“Fait pour Valour”
(Born to Fly)
By
Billy Walker©

The **Captain Ralph S. Johnson** story is an amazing portrait of a great American aviator. From his humble beginnings on an Indiana farm, we look back on his 100 years of remarkable achievements.

Learning to fly as an Army cadet in 1930 following his graduation from Perdue University was the start of his amazing career in aviation.

Johnson became an accomplished Army flier and was chosen to be Maj. General Edwin B. Winans personal pilot flying the Tri-motored Fokker F-10.

On one of the General's inspection 3rd Army tours, they flew to Cheyenne, Wyoming where Fort. DA Russell was located. Cheyenne would later play a major roll in Johnson's storied career.

Ft. DA Russell was named after Brig. Gen. [Brevet Major General] David Alan Russell, who was killed at the Battle of Opequon Creek near Winchester, Va., on Sept. 19, 1864. His Confederate opposite, Major Gen. Robert E. Rhodes, was killed in the same battle.

In 1927, the last cavalry units left, ending 60 years of cavalry history at Fort Russell. In 1930, President Hoover issued a proclamation changing the name to Fort Francis E. Warren, honoring Wyoming's territorial governor and first state governor. Later, Warren served as a U.S. Senator for 37 years.

Warren received the Medal of Honor when he was 19 for heroism during the Civil War. Senator Warren's daughter married Capt. John J. "Black Jack" Pershing, who later commanded the U.S. forces in World War I and was promoted to General of the Armies. Only one other man, George Washington, served in that capacity. General Pershing's family lived at the fort, in a home still in use today. Other distinguished residents over the years were Gen. "Billy" Mitchell and Dr. Walter Reed.

Johnson left the Army after two years to begin his quest to become a pilot for the fledgling airlines. Prior to Johnson settling in Cheyenne, Wyoming, near Ft. Warren, he became a pilot for the Ball Brother's Muncie Aviation based out of Muncie, Indiana flying a Sikorski S-39 back and forth to the Chicago Worlds Fair.
One day he happened to park near where a National Air Transport Ford Tri-Motor was parked. Johnson found himself in a conversation with the notable Walt Addems, chief pilot of NAT.

Ralph mentioned that he would like to get on with the airlines. Addems then pointed towards the ungainly looking S-39 and asked: "…did you fly that thing in here?" Johnson replied in the affirmative.

Addems said, well if you can fly that thing, you should be able to fly for us. That was the beginning of Johnson's airline career. It was 1933.

Walter J.Addems was a pioneering aviator who built his first plane in 1916 and his last one in the 1960's, but only after he had barnstormed across the nation and flown the mail in the 1920's, trained pilots in the 1930's and served as director of flight operations for United Airlines until the 1950's. Addems died on Nov. 21, 1997 at a hospital in Palo Alto, Calif. He was 98 and for all his love of aviation, had not flown since the 1980's.

To suggest that Mr. Addems was born with a yen to fly would be an exaggeration. It wasn't until he was almost 5 years old that the Wright Brothers made their first flight. And it wasn't until he was in high school that Addems, a native of Loda, Ill., and grew up in nearby Kankakee, got around to building his first plane, a glider that he put together from plans in the

