recently, I was watching some movie, I think maybe it was *Independence Day*, where the fellow right at the end fires the rocket, the air-to-air rocket, and it did the same thing. You got the puff of smoke and it didn't come off the rail. I was thinking, "Well, gee, that actually is fairly authentic, because I've had that happen to me myself." [Laughter]

DINKEL: Well, it's funny. You know, that story you just told about the skipper shooting the wing off the drone, I was the assistant OIC of the exercise on that one as a lieutenant.

THAGARD: Really.

DINKEL: My job was to say, "Break the drone," at five miles. And I didn't say that. I missed it. So I was singularly responsible for that missile hitting the drone, because the drone didn't turn.

THAGARD: Oh. [Laughter]

DINKEL: So I thought I was going to be court-martialed, and what happened is the skipper bought me a beer that night for letting it drive straight so he could kill it. [Laughter]

THAGARD: Absolutely. But it is rather an expensive—because the drones, I think, are several hundred thousand dollars. But that one went into the drink. [Laughter]

DINKEL: It's amazing just how lucky you can be when you're a lieutenant.

THAGARD: Yes.

DINKEL: Well, let's see. Then you came back and you were the OIC of the rear when we went to Rosie Roads again. Then you left the Marine Corps.

THAGARD: Right.

DINKEL: What did you do then?

THAGARD: I went right back to Florida State in the Ph.D. program in engineering science, from which I had received my master's degree some four and a half years earlier.

DINKEL: Then how did medical school derive from here?

THAGARD: I got out in February, the last of February '71, and started the next month, March, at FSU. I'm sure by April or May, the dean of the school of engineering science had died. That was an age in which the Apollo Program was winding to an end, engineering was kind of on a down cycle that year, and the university just decided, in its infinite wisdom, to terminate the School of Engineering Science and use those monies for other university programs. So within a month or two after beginning my Ph.D. program, I found out that the whole school was going to be terminated. It seemed to me that if engineering schools at major universities were being terminated, maybe it was time to look at a new profession.

However, there was a real age discrimination those days in med school applicants, among med school applicants. I wrote off to the Baylor College of Medicine [Waco, Texas] catalog, and the first page said, "Applicants over age twenty-five are rarely given serious consideration."

When I interviewed at Duke [University, North Carolina], the chairman of the Admissions Committee told me that, he said, "I'll be honest with you, there are going to be members of my Admissions Committee who will be biased against you because you'll be thirty when the class starts."

It was one of the reasons why I had more or less given up on the idea that I'd had coming out high school, remember, to be a doctor. I just decided, well, I'm too old. It's too late. But my mother-in-law, bless her heart, when she learned that the School of Engineering

Science was closing down and I was going to have to do something else, she says, "Well, what have you thought about doing?"

I told her that, "Well, I could go on and do engineering somewhere else." I said, "Once upon a time I wanted to go to med school, but I guess it's too late for that."

She says, "Well, if you want to be a doctor, then that's what you ought to do."

She knew the dean of the School of Medicine, University of Texas Health Science Center or medical school there in San Antonio, Texas, because she was working there at the time. She knew him socially. So she asked him, she says, "I have a son-in-law and he's in engineering, but they're closing it. He'd like to go to med school, but he's not sure he can get in. Can you help us out?" Basically not "Can you let him in," but, "Can you tell him what his chances are?" Because that was the real question, is it even worth pursuing this stuff?

So he said, "Well, have him send me his transcripts and I'll give him an honest opinion about what his chances are."

Because I had already gone to the pre-med counselors at Florida State. I mean, obviously the FSU itself had a first-year medical school called the PEMS [phonetic] Program, and they also had counselors for students who declared pre-med, who ultimately did want to go med school. They had advertised in the school newspaper when the School of Engineering was closing, that any engineering student who was interested in switching over to pre-med or was thinking about medicine, that they would be happy to counsel us. I'd gone over there and they had told me, "Well, I think you can get into med school somewhere, but I'm not sure where." That was their advice.

This dean of the school out in San Antonio came back and he said, "Hey, I think if he moves here to Texas and establishes Texas residency, we can admit him to our school."

So in 1972, June, with the closing of the School of Engineering Science, I rented a U-Haul van and my wife and our two sons, aged, I think, one and three at the time, packed up and moved from Tallahassee to San Antonio. I had no job. We got there on a Friday

evening at about five o'clock and got up the next morning, Saturday, and the headlines in the *San Antonio Light*, the newspaper, read, "Medical School Dean Fired." This was the fellow that said if I'd move there, they'd admit me to his school.

DINKEL: This is really an especially ironic after all the deals that the Marine Corps was making you to stay in the Marine Corps.

