



**ONE NATION UNDER GOD
 The Eagle Has Landed
 A Brantwoodian Leaves Brantwood
 (1960-1969)**

by Jerry Woodfill

A Novel Offered for Reading Comprehension Development

Project:
**Audio Dramatization as a
Reading Comprehension Tool**
Authors: Betty and Jerry Woodfill

Contents

[Introduction](#)

[Chapter 1](#) - One on One .

[Chapter 2](#) - Roots of the Spirit

[Chapter 3](#) - “All For Rice’s Honor”

[Chapter 4](#) - College, Death and Dying

[Chapter 5](#) - On the Way to the Moon

[Chapter 6](#) – Prototype Playboy.

[Chapter 7](#) -The Call of the Wild

[Chapter 8](#) -Bull Fights and Beau Fights

[Chapter 9](#) -The Birth of America’s First Manned
Moonship

[Chapter 10](#) – The Death of America’s First Manned
Moonship

[Chapter 11](#) – “Who Was That Guy?”

[Chapter 12](#) – The Eagle Has Landed

Introduction

It was participation in a reading comprehension project by co-author Betty Woodfill which led to

having the following text as the non-fiction novel used to promote novel reading for developing student interest in books.

Many developmental instructors choose *Ethan Frome* by Edith Wharton as the go-to text for introducing students to novels. At once, the co-authors agreed with the choice of Wharton's work. It was of modest length (120 pages) with approximately a dozen chapters, a suitable division for a chapter a week exercises. Best of all, it was absolutely free as an out of date public domain work. Its copyright had long since expired so that many web-sites freely offer the text.

Added to these merits were the compelling mystery of the story, the modest number of main characters, (four), the romantic content (almost Harlequinesque) and the basic unencumbered prose crafted by its author. Yet, *Ethan Frome* has shortcomings for use in a developmental reading course. Among the detriments is its archaic setting of the early 20th century, a long forgotten, primitive society in comparison to the adult 21st century student population.

In order to correct the shortcoming, the authors considered a rewrite of *Ethan Frome* as an updated version. By simply adapting, i.e., modernizing the story to the present, Wharton's work would continue as a leading candidate to introduce a class to a novel. However, in considering improvements to Edith Wharton's classic, the authors drafted a list of qualities the book should possess. The list follows:

1. Novel's length: 140 pages or less, i.e., 30-50 thousand words
2. Content appealing to post high school to middle age adult audience
3. Vocabulary should be modestly challenging
4. Should equally interest male and female readers
5. Chapters should be approximately the same length.
6. Six chapters of 20-30 pages each would be good or twelve 10-15 page chapters
7. No more than five main characters should be included
8. The plot must move along in a compelling mysterious fashion, each chapter adding to the drama.

Because of the wide use of *Ethan Frome*, it was scored using the above criteria. Below are its grades on a 1-10 basis.

1. Length: **10**
 2. Adult age appeal: **10** (story spans the developmental age group)
 3. Vocabulary: **5** (very limited: few challenging words presently used)
 4. Male vs. Female interest: **5** (written by a woman focuses greatly on romance from a feminine perspective)
 5. Chapter Length: **10** (all are approximately 10 pages though the chaptering appears to have been recast from the original nine chapter division)
 6. Number of characters: **10** (actually three fully developed characters: Ethan, Mattie, and Zeena...others, except for Denis are very thin and hard to track, i.e., remember)
 7. Intrigue Score: **10** (From the beginning the reader is captured by mystery)
 8. Applicability to 21st century, i.e., setting: **5** (archaic setting, customs, world view, etc.)
- Overall Score: 65 out of a possible maximum score of 80 = 81 %

What other public domain books would fulfill the above criteria? Perhaps, there was a book about student challenges in a college setting or a book about exploration/adventure/romance. However, likely, none would score much above 80%. And public domain accessibility would

surely be a prerequisite.

This led to the revelation that an earlier book written by the co-author, Jerry Woodfill, might match the above criteria if it could be edited appropriately. If so, considerable effort would be saved. The text could then be offered in the public domain on the project website. On that basis, the authors scored Jerry's book. It earned a grade of 84% . In many ways, it would better serve the student population than *Ethan Frome*. Of course a website was needed along with a domain name fitting to the project. Perhaps, the naming was the project's greatest revelation.

All reading instructors face the dilemma of uninterested students. Where there is no desire to read, there is, likewise, often limited ability to comprehend what little is read. It's as though the educator must "force feed" or "drag" such students into reading a book, article or short story.

However, as one instructor commented, "*My students had a drug problem. I drug them to read until they got addicted. Now they are drug free readers.*" So the authors named the program, project and website:

<http://www.drugfreereading.com>

This domain name was registered, and a website hosted, making resources freely available to the developmental instructor community.

Finally, a title for the following novel was needed. The reading comprehension project's original basis was a book of Jean Shepherd-like short stories, akin to the popular movie *A Christmas Story*. Though the 37 stories were not novels and were somewhat fictional, they scored in the 80s on the suitability test. Shepherd entitled his book *In God We Trust, All Others Pay Cash* so that Jerry Woodfill's stories were similarly titled *One Nation Under God: Others Choose Your Own Deity*. Likewise, Woodfill's stories are written in Shepherd's endearing style.

Many of the stories are offered on-line, in the public domain. Included with them are comprehension tests, spelling lists, and vocabulary quizzes. Their content is based on a 1950s suburban sub-culture known as the Brantwoodians contrasting with Shepherd's denizens of the open hearth, the steelworkers of Hohmann, Indiana.

The addition of a novel to the original Brantwoodian content adds a developmental reading resource to the project and website. In keeping with the original titling, the novel is a non-fiction sequel to the book of short stories...thus the naming *One Nation Under God: The Eagle Has Landed*. (*A Brantwoodian Leaves Brantwood: 1960-1969*)

The Eagle Has Landed phrase is added based on the author's 120 page journey from the

Brantwood of 1960 to his presence at the Manned Spacecraft Center, Houston, Texas on Apollo 11's Mission Operation Team as the Warning System Engineer, July 20, 1969. The story begins...

Chapter 1.

ONE ON ONE

..."Please come in Jerry, It's almost ten. We want to go to bed."

"Ten o'clock, already," I thought. The time sure passed quickly when I shot baskets on my driveway court. At seven o'clock, I'd started shoveling the fresh fallen snow. After ten minutes work, I could see the dim outline of the free throw lane painted on the concrete for the second time last summer. Seven years ago, Dad and a carpenter friend built the wood back-board. I couldn't begin to count the hours spent here, but practice had made a difference.

At first, because of my small size, a hook-shot had been my specialty. Using my body to block an opponent (sometimes a half foot taller), I'd become unbeatable in neighborhood one-on-one games. If a basket was needed to win, I'd leap toward the side of the house, being careful to avoid a brick ledge, and launched a left-handed-hook-shot. Often, I'd hear a groan as I shot when my opponent tripped over the ledge.

As I grew taller and stronger, I developed other shots: a one-handed-set-shot soon replaced my two-handed shot for distances beyond twenty feet. Then at the age of thirteen, I found that a jump-shot was effective against taller opponents so I practiced it most of the time.

Tonight, before going inside, I tested my accuracy. Going beyond my "key-hole", I took an array of jump-shots from my marker, the second cement crack in the driveway which was twenty-five

feet from the basket. From there I dropped in five of ten attempts. "Not bad," I commended myself. "That's a good percentage considering how tired I am." Knowing that the shot would be much more difficult with a man guarding me, I shot several more. Each time I jumped straight upward rather than forward so I wouldn't foul my imaginary opponent. To taper off before going inside, I finished with the usual twenty-five free throw attempts. Tonight the count was twenty two made. "That will do," I thought. I had passed my self-imposed test for the high-school game Friday night.

Tucking the rubber Voit basketball under my arm, I went inside to my bedroom next to the driveway. The court was lighted by a lamp which doubled as a desk study light. Three hours of use had made the one-hundred and fifty watt bulb and lamp very hot. Carefully, I turned it off. Gripping the metal fixture with my shirt wrapped around my hand, I hung the lamp back in its position over the desk. For another thirty minutes, I studied tomorrow's assignment than dressed for bed.

Lying awake, my six foot one inch, one hundred and fifty pound body remained tense from the three hour practice and drowsiness came slowly. Besides, the events of the basketball season churned my thoughts; "Just half of the season remains. And only three years ago our school was built. Now we were seniors, Highland High School's first graduating class."

Highland was a town of fifteen thousand located in Indiana about thirty miles southeast of Chicago. The town bordered the larger cities of Hammond, Gary, and East Chicago, Indiana. It served as a "bedroom community" for many employed refining oil or making steel in the Calumet Region of northwest Indiana.

"Our schedule was tough for a new school with only one hundred and forty seniors, but we had played together since the fifth grade, and now most of us were six foot or taller." Since there had been no high school in Highland, each of us had attended high school elsewhere. Since my father worked in Hammond, I chose Hammond High School while my grade school teammates attended Griffith High School. Hammond High was a much larger school with almost two thousand students. There, I had played on the freshman basketball team. The team finished the year winning all sixteen of its games.

My grade school friends had played on the Griffith freshman team and had also done well. "But now we were together once more and what a team we were! We knew each other's moves so well that we were almost unbeatable. As juniors, our first varsity season, our record had been sixteen wins and five losses. This year, as seniors, we had won twelve games without a lost before stumbling briefly in a game down-state against a team we should have defeated. "Yes, we were good, but how good?"

It had been fun playing guard this year on the "first-five". It had been much better than last season when I had alternated at forward with Jerry Mussatt, who was also left-handed. This

season, though, I'd been content to contribute where and when the team needed me. In the Gary Edison Invitational Holiday Tournament, a victory depended on containing the Edison six foot three inch forward, who had been scoring twenty points per game. I concentrated on "hard-nosed" defense, doggedly challenging each move he made. By preventing him from getting the ball, he wasn't able to score. He made only one point. As a result, we won the game by more than twenty points and received the championship trophy.

Mid-season statistics showed me third in team scoring with a twelve point per game average. But if my hope for a college basketball scholarship was to come true, I'd need an average of at least twenty points per game to interest college scouts. Unfortunately only in games where our forwards were not able to score did I apply myself offensively, scoring as many as twenty-five points. But that was a chance function of the forward's performance which came but one once in four games. Because teams on our schedule seldom tested the full measure of our ability, I had continued in this supporting role from the onset of the season, knowing what I held in reserve offensively was sufficient to overcome a deficit.

At Lincoln Grade School, Indiana basketball had captured my interest. It became the single most important pursuit in my life. Each Spring, the excitement of the state high school tournament gripped me. My parents and friends shared this feeling. Dad's company advertised by printing a large poster to record the scores and winners of the sectional, regional, semifinal and state championship games. Each year, he brought home a new poster for me to plot the weekly progress of the contest for the state championship. Collecting the data from the *Hammond Times*, I would record the winners and game scores each week on my chart.

In the center of Dad's poster was an outline of the state of Indiana which encircled a basketball player photographed in a shooting pose. I admired the poster and dreamed of the day when I might be the player encircled by the outline of Indiana.

Besides urging my father to bring the poster home, I often begged my parents to take me to high school games though I was a grade school player. One time, I watched "All-Pro great Oscar Robertson, the "Big O", play a game in Hammond. He was then a high school sophomore playing for the Indianapolis Chrispus Attucks, a black school in the Indiana capital. Oscar's smoothness impressed me as I watched him. Possessing cat-like moves, he had no equals even as a fifteen year old sophomore.

Though there were nearly seven hundred teams entered in the state tournament, no classification or distinction was made for school size. Cinderella stories abounded about teams like Milan High School, who captured the state tournament with only a handful of students from which to recruit players.

During my freshman year at Hammond High, I played forward weighing 135 pounds and standing 5' 7" tall. Because Hammond was an old school with a long tradition, we played many

large schools.

The competition was stiff. I learned much. A friendship developed between Kenny Blackman, the only black player on the team and me. Together, we studied, talked over the basketball games, and shared our hopes for becoming basketball stars. Kenny played the center position and was high scorer while I, as a forward had the third highest scoring average. "Working together we will be state champions," We bragged.

Though Kenny usually out-scored me, I was the high man for our last game with eighteen points. Shortly after the game, Kenny and I met Irv Cross, a football player and senior at Hammond High. Later Irv excelled at Northwestern University, and then the Philadelphia Eagles before joining CBS TV as a sportscaster. When he asked about our last game, I told him we had won, but I was quick to add, "I was the high scorer." We had won the game by an awesome score, 74 to 12, and I was anxious to return to Hammond the next fall to continue my basketball career with Kenny.

But during the ensuing summer, my freshman coach at Hammond became the new basketball coach at Highland High. He visited my parents one summer evening in 1956, hoping to persuade me to transfer to Highland High the next year. When I returned home, my parents told me about his visit. I felt as though I were a much sought after star instead of an unproven high school freshman player. The coach's visit and the prospect of playing again with my grade school friends convinced me that I should return to Highland.

My strategy for stardom was "lifted" from a Wheaties cereal box, "The Breakfast of Champions", practice and hard work are the formula for success. Such an approach would surely work in my life. Concentrating on basketball, course study, and activity in student affairs, I found that this approach worked. I became first valedictorian, first President of the Highland High Student Government, and first National Honor Society President. I put my trust in the ability, strength, and knowledge I acquired through long hours of basketball practice and academic study. This approach had been successful in the past, and I thought it would be a "sure-thing" for the future.

For each challenge I faced, my scheme proved successful. Entering the state math contest, I did miserably my sophomore year. But then I applied "the formula", hard work and practice, and within two years I placed second in the northwest region of Indiana, finishing fifteenth in the state.

Applying the same approach to science, I received the Outstanding Award of the science fair, building a Tesla Coil which produced a prize-winning electric "spark." A simple calculation showed the more turns of wire made on a long Lucite tube gave a more impressive spark. Eighteen hundred turns later, I had a five inch spark, seventy thousand volts, and first place in the fair. (though my parents were oftentimes upset by the frightening glow of the florescent lights near my workroom when the Tesla Coil was on.)

The method won me the Woodmar Country Club Junior Golf Championship. In civic affairs, I became the "Teen of the *Hammond Times*", recipient of the Tri Kappa Academic Award, Danford Foundation Award (I DARE YOU Award), citizenship award, and area Outstanding Athlete and Scholar Award.

No one could contest that hard work and ambition were not rewarded. I had a collection of clippings, medals, trophies and awards that would confirm my approach. It was no surprise to me when the principal, Allen Warren, asked me to prepare a valedictory address. A computation revealed my three year grade average was the highest among the seniors.

Now only one more goal remained to be achieved, a goal which I desired more than all the other awards combined. If only I could win a college basketball scholarship and play college basketball. Though the prospects for a scholarship were very remote, the state tournament offered one last chance to achieve this goal .

"Yes", I thought as I became drowsy, "I'd better practice extra hard in the next few weeks in order to do well in the tournament."

While I slept, I had a wonderful dream: The setting of the dream was a large basketball arena. Thousands of fans surrounded the court, cheering for our team. As I played in the arena, a remarkable power came over me. Regardless of how many players guarded me, I fired in baskets from any position on the court. The opposing team became desperate and pulled underhanded tricks to stop me. All were futile. The moment my teammates passed me the ball, I jumped vertically and made my jump-shot. From distances of as much as the entire court length, eighty-four feet, my shots were accurate. My miraculous shooting proved to be the downfall of our opponents, as our fans cheered us to victory.

"What a wonderful dream!" I sighed when I awoke and encountered reality. "Funny though, I'll almost need that kind of a game in the state tournament, considering how much less than twenty points per game my scoring average is."

We did win the game the following Friday night although I experienced no remarkable powers scoring a modest ten points. To this victory we added several more wins, ending the regular season with a record of nineteen victories and only one loss.

With the approaching opportunity of the state tournament, all else grew dim in my thoughts. The sports section of the evening *Hammond Times* displaced my textbooks as the focus of my studies. I pored over each article, hoping to see our team's chances discussed. Then one night, I was rewarded. An article mentioned OUR TEAM as a possible Milan, the small town team who had won the state tournament several years ago amazing sportswriters and fans throughout the state. I recalled that earlier in the season, one news wire-service had rated us for a brief time among the top twenty teams, but this endorsement was much more exciting.

While we were being recognized throughout the state as a "dark-horse" prospect to win our sectional, the school held a "pep-rally". I sat in a line of chairs among the ten varsity players facing our student body who all but filled the seven-hundred and fifty bleacher seats on the West side of the gym. I felt uncomfortable as though the admiring stares and cheers were a huge wave of adulations which would drown me.

"How I hope I can live up to their expectations in the tournament games," I thought.

Averting my eyes from the crowd in embarrassment, I stared at the floor. The flurry of the cheerleaders' acrobatics reflected off the polished wood court drawing my mind and emotions back to the nervous excitement which made Indiana High School basketball almost a legendary cult.