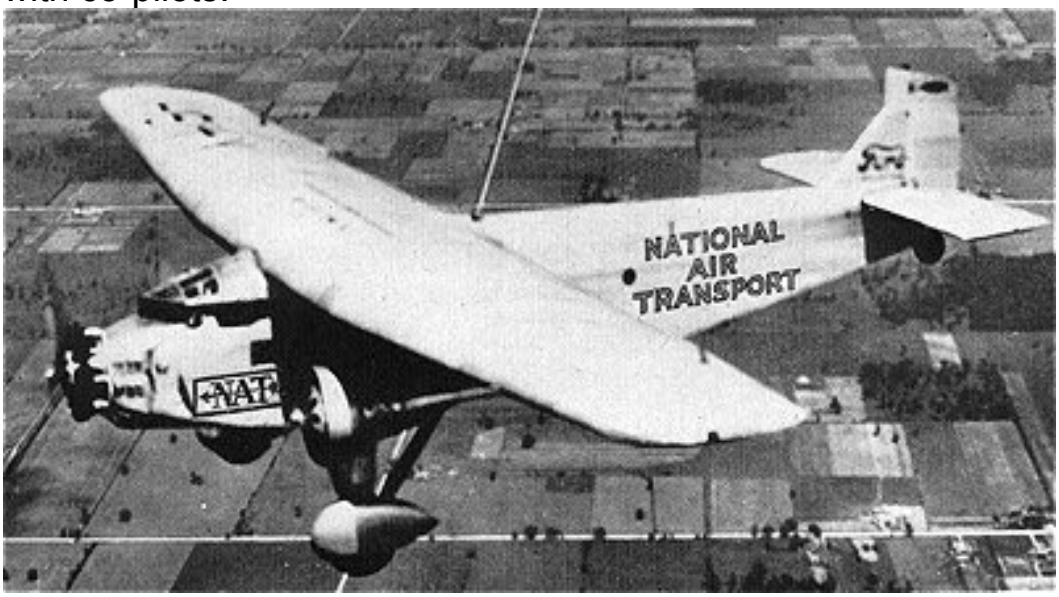
magazine Aviation Week. His mother sewed together the pieces of muslin he stretched over the wooden struts, and cooked up a cauldron of starch to provide the requisite stiffening. Then, on July 15, 1916, with a friend towing him behind an Oakland touring car in a pasture south of town, Addems made it aloft. He soared perhaps 15 feet above the pasture for an admittedly short hop that ended when he hit a fence and landed on his hands and knees. But he had flown alone in time to qualify for membership in an exclusive club: the Early Birds The 1916 date was critical. When the organization was formed in 1928, the 13th anniversary of the Wright Brothers flight was chosen as the cut-off date for members, separating the true aviation pioneers from the Jenny-come-latelies who flocked to the skies by the hundreds in World War I. Although many Early Birds dropped out of aviation almost as soon as they made what became their qualifying solo flights, once Walt Addems tasted the joy of the sky he hardly wanted to be anywhere else. Over the next several years, he bought, built and flew just about every famous plane of his era, among them the Curtiss JN-4 trainer, the World War I Jenny and a Thomas-Morse Scout, or Tommy. Before his passion for aviation became an obsession, however, Addems, a champion high school athlete whose track and field exploits attracted the attention of the University of Chicago football coach, Amos Alonzo Stagg, made what amounted to a double detour, first a semester at the University of Illinois and then a stint in the Army. After a year away from flying, Addems, who had tried to enlist as a Signal Corps pilot but was routed to an artillery unit instead, decided he had had enough of formal education. Following his family to Judd, Iowa, in 1920, he haunted the local airstrip, honing his flying skills, and was soon off barnstorming, participating in air shows, becoming a familiar figure at Checkerboard Field in Maywood, Ill., the Chicago area flying mecca, and taking passengers aloft for $5 a head. When a pretty schoolteacher, Genevieve Mongeau, caught his eye, he would buzz her country schoolhouse in his Thomas Morse Scout, land in a nearby field and then fly her home.

In the era of the flivver and the rumble seat, his courtship was inspired: The Tommy was a single-seater and Miss Mongeau had no choice but to sit on his lap. Not that she seemed to mind. The couple were married in 1925 and stayed married until her death 70 years later.

With a wife to support, Addems gave up barnstorming and began flying mail from Chicago to Milwaukee for a fore-runner of Northwestern Airlines. In 1927, he switched to the Chicago-Cleveland route of the fledgling National Air Transport and stayed on when it became the eastern wing of United Airlines in 1931. With the Postal Service offering a bonus for night

deliveries, Addems was a pioneer in testing instrument flying equipment, becoming so proficient that the self-taught pilot was soon training other United fliers. As United's most revered pilot, he became director of flight operations, flying and mapping each new route, testing each new plane and developing many procedures that became industry standards. Although he was always a stickler for safety, Addems lost his desk job at the Denver headquarters when the airline suffered a series of crashes in the early 1950's. Many of the airline's pilots thought he had been unfairly treated, but Addems could hardly complain. As a result of the demotion he was returned to the skies, first flying between San Francisco and Tokyo on government contract runs and then becoming chief pilot on United's San Francisco-Hawaii route. After he reached the mandatory retirement age of 60 in January 1959, Addems, who had settled in Atherton, Calif., near Palo Alto, had what amounted to a second childhood, building a plane once again, this time a replica, exact to the very Indian design on the fuselage, of the famous Nieuport flown by the Lafayette Escadrille in World War I. Over the next two decades he performed at exhibitions and even had a stint as a movie pilot. At the age of 83, Walt Addems made his final flight, delivering his Nieuport to San Diego and donating it to the San Diego Aerospace Museum.

Following Walt Addems welcome to NAT, Ralph became a “mate” flying co-pilot on the Ford Tri-Motor. He didn’t have much to do with the flying since the captains were all former WWI pilots who resented being forced to fly with co-pilots.



Johnson’s duties were to crank down the baggage bin which amounted to cut-outs in the bottom of the wings. These were the days before the steward and stewardess.’ So, Ralph would hand out the box lunches to the passengers sitting in the wicker seats in the cabin.

Occasionally, the captain would get Johnson to pull the Johnson Bar. The original Tri-Motor pilots had to use an awkward "Johnson Bar" braking system that operated the brakes by pulling a lever back, left, or right in the cockpit. The system wasn't too challenging to operate while sitting still, but it could be a handful for a pilot trying to juggle ailerons, throttle, rudder, and brake all at the same time while landing.