THAGARD: I think it was Colonel Lawrence, I believe that's his name. My skipper there in 251 that last year had first come to me, because my contract was coming up as a reserve officer with a three-year [unclear] completion of flight training. That was going to be February 29, 1968. I'll tell the story about that, too. But anyhow, he offered me a slot in test pilot school. I don't know whether he could guarantee that or not. But I remember that he said that he could secure me a slot in test pilot school if I would stay in. I thought about that for a while, and I asked him, "Well, what sort of things do Marine test pilots do after they finish school?"

He said, "Well, you might have to do something with helicopters." As soon as he said "helicopters," I lost all interest in going to test pilot school.

So then he came back with an offer that if I would stay in, the Marine Corps would actually pay for my Ph.D. work. But that turned out was something, if I remember correctly, a two-for-one commitment. You promised the Marine Corps two years for each year they support you there. I just decided I didn't want the encumbrance that I—on G.I. bill and my wife could work and I could work part-time, that we could do it without any commitments at all. Besides, I didn't see that I would be able to do the sorts of things an electrical engineering Ph.D. in the Marine Corps that I'd probably want to do, because ultimately my goal would probably be to do research and be a professor of electrical engineering, which wouldn't be compatible with the Marine Corps.

So I declined all that, only to go back into a program that promptly got terminated. So 1971 and '72 weren't seeming like real good years.

DINKEL: I was just trying to summarize that. You left the Marine Corps after they offered you a couple of good deals, went back to a school who canceled the college.

THAGARD: That's right, the school.

DINKEL: Moved to San Antonio, and the guy that made the deal was fired.

THAGARD: Right.

DINKEL: So this has got to be the point of turnaround here now, right?

THAGARD: Yes. The other thing was, instead of moving to San Antonio, Texas, I had had a fellowship awarded, not an offer or anything, I had had a fellowship awarded for Ph.D. work in biomedical engineering at the University of Virginia. But I had applied to University of Virginia for the Ph.D./M.D. program. M.D., obviously, regular doctor of medicine degree and Ph.D. in biomed engineering. Again, the engineering school accepted me and awarded me a fellowship, but the medical school would not accept me. What they sent in their letter was, "We only accept five out-of-state residents a year." I just wasn't competitive. If it's only five, then I'm just not going to make it.

So I had my choice. I could take the sure thing, the Ph.D., the fellowship, which would pay for my schooling for the Ph.D., or I could take a chance, but doing that, knowing I was giving up medical school for all time. That's the choice. Versus moving to Texas, because this guy has said that he—and it sounded good. I mean, he didn't promise. He didn't

say, "Absolutely." But he said, "I think that if he moves here to Texas, that we can accept him into our school." So what he was saying is, it's very likely that we'll take you, but he's not promising. There's no contract or anything like that. But it seemed reasonable.

Well, I was in San Antonio. I managed to get a job as an engineer with the city public service, which was the electric and gas utility in San Antonio, and went ahead and applied to four schools in Texas, to the University of Florida, to Emory in Atlanta, to Vanderbilt in Nashville, and to Tulane in New Orleans. The upshot was, interestingly, I got accepted at all four Texas medical schools to which I applied. I got accepted to Emory in Atlanta. The University of Florida, which was my home state, put me on their alternate list, so I never did get into the University of Florida, which is okay because—

DINKEL: You didn't want to go there anyway.

THAGARD: No, didn't divide up my loyalties. In truth—and this is not sour grapes. In truth, the school which I went to, Southwestern in Dallas, is a much better medical school than Florida. So I wound up going to a good medical school, no question about it. The best thing about it was, the tuition in Texas was only \$300 a year for medical school, and it was only \$800 a year if you were an out-of-state resident, whereas Florida, University of Florida College of Medicine, for a Florida resident at that time was \$1,150 a year.

DINKEL: Tulane was probably off the page.

THAGARD: Yes. By the way, out of those schools to which I was accepted, the one I wanted to go to was Emory. Again, I could, but Emory was a private school and the tuition, this was '73 when I entered med school, the tuition that year had just gone up from 2,000 to 2,400 and was constantly going up. Meanwhile, it's just 300 if I stay there in Texas and go to school.

And I've got a wife and two kids. Emery won't tell you whether you're going to receive any financial aid until after you actually get there in the fall to start school, and I just couldn't take the chance. I couldn't take a chance that I'd wind up at Emery paying that tuition that was ever-increasing. I would have had to borrow the money, certainly. On the other hand, I've got G.I. bill, which was more than I needed, really, to go to the University of Texas Southwestern in Dallas, with that 300-a-year tuition.