After the rally, a friend commented. "You guys looked like *little gods* out there while we cheered." I remembered the nervousness I had felt during the rally, "Perhaps, that was it. I knew I was not a god, and it would take a supernatural god-like performance to satisfy our fans expectations."

State basketball officials paired the fourteen teams competing in the Northwest Indiana Sectional. Our first round draw was Dyer High School, a small down county school we had previously defeated. We had been dealt a "good draw" especially since our team was in the opposite bracket from the East Chicago Washington Senators, a Northern Indiana "powerhouse". Many favored the Senators to not only win the sectional but also the state tournament.

The Senators had rated as one of the state's top five teams most of the year. Their recently built field house seated six thousand two hundred fans and was the site of the sectional tournament. Already they had "baptized" the building with impressive conquests of Indiana's best high school teams during the regular season. Some observers compared the East Chicago Washington Senators to a good small college team. Featuring two forwards at six foot six inches, a center slightly taller, a tenacious defense, and high scoring offense, the Senators were, indeed a challenge, even for a college team.

Between us and East Chicago Washington stood two teams. We would have to defeat highly respected Hammond Clark and then my old friends at Hammond High who had developed into an outstanding team. We had not faced teams of this caliber and size during our twenty game season.

Driving to the first game in the coach's car, we became exceptionally tense, especially when a train created a traffic jam delaying our arrival. This tenseness continued into our game with Dyer. Nevertheless, after a cold first quarter, we found ourselves winning the first round contest.

Our evening opponent, Hammond Clark, had drawn a bye. They had scouted us that afternoon,

watching us defeat Dyer. Yet the bye proved to be Clark's downfall. When we came on the court that evening, we were warmed-up and ready, fresh from the afternoon victory. Clark was tight and nervous. Before they could adjust to our game, we had built a formidable lead which they could not overcome.

Now, only the Saturday semi-final game with Hammond High remained between us and the Indiana basketball "powerhouse" East Chicago Washington.

Packing my uniform into my gym-bag on Saturday morning, I picked up the Converse All-Star gym shoes. Staring at them, I thought, "This is it for us and my career as a basketball player." Then I remembered my dream of months ago and my hopes for a scholarship to continue my basketball career. "Would this be my last opportunity?"

"And what a day this would be for us. All the major area newspapers, including the Chicago Tribune, would have sportswriters present. By radio probably five hundred thousand Hoosiers would be listening." Dropping the dull white shoes into my bag, I felt a glow of determination as I read the manufacturer's insignia - ALL STAR. The image of those words glowed in my mind like the aftershock of a photoflash.

A few moments later, and we were seated in our dressing room, suited for the afternoon semifinal contest with Hammond High. My teammates were strangely silent, thinking of the game. Our hands were clammy with sweat; our breathing came in short anxious breaths.

Coach Sheets broke the silence, "Here are your defensive assignments... Jerry, you will take their high-scorer, Atkins. He is real tough, and few have held him below twenty points. Do your best."

"Again," I sighed, "the tough defensive assignment is mine, and I'll have nothing left for offense." Resigning myself to another stalwart game on defense, I lined up for our charge onto the court through a paper-covered six foot aluminum ring the cheerleaders had positioned near our fans. With a yell lost amidst the cheering Highland fans, we broke onto the court. When I passed through the ring, the scene inside the gym overwhelmed me. Over six thousand fans flooded the charged atmosphere of the field house with their cheers and screams of encouragement.

Then something strange happened. When my feet touched the playing court, an enormous surge of power and strength ignited every muscle in my body. Suddenly, I found I could jump almost a foot higher. I COULD ALMOST DUNK THE BALL THROUGH THE BASKETBALL RIM. When I took a few warm-up shots, the basketball felt as light as a volley ball. It ripped through the center of the rim and net on each attempt.

The scorer's "buzzer" sounded, and we quickly lined up for the opening jump-ball. Next to me

was Hammond High's ace, Bill Atkins. Snaring the tip, I broke with the ball down-court. Jumping high, I fired the first shot....IT WENT IN, igniting a thundering ovation from our side of the court.

Falling back on defense, I waited for Atkins and intercepted a pass meant for him. Continuing this charged attack for the next ten minutes of the game, I suddenly realized that I felt no fatigue or loss of power despite the intense play. And for the entire thirty-two minute game I continued to play without exhausting the miraculous reservoir of strength which had filled me when I stepped on the court.

Practically every shot I attempted went cleanly through the hoop. Atkins became powerless to help his teammates as I pressed him without pausing to rest. Our lead extended to seven points then to ten points. And as I pushed myself to defend and score, my old teammates at Hammond were completely routed.

Taking shots from varied distances, I made all but a few. Even my hook shot dropped in. When the final buzzer sounded, I had scored twenty-one points to lead our team. Atkins had only managed to work free for fifteen, much below his usual point total, and we won the game by more than twenty points. In the ONE-ON-ONE battle I had been victor.

A quick tally of our scorer's sheet showed I had made seven out of ten field goals, a remarkable percentage considering the types of shots I had taken. Part of my dream had come true, but now I wondered about the evening championship game against East Chicago Washington.

As the crowd watched us dismantle Hammond High, a respect for our ability impressed the entire region. People in Gary, Hammond, and the smaller southern county towns were rooting for us to win the evening game against the previously heavily favored Senators. So convincing was our afternoon win that the Senator fans and players were concerned.

The few hours between the afternoon and evening contest seemed to pass as quickly as intermission between the halves of the afternoon game with Hammond High. Entering the field house for the second time that day, I was greeted by the sounds of organ music entertaining the fans who had arrived early for the final sectional game. A half hour later, the chords of the *Star Spangled Banner* sounded throughout the Senator's field house. For a native Hoosier, this moment could only be compared to the announcement given at "Indy" on Memorial Day for the drivers to "start your engines" for the five hundred mile race.



The Big Picture

Here's the scene at Washington Gym prior to the start of the sectional championship game between Washington and Highland Saturday night. It will also be the scene of the

regional tournament beginning Saturday and pitting Michigan City vs. Gary Roosevelt in the 1 p.m. opener and Washington vs. Valparaiso in the 2:15 followup. Highland's cheering block is highlighted above by two white-shirted groups in the opposite lower stands. (Hammond Times Photo)

Following the National Anthem, came the announcement of the starting lineups. Though the Senators were on their home court, the volume of the cheers showed as many fans rooting for us as for them. When the "P.A." announcer called out,

JERRY WOODFILL, GUARD, NUMBER 30,

I took my place on the court, facing the Senator's basket. Next the Senators were introduced, and I carefully studied each player as he ran onto the court. The extent of their size shook me. Three of them were over six foot six inches, but then their two guards were introduced, one six foot tall and the other five foot ten. The guards would be a fair match-up for Dick Johnson and me. I made a mental note to help our front line rebound as much as possible since the Senators were not only tall, but also very well-proportioned and muscular.

We huddled as the defensive assignments were made for our one-on-one defense. Washington had an aggressive play-making guard named Bobby Cantrell. Though he was only 5' 10", he played one of the best defensive games in the state. Often he held all state candidates under fifteen points. His scoring potential was also highly respected. Cantrell was the second highest scorer on the Senator team behind their 6' 6" all-state forward, Ron Divjak. Bobby and I would battle one-on-one for the next 32 minutes of play while our teams fought one another for the championship.

Taking my position at the jump-circle, I shook Bobby's hand. He was friendly, and I liked him. Having him guard me was an honor and a challenge. Fortunately that determination and strength which had filled me this afternoon remained.

The ball lifted above the referee's hands, and the tall Senator pivot man controlled the tip. Quickly seizing the opportunity, Washington scored the first basket. We countered with our first goal, and the score stood tied. Bringing the ball down-court once more, I beheld the Senator's size and realized I would have to strike from far outside to avoid having my shots blocked. As though this game were the fifth quarter of the afternoon contest, my shots continued to drop through the rim, ripping open the hemp net. If Bobby came out to defend the long jump-shot,

I'd drive the center lane eluding him and the giant-like forwards. Then I would score a lay-up or short jumper. But their big men were completely dominating our front-line, and we were steadily falling behind.

With ten seconds left in the first half, the score stood at 39 to 28. Bringing the ball across mid-court, I saw Bobby approaching. Only a few seconds remained. Leaping high for a last second jump-shot, I felt like I was reliving my dream of months earlier. As I shot, avoiding Bobby, I saw it was an unbelievably long distance for a jump-shot - NEARLY 40 FEET. When I released the ball, it sailed from my hand, arched gently above the basket, descended, and swished cleanly through the net. The half-time buzzer sounded a fraction of a second later. We were still in the ball game, only nine points behind at 39-30 .



(My eluding Bobby Cantrell requires 6'6" Jim Bakos's assistance.)

But through the third quarter, East Chicago Washington held their lead regardless of the pressure I and our team applied. Most of the shots I took were going in the basket, but we were getting only two shots for every three they took. Through the middle of the last quarter we were still eleven points behind. Certain of our defeat, Coach Sheets, began to substitute.

Replacements began reporting in for a worn group of players. I had battled valiantly, but Washington's sheer strength and size were more than our expert marksmanship and play-making could overcome. The Senators were playing one of their best games of the season.

I had lost count of the baskets, I'd scored. As a substitute ran to the scorer's table to replace me, I drove inside to score the last basket of my high school career, a left-handed jump-shot from about ten feet. With only three minutes remaining and a 13 point deficit, it was important to permit all our squad a chance to play in the final game.

A cheer of appreciation from our fans warmed me as I sat on our bench. Neither I nor our team had failed to perform to the expectations the fans voiced at the pep-rally earlier in the week. Grateful for their applause, I wondered, "Did I make the needed twenty points?" A quick check of the scorebook brought a smile to my face, "I had made exactly twenty points." Also I'd been able to hold Bobby to fifteen points winning a final round of "one-on-one." That dream I'd had

months ago had been fulfilled at the best possible moment. Eight years of practice had made this possible.

Even in defeat our team felt a sense of victory. We made half our shots (24 of 48) against the Senator's aggressive defense. Though the final score was 83 to 66 the game had been closer than that total showed. East Chicago Washington went on to win the Indiana State Basketball tournament, and our team had scored more points against them than any of their previous or remaining tournament opponents. But though I had played one-on-one against the best in the state and won, I wondered, "Did anyone see those games who could help me get a college basketball scholarship, or was it all for nothing?"



Chapter 2.

ROOTS OF THE SPIRIT

“Jerry,” the letter began, “I have been informed of your basketball talent and want to discuss your future as a Rice University basketball player.”

Signed: Johnnie Frankie
Varsity Basketball Coach
Rice Institute
Houston, TX

The excitement I felt over the potential offer of a basketball scholarship was amplified several days later. Coach Frankie called my dad at work inviting me to visit Rice during my spring vacation. Remarkably Dad had planned a business trip to Houston the month before for the same days I would be there.

My father was named Jared Ryker Woodfill, the THIRD. Such a name established a tradition, and of course, I became Jared, the FOURTH. Our name came from that biblical list of "begets" in the book of Genesis. Two begets past Enosh comes our namesake, *Jared*, in Genesis 5 :16 .

The name JARED embarrassed me - it sounded so stiff, stuffy, starchy, and staid. And so I used an alias for a first name . They called my dad - J . R., my Grandfather WOODY, and me - Jerry.

Mom, did her best to make me proud of my name. On one occasion, she showed me an article about Jared R. Woodfill, the First, my Great Grandfather. He was a railroad telegrapher in Indiana during the 1860' s. Later he founded a college in Missouri called Christian College.

Jared, the First, was also an amateur inventor using his telegraph coils, batteries, and wires to "jury rig" an ELECTRIC CLOCK in 1868, long before the invention was patented. Apparently, Jared the First had some distinguished friends. Mom showed me a snapshot of U.S. Grant given to my Great Grandfather by Ulysses after the Civil War. Perhaps, he had met Grant during a brief stint in the Union Army before being captured by the Confederates in Missouri.

"Your Grandfather, Jared, the Second, was a prominent businessman in Aurora, Missouri," she explained proudly. The County Water, Light, and Cold Storage Company he founded promoted the growth of south-west Missouri.

Mom handed me a dusty volume titled FAMOUS MISSOURI CITIZENS opened to page 329. There appeared Grandfather's biography from his birth in 1866 to his death in 1926, his entire life. In Cecil B. DeMille fashion, I tried to reconstruct his life story from this article and a pile of yellowed clippings.

Imagination began to breath life and substance into this stale smelling newsprint from the early 1900's. "J. R. Woodfill, Jr. served as a trustee of Drury College," I read. Trustee is a word I'd always thought of as a nice but meaningless title, but these articles changed my view.

It was 1918 when Grandfather had solicited financial support for an iron works. The funds raised from the sale of stock equipped seven factories to build huge hoists for a large naval fleet

planned by President Wilson. These plants became The United Iron Works. Both the Iron Works and the U.S. Government had expected World War I to last at least six more months. When peace came six months earlier than expected, Backjack Pershing's "boys" never got those hoists made in Aurora. The promised orders for the hoists were cancelled catching Grandfather Woodfill and the Iron Works in a financial "whip-saw". The collapse of the plant crushed those who had invested heavily including many of Grandfather's close friends.

As trustee of Drury College, he had pledged a generous sum. Few would have criticized a withdrawal of his pledge, considering the collapse of the Iron Works. Yet, to pay his pledge, Grandfather chose to borrow funds against what little wealth he retained. Despite his sorrow over the financial losses! He had served HONORABLY as a trustee.

I wondered, "Did Grandfather become bitter toward the U.S. Government for canceling the contract?" There was no mention in these documents and letters that he blamed the government. He remained a patriot despite his losses. As evidence of his love for America, my Mother showed me a framed letter from Franklin Delano Roosevelt thanking my Grandfather for donating his surveyor's binoculars to the war-cause. Carefully, I studied the Secretary of War's signature. "Yes, it's authentic. What an honor, a thank-you letter from FDR."

The United Iron Works failure drained Grandfather's spirit, and his health began to fail. Seven years later, he died reportedly from an abdominal disorder. Others said, "a broken heart" over his friends' losses killed him.

A film I saw called The Eddie Duchin Story reminded me of Grandfather's life. At the peak of Duchin's career as a piano player, an incurable disease killed him. When I left the theater, anger as much as sadness troubled me. "Why did he have to die just when his reward had arrived? "The same happened to Grandfather Woodfill. One setback and the ball-game ends — no more innings, laps, or quarters. Why? " "Sure, there was this pile of testimonial clippings, but who remembers now this moving tribute to my Grandfather:

THURSDAY, MAY 20 1926 (Aurora News)

TO JERRY WOODFILL, HAIL AND FAREWELL

I have been asked by some of the men in the train service of the Missouri Pacific to write a paragraph of appreciation so that friends of our friend might know of the esteem for him who has passed out but who will ever linger with us in memory .

No matter what business cares he had, and they were many, he had time to ask us of our work and always was interested. Always remembered to ask of the men who were not well...

H.L. WEEKS, Conductor

Mo-Pac., Crane, Mo.

My Grandfather's accomplishments: The Iron Works, The Water Works, The County Light Company, all gone now, like the dust I blew off this old volume of Famous Citizens of Missouri.

I noticed a copy of LESLIE'S WEEKLY under a heavy pre-1900 photo album. Leslie's Weekly, a magazine of the 1920's, portrayed in "National Enquirer" detail fiction and non-fiction stories. Lifting the album of antique photos, I removed the ten cent, 1921 periodical from Mother's home "safety deposit box", her 1800s vintage secretary. WHAT WOODFILL DID, the cover lead story about World War I hero Sam Woodfill, earned this artifact a place in Mom's hall-of-fame for Woodfill family heirlooms.

As I began the article I thought of those Saturday afternoon matinee-movies I watched as a boy. The local theater called THE TOWN enticed kids under twelve each Saturday. Their gimmick was a "sure-thing" - cut the price and show cowboy and war movies with cartoons in between. I was easy game, and my best friend, David Miller, joined me for those three hours each Saturday afternoon eating butter popcorn, hot dogs, and Milk Duds watching our heroes fighting, killing, loving and dying.

Our first western movie featured a graphic scene where the star died. Frightened by the movie, I had a "nightmare" that night. In the dream, I was playing the part of the dying cowboy. Afterward war movies replaced westerns as my favorites.

The tales Sam shared in the Leslie's interview churned my insides like the Saturday matinee. Apparently Lowell Thomas, the famous adventurer and author, had the same view for he wrote a book called Woodfill of the Regulars which described Woodfill's life. If David Miller and I had seen this story as a movie, we'd have lost our appetite for Milk Duds:

Sergeant Woodfill began talking "I was told to find the enemy line of resistance. A machine gun had been firing on my men as they crawled through Cunel Woods (France). It was a dead forest; the ground covered with mire and rotting leaves. I crawled too - through a ditch and hid in a shell hole. The air was filled with noise. Germans were looking for any movement in the woods. At last, I saw a head. The white patch of the man's upper cheek caught my eyes first. Then I saw the black beard and green hat. I crawled a little farther and the whole nest appeared with gun and crew. Only the heads of six men were visible above the mud. Lying prone, I supported my rifle on my forearm."