The Ford Tri-Motor they rode in was, indeed, elegant. But there was no heat in the cabin, and the noise and vibration from the plane's three engines was a ceaseless assault to both the ears and the body. The planes flew low, so turbulence was common, making some flights extremely uncomfortable and dumping some of the lovely hot consommé soups the escorts served right in the passengers' laps. And while the Tri-Motors that flew the route were revolutionary for their day, they were slow and possessed few instruments or systems for handling any weather.

The Tri-Motor was designed, appropriately enough, by the Stout Metal Airplane Company (which became the Stout Metal Airplane Division of the Ford Motor Company when Henry Ford bought the company in 1925). The company was actually named for its founder and president, William Stout, but its name also aptly described its founder's philosophy of aircraft design. Ford and Stout were both concerned about safety, and the all-metal Tri-Motor was designed to change people's ideas about aviation and air travel. It was, in many respects, the first popular "responsible" airplane, built not for maneuverability, dog-fighting, or barnstorming, but for carrying passengers comfortably, sedately, and safely. Ford also funded widespread advertising campaigns about the safety, convenience and benefits of air travel, which probably did as much to advance commercial aviation as the development of the Tri-Motor itself. Henry Ford was instrumental in developing numerous safety-enhancing innovations for aviation, as well, including the radio-range navigation system that guided pilots and airliners across the United States from 1929 until after World War II.

Few people would consider the Tri-Motor a sleek or sexy airplane. Its squat, splayed gear and waddling taxi gait earned it the nickname "The Tin Goose," and looking at it head-on, it seems more like a mechanical Gigantor robot than a beautifully crafted flying machine.

Ralph was struck by the looming majesty of this first Grand Lady of the skies. Its boxy, 50-foot-long fuselage swoops downward toward the tail,

finally pausing to level out impossibly close to the ground at the back. Its thick, broad, cantilevered wing, which stretches 74 feet from wingtip to wingtip, dominates and dwarfed everything else in the hangar in those days. The DH-4's, used on the mail runs, even looked like a ridiculously tiny play toy beneath the massive span of the Ford's corrugated metal airfoil.

United Air Lines, organized in 1931 as a management company for four of the first commercial carriers: Boeing Air Transport, National Air Transport, Pacific Air Transport and Varney Air Lines, becomes a separate business entity.

34 year old William A. ("Pat") Patterson began his tenure as United's Chief Executive. As a young Wells Fargo Bank officer, Patterson was drawn into the airline business after making a controversial $5,000 loan to a "flying machine" company, Pacific Air Transport. More than 30 years at the helm, Patterson guided United through its formative years and into the jet age.

He had help. Johnson's friend, Otis Kline, became the number two executive after having a stellar career flying the mail in the Boeing Model's 95's and 40B's. As Executive Vice-President, Kline would rise to become a member of the board of directors.
Ralph's engineering mind was quickly working on creating better procedures to recommend along with specific duties for the "mates." Soon he would be called upon to join the flight test department.

I was reminded of one of Johnson's reminisces from when he was a captain flying right seat for another captain who had a girlfriend living on the second floor of an apartment building in downtown Cheyenne.
After takeoff on a flight to Billings, MT, the captain turned left remaining at a low altitude and flew down the street past his girlfriend's window.
Amazed, Ralph said to the captain of this fight, "I sure hope she doesn't move to the ground floor!
He lived thru numerous flights which proved fatal to a number of his friends and colleagues. Especially, those flying the old Tri-Motor Fords and Boeing 247's thru "Hell Stretch" a particularly hazardous area of the Alleghenies aptly referred to as "The Pilots Graveyard!" Again, it was the losses that motivated Johnson to invent and innovate through his career to improve aviation safety.

By 1934 he was a captain and soon after the chief test pilot for the newly organized United Air Lines. Based in Cheyenne, Johnson quickly gained an industry-wide reputation for results.

Until the mid-1920s, American commercial airplanes were built for mail, not people. Boeing's Model 80, "Pioneer Pullman of the Air," along with the Ford and Fokker tri-motors, were a new breed of passenger aircraft. The model 80 first flew in August, 1928 and was working along Boeing Air Transport's route two weeks later. The twelve-passenger Model 80 and the more-powerful, 18-passenger 80A (re-designated 80A-1s when the tail surfaces were modified in 1930) stayed in service until 1933, when replaced by Boeing's all-metal Model 247.

Interestingly, many of the former WWI pilots flying the Boeing Model 80-A complained being cooped up in an enclosed cockpit. So, in addition to the tail modification, the Boeing Model 80-B was an open cockpit!

Johnson went from the Ford's to the Model 80 A, then to the new Boeing 247 hailed as the first modern airliner. The Boeing 247 first flew in 1932 and marked the emergence of fast, comfortable air travel. This sleek, all-metal monoplane carried 10 passengers at 160 mph.

In those days, the manufacture would design and deliver a basic aircraft. All the after-market changes and improvements would be handled by the individual airlines.