DINKEL: It strikes me as interesting, though, that you'd have been there at the same time Sonny Carter and David Short would have been there.

THAGARD: Yes, I would have. We would have overlapped, no question. Well, again, I was accepted there, I could have gone to Emery.

DINKEL: You've had a lot of quirks in your life here that I didn't know about. So you graduated in '77, I guess, from Southwestern, right?

THAGARD: Yes.

DINKEL: Then South Carolina again?

THAGARD: Medical University of South Carolina in Charleston for internship in internal medicine. I had come home from med school in April of '77, in other words, as a senior that year. My wife said, "I heard an ad on the radio today that NASA's taking application for astronaut again." They hadn't done that, in what, ten years, I think.

I said, "Well, I've got to send off for an application."

She said, "I already did." So my wife actually sent off for my NASA application.

DINKEL: Well, that's interesting.

THAGARD: Yes.

DINKEL: Did you always want to be an astronaut or was it just a big thing to do then?

THAGARD: Again, I told some of my classmates as a senior in high school that that's what I wanted to do. No, my wife knew that. So she actually sent off for the application before I ever even knew about it. And I didn't hear anything from them. I got the applications back, filled them out, sent them off. I applied to both the pilot and the mission specialist program. Realistically, the pilot wasn't really going to happen. For one thing, they sent me a thing saying that you needed a minimum of 1,000 hours of first pilot time in high-performance aircraft. I was telling you how few hours I had going through training command. When I got out of the Marine Corps I only had, I think, 804 hours or something like that of first pilot time is all I had.

DINKEL: And a trip to Vietnam.

THAGARD: And a trip to Vietnam. So I didn't meet 1,000, but realistically it wasn't just 1,000, you also needed to be a graduate of a military test pilot school, too, which I also was not.

But anyhow, I sent off the application, didn't hear anything until about a month after I started my internship in Charleston, and I got this security clearance form, which required me to take these fingerprint forms down to the local police station and be fingerprinted and fill out some background information and send it off. That was probably July or August of '77.

Then I didn't anything again until the last day, I think, of October of '77. I got a call and it was someone at JSC saying that they wanted me to come down the next week for five days to Johnson Space Center for interviews and physical exams as part of the applicant process.

Normally, interns just can't take vacation anytime. It's the nature of the program that usually only in, say, your emergency room or one of the non-clinical services, non-ward medicine services, that you can take vacation. But I talked to the chairman of the Department of Medicine and he agreed to let me take off, even though I would have been on the County Medical Service, which was not a time which you could usually take. So they let me do it. They gave me special permission and got somebody to cover for me. I wound up having to cover for them later on. [Laughter] But they sprang to let me go out.

I interviewed and came back and again didn't hear anything. It's now January of '78. Wad some friends—I actually had one of those rare Saturday evenings off and we had some friends over to the house. The news was on and there was an announcement on the news that NASA on Monday was going to announce the first new group of astronauts that they'd taken since '67, I think. I was a little embarrassment, because to me that meant that I wasn't taken, because it seemed to me that if this is Saturday and they're going to announce Monday, they've already told the people who are selected. Those folks know. So I just kind of had—

DINKEL: You didn't know much about NASA.

THAGARD: I knew nothing about NASA. So I just told my friend, I said, "Well, I guess that means I didn't make it." I was there at the VA [Veterans Administration] Hospital in the outpatient clinic and we had a normal get-together just before eight o'clock every Monday morning with the attendings to talk over things, and got a call while we were having that meeting and it was from George [W. S.] Abbey.

DINKEL: You didn't know at that time that that was the good call. George calls the good ones.

THAGARD: That's right, I didn't. In fact, I didn't even know George Abbey, even though I'd met him during the interview process. Typically I don't pay any attention to who's what and what's going on. I'd gotten back and it's a call from George Abbey, who I didn't know from Joe Blow at that time. And he had the most peculiar way of saying it. In fact, I just laughed almost when I—I can't believe anybody would ever express it that way. He said, "Are you still interested in the astronaut position?"

And I thought, "Is he kidding? What a strange way to put it." [Laughter] So I said, "Sure."

He said, "Well, then we'd like to offer you the position. Hold just a second, I'll put," I can't remember who it was. It was the personnel director on the line. So then the personnel director came on the line and talked with me.

So hung up the phone and turned to the group that was there and said, "I guess I'm an astronaut."

Then I went back in my room and put my head down on the desk and was real depressed for the rest of the day. [Laughter] That's honest. I was depressed. It took me a while to figure out what was going on, but I finally think I understood that I'd always had goals, I always wanted to do this, that, and the other, but I never had really any goals beyond being an astronaut. So you're all of a sudden faced, there's nothing left to live for. Then you realize, well, yes, there is, because you still hadn't flown in space. So life goes on. But my reaction really surprised me at first, because it was depression.