"I fired, and the man dropped over dead. They could not hear my shots amidst the din of sound and one after another I fired until all six dropped forward, dead."

Leaving the machine gun silent and six dead, Sam advanced forward. An open field before him, he jumped to his feet and darted toward the woods. Suddenly, a German officer appeared pointing a pistol at him: "Surrender," the German yelled. Woodfill fired his automatic from the

hip killing the surprised German. His narrative continued: "German machine guns began to sweep the wood. I found another nest, and five busy men in it, sweeping the field with their fire. I killed them one after another and silenced the gun. A moment later, three German foot soldiers staggered for this gun carrying ammunition and came upon me. They threw their loads down and raised their hands in the air crying 'kammerad' with tears in their eyes."

Some men might have killed these men to make their total fifteen. War can be altogether savage and heartless Woodfill accepted Silencing this gun raised the number of enemy dead to seventeen.

"Heavy firing to my right caused me to take refuge in the enemy's trench."

Usually five men manned the German machine guns; he had killed five not expecting more. Jumping in among the dead bodies, Sam landed on two other Germans.

"They were not frightened though five were dead at their feet. One had a Luger pistol and thrust it blindly at me. I fired first. The German doubled-up and the pistol fell at his feet."

"The other one reached for his rifle."

"I squeezed the trigger on him - but my pistol jammed."

"A German pick lay close by. Before he reached the rifle I crushed his head."

"The man I had shot in the body had retrieved his fallen pistol and was ready to fire. So I let him have it too."

Sam continued forward until the Cunel Woods thundered. Unmistakably, he had reached the enemy line of resistance. Mission accomplished. Returning to the command post he made his report: nineteen enemy dead, three captured, and the line of resistance established.

Woodfill's heroic deed earned him "Blackjack" Pershing's commendation as "America's Greatest Soldier." He received the Congressional Medal of Honor, the Croix de Guerre, the Legion of Honor, and the Italian War Cross. Sam became the most decorated World War I veteran of the American Expeditionary Force - all because of the October twelfth, 1918 Cunel Battle.

Remembering Grandfather Woodfill's defeat in the failure of the United Iron Works because World War I finished six months early, I thought, "Ironic that one Woodfill was fighting heroically to end a war that would ruin another." A letter tanned brown by age, fluttered loose from the envelope of clippings I held. My hands gently unfolded the crumbling blue-lined paper. Reading the scrawled handwriting, I grasped the meaning of the note written to my Grandfather:

Madison, Indiana, Feb. 20, 1919

Dear Nephew,

Your letter received and I will tell you who SAM WOODFILL is. - He is the son of John S. Woodfill and grandson of Daniel Woodfill, who was brother to my father and second cousin to your father....Samuel was raised here and I have known him since he was a baby...Your Uncle Horace

Uncle Horace was Grandfather's uncle! Probably Grandfather had seen this issue of *Leslie's Weekly*, read about Sam Woodfill and asked himself the question, "How am I related to this World War I hero?" The other articles I had read said that my Grandfather was a proud man. Since this article appeared shortly after the failure of the Iron Works, it and the knowledge that Grandfather was related to Sam Woodfill had given Grandfather strength. One Woodfill had won his battle while another had lost his war, but a measure of grace had been granted the vanquished. Sam Woodfill's unpretentious courage had given Grandfather the will to press on.

Though I couldn't be sure that Grandfather ever found fulfillment after his financial losses one final clipping offered a clue:

RESOLUTION 1926

In the sudden and unexpected death of Jared Ryker Woodfill, Jr., this class has lost a faithful member; He was a Christian gentleman, whose LOVE and kindness to all humanity was his PRINCIPLE CHARACTERISTIC...

(We) pray that this testimonial be spread... that future generations may know of the high esteem in which he was held.

J. W. Daniels, H.H. Elliott, J. Bonkemeyer

"Their prayer is answered. Grandfather's testimony of love and kindness is being spread to future generations. Grandfather died in 1926 nearly two decades before my birth yet his example speaks to me - through their resolution - just as they prayed. What a remarkable coincidence!"

Perhaps, Grandfather had found his prize after all. The Bible says, "Now abideth faith, hope, and love these three;

BUT THE GREATEST OF THESE IS LOVE."

(I Cor. 13:13).

Sweeping the newspaper clippings into the envelope, I considered our name once more: JARED RYKER WOODFILL,

"It wasn't so starchy after all."

Perhaps it was the influence of Sam Woodfill which prompted my Grandfather to send my Father to New Mexico Military Academy, a junior college in Roswell, New Mexico. Born in 1909, Dad

would have been about ten when Sam Woodfill fought the Cunel Woods Battle. A very intelligent and popular man, Dad captained the tennis team during his years at the "Institute." Later, he transferred to Illinois University where he met my mother on a "blind date."

Though he had an opportunity to attend West Point, Dad permitted a less fortunate friend at the Military Institute to receive the appointment that might have been his. Nevertheless, he pursued his military career at Illinois. Later he received a commission in the Army Signal Corps after graduating from Illinois as an electrical engineer in 1930.

Dad served in World War II under General Van Fleet. Fighting in the Battle of the Bulge, he helped liberate a French town. During the war, my mother and I lived with my Grandmother Mathis in Morton, Illinois. Each night my mother showed me Dad's picture in uniform. He'd left for Europe before I was two, and I'd forgotten what he looked like. But this picture and our prayers reminded me that I had a father "winning the war." Prayers helped. Dad returned in 1945, healthy and whole. During peace time he rose to the reserve rank of Lt. Colonel before receiving an honorable discharge at the onset of the Korean Conflict.

Though not an outdoorsman or one who coached young people's teams, Dad was very kind to me. I knew he loved me and was proud of me though he seldom said so. My mother attended to most of my requests, interceding with Dad for me.

He loved to talk of business, engineering, and politics over ping-pong games in our basement. Driving me to Hammond High School each day my freshman year, Dad shared advice and wisdom, bringing us closer together than ever before. After his work, he'd return to pick me up from basketball practice, and we would finish the conversation begun that morning.

Our trip to Rice in Houston was a welcome opportunity for both of us - a time for him to counsel me prior to my departure for college the next fall. Also we could catch up on talks we had not had since those trips to Hammond High three years ago.

We shared a room in a Missouri Pacific Railroad Pullman sleeper. The train was called the Texas Eagle. It originated in St. Louis about 4:00 PM and arrived in Houston the next morning at 10:45 AM.

Lying awake that night in a Pullman fold-down bunk, I wondered about Texas. My classmates thought it was exciting going to the "Lone Star State" for college. They even sang "The Eyes of Texas are Upon You," when they saw me in the hallway. (Later I discovered that this was not Rice's song but belonged to their arch-rival, the University of Texas at Austin.) In Texas, I expected to see cars, trucks, and motorcycles, but also I thought I'd find a great number of horses on the streets. Then I also imagined there would be many cowboys with boots, spurs, and ten gallon hats. My idea of Texas reflected the movie Giant - all the men were as handsome as Rock Hudson and the ladies as beautiful as Elizabeth Taylor.

A few miles from Union Station, in downtown Houston, my image vanished - there were no horses, cowboys, cattle, or oil wells in sight. Houston was exactly like downtown Chicago or St. Louis except that the percentage of modern buildings was perhaps, higher.

When our train arrived, Coach Frankie was waiting beside the railroad track. After greeting us as we stepped off the train, he drove us up Main Street to the Shamrock Hilton Hotel, the site of Dad's natural gas convention. From there, Coach Frankie took me to the Rice Gym and Rice Stadium. Both structures impressed me. The gym seated 5,500 and the football stadium, 72,000. Looking at those thousands of seats, I felt like a gladiator viewing the arena of combat. A feeling of pride stirred me as I thought of playing here someday before fans.

Next we visited the athletic director's office. There I met Jess Neely, Rice Football Coach, a handsome white-haired man with a firm handshake and penetrating stare which seemed to befriend and evaluate you at the same time.

I liked and respected everyone and everything I saw at Rice. If I had planned for the best offer possible, I could have received, I believe I'd have chosen this one - the only offer I had. It was as though Rice had been "tailor-made" for me both academically and athletically; so that when Coach Frankie went over the details of my scholarship: room, board, books, fees paid and \$18 a month to clean my dirty clothes; I quickly accepted. (He made an offer I couldn't refuse. It was the ONLY ONE I HAD. Of course I didn't tell Coach Frankie that.)

Then Coach Frankie revealed why he was so interested in me. From his desk, he pulled all those clippings and pictures from the Hammond Times. My "supernatural" press agent was a relative of the coach who lived in Hammond, Indiana. My academic record and those press stories had sold Coach Frankie on giving me one of his seven basketball scholarships.

Indiana and Illinois had an almost legendary basketball reputation in Texas. They'd heard of the "Hoosier Hysteria" which had produced players like Oscar Robertson. Before I left, Johnnie Frankie listed the six other prospective players he'd offered scholarships. Their backgrounds and statistics humbled and amazed me - when I considered I was among this select group. One prospect was 6'10", another 6' 7", two more 6' 6", and the only other player my size (6' 1") had averaged 26 points a game. I left the Rice gym knowing I'd received another miracle equal to those two Indiana sectional games.

After returning to Highland, I had only one more important duty to perform. As the class valedictorian, I was to give a fifteen minute commencement speech. For several weeks, I researched books of famous quotations, patching together what I felt was a good valedictory address. The talk was based on a "hippy" poem I'd read from a book called On the Road. It was a poem about a clock ticking down to the final minute of the world's final hour - our graduation would be the final minute of our life in high school.

Early one morning, a few days before graduation, I was awakened by the sound of my mother sobbing while she talked to someone on the phone. Then I heard my Father talking upstairs. His words sounded mixed-up and didn't make sense. Apparently a stroke had affected his speech. After tests the doctor prescribed a month's stay in the hospital. This meant Dad would not be able to attend graduation and hear my speech. Immediately after commencement, Mom and I visited him, giving a detailed account of all that happened. His face glowed with pride as he listened to Mom and I share.

Despite the stroke, in a few months, Dad recovered both his health and speech, returning to work. All was happy once more in our home, and I was looking forward to leaving for Rice in a few weeks. All my ambitions were fitting nicely in place:

"Life is so simple, a string of victory beads on the necklace of success."

Feeling confident about the future, I drove to the Ken Ridge Drug Store one evening. There I spent a half hour going through sports magazines looking for comments about the 1961 "Fightin' Rice Owls " All the prospects I found were good,
"It was going to be a very good year for Rice and me."

After parking the car, I could have skipped from the garage into the house. I was altogether happy. Entering the front door, I had a wide smile on my face. Mom heard me and called, "Come here Jerry. I want to talk to you." She was seated by the phone in the rear of the house. I walked to her. The look on her face clashed with my smile,

"Your Father isn't feeling well, I'm afraid he's having another attack. Should we call an ambulance?"

My smile started to fade. It was losing the contest to Mom's anxiety. "But Dad had been fine at dinner, laughing and joking. How could he need an ambulance just a few minutes later?" But then I remembered how the other attack had come... quickly and without warning. Now my mouth was dry, my face contorted into a tight grimace.

"Yes, Mom, call." I blurted out.

Dad lay in my bed on his back. He held his right hand and forearm perpendicular to the bed. Taking his hand, I squeezed tightly, saying nothing. Then I sat beside his bed until the ambulance arrived. Watching the attendants carry Dad from our home, I wondered if I would again see him alive.

Mom rode in the back of the ambulance with Dad. Only Susie, my ten year old sister and a few neighbors remained with me.

"What can I do to help?" I wondered.

Rather than remain inside, it seemed I should leave the house. It was a very clear night, the stars glistened in my eyes as I looked heavenward, walking aimlessly down the street, I asked in my mind, "Are you up there God~?... If you are, I want to talk to you tonight."

As if to get God's attention, I lifted both hands above my head. Reaching up for help, I cried out, "...if you really exist do something now for Dad...make him well so we can go on happily." I continued walking with hands raised, speaking aloud to the sky. It was an awkward conversation - as though I were trying to convince a stranger to take care of my problem.

"If there really was a God, what interest could he have in me? I'd given Him little more than 'lip-service', repeating by rote the Sunday morning creeds, responsive readings, and bulletin prayers. Occasionally, the Pastor's sermons stirred a longing to discover God, but it was far easier to blank out the message with day-dreams of basketball games and dates.

Confirmation class had drawn me closer to understanding who God was and what He was supposed to be like, but that was five years ago. Most of what I'd memorized, time had erased. The Bible seemed to offer little help, too many thee's, thou's, yee's, and yea's. I'd as soon read Chaucer's middle English."

Reaching the end of the street, I started back home. It was nearly 10:30 PM when I entered the door. In a few minutes, the phone rang. It was Mom calling from the hospital. She wanted to talk to me. Her voice was strong and controlled as she said,

"Jerry your dad died."

A numbness shadowed my thinking, as though nothing really mattered anymore. The numbness remained for two days, then abruptly it lifted. At the funeral and burial not a tear came to my eyes despite the sorrow I felt. And though I was to report to Rice in three weeks, the excitement over the "gift" of a basketball scholarship was gone now, displaced by a dull ache inside, accompanied by an uncertain view of my future without Dad...

Chapter 3.

"All For Rice's Honor"

RICE HYMN, RICE U.
Houston, Texas

Freshman arrived a week early at Rice for an orientation. Despite the impressive credentials of

the 1960-61 Rice frosh (50 Valedictorians, 30 Merit Scholars, and 90% of the 425 freshmen graduating in the top 10% of their high school class), we were to spend five days learning English Composition and Analytic Geometry (for the second time for many of us).

The week was described as an opportunity for the freshman to adjust to the new environment in Houston through "get-acquainted" parties - discussions with faculty and upper classmen. Actually it was a "make-sure" refresher course for the Rice administrative-admission-academics to set in motion the "weeding out" process, a way of life solidly ingrained (at the time) in Rice's tradition.

Regardless of the quality of the Freshman class, the system ignored past performance, establishing a statistical evaluation system called "the Curve." My roommate's name for it was more appropriate, the "Grim Reaper."

The "curve" came from a man named Poison. The author's name was apropos. The hapless student, lacking dedication, soon discovered the curve killed chances of passing as surely as a slow "poison". As a math probability distribution, the curve ordained that the same percentage got A's and F's, B's and D's while the bulk of us would earn, "the gentlemen's C". I was told that Howard Hughes tried Rice in 1910 but fell prey his first semester to the "Big C", the curve.

They still called Rice an "institute" despite Rice's membership in the Southwest Conference which-had only "universities". (Texas U., Texas A&M U., U. T., T.C.U., S.M.U., and Baylor U.) Institute was an apt expression for the icy academic environment. Regardless of the jeering Rice took from "Aggies" (Texas A&M) and "Teasips" (Texas) about the name institute, the name had remained intact for 50 years.

Rice modeled itself after both Ivy League Universities and English Colleges. Males were appointed to one of five men's colleges while the women resided in the single coed college, Jones. My residence became Wiess College - signified by my blue and gold Wiess "beenie" hat.

Freshmen were to wear the beenie at all times. Since mine barely fit, I kept my hair "crue-cut" length. The beenie had a short blue bill which stuck out like an owl's beak- appropriate since Rice's mascot was Sammy, the Owl, a Goliath sized papier-mache' bird standing 6' tall. Freshmen carried Sammy to all Rice home football games . There, amidst as many as 72,000 fans, we feverishly bowed up-and-down before him, chanting and praying for at least a quarter of the game. (Idolatry in its purest sense. Baal would have been envious.)

Despite an I.Q. near 140, a 98 percent high school grade average, valedictorian honors, etc., the fact that I played basketball for Rice on an athletic scholarship characterized me as a "jock" (acronym for athlete). Rice integrated jocks into the college system (no separate dorms for athletes) though there were a few special privileges granted us. Among these were meals at the athlete's training table during basketball season. I enjoyed steak dinners with large helpings

while the rest of my classmates dined on the regular Rice food service menu. But I was not exempted from serving tables, a duty of all Rice freshmen, nor was I able to forego the initiation (hazing) ritual. As a result, I received "triple exposure" from seniors in Wiess College as well as upper-class football and basketball players .

I got "broomings" (painful rear-end blows with a broom), sang "choruses" at training table (silly songs meant to embarrass the singers), and participated in the "Polar Bear Races" (sitting on a block of ice in my underwear while backpedaling bare-footed to the finish line). None of these antics were particularly tortures, but fear of sterner measures kept me quite respectful, especially of upperclass athletes.