Douglas Aircraft "borrowed" Johnson for additional flight testing on their new DC-3. He engineered several modifications along with putting forth new innovations all of which made the airplane and aviation safer. Johnson was the chief test pilot for the ill-fated DC-5 program which succumbed to internal corporate politics.
Initially, the Douglas DC-5 was developed as a

16/22 passenger civilian airliner, with a high wing And tricycle landing gear. Four examples were produced for KLM Airlines, and were used to

evacuate civilians from Java to Australia in 1942.

The Japanese, captured a damaged DC-5 and

flew it extensively. U.S. DC-5 military operations

was with the U.S. Navy and Marine Aviation.

Seven examples were bought in 1939. Three

were R3D-1 16-seat personnel carriers, and four

were R3D-2s. The Marine Corps

used the R3D-2's as a 22 man jump aircraft.

Another interesting story of the DC-5 was when Bill Boeing bought the prototype after it was recommended by his own pilot, Clayton "Scotty" Scott, but was later impressed into the U.S. Navy as the sole

R3D-3.

The R3D-3 airplane was flown by Bert Hall during WWII. Hall was famous for the number of military airplanes he flew during the war.

He later retired as a senior captain for the historic Frontier Airlines.

There is likely a ton of information on this airplane located on the web. Johnson thought the DC-5 was a very good airplane.

Douglas DC-5:

Type:	cargo and passenger transport
Crew:	6
Armament:	none

Specifications:

Length:	62' 6" (19.05 m)
Height:	19' 10" (6.05 m)
Wingspan:	78' 0" (23.77 m)
Wing area:	824 sq. ft (76.55 sq. m)
Empty Weight:	13,674 lb (6,202 kg)
Max Weight:	20,000 lb (9,072 kg) max at takeoff

Propulsion:

No. of Engines:	2

Powerplant: Wright GR-1820-F62 radial

Horsepower: 850 hp each

Performance:

Range: 1600 miles (2575 km)

Cruise Speed: 202 mph (325 km/h)

Max Speed: 221 mph (356 km/h) at 7,700 ft

Ceiling: 23,700 ft (7225 m)

Johnson was responsible for the development of the stainless steel firewall, alcohol propeller de-icing, visual slope indicator, improved braking and, most important of all, the stabilized approach. The latter being the greatest change to the industry since December 17, 1903.

Prior to Johnson having developed the stabilized approach, landing accidents were common place. Each pilot seemingly would develop his own technique with few actual procedures followed.

Ralph proved his concept and recorded it then spent years coaxing other flight departments including United to adopt this life saving innovation.

As performance capabilities improved with larger - faster aircraft, it became apparent to Johnson that standardized flight operations would be essential to get a handle on the degradation of air safety.

He proved through a series of filmed flight tests using a DC-3 that the stabilized approach would be the answer to standardizing approach procedures that would work in any weather, good or bad. This would be called the All Weather Flight Methods. Now it is simply called The Stabilized Approach.

United moved its maintenance and flight test to San Francisco in 1947. Johnson decided to remain in Cheyenne effectively retiring just as the new pressurized DC-6's were coming on the scene.

During the time Johnson worked with my father, Pic Walker, at Plains Airways Aerial Surveys, he wrote a series of articles that were published in Air Transport Magazine in 1947 which went into great detail on how his methods would save lives by improving flight procedures.

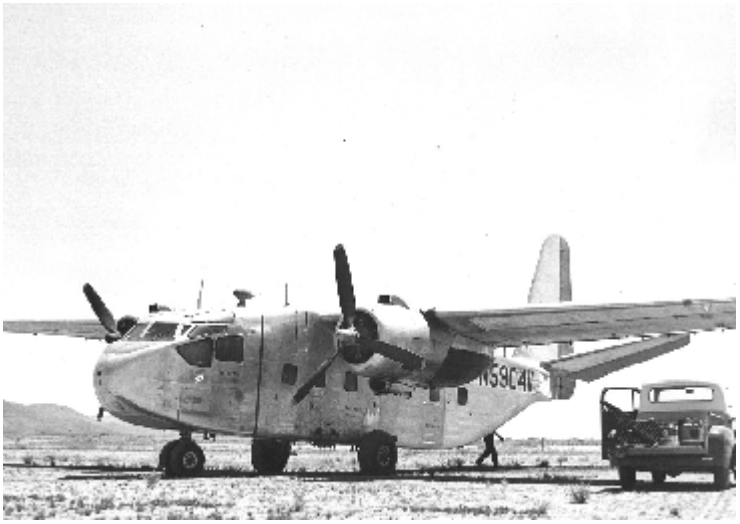
From the military to the airlines and then to General Aviation, Johnson's career spanned the entire aviation industry. His contributions have been varied and many.

Johnson and Pic Walker teamed up using Johnson's engineering talents and Walker's DC-3. Johnson developed a device called "The Bomb" which was an innovative electronic survey device

towed behind the DC-3. They discovered the vast oil aquifer lying between Denver and Cheyenne.

With Walker's exit of the agriculture spray business, Johnson began negotiating government contracts using surplus military aircraft and converting them for agriculture needs.