DINKEL: That's interesting.

THAGARD: Yes.

DINKEL: Unpredictable and interesting.

THAGARD: I mean, I was not elated at all. I remember feeling, on the one hand, sort of gratified, but on the other hand, just feeling real down.

DINKEL: What about the selection process and the interview process? Was there anything funny, any highlights or anything strange that you thought peculiar as you went through that process?

THAGARD: Yes, there was one Marine in my group that didn't get in that year, but did later on get into the '80 group. He was the prototypical Marine-type. Now I can't even think of his name. I'm blocking on it. But maybe I'll think of it later on.

Anyhow, the Thursday night, I think, before it all wraps up on Friday, we had a get-together over in, I believe, it was Gilruth. They had some folks out of our group put on little skits and he was one of the ones. I remember it was kind of comical, because what he did was not at all in keeping with the image that we had of him, which was this super clean-cut, sharp, Marine Corps aviator type.

Other things I remember was, you sit there at a table and there are people on all sides of you during the interview and they're firing questions at you. George is here. Carolyn Huntoon was there. There were some other folks there. The question George asked me was, "Well, I see that you made a C in ballroom dancing. Why was that?"

I said, "Well, our instructor was a woman who like to lead." Which was true. "I found that very difficult to learn to dance with someone who was leading."

But then the next question was, "Well, what do you have against women?"
[Laughter]

And, you know, they're firing these questions from all over and you're turning this way and then you're turning that way. Carolyn Huntoon was sitting about here, and someone was asking me the question. I turned there and there's a little ruffle of movement and I see someone get up and leave. When I turn back, Carolyn Huntoon, who was the only female member on the thing, had gotten up and left. I said, "Well, this is just great." [Laughter] First of all, they've drawn this thing out, which to me, I thought was an innocent enough response, but now they're making a big deal out of it. Now this woman is obviously a feminist and offended that I've said this, and so she's left.

Later on, when we came to Houston, because they brought us right after the announcement was made, I remember they brought us back to Houston for some PR stuff for a couple of days in January of '78, and Carolyn Huntoon was the one that babysat our kids, because we brought them along for that. She took us in our car over to some of the events at JSC. I reminded Carolyn that she had gotten up and left during my interview and what I had thought was the reason why. She says, "Oh, no, I had to get up leave because my babysitter had to go home." [Laughter] So it took me a long time to realize that, in fact, it hadn't been all that bad.

DINKEL: Well, that's interesting. How many people were selected with your bunch?

THAGARD: Thirty-five.

DINKEL: Thirty-five. That's a big class.

THAGARD: Yes. But again, it was the first new group in ten years and the corps had dwindled to only twenty-six people. So they needed to take a lot of folks.

DINKEL: My next question was going to be, was there any special reason that they dwindled that small? They needed them.

THAGARD: Yes, because the Shuttle Program was going to begin and you couldn't operate a Shuttle Program with twenty-six people. They really did need us.

DINKEL: Well, that's all the questions that I have, Norm. Is there anything else you'd like to talk about or go back to or clarify?

THAGARD: No. The astronaut application process was an interesting one. The week of interviews and things were certainly interesting, especially with the interview. I remember going back, because I went back and still was an intern in medicine, and telling the folks there who asked me what it was like, I said, "Well, it was really a great experience. I'm sure it's one I'll always remember. I am flattered that I was invited to interview, but I can't believe that they'll take me."

I was really surprised to find some of the folks they had, too, because one of the people that interviewed with me was a flight surgeon in the Air Force, a Yale Med School graduate. He had a master's degree in statistics and he had been a KC-135 pilot in the Air Force before going to med school. Then another one was a civilian who was doing an internship at an osteopathic hospital in Michigan. He had a master's degree in aeroengineering and he had been a test pilot for Beech Aircraft. So I was thinking, well, maybe this is tougher than what I might have thought. [Laughter] So I real surprised. And

they didn't get in. But then you find out later on that some folks had even small medical disqualifying factors and things like that. So who knows what happens. But it worked out.

DINKEL: Well, this has been a good time for me and I hope it was a good time for you.

THAGARD: It was good to see you again. Long time.

DINKEL: Yes, it has been a long time. We'll have to make sure it's not so long next time.

THAGARD: Yes.

DINKEL: I'd like to thank you formally for participating in the interview and helping the JSC Oral History Program. We hope to do some more interviews with you to catalog the rest of your career at NASA.

THAGARD: Well, this ought to help put them to sleep.

[End of Interview]