Rice offered a special physical education degree for athletes. Other students were generally prohibited from this department. Feeling uncomfortable about a career in coaching, I chose architecture as my major. This turned into a very bad choice. As an athlete, I was required to practice 2-4 hours every afternoon which interfered with architecture labs. Besides, the architecture instructor, discovered I was not "arty" enough for the Rice program.

One of my first projects was to design a "pleasing" barbecue center for a municipal park. My critic's response:

"Mr. Woodfill, this is simply disgusting and awful."

Considering how ill-fitted I was for architecture, my final grade was remarkably good, a D- (next to the lowest grade in the class). By the second semester, I had switched to electrical engineering. Here, I felt comfortable studying mathematics and "solid" physical laws in contrast to study of architecture for art's sake.

Except for architecture, my first year's grades were fairly good: A in English, B in Physics and History, and D in Calculus (which would have made my high school math coach cringe). My basketball playing was not faring as well as I (or the coach) had hoped, but I was sixth man on the freshman team and finished the year on the first five.

A psychologist once composed a scale of stress agents, assigning relative scores to each. Among his list were: leaving home, losing a loved one, failing to achieve an important goal, and going through a divorce. A total stress score was measured by summing those which applied to you.

My stress score for that first year at Rice might have "burst the bubble" of that doctor's psycho-thermometer: I had lost my Dad to a heart attack, my steady girlfriend to an Indiana University "frat man" (tantamount to divorce), and my Indiana home to the Rice dorm. In addition, pressure of study and labs had handicapped my basketball career, causing me to fall far short of goals I'd set in scholarship and athletics.

In spite of the host of negative "stressors" pressuring my psyche, several positive factors erased their effect, keeping my "bubble" intact, and me semi-happy and adjusted. Former friends of my parents lived near, in a classy community off Houston's Memorial Drive. They had two daughters, and I became something of an itinerant adopted son. The older girl was approximately my age and quite pretty. Because my role was "as a member of the family", she and I adopted a dating scheme for one another. I enlisted dates for her in exchange for the "pick" of her friends.

Often, I enjoyed weekends with my substitute family, participating in their neighborhood parties, home cooked meals, and Sunday worship. (We were even members of the same church denomination. How convenient.) Of these events, the parties attracted me most. Guests included many prominent Houstonians: the general manager of the Houston Oilers, the movie star Janet Paige (present I was told at a party I missed), the famous Houston coroner, Dr. Joe Jachimczyk, and of course many physicians and lawyers.

But the greatest influence on me came from a quite nondescript red-faced fellow whose only distinguishing characteristic was that he'd had too many cocktails. I had come to the party troubled, undecided about my choice of majors. My grades reflected the dilemma: two C's, two D's, and an F-. One of the D's was a first course in my chosen major, electrical engineering. My leaning was to drop engineering and opt for the easier (for me) humanities. At the party, I accidentally bumped Mr. Red-face's cocktail arm, sloshing a bit of his drink on him. My apology was the source of our meeting.

With slurred speech, he introduced himself and asked for my name and background. Rather than listen to him meander on about sports, business, and family I prolonged my response, giving him not only a general biography but also my recent hope to swap majors. I paused, expecting him to say, "Tha...tha...that's nice." Instead, he snapped to an erect posture, looked me straight in the eye and bellowed distinctly,

"You're a quitter. Just because engineering is hard
is no excuse to drop out. Shape up and show some guts."

My face turned flush. (I must have looked redder than he did.) Now it was my speech that ashamedly slurred my response, "Y-Y-You are ...right sir."

You can argue a man's religion, politics, and philosophies and not move him, but strike properly at his pride and have your way. C.S. Lewis says, "man's greatest sin is pride, a vice no man is free of." No psychologist could have more perfectly persuaded me that dropping engineering was a mistake than my red-faced friend's jab at the jugular of my pride. Henceforth, my resolve became: "graduate an electrical engineer or not at all."

To say that my religious background served as another stress "eraser" would be idyllic but dishonest. The extent of my holiness was an occasional service with my adopted family, usually

on holidays such as Easter. Their pastor also served as a chaplain at Rice. He knew the shallowness of my dedication, judging from my infrequent visits to the on-campus church fellowship. On an Easter Sunday, he publicly unveiled my phoniness as I filed out of church. The pastor greeted me with the pronouncement, "Well, if it isn't the President of the Holly and Lily Club." (Holly for Christmas attendance, Lily for Easter.) It is sufficient to say that religion was not a positive factor in curing my case of "stressors".

Not that God had forgotten me. He sent a number of His scouts, disguised in human form, to both prod and comfort me. (Remember Gideon? God sent an angel in a man's body to show the doubting young man the divine plan for Israel.) I received the first of God's messengers flying at 10,000 feet on the wings of a Texas International Airways DC-3, going to play the University of Arkansas Razorback basketball team in Fayetteville, Arkansas.

Somehow God had gotten into the Rice Athletic Department. Certain athletes met for prayer, Bible reading, and sharing. Some would go room-to-room through the colleges, in teams of three sharing religious stories. Several basketball players warned me to be on-guard for these "God Squads" as the religious jocks were known. "Don't let them catch you in your room alone." I was admonished. "Why not?" I asked. "You be their alone, and you'll find out." They answered. I nearly fell prey one evening - only a study session in the library prevented me from being present when they visited Wiess room 131. My roommate, Brent, was defenseless, alone with them. He explained their mode of operation,

"They got out this little paper book. I think it was something about God and spiritual laws. What they said made sense. I couldn't argue with them."

I retorted, "How could they trick you into believing that religious stuff? I've been too church and know all about it. There's really not much to it, a bunch of non-sense."

Brent continued,

"I can't explain it. Those diagrams and their explanations just led you along, and somehow God became real in what they said."

"If I'd have been here, they wouldn't have pulled that trick on Brent or me." Turning to Brent I asked, "Who were they?"

"I only knew one of them...Jim Fox, the varsity basketball player." As the DC-3 engines, whined annoyingly in my ears, I remembered Brent's encounter with the God's Squad. This was one of my first airplane flights. The twin engine Douglas aircraft was pushing through a heavy rain storm. I sat by a window, adjacent to the wing. Because the cabin pressurization system was not working, my ears began to ache. Sudden updrafts tossed the plane like a huge hand juggling a ball, upsetting my stomach.

Like a seasick sailor confined below deck, I kept my eyes closed most of the time watching the interior cabin movement made me nauseous. When the plane passed into a lull in the storm, I relaxed for a moment, opening my eyes... another player jumped into the seat beside me. "JIM FOX, THE GOD SQUADER."

"Ugh, I'm really trapped now. This is no time for this."

Jim smiled at me as though he were watching a fish in a storm tossed lake, a fish he was about to catch:

"How are you feeling, Jerry? ... Some of these trips get a really rough...especially when we have to land at that short Fayetteville runway tucked beneath those mountains... some of the fellows get real-1-1 scared on these flights." (I imagined they did considering how frightened I was in this storm.)

"I guess it's because they are frightened by death. That's one thing that doesn't bother me since I've found God."

("What's he talking about?")

"How about you, Jerry... do you know God?"

Suddenly Jim's question scared me more than the thought of ending up in those Fayetteville pines. I panicked for an answer:

There were but two escape routes the emergency door or the narrow gap past Jim to the aisle. When Jim made the mistake of reclining slightly, I burst through the gap apologizing, "Got to go to the bathroom, Jim."

For the moment, Jim's fish got away, but Jim kept fishing. At the hotel desk, he murmured something to the clerk. When I got my key and found the appointed room, there was Jim sitting on the single double bed in it. I would have to spend the night with him.

The game with Arkansas was a tough one, and I was grateful that Coach Frankie didn't put me in. I'd have had to play guard along-side Jim. He would have asked me that question again about Jesus, and I'd run out of answers.

No wonder we had problems winning more than half our games. Between the "heathen" and the God's Squad, it was tough playing as a team. Though we won Jim was exhausted, retiring early after the game.

Frightened by the "third-degree" interrogation Jim might pose, I crept into the room long after mid-night. Slipping under the covers like a "cat burglar", I was careful not to wake the Captain of the God's Squad. Somehow, I had escaped being a victim of Jim's.

The return flight to Houston held no further threats from Jim Fox. He stalked new prey, another of the sophomore guards, giving me time to reflect on the Arkansas game. I'd saved a copy of the local paper, The Northwest Arkansas Times, whose sports section featured a 36 column inch story about last night's game. The source of the story was an interview with Coach Frankie about the Rice team and players. My potential was discussed in the 34th inch of the article:

Jerry Woodfill could be ready to make his move. Woodfill could be a "sleeper" if he can learn to relax and not press as he's been doing, a fine schoolboy and freshman outside shooter capable of much, much better.

Reviewing the Rice statistics, listed with the article, I thought it strange that Coach Frankie should even mention me for there was my name...last in the list of ten players, and my average? - four tenths of a point per game. I wondered, "Maybe Coach Frankie really hasn't given up on me?"

Perhaps, Johnnie Frankie, like Jim, was another of God's secret agents, an unlikely candidate though, for to judge externals one might class "Coach" in the camp of an accuser. The first weeks of the varsity season, I had likened him more closely to a boot camp "DI" than an "angel unawares." At games there was always a vacant chair (or two) between him and the rest of us, with good reason, considering the pounding, slapping, kicking, and punching those vacant gray chairs suffered at Coach Frankie's hand.

Yet, in spite of this volatile and often fierce exterior, clues surfaced (like this article in the Arkansas Times) which led me to hesitate in passing judgment on Johnnie Frankie, the man. When the season began, I had conflicts between basketball practice and course labs. Coach Frankie had worked around my schedule. And by the start of the season, I'd done well. An article appeared in the *Houston Post* (another interview of Coach) listing 6' 10" Kendall Rhine and me as the best sophomore prospects to break into the varsity "first five".

It appeared that someone (maybe Coach Frankie?) had once more resuscitated my dream of a future in basketball. Special evidence of the resurrection appeared in a *Houston Post* article by sports-writer Jack Agness. The subject of the article was Indiana basketball, a legendary theme to football hungry Texans. Agness visited Autrey Gym in hope of interviewing a "Hoosier round-baller." Coach Frankie pointed out his lone Hoosier - me - , and I became the main reference for the *Post's* article. Little coaxing was needed to get more than enough material from me on Indiana basketball. It had been my world for half my eighteen years. Mr. Agness took a picture of me before he left.

Even Kendall sat on the bench until the tone of the game settled. When the second half began, I rested my shoulders against the chair-back, not expecting to play. Then, one of the senior guards committed a blunder. Listening for the expected "chair rattle" from Coach Frankie, I was surprised when he cried,

"WOODFILL, GET OUT THERE!"

Running to the scorer's table, I felt wholly incapable, as though I'd never played basketball before. How I envied the track jocks. Their emotions could be channeled for greater speed, mine only served to entangle and stiffen my coordination. Until I got my "playing legs", I vowed to stay clear of the basketball. But as a guard, I did not have the luxury of a few seconds sabbatical to adjust to the charged play-action drama. It was my duty to catalyze action. Rather than simply wait for a pass; I was the prime-mover, expected to initiate our program to score.

The scorer's horn alerted the referees to my entry. Expecting the Rice "blunderer" to give me some instructions, I hopelessly watched him trot straight for the bench, saying nothing.

The other Rice guard waited with the ball at the Tech end of the court. Running for the in-bounds pass, my legs felt like a bird's fluttering wings. Quickly, I returned the pass, as though the ball were a hot ember. Then I looped to the opposite side of the court away from the ball. Crossing mid-court, I saw two Tech defensive men pressing the Rice guard. Somehow, I'd fallen into a distracting trance as though I were a spectator permitted to watch the contest on the court. But seeing my teammate ensnared, forced me into action much as an idle beach bystander is drawn into the water by a stricken swimmer.

Bravely, I rushed into a "safety valve" position. My teammate managed a quick bounce-pass out of his four-armed Georgia Tech cage. Catching the ball, I was surprised how hard it felt, as though someone had pumped it up at a gas station and neglected to regulate the pressure gage. The Tech guards rushed toward their new adversary - me.

The ball was mine to show Coach Frankie, the Rice fans, the Houston Post sports writers, and Georgia Tech players my power and skill. As I'd done so many times in high school, I dribbled past the right Tech forward, abruptly stopping about 8 foot to the left of the basket. One man stood between me and the goal, the Georgia Tech pivot man - 6' 7" and 220 pounds of flesh. Perhaps it was my ambition for fame which clouded my judgment, but I cocked my body like a coiled spring, expecting to jump high above the Tech center for my shot.

The giant-like opponent looked surprised at my boldness. I must have appeared to him as a child's "jack-in-the-box" about to be sprung. Gripping the ball tightly, I triggered my release latch. Feeling my body and extended arms stretch toward the basket, I was puzzled..."SOMETHING'S WRONG, I'M NOT LEAVING THE FLOOR." Looking down I saw the problem: The Tech center had cleverly stepped on the end of my right tennis shoe, nailing me

to the gym floor like a 12" spike. No one, including me, had seen his clever move.

My body recoiled, awkwardly and painfully, like a Yo-Yo whose string catches short, snapping the hard toy back into the hand. Desperately I tried to salvage the situation. Falling backward off balance, I launched a grotesque shot. The ball fell a foot short of the rim, brushing the lower net strands, before falling into the hands of a Tech forward.

Lying on the floor, I looked at our bench ten feet away. All the players were laughing, but Coach Frankie wasn't. His face was a livid red. Those vacant gray chairs were rattling as he yelled: "Get him out of there...Get him out of there... I don't need that..." A sub ran to replace me while the laughter continued.

Rushing to my feet, I wanted to make up for my foolish play. A moment later I caught a pass in the deep left corner of the court, 24' from the basket. Again I launched a shot, this time no one stood on my foot. Before the ball was half way to the basket, the referee's whistle sounded. I'd stepped out-of-bounds. Helplessly I watched the ball sail far above and beyond the rim, going out-of-bounds on the opposite side of the court. The embarrassment over my first attempt caused me to overcompensate the second shot. Mercifully, the scorer's buzzer sounded, ending my assault on "Rice's honor" for the evening.

Though my varsity debut was discouraging for both Coach Frankie and me, it was not my greatest humiliation. Prior to the Christmas holidays, we flew a 707 jet to Omaha, Nebraska for a game with Creighton, a large Catholic University in the Midwest. The night before our game, we watched Creighton lose by a point to UCLA, the often NCAA champion. Creighton had a 6' 7" center named Paul Silas. His aggressive rebounding, defense, and offense were factors which made Creighton a powerful team.

The following night, Silas' baskets "peppered" us like a Nebraska farmer's shotgun driving off crows. With five minute, remaining, we were losing by 37 POINTS. Coach Frankie surveyed the bench and yelled, "WOODFILL REPLACE FOX." As I entered the game I felt relieved, "What damage can I do at this point?"

The Creighton first team, including Paul Silas, remained in the game, an especially unmerciful situation, but I think Silas was after a new scoring mark. The discouraging game trend continued: we would get only one shot which Silas would promptly rebound or swat down with his octopus-like arms. This meant we spent most of the game on defense. With only a few minutes to play, I defended one of the Creighton guards, side galloping my way across the free throw lane in pursuit. When I heard someone yell, "SWITCH", the signal that I was to swap men with my teammate, I responded immediately, dropping my man and picking up the loose man, "IT WAS THE 6' 7" 225 POUND PAUL SILAS."

The Bible speaks of the imprisoned PAUL and SILAS' prayer crumbling the walls of a Jerusalem prison, Creighton's PAUL SILAS looked big and strong enough to do the job without an earthquake's help. Now I guarded Goliath in gym shorts whose iron-mace was a basketball. I as the boy David, 6' 1" and 150 pounds, had left my slingshot in the locker room.

Silas eyed the basket 15' away and sprang toward the goal, cocking the ball in both hands behind his head for a "dunk-shot" an appropriate finale' for the Creighton fans.

"Doesn't he see me?" I wondered, standing directly in his path. The power of Silas' drive launched me airborne like a prairie calf swept up by a steam locomotive's cow-catcher.

My arms flailed about his neck and head. I think more probably as a baby eagle clutches her mother, than as a basketball player defending the basket. Silas carried his cargo, the ball and me, almost fifteen feet. Then he swung the ball from behind his head, in sledge-hammer fashion, slam-dunking the ball through the rim. Ripping open the hemp net, the ball bounced off the top of my head, and I fell dazed to the floor, lying on my back like a dead Texas cockroach. The crowd jumped to its feet, fists raised in the air save one, the referee. Excited by their emotion, he pointed down at me:

"FOUL ON YOU NUMBER 31."

Stunned, I slowly stood to welcome my substitute as the P.A. system announced Paul Silas' new court scoring record.