Johnson flew a wide range of aircraft before settling on the Lockheed PV-2 “Harpoon.” Initially, he used surplus Douglas DC-3’s, DC-4’s, and B-18 “Bolo” bombers. He flew B-25’s, DC-B-26’s, B-17’s, a Curtis C-46, as well as the ubiquitous C-82 and the unusual Chase C-122 “Aldren Annie.”

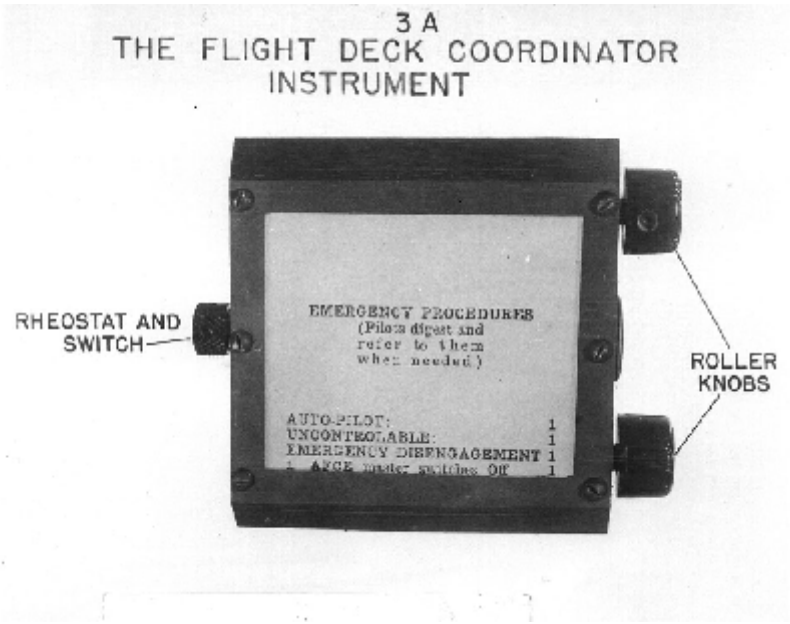


The C-82 was the predecessor of the Fairchild C-119. It was a great spray aircraft albeit underpowered. The Chase C-122 was originally designed as a large troop glider for the military. Johnson bought several as surplus from the auction at David Monthan AFB in Tucson. Then he engineered modifications such as installing surplus B-25 Wright R-2600 engines, wing fences, and other aftermarket improvements making it an outstanding platform for low level chemical dispersal. His long time friend, Ham Hamilton of Hamilton Aircraft performed the actual Johnson engineered modifications.

The Chase would hold an 800 gallon tank easily installed via the aft ramp. Spray booms would be added to the trailing edges of the wings.

Johnson had a knack for using his engineering talents along with his aviation expertise to make airplanes and ancillary equipment better. He had always pushed for improvements in procedures and created inventions and innovations to enhance aviation safety.

He developed the scroll type check list, *The Coordinator*, which became universally used by airlines, military, and general aviation operators.



During WWII, Johnson became concerned with the number of allied aircraft lost while on approach at night. The German night fighters would wait to see when the runway lights and the aircraft landing lights illuminated and would swoop down and take advantage of the vulnerability of the landing aircraft.

Johnson conceived and developed the hooded light system which later became VASI or Vertical Approach Slope Indicator. This novel means allowed the landing aircraft to fly to a pre-determined point in space where the pilot could view the hooded light and simply follow the “beam” to the ground.

During the agriculture operations there were problems with the spray swaths not overlaying pursuant to the contractual requirements. Again, Johnson’s unique talents came to play. He installed an automatic direction transmitter in a van to be used by the ADF receiver in the airplane.

The van would position itself at pre-determined points so that all Johnson’s pilots had to do was simply home in on the low frequency signal from the van. The swaths were perfect and the government observers delighted.

In 1957 I was 17 years old with a freshly minted Private Pilot certificate in my pocket. That summer, my father was asked by Johnson to help out with

the spray contract. Pop was to fly a vintage Navion as spotter airplane with government Agriculture Department observers as his passengers.

I was invited along presumably so that my dad would be better able to monitor me in this, my age of discontent. I remember flying with my dad in the Navion between Cheyenne and Sheridan enroute. Asleep from short nights spent pursuing the fair sex and creating nervousness on the part of some Wyoming parents, I was suddenly wide awake. Pop had let the fuel tank run dry before changing to the full tank! It is funny how you can be asleep in a noisy environment with the engine and prop beat along with the air noise. Take the noise away with the engine quitting for lack of fuel, it was suddenly impossible to sleep. My father's laugh at my expense was annoying until I was awake enough to remember I was where I always wanted to be, aloft and flying.

"To feel the joy that swells within; To leave the earth with its troubles and fly, And know the warmth of a clear spring sky…" a portion of Gary Claud Stokor's poem fit the moment.

Arriving at the Sheridan, Wyoming airport, I watched as the ground crews and pilots readied the two big C-82's and the one C-122 for the morning's flight.