Since that game with Creighton, I'd committed a series of play action "boners", but none quite so humiliating. My shooting statistics reflected this miserable performance, one shot scored in 18 tries. Prior to the season, the Rice Owl Radio-TV-Press-brochure wrote a "sketch" for each of us as background for newsmen. Mine said,

"Woody just might be the best shooter on the club... he can pop the net quite often from way out..."

Apparently I'd made a liar out of my sketch. If I was the best shot, the entire Rice team would be scoring only 4 points a game.

But Coach Frankie had granted me ample chances to find myself; no one could fault him for my barren play. I'd had more than a score of opportunities to take root, but still I remained dormant as a basketball player. And off the court, Coach never complained, praising me whenever he could, even sending a letter to my mother:

Dear Mrs. J. R. Woodfill:

I've been intending to write you a note about Jerry. He is doing a lot better at the present. He has learned about college and the professors. His basketball could be real good. But his school work is taking up most of his time, and he can't get the practice time he needs. I want you to know I'm not complaining, but hope that Jerry realizes whenever he is not on the first team, he could be easily.

As you said, he is a good shot, and he can get them off. I believe he has adjusted real well. He doesn't look as happy as he was a year ago. I guess time will cure many things. I hope you are working hard and keeping busy so your mind can't wonder and sit and think.

If you need help with Jerry here, let me know. I'll be glad to do anything I can...

Sincerely,

Johnnie Frankie

Our remaining schedule left few chances for Coach Frankie to play me, but he kept me on the "road squad" as one of the first ten of the nineteen Rice varsity players.

The Rice program divided players into four groups: the first team or "gold shirts" (these wore gold jerseys in practice), the second team "blues", the lowly third team "greens" (also known as the green grasshoppers or "hoppers" for short), and finally the miserable fourth team "fire-engine" reds.

Having failed the test as a soph player, I was cast among the "hoppers" from the start of my junior season. Only the "fire-engine reds" remained between me and the "jock cage". The "jock cage" was reserved for the athletic dregs, the lame or halt who showed no promise. A knee injury could sentence an athlete to four years of labor in the "jock-cage", separating socks, jocks, and shirts for the Rice laundry.

As a "green grasshopper", the meaning of the imprint "Property of Rice University" was stamped indelibly in my mind. My duties became as menial as an army ant exercising before the queen of the hive. I became a workout "dummy" for the freshman team, reporting to the gym at 1:30 PM, defencing the frosh and scrimmaging them until 3:30PM, finishing with a two hour varsity practice, expected to perform as though I had started fresh at 3:30 PM.

During this period my grades suffered, resulting in my first failing grade, an F- in Math 300, Differential Equations. Suddenly my dream of a basketball career had become a nightmare. My resolve became to forsake basketball and my scholarship rather than suffer on a course which would end my career as both an electrical engineer and basketball player.

Shortly after the final game of my junior year, I had a talk with Coach Frankie. He smiled as we

talked, speaking not a word to suggest I turn in my scholarship. Instead he encouraged me to think about improving next year. But a few days later, Coach Frankie became ill. Then a few days afterward, he had succumbed to kidney failure, hepatitis, and other complications, dying in middle age.

Chapter 4.

College, Death, and Dying

Sitting in a pew at the Settegast Kopf Funeral Home on Kirby Drive, I listened to Coach's eulogy. The preacher spoke of our record the past year as one of Johnnie Frankie's finest achievements. My thoughts faded from these remarks into my own eulogy of Johnnie Frankie. "He was a man who took boys, disciplined them as a father might chasten a son he loved, transforming them into men, at the same time building a fine basketball team. Too bad, Coach never would see his first Rice recruited team at full potential next year. Typical of the trend of things since I'd come to Rice for Coach Frankie to die suddenly."

My portal to Rice had been my Father's death. The call of death had remained ever present, stalking and haunting me, despite the passing of those three years since Dad died. Even Rice's founding in 1901 had reeked of foreboding amidst murder and death. Rice's founder, William Marsh Rice, intended to leave most of his \$10,000,000 estate to the founding of this Houston college. Mysterious to friends in Houston, no college was mentioned in Rice's will when he died in 1900 at 84 years of age. Instead, the childless New York entrepreneur, a widower, bequeathed his fortune to his lawyer. Investigation revealed a Sherlock Holmes plot of murder and intrigue which, true to form, ended in the discovery that "the butler did it."

Besides this oft told story, further images of death touched my life at Rice. A depressed junior electrical engineer crossed Main Street into the Hermann Park Golf Course late one night. On the 18th green, he raised a revolver to his head and took his life. There he lie the rest of the night until his body was discovered by pro shop employees the next morning.

Another student bought an airline ticket to California, boarded the plane for home, and swallowed all the capsules in a bottle of pills shortly after take-off. No one disturbed him, thinking he was sleeping. When the plane landed, it was too late to revive him.

Probably the most grotesque suicide involved a student who lived in a room next to mine. Having a brilliant mind, he scored the highest grade on several of the difficult Chemistry 120 tests. By his sophomore year, he dropped out of science and engineering. Later he moved off-campus and left Rice, taking a job with the Houston Post Office. Postal officials were amazed at the speed with which he sorted mail, memorizing streets with names and addresses of businesses and occupants.

Then one day appeared headlines in The Houston Press - STUDENT'S FOUND DEAD IN HOUSTON HOTEL. Police speculated that he and his girl friend had formed a suicide pack. Of the deaths, this was the most troubling since I was closest to the victim, yet I did not know him well enough to begin to understand the cause. My only thought was, "What a tragedy for his parents, losing such a brilliant son."

Added to this death was that of a person which affected every student at Rice, President Kennedy's assassination in Dallas, Texas. Earlier, I watched him happily motor through Houston. Then this afternoon came those stunning words - THE PRESIDENT HAS BEEN SHOT. Sitting in Kendall Rhine's room, we waited for details. Shortly the radio broadcast, "President Kennedy is dead." The year before, John F. Kennedy had stirred something inside me when he spoke in Rice Stadium - announcing the goal of landing a man on the Moon before 1970. He would never see his dream fulfilled.

My reaction to these senseless deaths took two forms. First, a fear often gripped me that I might be the next victim of death's call. The fear manifested itself in imaginary aches and pains which, though medically groundless, worried my mother enough to send me to an expensive internist - verifying that I was really quite healthy.

The second reaction was a fatalistic view of life. I'd become aware of an evil factor in the world which could strike down presidents, students (brilliant or average), coaches, and fathers at the least expected time in the most tragic ways.

My attitude had "flip-flopped" from confidence in my mind and achievements to utter contempt for my intelligence and understanding of life. I set out to discourage those who had not yet succumbed to the factors which conquered my ambition. Thus, one night, I laughed at my freshman suitemate's hope of finding a cure for cancer and mocked his moral posture in dating.

Relishing diversions from study, I helped organize non-sensical water fights between Wiess and Hanssen College. The college dorms faced one another across a 40 yard "no man's land", the battlefield. Surgical rubber sling-shots six foot long were nailed to Wiess College door frames. Spring-loaded catapults were constructed. Heavy water balloons mortared from open Wiess rooms at incredible velocities, bursting painfully against the bodies of unsuspecting Hanssenites.

Squads of Wiess and Hanssen foot soldiers scurried about laden with burlap sacks full of water balloons for close combat. Others harnessed three foot long water-filled balloons to their backs, squirting the enemy through a "jury rig" hose. There were no rules, no referees - all was fair. (Except for use of the Rice fire extinguishers which had become a cause for being expelled. This resulted from a particularly dreadful "water carnage" using the fire extinguishers in the late 50's.)

The advent of finals week promptly dried up my water balloon antics. Anxiety over the prospects of poor exam marks riveted me to my study desk. Prior to exam week, a recurrent

"nightmare" troubled me. Its theme was quite simple: I found myself on the eve of my first exam and had forgotten to study. Years later, this same dream gave me restless nights.

Though I had judged the chance of receiving a Rice degree as less than one in four by the end of my third year, the odds had improved to at least 50%. At the start of the junior year, over thirty students had chosen "EE" (electrical engineering). But when the final fifth year commenced in 1965, attrition had reduced our numbers to thirteen. I stood eleventh among the remaining faithful, comforting myself that I was eleventh among an initially larger group.

Despite my low standing, I received a generous offer, months before graduation, from the Humble Research Center (Exxon). The job was outlined as "field engineering", meaning I'd be traveling often. Dining and sleeping at Howard Johnsons, Holiday Inns, and "ma and pa" Best of Westerns seemed like a drab finale to five years of academic frustration.

Rice's prestige among Houstonians gave engineering graduates an unspoken preference among local job recruiters. I attributed this to the generous Humble offer. Nevertheless, when I failed to respond promptly, the offer was withdrawn leaving me jobless at graduation.

Perhaps, my refusal of the oil company offer resulted from hearing President Kennedy commit the United States to a Moon landing by 1970. As a result of the President's goal, the Manned Spacecraft Center sprang from oil rich property of "Silver Dollar" West's former ranch almost as quickly as Texans build oil derricks. By 1965, MSC (as the Manned Spacecraft Center was called) throbbed as a space metropolis of astronauts, spacecraft designers, and flight controllers, devoted solely to making the President's dream a reality.

My NASA ambition was apparent to my EE classmates. Seven months before graduation, I signed up for interviews with NASA recruiters. By being first on the list, I hoped to receive favored treatment. Later I visited JSC with two other EE'S. Finally I signed up for a second interview when the NASA recruiters returned in the spring. But my efforts failed to profit, and I remained the lone EE with neither work nor plans after graduation. The other EE's, interested in NASA, gave up waiting, one taking a job with the Institute of Electrical Engineers in New York, the other locally with IBM.

Wiess College wouldn't evict me immediately, but by mid-June they would consider my presence threatening. My mother wrote assurances that she'd finance another month's rent somewhere, but "to please find something."

That something came quickly, a call from the Manned Spacecraft Center to report for work June 14th, 1965, my first day as a NASA space engineer ...

Chapter 5.

"Funny Things Happened On the Way to the Moon"

Captain Video and Flash Gordon rocketed me into the space age via a round-screened 12" Philco television set purchased by my father in 1949. Video electronics had not yet blossomed so our T.V. joined a 1940's Magnavox 78 RPM record player residing in the damp cold basement.

An imposing maple wood RCA radio ruled as entertainment king, resting on its throne in the living room. Quickly though, his majesty the radio lost my allegiance. Audio shows like THE SHADOW KNOWS, THE INNER SANCTUM, and even THE LONE RANGER were abdicating to video stars like Howdy Doody, Martin Cane Private Eye, and cowboy Gene Autry. Then one day the electronic wonder downstairs won a bloodless cue. I shared in the spoils of victory, watching now in the warm den with the rest of the family, while the maple wood RCA radio had been banished to the dreary basement.

The mystery of electronics fascinated me. What was difficult to understand appeared glamorous, as though knowledge imparted some unseen power or blessing. Despite the five "lean" years in Rice academics, my quest for knowledge welled from within as a source of great pride. At NASA the wisdom of the learned would be greatly valued, no one there would know of my 5- in Math 310.

It's an odd thing about expectations of a future job. Regardless of how glamorous the dream or hope, the gradual fulfillment in its creeping pace erases the expected excitement. My first days at the Manned Spacecraft Center seemed all to routine in contrast to visions I'd had reading scores of science fiction stories. As a junior engineer, I could hardly expect the exciting life of a John Glenn, Scott Carpenter, or Frank Borman. Nevertheless, I daydreamed, hoping for a bigger part of the "action", the Apollo lunar landing program.

NASA was in the business of designing and building spacecraft, but my first assignment was no closer to Moon ships than a neighborhood Ford dealer to Detroit's automotive engineers. NASA titled my job: Aerospace Technologist or AST (one of many acronyms I was to learn as a language of "Governmentize") My rating was GS-7 which translated on a complicated pay scale into \$7050 per year, more than ample compensation for my basic needs: monthly rent of \$115 at the Tally Ho Apartments, meals at either the Tel-Wink, Kips, or the Singing Wheel, and an ample supply of Swanson's T.V. dinners.

As the "new hire", I collected some curious assignments, work judged too menial for the "vets" but simple-minded enough to keep me busy until a semi-permanent niche surfaced suitable for my talents . Among these first tasks were: study of a Delta Modulation system (a heady exercise), review of several patent proposals, and the construction of an astronaut "drink meter. "

The latter project proved far more interesting than the other tasks. The Gemini Spacecraft (a two

man orbital vehicle) used a "squirt gun" device for dispensing astronaut drinking water. A crude system of counting "squirts" measured the amount of water drunk by the crew. I was blessed with an inventive supervisor, who delighted in solving complex problems with simple solutions, often patenting his ideas. His response to the "squirt meter" was a paddle-wheel water flow meter and relay counter. A long "squirt" made the paddle-wheel turn more, registering more counts than a short "squirt", a distinct improvement over the crude previous technique.

Using the suggested two parts: the flow meter and relay counter, I was expected to design, construct, and demonstrate a working model. After two weeks of frustration and frequent consultations with an electronic "tech" (a non-degreed laboratory worker), I succeeded in building the "squirt" meter. Sadly, I had discovered my ineptness for practical electronics. Though schooled in electronic theory, my knowledge of laboratory circuit hook-ups humiliated me before the "unschooled" wire-routing technician.

From the lab water tap, I drew 32 ounces of water into a graduated beaker. As I poured the water through the entrance orifice of the "squirt" meter, the noisy stepping relay began its succession of clacking counts. Each count rattled the lab bench and shook the "mare's nest" of wiring. "Too much movement and my messy hook-up will short circuit," I feared. A sticky length of 3" wide yellow tape settled the issue, holding the stepping relay tightly to the bench top, frustrating movement of the electro-mechanical beast. As the last ounce poured through, I cautiously examined the counter's total, "3210" which translated into 32.1 ounces. "How marvelous, better than one percent accuracy," I congratulated myself.

Quickly, I shared this triumph with my clever supervisor. Wisely, he suggested further tests prior to demonstration of the "Squirt Meter" to division staff. Returning to the work bench, I poured several more times, noticing only a slight problem. If I poured slowly, the count differed a small amount from the desired 3200. "Certainly, this wouldn't upset anyone."

I alerted my boss that all was ready. Shortly, the upper level manager appeared, expecting an ingenious demonstration from the new Rice hire. Confidently, I handed him a full water beaker while I described the success of our "Squirt Meter." Placing his cigar on an edge of the work bench, he began to pour, at first quite rapidly, but then he tipped the beaker back, allowing only a trickle of water into the mouth of the meter.

"Even a cat, dog, or bird drinks faster than that," I fretted.

With apprehension, I looked at the final registered count... "2200 - our squirt meter had failed." Sheepishly, I tried to explain, but the manager interrupted, "It's no good. What if they wanted to use it as a URINAL?" (That was not exactly his choice of words for my invention. A more earthy four-letter expression was employed.) Abruptly, he stood, grabbed his cigar and left, chuckling as he went out the door.

"Next time I'll make sure I know the requirements better before I demonstrate," I resolved.

Though I was the new hire, the so-called veterans had only a few more years with NASA. Few employees joined NASA MSC prior to 1963, so most of the workers had no more than a few years experience with manned spacecraft. Yet, those few years might as well have been twenty years. The hiring gate abruptly closed after I passed through it. I often thought how amusing it would be retiring "old and gray" as the "new hire."

During those formative years at NASA, another engineer in my section had a profound influence on my life. Though Ron had only a year's more seniority, he had acquired more experience in that year than most men might in a decade. This experience was not altogether work related though, and to a bachelor eager for an improved social life, his social expertise seemed quite impressive.

Having a unique personality, Ron was a charming individual. Though his charm was an unusual mixture of charisma, boldness, and brashness which blended (at least for me) into a person of puzzling personality. I found myself both bothered and blessed by Ron, and at times envying him. Ron was in a class by himself, a total "operator" like the "Fonz" of HAPPY DAYS fame.

NASA's Moon program needed people with Ron's abilities to keep equipment manufacturers from becoming lethargic. Sometimes a "wait-and-see" attitude just wouldn't work, so engineering "tiger teams" busted up technical "log-jams." Ron was a great "tiger", though his growl was much worse than his bite.

On one occasion, I accompanied him on a trip to Los Angeles to review the status of spacecraft display panels. At the company plant, the parking lot security guard made the mistake of hassling us because Ron had not parked in a designated customer's spot. Angrily the guard yelled,

"HEY BUDDY - MOVE THAT CAR OUT OF THERE OR YOU'RE GOING TO SEE IT TOWED OFF."

With a controlled icy firm voice, Ron stared at the guard and fired: "As the customer, NASA, I don't appreciate being treated like this. Give me your name and badge number my friend."

I watched the guard's face melt into a placating smile.

"I'm sorry buddy; I've got a wife and kids to feed. It's fine if you park there."