I asked my dad and Ralph if I could help out. The immediate answer was, in unison, "NO!" "Just stay out of the way; we'll go have some breakfast after we return."

I watched for a while and found it impossible to not pitch in. After all this was how I had been raised. "…what ever it takes to get the job done."

Expecting an admonishment from either Ralph or my dad, I pulled the hoses from one needed place to another, washed bugs from windscreens, and followed the lead of the experienced ground crewmen.

After the morning flights we all were off to fill up empty stomachs and hit the hotel bed for some rest prior to the afternoon flights. They were unable to fly mid-day due to winds and temperatures affecting the dispersal.

That afternoon's en-masse arrival at the airport the preparations again began. After I had helped the ground crew with the Aldrin chemical pumping into the C-82's and C-122, Ralph approached me. Oh Oh, I thought, jigs up and I am apparently in the way. I noticed an uncomfortable

feeling in the pit of my stomach. I really didn't want to be left out of the excitement. "What could I say," I thought, to convince Cap't. Johnson that I really could be of help.

I was nearly floored when Ralph said: "I could use a co-pilot. Would you like to go along?" I didn't remember what I stammered in response, but I will never forget the feeling of joy that moment.

Ralph introduced me to the cockpit pointing out where the different switches and instruments were and how to operate the radios in the C-122. As I studied my surroundings the C-82's started engines, Ralph clambered aboard and asked "Ready to go?"

With stars in my eyes, I managed a fervent "Yes!" Ralph called for the before start check-list which I managed to scroll through without missing anything. Ralph started up the two R-2600's and taxied out in sequence with the two "Packets."

After the second Packet departed, Ralph lined up for take-off and asked: "Are you ready to make the take-off!" I couldn't believe that I was not only getting to fly with Ralph, I was actually being asked to make the take-off the first time I had flown in a C-122.

Acquiring my Private Pilot Certificate was more a formality of reaching the minimum age. The flying time required was forty hours. Twenty hours solo, twenty hours dual. I had 117 hours logged when I finally was of legal age to solo on my 16th birthday. I had the good fortune of growing up in an aviation family where a number of golden opportunities occurred.

My father, Pic Walker, first started flying in 1924 and my mother, Frances Emily, was the first female to learn to fly in Wyoming. During WWII my father and an uncle ran 3 Army Air Corps CPT Schools in Wyoming and Colorado.

I had flown my father's former DC-3 (N-22Z) with the Fram Oil Corp. pilots and had flown the Lockheed L-18 Lodestar with Phillips Petroleum's Billy Parker on several occasions.

I had some flying hours logged in the D-18 Twin Beech. But had never made a take-off or landing in anything larger than my dad's Cessna 180.

I had the presence of mind to act like I knew what I was doing and started the throttles forward. Ralph had given me the power settings and speeds to fly. It helped that the C-122 was a very easy to fly aircraft.

Ralph fine tuned the throttle settings and called out “Rotate!” I responded with “Gear up!” His voice ever calm and re-assuring, Ralph said: “We don’t raise the gear on this airplane for these flights, I will explain later.”

The C-122 had fixed main gear albeit the nose gear was retractable. It made sense to leave the gear down to make the procedures less complicated with all that went on with the job of attacking the grasshopper infestation.

Ralph said to me “You are doin’ good, just relax.” Relax! I had arrived at the Pearly Gates early. This was heaven flying that old airplane down across the sage brush with the R-2600’s roaring and the hydromantic propellers beating a strong note of confidence.

All summer long, I would fly all take-offs and landings as well as the flights to and from the dispersal areas in the Chase. During the actual runs, Ralph would do the flying while I would operate the pump switches on Ralph’s command.

At the end of the summer’s operations, as I prepared to leave for the start of football season in Saratoga, I was asked to report to Ralph’s office. There he handed me a check for $2,100.00. This was more money than I had seen before! I looked again and saw it really was made out to me!

“I don’t understand,” I questioned Ralph. The reply: “You earned it! I couldn’t legally pay you to fly as you only have a Private Certificate, so you were paid what the ground crews were paid.”

I was thinking: “I should be paying him!” Ever since I have felt that I am being paid to do my hobby…

One day Kent Westedt had an unbelievable flight with Ralph. They were solid IFR and lost all electrical and all instruments! All they had was a magnetic compass to fly with! Ralph adroitly mentally converted the magnetic compass into a primary flight display for pitch, bank, direction and even speed. How many experienced aviators could do that before spinning in?