I knew Ron wouldn't have spoken to the plant officials, but Ron's bluff got a response. It was

this ability which often made me envious. Ron would strut before a management meeting cockily explaining his total command of a situation as though he were the program manager rather than just another engineer, like me, though having an extra year's seniority.

But when his method "backfired". I relished the thought of his punishment. Ron had tackled some really "big-fish" at a spacecraft manufacturer's plant. This time the abused party wasn't a plant guard but a vice president, and Ron had been overbearing in his dealings. The vice president lodged a formal protest with NASA, venting his anger by calling the Command Module Program Manager.

Shortly afterward, the Program Manager called the Display Manager to his office. Aware of Ron's antics, the Display Manager insisted both Ron and I accompany him to the meeting. Walt, the Display Manager, sat closest to the Program Manager's desk. Ron's chair was next to Walt's, but a large file cabinet stood slightly behind and between them. I sat at Ron's left facing the Program Manager. During the interview with Walt, the Program Manager recalled the unhappy incident with the outraged vice president. In a grave voice he spoke,

"I understand there is a man in your subsystem who has caused some problems."

"Oh, was this going to be fun, finally Ron is going to be punished!" I thought.

"Who is this one? Point out the man who has offended our supplier."

Walt started to point at Ron, but Ron, seeing the confrontation coming silently slid his chair behind the file cabinet with an abrupt shove of his feet. Though I saw what was coming, I was powerless to prevent it. Without looking, Walt motioned at me as though to say:

"THIS IS THE MAN."

Sullenly, the Program Manager glanced at me before changing the subject. A few seconds later, Ron casually inched his chair from behind the file cabinet so that no one but he and I knew what had happened. My face flush, I fumed, "That fox has escaped again, and at my expense."

Chapter 6.

Prototype Playboy

My period of NASA "internship" lasted about six months. A need for more men visiting spacecraft manufacturer's plants transformed me from a cocoon-like junior engineer into a novice butterfly assistant to the Apollo Displays Manager. This thrust me into the lunar landing program, an engineering jungle of all species of technical animals: the spacecraft systems, the lunar flight plans, the crew checklists, and the program production schedules. But most untamed of these "beasts" were the countless reviews assuring the highest quality space hardware was

installed in the lunar spaceships.

Trips to the spacecraft builder's plants, North American Aviation in Downey, California near Los Angeles and Grumman in Bethpage, New York on Long Island became my "safaris". I'd be stalking the spacecraft's design and hunting for mistakes in a jungle of system drawings, test results, and specifications.

Continental Airlines served as my safari "land-rover" for the 1500 mile trek to Los Angeles. In 1965, many treats delighted passengers in contrast to today's "Peanut" and "Chicken Feed" accommodations. Then one was routinely entertained in tourist class with first-run full-length movies, stereo music, and complimentary wines. Such a trip was a welcome swap from my nightly fare of television and Swanson's dinners.

For a young bachelor after hours Los Angeles offered the "glamour" Houston lacked. It was no surprise that so many looked forward to trips to L.A. even though a few shortcomings prevented ready access to the pleasures of "fun city". NASA forbade use of government vehicles (called "gray ghosts") after working hours. Also the trauma of eight hours "combat" with a "stone-walling" North American engineer often left a person listless to the garish "sun city" night spots.

Though the lusty voice of city night-life had silenced since my final year at Rice, the temptation availed by Los Angeles trumpeted like a ram's horn. But I was not alone in wanting to enjoy L.A.'s nightspots. Meeting Ed opened the door to this pursuit of pleasure.

Ed supported our subsystem as one of the more than 7,000 subcontractors who worked at the Manned Spacecraft Center. When Ed traveled with me, all obstacles to a night-on-the-town lifted. As a contractor, he could rent a commercial rent-car with a mileage allowance of 100 miles a day: ample for a trip to L.A.'s Sunset Strip and back to our motel, the Tahitian Village. Ed predated me in the Apollo Program. A feisty sort of fellow, he loved tangling with the North American system managers. If I gave Ed my agreement on a needed change, he badgered the adversary the entire day. Ed fought the tough battles for me leaving my nerves tranquil by the end of the day.

The Playboy Club on Sunset Boulevard was Ed's favorite nightspot. At 5:00 PM we would emerge from the plant parking lot in Ed's rent car and drive to the Playboy Club. Ed really liked the place. He even enrolled as a lifetime member though Playboy had no club in Houston. That was fine with Ed, since he took ample trips to New York and Chicago. Both cities had Playboy Clubs.

Arriving at the club entrance, I'd sigh a breath of envy when Ed pulled his silver key from his wallet and presented it to the majestic blonde or brunette bunny guarding the entrance. After my first visit, I had to join this "select group" and sent off \$25 for a lifetime Playboy key. After a

month's wait, key number 57929 became mine.

The Playboy Club proved to be a refined spot compared to other sex-oriented "girlie" clubs like the Pink Pussy Cat and Boom Boom Room which Ed and I visited on later trips. After awhile all these spots sloshed around my mind in a mire of perversion and disgust. Then one day, I dropped my key into a desk drawer where it lay dormant indefinitely.

Besides, it was time that I pursued the flock of lovely domestic females rather than watch a flock 1500 miles away once a month. If there was one person who could help in such a pursuit, it was Ron, who was obviously gifted in finding attractive single young women. By watching and listening carefully, I'd find a girlfriend comparable to those beautiful women Ron was often seen with.

One Friday afternoon I interrogated Ron, hoping to discover his method. Without much goading, he proudly listed a half dozen ways to both locate and date pretty girls, classifying our prospects into four categories: (1) local NASA secretaries; (though competition was stiff), (2) airline stewardesses (less competition but a transient group), (3) divorcees (more scarce than secretaries and often too old for us), and finally (4) school teachers (a very excellent group, perhaps the best prospects).

Having dispensed with classification, Ron moved into search and find approaches. Among these were: (1) befriending a matronly apartment manager who might arrange for us to clean the apartment carpet of a pretty prospect, (2) spending Thursday evening at the Ellington Air Force Base Officer's Club where many single girls of all categories came, hoping to meet eligible men, or (3), as a last resort, enrolling in a computer dating service or singles club (this he spoke of as the least promising unless you programmed the computer or organized the singles club).

The third area of Ron's mastery was catching the "game" once it was located. Ron's capture techniques measured far above his other abilities. Perhaps his most impressive scheme was the rich-young-NASA-engineer-playboy approach. Though we were paid well, we were surely not rich, and to give such an impression to "snow" a date was a formidable task.

Houston's impressive spots were the private clubs established to skirt the "dry" liquor laws of Texas. Among these were Glen McCarthy's Cork Club, the Tidlands Club, and the Warwick. All had expensive membership fees and high monthly dues.

"Take a date to several of these places in an evening, and she won't soon give you up for another guy," Ron said.

"But Ron, can we afford such a place?" I argued.

"Let me demonstrate." Picking up the phone, he dialed a local listing.

"Hello, this is Mr. James with NASA. I'd like to speak to the Cork Club manager."

After a brief pause, Ron continued,

"This is Mr. James with NASA. I'm interested in joining a club in Houston and wonder if I might try the Cork this evening?"

Another pause,.. "Fine, I'll be there with a guest around 8:00 PM then."

Ron hung up, "Like to see the Cork Club tonight, Jerry?"

In the next several weeks, we tried the Cork Club, Seville Club, Top of the Mark, Tideland Club, and others without paying a cent of dues or membership cost.

Then Ron cautioned me, "It would be wise in the event that your relationship with a young lady is extended that you join one of these clubs."

"But," I protested, "the expense?"

Again Ron had a plan. By convincing a club proprietor of the prestige NASA members offered, he arranged a "deal": no initiation fee and a nominal monthly charge of \$6.00.

Having completed my training to Ron's satisfaction, he granted the graduation diploma,

"I think you're ready now. There is a group of airline stewardesses I've discovered (I think he used the cleaning trick). I like one of them, and there are three others."

Ron had my interest. "When do we start?"

"Sunday evening."

Though I appreciated Ron's help, once introduced to a date, I felt I could take over unassisted. Never at a loss for words, left alone I'd be comfortable without Ron's coaching. So our meeting with the airline hostesses went quite well though their flight schedule "washed out" a follow-up date.

But Ron had "struck-it-rich" and I would share in the reward. Beneath the stewardesses lived four beautiful single school teachers. Once more Ron appeared at their door as the helpful "handyman" three more "handy-men" would be needed.

Ron lived in the LeGulfe Apartments less than a mile from my single bedroom flat in the Tally Ho's. Returning from work on evening, I changed into casual clothes and put a Swanson dinner in the oven. By 6:45 PM, I was on the road to the LeGulfe's looking forward to seeing Ron. Though we had not discussed specific plans for the evening, I skipped up the stairs anticipating

what Ron had planned.

The interior of Ron's apartment was a stereotype bachelor's "dug-out" - stereo, weight-lifting equipment, and a clutter of auto-magazines.

"What's up tonight?" I asked.

Ron's eyes shot me a coy look, "Let's try those school teachers I mentioned to you."

Not having dressed for this opportunity, I tried to postpone the meeting, but quickly Ron erased my apprehensions.

"Jerry, I think the blonde Stephen F. Austin Homecoming Queen is there with the girl I'm dating. She'll be your date if we go tonight."

My fears dissolved. "Ron sure knew how to disarm an argument."

Standing in the kitchen behind the serving bar, he asked, "What time is it?"

I looked at my wrist. "No watch." A gaudy Pearl Beer clock sign, a remnant of some tavern's cast-offs, hung in view.

"Seven, Ron."

"Just right," Ron snorted as he called the teachers' apartment.

In five minutes we were at their door. Ron's date, a blonde whose beautiful features reminded me of statues I'd seen of Egyptian Empresses, greeted us. Standing alone, she must have noticed my awkwardness,

"Betty will be out in a moment," she assured me.

Expectantly, I watched the hall for this blonde homecoming queen named Betty. Though I preferred brunettes, blondes would do, especially pretty ones. But it was an attractive young woman with black hair who walked into the room, sitting beside Ron's date. She wore lavender slacks with a matching floral colored sweater which gave her a casual but neat appearance. No longer thinking of the blonde college queen, I greeted this attractive brunette school teacher: "My name is Jerry."

Ron's date interrupted, "This is Betty Beck."

"This is my date then. She must have died her hair black since Ron saw her last, but I'm not complaining. She looks great."

Again I spoke, "How are you Betty?"

When she answered with a wide smile, I knew I was going to enjoy this evening very much.

The Candlelight Ice Cream Parlor in Pasadena, Texas, the girl's and Ron's pick of a place for our date, really handicapped me.

"How was I going to impress Betty at such a place, with only \$1.75 in wallet and pocket change."

Hurriedly, I ordered first, a single dip vanilla cone. Betty followed suite, ordering a modest dessert. Relieved that I could afford the bill, I was nevertheless upset over the poor initial impression I was making. Now it was going to take some effort for the rich-young-NASA-engineer-playboy to be convincing.

By 10:00 PM our "blind" date was over. I wondered whether there would be another chance to apply Ron's techniques." How I wanted this school teacher to like me. Unfortunately, our follow-up date would be postponed, indefinitely. NASA had intervened, sending me to the Grumman Plant on Long Island, New York.

Chapter 7.

"THE CALL OF THE WILD"

The craft called LEM (Lunar Excursion Module) was an aerospace enigma. Grumman held a reputation for building ugly but awesome performing aircraft. World War II buffs cited the Grumman Hell Cat Fighter in support of this "ugly but awesome" theory, noting the blandness of the plane's lines but bragging on the superior performance "specs." This ugliness paranoia affected Grumman's own ranks. I'd heard more than one plant engineer apologizing for LEM's (Lunar Excursion Module – later renamed the LM, Lunar Module, when scientists discovered the lunar surface was void of deep pockets of lunar dust which would have required "excursion" to a less *moon-dusty* landing site) appearance but praising her design. Viewing the ungainly four-legged beast, I was hard-pressed to offer consolation.

LEM wasn't expected to win any beauty contests. Needing no stream-lining, she was perhaps, the first "true" manned spacecraft operating solely in the vacuum of space.

"So what if she looked like the mating offspring of an eagle and a spider. As long as she set her nest on the Moon and spun a web back to the orbiting Command Module, no one would complain."

Our reviews had passed cosmetic changes; henceforth we'd be considering LEM's hidden qualities -- her fluid plumbing, her electrical nerves, and her computer brains. Still, for most of us, she remained a dream in a designer's sketch book. There had been "mock ups" of course, but who could judge LEM looking at a mannequin. Assurance of her character could only come through reviews of her "inner-beauty".

My ticket to this design review was a vacant seat on the NASA executive aircraft, NASA I, a Grumman turboprop Gulfstream, which seated 12 passengers. NASA I operated from the astronaut aircraft training facility at Ellington Air Force Base adjacent to the Manned Spacecraft Center. The January weather was balmy enough for smooth flying from tropical Houston, but snow-bound Kennedy Airport in New York was a questionable landing site.

The trip to New York went quickly, riding a 100 mile per hour tail wind adding to NASA 1's 360 knot cruising speed. This gave the propeller driven craft a speed in a league with the popular Boeing 707 jets. Our landing site was aborted from Kennedy to LaGuardia where runways were clear for landing. Because no rent cars were available there, we waited several hours while a fleet of cars came to us. By midnight, we were on our way to a motel near the Grumman plant. There we would have a few hours rest before our morning meeting.

The Grumman plant was nestled among a quaint flock of towns with Indian names located 40 miles east of New York City on Long Island. Quaint pubs featuring the delights of Long Island Duck and Cape Cod Lobster kept most of us near the plant for dinner. Having my Playboy key now and a curiosity about Times Square, I was not interested in dining locally.

Because Ed wasn't along, I assumed his role, enticing a bachelor friend to share an evening in Times Square. Conveniently, the Long Island Railroad offered a commuter service from the eastern part of Long Island to Pennsylvania Station in lower Manhattan. But from "Pennsy" station, I'd need directions to reach Times Square, home of the Playboy Club and other adventures. A Grumman engineer obliged by mapping the subway route I should take. Speaking in a speedy-staccato accent, he quickly lost me, mentioning acronyms like the BRT and LRT, Manhattan subways, I presumed. Fearful of losing my way, I insisted he sketch a map. After careful study of his sketch, and with map securely in hand, I set out for Times Square at 6:30PM.

The trip into Manhattan reminded me of a movie I'd seen called Journey to the Center of the Earth. We seemed to be traveling on a gradual incline into some sort of deep trench. After a smooth transfer at Pennsy Station, we emerged from our subway into the bright lights of Times Square.

My impressions that evening and on two later visits to Broadway were consistent: I was probably seeing New York City in her worst light, in a setting where life's blemishes were brought brightly into focus. In those visits, I had picked the City's worst moments; it was like judging a woman's

personality after waking her in the middle of the night, finding her without make-up, grumpy, and irritable. Those of us enjoying the "Big Apple" at night were generally there for the wrong reasons so that our judgment was a distortion of the real character of the City.

Yet it was difficult forgetting the brazen prostitute who propositioned us off Broadway, or the "porn" shops teeming with well-dressed executives - nor could I forget the roving gangs of youths, or the street vagrants and winos who seemed as much a part of the scene as the brightly lit Broadway theater marquees. Each made an impact, some more lasting than others, but all contributing to the nightmarish quality of my memories.

Then sometimes the view of those blemishes became so magnified as to really frighten me, like the drunken vagrant who stumbled toward me down the aisle of a Long Island Railroad car. Choking on sour wine and mucus caught in his throat, he smelled of stale alcohol and tobacco. A wheezing cough sounded intermittently from lungs damaged by emphysema or pneumonia.

As he approached, revulsion and fear swept through me. Though I hoped he would quickly pass, the sway of the commuter car upset his wobbling gait causing him to sink to his knees at my feet. Sensing I was watching, he starred at me. While crouching, he steadied himself placing his right hand against the steel tram floor. I watched his free left hand, the knuckles hard against the floor, the palm cupped upward from his extended arm. Slowly he lifted arm and hand as though he held his decaying body in the up-cupped palm. Simultaneously, he straightened his wobbling legs, groaning,

"I'm coming up, I'm coming back. I'm down now, but I'm coming back."

This wreck of a man posed a pathetic sight, asserting a last visage of pride for my benefit. It seemed so futile. Certainly he wasn't going anywhere but down. No one cared about him. Neither had he the power within to change the course of his life. His act before me was nothing but a farce, the end to his story was obvious. It was too late for any more miracle reforms.

"And should I feel sorry for him when I really didn't have any more answers than he did. After all, my intentions in Times Square were no more righteous than this man's habits which led to his depraved condition. Furthermore, did I possess any more inner strength to change the course of my life than he to change his? Could I say, 'I'm coming back.' Or worst than that. Had I ever been there in the first place?"

The return flight to Houston was prolonged by a head wind. To pass the time most of the men played cards, while I read and chatted with a friend in astronaut support. An astronaut's presence on the flight made the five hour trip less dull. Like all the astronauts I'd met, he too had a quick mind and likeable personality. But beyond that he seemed very much like the rest of us, enjoying the mixed drinks and playing cards. I did note that he appeared tense and smoked a number of cigarettes. This surprised me. In my naive view, I didn't think astronauts were ever tense or smoked or had a cocktail (or two), "But then why shouldn't they? They are subject to the same

stresses, problems, and habits," I concluded.

Chapter 8.

Bull Fights and Beau Fights

It was remarkable how often I'd thought of that 5' 3" brunette Betty Beck during the week on Long Island. One thing was certain, I must choose a better spot for our next date. But regardless of my good intentions, again Ron intervened, persuading me to double date once more, this time to a BULL FIGHT. An ambitious promoter had convinced several Spanish matadors that Houston's Astrodome would make a good arena to launch bull fighting as the new American pastime. Though reluctant to join Ron, I remembered how obliging he had been, introducing me to Betty. I owed him the courtesy of joining the group.

When Betty greeted me at her apartment, I found her more beautiful than I recalled her from a few weeks ago. She wore a two-piece dark-blue double knit suit appropriate for the cold February evening of the bull fights. Escorting her into the Astrodome, I felt proud being seen with such an attractive young woman by my side. I wished that one of those crowd photographers would pop up and record us together.

Besides Ron and his date, another couple had joined us. Watching the matadors exercise prior to the fights, I noticed Betty talking at length to the couple Ron had invited. "Was she interested in the fellow next to her, or was she just being polite?"

Since losing my high school girlfriend to an Indiana University "frat-man", I'd acquired a "touchy" inferiority complex. At the first hint of competition, I would promptly drop the lady prospect, fearing a repeat of the hurt I'd experienced. As Betty talked, I became more angry. Watching the gory bloodletting of those Mexican bulls further aggravated my disposition. After an hour, the score stood: Matadors 3, Bulls 0. Feeling as angry as any of those "stuck" bulls, I stood, walked to the refreshment stand, and ordered two Cokes. When I returned, Betty sensed I was upset. Hoping to mend the damage, she began to talk only to me. Feeling severely wounded, I vowed this would be our last date. Nevertheless, when Ron mentioned later that Betty was asking about me, my pride quickly healed.

Though I planned to call her for another date, again NASA intervened: I was to travel to North American Aviation in Downey, California. There, my assignment would be to monitor tests of the Apollo Spacecraft Warning System.

If the bull fights discouraged our relationship, this trip might have terminated it. Though I'd not actively dated since high school, application of Ron's techniques had introduced me to another girl besides Betty. Carol and I met at the Ellington Air Force Base Officer's Club one Thursday night. (search and find approach number 2). Though I enjoyed Carol's company, I wasn't attracted to her as I was to Betty so I'd simply allowed that relationship to drop.

Henceforth, I'd date one girl at a time. Betty would be that girl.

A few weeks daylight occurred in my NASA travel schedule, permitting me to use Ron's nightclub ploy at the Cork Club. It worked! Betty was impressed. Following up with the local Seville Club, I used Ron's "guest-of-the-manager" approach. After two such dates, I saw the wisdom of Ron's advice to join an inexpensive club. So our "favorite spot" became the Top of the Mark (\$6 per month), a club perched 14 stories above Montrose Boulevard in a building owned by a life insurance company - an appropriate owner since I felt its club tenant was my assurance to continued dates with Betty. Yet, reflecting on our relationship, I realized that the whole night club scheme was really unimportant. We found as much happiness together shopping at Joske's as dancing at the finest club in town.

Shortly after this discovery, I made a phone call to my mother telling her I loved Betty and had asked her to be my wife.

We were married in June of 1966 - and of course our wedding party could not have been complete without one very important person: that would be Ron. For he deserved an honored place as one of the groomsmen since it was his instruction and social brilliance which were in a large way responsible for our marriage.

Chapter 9.

The Birth of America's First Manned Moonship

Though newly married, I would not enjoy the luxury of a sabbatical from travel. With both the Lunar Lander's and Command Module's warning systems my responsibility, I had no choice but to scurry east to New York and west to Los Angeles.

NASA planned a manned test flight for the first of the "litter" of Command Module moonships. This first "offspring" was designated as Spacecraft Twelve. Her maiden voyage would be in the first months of 1967. Later Command Modules would ferry astronauts to the moon and back, serving as "mother ships", while the spider-legged Lunar Excursion Module, or LEM, played the "leading role", carrying the spacemen to the Moon's surface and back to the mother ship.

But LEM, despite her honored role, remained an embryo while Spacecraft Twelve neared birth. Confidence in the second offspring LEM would be greatly enhanced by a successfully delivery of

the first Command Module. My part in the delivery would be "Twelve's" warning system, an electronic "policeman" who "blew-the-whistle" on the spacecraft's malfunctions. The whistle in this case was a loud tone in the astronauts' ears coincident with an amber warning light. And though the warning electronics were fabricated at the Autonetics plant across the Santa Ana Freeway from Disneyland, there was nothing "mickey-mouse" about this complicated system.

In June of 1966, an ominous situation surfaced regarding the warning system. During final tests of Spacecraft Twelve, the system sounded scores of alarms. Though I was not responsible for the alarms, I was expected to explain their cause. Because the warning system was acting as a policemen, its judgment was being challenged. And so to protect the honor of my project, I set out to become an expert in all the systems monitored.

As study raised my spacecraft "I.Q.", I was consulted by engineers, astronauts, and flight controllers as the warning system "expert". Returning from lunch one day, I was awed, finding an Apollo astronaut sitting at my desk, waiting for me to answer a question on the warning system. Someone had directed him to me for the information he wanted.

July of 1966 marked the crucial period for my work on Spacecraft Twelve's warning system. The occasion was the final plant review of Spacecraft Twelve's status prior to shipment to Cape Kennedy for a planned launch in February of 1967. I was present among the hundreds of NASA, General Electric, TRW, and IBM representatives from Houston participating in the Los Angeles meeting.

Key parties in the review included the prime Apollo crew who would fly Spacecraft Twelve, the Apollo Spacecraft Program Manager Joe Shea, and NASA Headquarter's directors from Washington, D.C. The prime crew, Gus Grissom (one of the "original seven" astronauts), Ed White (first American to walk in space), and Roger Chaffee (a rookie spaceman) were especially interested in each test alarm and the astronaut warning system. It was going to be a tough trip for me, and I didn't relish the "grilling" I expected to receive.

North American, Spacecraft Twelve's builder, required all visitors have a plant badge obtained at the admission's office. When I checked-in for my badge, I met Roger Chaffee, Twelve's crewman, also registering. Roger was a clean-cut handsome man of thirty-one years who looked much younger. When he recognized that I also worked for NASA, he smiled and greeted me before entering the plant. Filling in the admittance form, I felt good about seeing Roger, knowing that I'd be discussing the warning system with him later.

Leaving the plant security office, I located the documentation area where I found the Spacecraft Twelve DR's - discrepancy reports. About twenty dealt with the warning system. Listing each in my notebook beside the test in which they occurred, I recorded the condition of spacecraft systems they related to. Quickly, I'd explained more than half of the twenty alarms as normal for the test set up.

The warning system was difficult to test in the factory. These were "dry" tests, no propellants in the tanks, no fuel cells operating. This left circuits tested by the warning system "off-limits" so that alarms came on and remained on throughout the tests. Further study of the DR's showed only four or five alarms as unexplained - either disguised by test set-up or out-of-sequence procedures. These would be more difficult to defend before the review board. I glanced at my watch. I'd spent most of the day resolving these "squawks". The rest could wait until tomorrow."

Traveling together, Walt and I shared a room in the Tahitian Village Motor Hotel. Though Walt snored and smoked cigars, I considered him a good roommate. Being a light sleeper, Walt would protect us from being burglarized. He had already foiled one cat-burglar at the Pickwick Motel on Long Island. The "pick-pocket" entered our room after midnight. Wakened, Walt yelled, "Who's there?" All I remembered hearing were the felon's feet scampering down the third floor balcony stairs. Since then I hadn't objected to Walt's cigar smoking and snoring.

The Tahitian's greatest attraction was low cost - only \$7.00 per night. In addition the motel offered a style show with briefly clad models and also Polynesian decorum - palm trees, thatched huts, and coconut ornaments. Though not impressed by such frills, we did appreciate the coffee shop, and the government worker's breakfast, a \$1.35 meal of two eggs, bacon, toast, and coffee.

The second morning of our stay, we ate in the coffee shop. Waiting to be served, we discussed yesterday's near abort of the Gemini launch: The Gemini Program kept the NASA space effort vital during the eight year preparation of the Apollo moonships. Gemini trained astronauts, flight controllers, and design engineers in the mechanics of spaceflight, exercising skills required for landing on the Moon.

Yesterday's launch was dubbed Gemini 10. (July 18, 1966) Though I knew little about Gemini other than I gleaned from the newspapers and Walter Chronkite's descriptions on television, I did know that Gemini's launch escape system differed from Apollo's. For rescue of the astronauts, Gemini used two aircraft ejection seats. In the event of an explosion of the booster during launch, the seats jettisoned from the capsule, then parachutes deployed, landing the astronauts safely.

Apollo used a powerful launch escape rocket attached to the top of the crew capsule. If the crew aborted, the escape rocket thrust the capsule safely from the exploding booster, then parachutes deployed landing the crew in the Atlantic Ocean.

Yesterday's launch might have required those ejection seats. With the lift-off command, the Titan's engines failed to reach lift-off thrust, shutting down automatically. Had the astronauts panicked and initiated an abort or override of the automatic shutdown, the mission might have been scrubbed.

Astronauts John Young and Mike Collins made the right decision by simply doing nothing. A

dust cover inadvertently left on a critical part was responsible for the engine shutting down. The cover was removed and the ensuing launch was perfect.

Wondering why our breakfast hadn't been served, I noticed astronaut Roger Chaffee entering the coffee shop. Walt, acquainted with Roger from other reviews, called out, "Roger, join us for breakfast." Having met yesterday morning in the admissions office, Roger recognized me when he sat down.

"What did you think of the launch yesterday?" I asked.

Roger gave his view, "John Young was a really cool head. If he would have gotten excited and pushed the auto-release on those launch straps or aborted, the mission would have been scrubbed. Just sitting there was the right thing to do and John did it."

I thought of a newsreel I'd seen featuring a historic world series game. Three men were on base, and a run needed to win. A pinch hitter came to bat. In five throws the pitcher walked the pinch hitter, bringing in the winning run. The incident reminded me of yesterday's near abort. Sharing the story with Roger, I concluded, "You know sportswriters and fans made that batter a hero, saying he really had an "eye" for those pitches. "But they questioned him later, and he said it wasn't anything he did. He simply had been too frightened to swing. Like a granite statue he just stood there. Maybe that was the reason John Young did the right thing by doing nothing?"

No sooner had I finished, than I felt ashamed of my words, wishing I could have retrieved them. "If Roger wanted to make John a hero, John should be a hero. Why couldn't I keep my mouth shut?"

Roger was that kind of person, sharing a word of praise for a friend when he could. Though I envied his position as an astronaut on his way to the Moon, I suddenly liked him very much. Later that morning, Roger sought me out in order to review warning system status. After a few minutes, I realized he knew nearly as much about my system as I did.

Entering the board room at 8:00PM, I took a seat near the rear. As usual the atmosphere had an acrid cigar and cigarette smoke odor. Though L.A.'s smog had irritated my eyes for the past two days, I preferred it to this stale air. These reviews "hooked" many on cigars. The "stokies" ranged from cheap Red Dots to expensive Gold Labels, but regardless of price, smoking them was said to make the time pass faster. "At least Roger, Gus, and Ed (the prime crew: Roger Chaffee, Gus Grissom, and Ed White) aren't smoking," I thought.

"If anybody had a reason to smoke, they certainly did, having listened the longest. "I suspect they felt like customers about to buy a new car who wanted to make sure the "bugs" were fixed so that they wouldn't have to return the auto to the dealer later for repairs. On the other hand, they needed to use the vehicle and couldn't be so particular as to call the deal off .

Finally our turn came. All but two of my squawks were explainable. These could be verified later after delivery of Spacecraft Twelve to the Cape. They were minor discrepancies which should not upset the board. My analysis of each alarm passed as expected. A difficult but worthwhile effort was complete.

"Spacecraft Twelve had its problems, but they were as minor as a new car with a sticky ashtray, discolored paint job, or miss-sewn upholstery. The main systems would work perfectly, and if not, then the warning system would save the day, advising the astronauts to switch to a backup system," I concluded.

Chapter 10.

The Death of America's First Manned Moon Ship

Spacecraft Twelve's review separated Betty and me three weeks after our honeymoon. Having really missed her during those three days, I vowed to keep my travel at a minimum. Then came the assignment to the Lunar Module (LM) warning system and I was traveling to New York only three weeks after returning from California. Soon trips to New York became a monthly routine. And though Betty faced them courageously, she didn't enjoy staying by herself.

I hoped for a lull in my work, but now was an unlikely time. Spacecraft Twelve was in final tests at Cape Kennedy, preparing for launch in February of 1967. With a successful mission, all stops would be pulled for the race to the finish line, a successful lunar landing in 1968. Yet a lull was very near. Unfortunately, the source of the delay would shake the entire nation and have a profound effect on the course of the space program.

January, 1967, I returned from a trip to Los Angeles. Landing at Hobby Airport, I encountered a cold damp winter day. "Fortunate that I lived so close to the airport," I thought. Betty's warm greeting quickly dispelled the chill I felt, "Jerry, Aunt Vi has invited us for dinner Friday. I know you are tired, but we'll enjoy it."

"Yes, I was tired, I've been gone for eight days, but if Betty wants to go, I'll enjoy going. After all, she's had to sacrifice her time for my trip."

If a person wants to recall where he or she was or doing on a given day, perhaps five, ten, or twenty years ago, a good technique is to locate a modern history book and hunt for historic events of that era. Usually you can recall quite readily your setting when for example; the Japanese bombed Pearl Harbor or President Kennedy was assassinated. And so it was for me Friday, January 27th, 1967. The events of that day remain fixed in my mind though they occurred years ago. I was having dinner that evening at Betty's Aunt Vi's. The television remained on while we

ate. Suddenly, I heard an announcement interrupt the regular programming:

NEWS BULLETIN: REPORTS FROM CAPE KENNEDY ARE THAT THERE HAS BEEN A FIRE IN THE SPACECRAFT AND ONE OF THE APOLLO ASTRONAUTS HAS BEEN INJURED.

I thought of Spacecraft Twelve, "What's going on? I didn't think any testing was going on tonight. But what do I know about Cape testing anyway? "

Leaving the table, I waited for further word. Shortly another bulletin filled in details:

FURTHER WORD INDICATES AT LEAST ONE OF THE ASTRONAUTS IS DEAD.

"Which one?" I wondered, "And what could have happened?"

"Was it Gus... or Ed White . . . or Roger? "

Then in not many more minutes the sorrowful news - this time the announcement was given from a network studio:

THE FIRST CREW OF APOLLO ASTRONAUTS HAS PERISHED IN A FIRE IN THE SPACECRAFT ONLY MINUTES AGO. ALL THREE ASTRONAUTS ARE DEAD... I repeat... THE APOLLO ASTRONAUTS HAVE PERISHED IN A SPACECRAFT FIRE AT CAPE KENNEDY ONLY MOMENTS AGO ...for further information stay tuned...

I slumped into a padded arm chair. "How could such a thing happen?" My mind stammered. My spirit was numbed by the shock of the sudden tragedy. Saddened, I switched off the television. The thought of what had just happened to my friend Roger was too painful. I didn't want any more details for now - "Who needs anything more than has already been said? It's over for them and maybe for the space program too."

By Monday morning, I remained ignorant of the details of the terrible accident. No one spoke very much about it, possibly thinking silence might heal the hurt we all felt. But of course, an investigating team of spacecraft "coroners" would be chosen from our ranks to "pin-point" the source of the fatal fire. A uniform humility and brokenness affected all system managers as they, like I, wondered if their system had been responsible.

"What about the Master Alarm? It should have called attention to the danger. Why hadn't the warning system served its purpose?"

Our office phone rang - jolting me as though it was the alarm tone ringing in my ear.

Walt answered. "Yes, this is the Displays Manager...When should I be at the Cape?...I'll leave tomorrow then."

The silence had ended. It was time to start talking, speculating on the source of the accident, analyzing the audio transcripts of those last seconds, reconstructing the chain of events, and sifting through the ashes of Spacecraft Twelve's remains to find an answer. "The only thing to do...it must never happen again."