They were enroute from Dalhart, Texas to Cheyenne, Wyoming and just passed Denver. Ralph was able to use his new “instrument” to letdown and see traffic lights and then the beacon at Greeley where he landed with weather obscured at 50 feet – visibility ¼ mile…

According to Westedt, Ralph never broke a sweat. Kent held a flashlight on the mag compass, so he gets a lot of credit for their surviving such a malfunction. Here's the story in Kent's own words:

Ralph S. Johnson – Electrical / Vacuum Malfunction - Bonanza

As we grow older in life, we reflect on things in the past that have truly molded us and have given us inspiration to do a lot of things and tackle the seemingly endless jobs that nobody else wants to do. One such mentor to me was a quiet, calm, self-assured person who had dedicated the majority of his life to the field of aviation design, test, operation, and innovation, Ralph S. Johnson. As I was maturing thru my teen years, I spent summers and countless hours around this man and his dedicated crew in the midst of modifying, rebuilding, renovating, redesigning, and test flying various WWII vintage aircraft and subsystems. As a result of this exposure, I became a Pilot and secured a degree in Aeronautical Engineering and most of my career was spent designing and building spacecraft, manned and unmanned.

But I digress, one of the most profound lessons in survival and keeping your wits about you occurred during a relatively routine flight starting around 10:00 o'clock in the morning on a clear day in Douglas, Arizona.

Ralph had been involved in purchasing and activating (taking out of mothballs) WWII PV-2s from Litchfield Park,

Arizona and flying them down to our hanger and workshop facilities at Douglas. I had taken the semester off from college to gain some hands-on experience while taking what courses I could by correspondence. We were going to fly back to Cheyenne, Wyoming, for a much-needed R & R. We took off and flew to Silver City, New Mexico, landed, fueled, ate lunch and attended to some business, and left late in the afternoon.

As we were flying from Silver City to Cheyenne, we were using Visual Flight Rules and flying at an altitude around 8-9,000 feet, depending upon turbulence. We had some high, scattered clouds and knew of a front advancing from the west-northwest late in the evening; however it came in quicker than anticipated.

We ran into a snowstorm north of Denver at about 8 p.m. that was a complete whiteout, causing us to convert to Instrument Flight Rules. Ralph called the Cheyenne tower and they notified him that the weather at Cheyenne was clear.

He had just started the descent into Cheyenne when the aircraft electrical supply system went out, rendering all electrical instruments useless, with no lights in cockpit or instrument panel. The engine was running fine with no loss of power.

Within 30 seconds of that event, the aircraft vacuum system failed, rendering all vacuum-related instruments useless as well as the electrical system.

Ralph knew that the only instrument left that wasn't supplied by either system was the wet compass, however, it was in complete darkness.

Ralph, realizing the gravity of the situation, immediately took his feet off the pedals to eliminate the yaw response and use only the ailerons and elevation control to try to stabilize a horizon.

I remembered that I had a small flashlight in a briefcase in the back seat. I retrieved it and held it so he could see the float of the compass as well as the direction to try to maintain the smallest signs of stability by using the float of the compass as a small horizon indicator along with maintaining a steady directional heading.

As the eyes became accustomed to the eerie glow around the airplane, we could see what seemed to be a faint ribbon of light stretching out in front of us. Ralph gently descended to try to get better orientation and as the string of lights became more lucid, Ralph realized from his knowledge of when the snowstorm was first encountered, the airspeed, and the harried timeline in which things had

happened, that the lights were from traffic on U.S. Highway 85 from Cheyenne to Denver and we were somewhere south of Greeley, Colorado.

As he descended further, he was able to stabilize the aircraft with ground and yard lights giving us an actual horizon and we started looking for anything that might give us a better orientation of an exact location. Off to the left, at about one o'clock, the rotating green beacon of the Greeley airport came into view, then the glow of the runway lights. The lights of the town and surrounding countryside seemed to make the sky come alive and he made two right turns, a final approach, and was able to land safely.

By now, the storm had intensified, so we secured the Bonanza on the tarmac, found a pay phone, called for a taxi, which took us to the train station, and rode quietly home reflecting on the sequence of events which put us in such jeopardy. Needless to say, the reality of what had happened finally sunk in and the realization of what Ralph had accomplished kept me alone in my thoughts for the entire trip home.

As a result of this experience, Ralph analyzed the entire episode and was instrumental in requiring new FAA regulations for dual backups of both electrical and vacuum systems in aircraft.

As for me, I have often reflected on the cool, calm demeanor of Ralph, the sensitive handling and logical approach to the problem at hand, and the ability to understand the fundamentals and design of aircraft, instrumentation, and flying and have come to realize that he was an extremely fine mentor of skills, not only in aviation, but in learning, use of that knowledge, and sharing and teaching of values that I now put to use in my daily life….

Kent Westedt 01-15-2005

Later the FAA implemented AD notes to correct this potential disastrous situation.

Johnson flew the PV-2's (he had a fleet of 22 of them) until well into his mid 80's. Finally, he retired to Arizona where, as of this writing, he is 100 years young, doesn't wear glasses, and drives at night. Likely, he can still fly rings around us all! In fact, when he was just 97 he flew "Puff the Magic Dragon" an AC-47 Gunship as though he had been actively flying it since the days in the mid 1930's when he was one of the DC-3's original test pilots.