The reports began to come in daily from Walt and the news media - TIME, LIFE, the AP, the UPI, accounts that I couldn't ignore regardless of how depressing they appeared. The string of events began to explain the mystery of what happened;

"Yes, the caution and warning alarm had sounded. The Oxygen Flow Alarm had come on minutes before the fire, but like the proverbial boy who cried 'wolf' too often, it had been ignored as simply extra oxygen required by the astronauts' movements in the spacecraft."

I recalled the meeting with Roger and those two open alarms, one had been an unexplained Oxygen Flow Hi Alarm. "Was there any connection?" My question could never be answered. Three months of intense analysis provided only a speculation of the cause of the fire: possibly a shorted wire or connector somewhere in the vicinity of the Environmental Control Unit. Because blame could not be specifically placed, all shared responsibility for the dreadful accident.

Roger had been first to report the fire which had started under Gus's couch. Though Ed had started emergency egress procedures, the pure oxygen cabin atmosphere at fifteen pounds pressure had fueled the flame. Quickly, many incendiary items ignited. These flaming torches gave off lethal gases. In less than one minute, the crew was overcome by the fumes. The cumbersome hatch took ninety seconds to open in the best of conditions.

Soberly, I reflected, "What if I'd been in Roger's couch? How would I have responded to the emergency?" The answer was certain: my life would be over, and I would be no more. Such thoughts of the fire depressed me, playing repeatedly through my mind. It was as though the mention of the accident keyed a short-looped-tape message on a recorder which couldn't be shut off.

"How very fragile life is," I uncomfortably concluded.

Chapter 11.

"Who Was That Guy?"

Neatly I wrote on the first line of a 3-ring notebook sheet:
MARCH 14th, CALL TO GEORGE McCARTHY, GRUMMAN ENGINEER

This call would set the pace for hundreds to follow until the warning system landed with the first

men on the Moon. The sorrow of the Spacecraft Twelve fire had been displaced by the challenge of the lunar landing warning system. A thorough knowledge of each Lunar Module system seemed the best way to assure such an accident would never happen again. Prior to the fire, the overwhelming size of the Apollo work force, thought to be as many as 250,000 people, tended to discourage me. "What can I contribute to LEM that someone has not thought of?" I'd fret. But the fire demonstrated such thinking was a dangerous deception. And so I made the Lunar Module's warning system my work and my hobby, determined to make a contribution.

Pursuing a "Sherlock Holmes" study of the Lunar Module design, I developed an intuitive sense for finding design problems. Lying awake at night, I'd run "What If" drills, mental exercises which supposed spacecraft failures. For example, WHAT IF...two thrusters stuck in the on position? How would caution and warning alert the crew? WHAT IF... the temperature of thrusters overheated due to heavy use during landing? Would they generate a nuisance alarm during the crucial landing phase of the mission. Most of my contributions to the lunar landing program came as a result of these WHAT IF games played at all hours.

At times the WHAT IF's seemed almost supernatural as though some unseen power or force was planting them in my thoughts to correct problems in the LM warning system. Evidence of this unseen influence was apparent during a trip to Grumman. I was having lunch with Jim Riorden, the Grumman manager of instrumentation. Jim was a gregarious blonde headed Irishman with a sharp wit and keen mind. Talking to Jim about LM systems gave my I.Q. a 20 point boost. But over lunch that day Jim spoke little, forcing me to carry the conversation. Suddenly, I remembered a WHAT IF from a sleepless night weeks ago. It was an idea about caution and warning, a juicy WHAT IF.

"Jim what would happen after the lunar landing when the heat from the hot engine warms our temperature sensor in the landing radar warning circuit. Might that trigger the landing radar alarm unnecessarily while the astronauts are exploring the Moon. They'd have to return to the LM, cutting their exploration short to discover the alarm's cause. They'd find nothing more than a nuisance alarm. After landing no one cares about the landing radar. It had served its purpose."

Jim's face mirrored his thinking, apparently he saw the reasonableness of my suggestion. "Jerry you may have something there. We'll run a thermal analysis on the landing radar environment from touchdown to liftoff."



Caution and Warning Engineer Conferring during Apollo Mission with Grumman's Jim Riorden

As we collected our lunch trays I thought, "If what I think is so, we will save ourselves a great embarrassment during the first lunar landing." I could imagine what the news media and NASA management would think if the first men on the Moon were ordered to end their exploration hours early due to a nuisance Master Alarm.

Later I estimated the cost of the time they would lose. My calculations ran into the millions of dollars. If what I had discovered was true, I had earned my lifetime salary with NASA many times over in a few minutes of the lunch hour. Grumman would be getting a bargain also - a million dollar Apollo Program saving for a \$1.27 lunch.

A few weeks later, Jim had the study he promised. The voice in my head had been correct. That nuisance alarm would occur as I had guessed. The cost to correct the problem was negligible - one wire removed from the warning system. This would keep the nuisance alarm off saving our space program a real embarrassment.

"Best of all, I'd finally made a worthwhile contribution despite those other 250,000 who had already foreseen all possible improvements."

The discovery of the landing radar nuisance alarm gave me new found boldness in making suggestions to NASA management. Though on one occasion, this boldness nearly proved detrimental to my career at NASA. Because of the Apollo fire, a major redesign and fire-proofing of both the Command Module and the Lunar Module commenced. Also, the Apollo program manager was replaced by the assistant director of the Manned Spacecraft Center. The new manager, George Low, did an outstanding job of getting the program back on course. Later he was promoted to Chief Administrator of NASA. During the rework of the Apollo spacecrafts, George Low often spent ten to twelve hour days holding change board meetings. These met at the nerve center of MSC - the eighth floor conference room of Building 2.

The Lunar Lander warning system also received attention during the redesign. To avoid embarrassment and to get a "jump" on the types of problems I'd faced at the Spacecraft Twelve reviews, I teamed up with a systems engineer from the project office and interviewed subsystem

managers. Next I held monthly warning system status meetings at Grumman. Also, a secretary was appointed to log in each complaint against the warning system. After compiling these squawks, we generated changes to prevent nuisance master alarms.

By 1968, the period of heaviest activity, my trips to Grumman had become bi-weekly. But these preparations avoided some "nasty" problems later. Most of our changes could be made on the lunar landers which would land on the Moon.

Amidst this effort, our changes were brought before the Apollo board chaired by Mr. Low, Apollo Program Manager. Though my associate presented an open-shut case, it was late evening, and I suppose many of the board members: George Low, "Deke" Slayton, Cris Kraft, and others were weary of hours of change "pitches". Again the atmosphere smelled of cigar smoke though the ventilating fans were doing a fairly good job of cleaning up. Apparently this room's designer had foreseen such pollution.

The recessed ceiling lights blazed only on the enormous rectangular executive table around which the board members presided. The rest of us clustered in a remote gallery to the rear, long "mike" booms jutted obliquely toward the board members from the acoustic tiles in the ceiling. Black status charts depicting spacecraft delivery dates served as the side wall facade. To the front an elaborate electronic podium rested to the left of the board table. Two screens outfitted for rear projection formed the front wall.

I watched my colleague deftly operate the podium electronics, keeping both screens illuminated, so that his polished presentation moved quickly. For effect he employed a lighted pointer rather than the rubber tipped "hickory stick."

"A truly professional show," I congratulated myself.

Though my associate was doing an admirable job of explaining our approach for redesigning the warning system, the mention of the nuisance alarms troubled Mr. Low. Perhaps, he recalled similar alarms during Spacecraft Twelve tests. At any rate, he did not appreciate the depth of our work, suddenly interrupting our presentation,

"I want to appoint a special team headed by this board to look into these alarms and resolve this situation."

"Next item."

Before the next engineer stood, an alarmed feeling welled up compelling me to speak. I felt a total sense of injustice as though I had been tried in a court, convicted an innocent man. I must speak a word of defense despite the rules of board etiquette. Knowing I might be offending not only my associate but also my supervisor, this was one time I had to speak, regardless of cost.

"Mr. Low, may I comment one moment?"

All eyes turned toward me including Mr. Low's.

"If you will let us explain the depth of our review and the actions proposed, you will understand that another review would be redundant. We have thoroughly reviewed these alarms with both NASA and Grumman. I'd suggest that the person you appoint to this job first review our work."

Realizing how very quiet the room had become, I lowered my voice to a barely audible whisper as I closed,

"That's all I wanted to say. Thank you."

Hoping to lose myself in a crowd of nameless technical bodies, I joined the others filing out of the room. My friends gave me disbelieving stares commenting partly in jest,

"Wonder where you'll be working Monday?" I too was wondering what Dr. Low's reaction had been to my outburst.

A close friend who remained behind described the ensuing events later: "Mr. Low appeared slightly upset, but all he said was, "WHO WAS THAT GUY?" Quickly, my friend and some others in astronaut support had vouched for my technical soundness and my mental health. Furthermore they supported the work I had done redesigning the Lunar Module warning system. Dr. Low apparently agreed with my suggestions because our changes were incorporated. We continued as before, but more importantly my desk had not been touched when I reported to work Monday.

Chapter 12.

The Eagle Has Landed

Walt had just dropped two "sweet-pellets" into a cup of stemming black coffee,

"Jerry, I'm assigning you the third shift on Apollo 11. This you know is the lunar landing mission, the important one - more important than all the previous flights. You'll be subsystem lead man during that shift in the Mission Evaluation Room (MER), but I also want you in the back-room during the landing so I can get to you quickly if any alarms occur. Work things out with your family."

"Now it all seemed so routine when only a few years ago, it would have been considered science-fiction, landing on the Moon."

I remembered President Kennedy's goal and that day in Rice Stadium. "How long ago was It? Almost seven years. Now we were going to better that goal by about a half year."

Lunar Module number five or LM-5 as we called her would share the honor of being the first manned vehicle on the Moon with Neil Armstrong - first man who would stand on the Moon. Those of us in the spacecraft engineering corps knew LM-5, the Eagle, much better than we knew Neil. But we had the same confidence in Neil as we had in Eagle. By coincidence, I'd met both LM-5 and Neil face-to-face once. Both meetings had been brief. At the time of each, neither LM-5 nor Neil had been assigned "The Landing," as Apollo 11 was sometimes called. And so I'd failed to pay attention to traits which deemed LM-5 or Neil especially "fitted" to the task.

I remembered Neil from a measurements requirements meeting held in Building 2. Neil was clean cut, an almost mod-dressed man, reminding me more of an electronic sales engineer than a jet pilot or astronaut. Perhaps, it was Neil's suit and tie, unusual dress for an astronaut, which gave me that impression. Most astronauts wore airmen fatigues or knit short sleeved shirts comfortable for their NASA life-style of extensive flight training and physical conditioning. From the beginning, space center employees had abhorred formal dress - maybe it was the hot damp Houston climate. So that Neil's garb was not the usual dress for astronauts at meetings.

My memory of LM-5 was more vague than my memories of Neil. It had been on a visit to Grumman for a caution and warning review. I'd never seen the warning system in its installed location in the Lunar Module. Wanting to, I arranged for a visit to the LM "white room", an antiseptic final assembly area for all LMs.

Prior to entering the White Room, I had to show my badge, sign a check-in board, and log my entry time beside my signature. Next I donned a white plastic robe then tied a plastic cap around the top of my head giving me the appearance of a surgeon entering an operating room.

A strange reverence blanketed me as I entered the white room. It was as though I stood in a holy temple or cathedral. The room seemed altogether too silent for a final assembly area. Two rows of Lunar Modules stood in successive stages of assembly-large placards in front of each, denoting the model number.

Walking toward LM-5, I sensed an uncomfortable stillness. At the foot of the vehicle, I hesitated to climb the stairs of its work-stand, fearing my touch might desecrate or contaminate some critical component. "This was an unusual and sudden attack of paranoia...as though I was in the presence of something so holy that the uncleanness of my touch might violate its purity."

I refused to go farther until a Grumman test conductor assured me that I could do no damage. "Why should I have such a feeling? Maybe it was a result of the Apollo Spacecraft Twelve fire and the attention we paid to total quality control." In this moment the entire burden of reliability

was brought almost too sharply in focus.

"Or maybe it was a 'spiritual thing' which I could never explain. Surely, I don't worship this mechanical spaceship," my mind protested. "Or do I?"

Now LM-5 was known as "Eagle" and Neil Armstrong was tabbed the typical "All American Boy," the perfect choice for first-on-the-Moon. But for those on the Apollo 11 Mission Engineering Team, Eagle remained one of the litter of LM's - no better fitted to her task than her younger brothers, LM-6 and subsequent landers. And Neil for us was known simply as "CDR" - Commander - in the multi-paged Apollo 11 Mission Flight Plan.

Our engineering team occupied a large third floor room in Building 45 adjacent to the Mission Control Center, the MCC. We played the role of "backseat drivers" to the astronauts and flight controllers. Looking over our shoulders were Grumman and North American engineers in New York and California. In the event of problems, we as "experts" would quickly respond with answers.

Our MER (Mission Evaluation Room) had chairs for only fifty people. An Apollo 11 badge was the credential for entry, yet there were always a number of interested "stragglers" watching over our shoulders. This prompted the sign which hung over the center blackboard on the "chalk-talk" side of the room.

My shift lasted until 6:00 PM, though I monitored portions of other shifts from a back room down the hall from the MER. There I scanned reams of data, analyzing expected master alarms. Such alarms routinely came on when systems were powered-up or shut down. Nevertheless, I studied them to make sure they didn't mask a real problem. Though Eagle was thousands of miles from Earth, I was very much in touch with her warning system via the hundreds of "telemetered" measurements radioed back to Earth.

There were few surprises during the translunar coast to the Moon except for a phone call I received one night while analyzing data. It was my Mother. Her local newspaper, The Hammond Times wanted information on my contribution to the first lunar landing. I felt sheepish about such an article,

not appreciating the history which was being made. When the article appeared, I chuckled - grateful that none of my colleagues would have an opportunity to read about my "glowing" achievement. Hammond was over a thousand miles north of Houston.

The story was titled: SONS OF HIGHLAND SERVE APOLLO and began "modestly":

HIGHLAND: Bumping elbows with astronauts and Houston Space Center big wheels is an honor many desire and few attain. But two former Highland residents encounter such dignitaries daily.

(A gross exaggeration.) Jerry Woodfill was involved in the actual building of the Lunar Module Warning System. This device was the first indication of malfunction or trouble of any kind. ("That's fairly accurate," I thought.)

Woodfill is a 1960 graduate of Highland High School where he was a basketball star. ("They would have second thoughts had they followed my career at Rice.") He received a full scholarship to Rice in Houston, Texas where he graduated with a master's degree. (I hoped the Rice registrar didn't see this. The Times had granted me an extra year's work at the sweep of the pen. "Perhaps, my Mother had embellished my academic record somewhat. But as I thought no one will know of the F- in Math.")

It was some consolation that the other Highland "genius" also had been treated in this inflated fashion. He was a neighbor of mine who I'd asked NASA personnel to interview. Later they gave him a job. According to the article his interest in spacecraft began at ten years of age when he bought a telescope "with his own money." ("Whose else could it have been?" I wondered.) All I could remember were his experiments with fireworks, especially the day he put a large firecracker in a glass milk bottle. I was standing near, only five feet away. A flying piece of glass whistled past my ear when I heard the explosion. "That was some rocketship!"

Both of us had received a "Hollywood Press Release." Probably we were not alone among the scientists, engineers, and technicians at MSC who enjoyed such exaggerated notoriety with family friends, and communities remote from the Apollo Program.

The landing was scheduled for the afternoon of July 20th, 1969 - prior to my shift. But when the Eagle was a few minutes from touchdown, all, including me, converged in the MER, ignoring the "GET OUT" sign. The last minute was tense, especially for me. The Master Alarm was coming on repeatedly, giving Neil but two options - land or abort.

The alarms came from the Lunar Module Guidance Computer. This was a system I had neglected during the warning system criteria reviews. Scientists at Massachusetts Institute of Technology had developed the computer's programs. Specialist in NASA's guidance division and flight control had worked with the MIT experts. These few had the required depth of knowledge to deal with this recurrent alarm which threatened landing. Ignorant of the alarm's cause, I wondered, "Had I been negligent and presumptuous in neglecting to deal with the computer alarm criteria?"

I'd left the task to the guidance "experts". The warning system simply "parroted" their criteria. "Now it could cost the whole mission. triggering an abort," I fretted.

After an ominous wait, one of the Apollo 11 guidance controllers gave the go-ahead to ignore the alarm and land. "The Warning system would not go down in infamy," I sighed.

Neil opted to override automatic control and literally "flew" Eagle, searching for a smooth landing spot. With only a few seconds of fuel remaining the Descent Quantity Warning Alarm came on, giving me another anxious moment. Then I heard the words,

THE EAGLE HAS LANDED.

I joined in the loud cheer which sounded through the Mission Evaluation Room, the Mission Control Center, the Manned Spacecraft Center, and the World. History had been made, and I'd been part of it.

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