Johnson donated one of his PV-2's to the Pima Air Museum and his Martin 404 to Save a Connie Foundation. The Harpoon is presently displayed at the Pima Air & Space museum. The Martin 404, which will be flying with it's original TWA paint scheme, is currently going through restoration.

Johnson has been awarded the Elder Statesman of Aviation award by the National Aeronautic Association, Wyoming Aviation Hall of Fame, Laura

Tabor Barbour Flight Safety Award, OX-5 Aviation Hall of Fame, The Phoenix 5 special award for aviation contributions, Airline Pilots Association distinguished aviator award, National Aeronautic Association Special Award for contributions to aviation safety, and was enshrined into the Arizona Aviation Hall of Fame April 8, 2006.

Johnson received a special letter of congratulations from Vice President Richard Cheney. Both the governor of Arizona and the governor of Wyoming proclaimed June 26th as the Captain Ralph S. Johnson Day. 98 friends and family attended a special tribute to Johnson at Anzio Landing located at Falcon Field, Mesa, Arizona on June 24th. Appropriately, one of Johnson's Lockheed PV-2's was parked outside in full view of all attendees.

In May 2008, just a month shy of his 102nd birthday, Purdue University flew Johnson to West Lafayette, Indiana where they honored him with a Doctorate in Aeronautical Engineering. This was in recognition for his lifetime contributions to aviation and aviation safety.

I concur with Kent Westedt. Ralph Johnson is a mentor's mentor!

Johnson lives with his wife Ruth in Arizona. They have been together over 70 years! His son, Alan, is a Federal District Court judge in Wyoming. His son, Steve, is a distinguished fellow with the Heritage Foundation in Washington, DC and is himself a former USAF pilot. A daughter, Janet Rowe lost a battle with cancer a few years ago.

Flight is freedom in its purest form,
To dance with the clouds which follow a storm;

To roll and glide, to wheel and spin,
To feel the joy that swells within;

To leave the earth with its troubles and fly,
And know the warmth of a clear spring sky;

Then back to earth at the end of a day,
Released from the tensions which melted away.

Should my end come while I am in flight,
Whether brightest day or darkest night;

Spare me your pity and shrug off the pain,
Secure in the knowledge that I'd do it again;

For each of us is created to die,
And within me I know,
I was born to fly. "Fait pour Valour"

Gary Claud Stokor

Sources:

- **Internet – Early Birds, Boeing, etc.**
- **Interviews w/ Captain Ralph S. Johnson**
- **Interview w' Captain Elrey Jeppesen**
- **Interview w/ W. D. Pic Walker**
- **Interview w/Kent Westedt**

Westedt's report on harrowing flight

- **Interview w/Alan Johnson**
- **Interview w/Stephen Johnson**
- **Necomen Society**

1. **1995 Speech by Billy Walker**

More on Ralph...

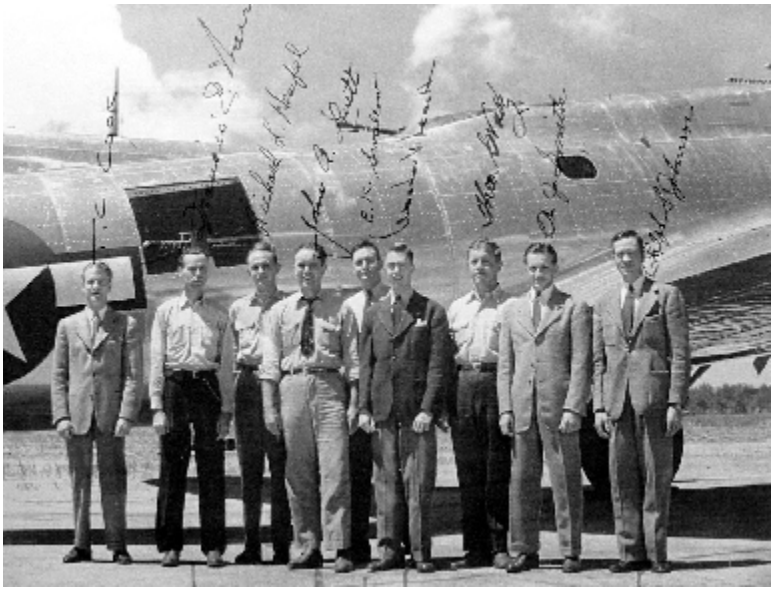
Regrettably, I left out some great anecdotes from Ralph's flying career;

1. He flew the last Boeing 40B United had. Possibly, the last 40B period! He was landing at Cheyenne when a tractor pulled out onto the runway. The driver dove off in time, but the left gear struck the tractor seat. The gear and airplane were forever separated.

United asked Ralph to circle until the Boeing 247 and it's passengers had departed before landing. Ralph successfully landed on one wheel. However, on inspection it was discovered that the aircraft was too damaged to repair and was scrapped!

2, He and co-pilot Woody Woodruff were flying a B-17 to Detroit when they learned that an ice storm had closed the field. A fast moving cold-front eliminated any feasible alternate. With the runway iced over solid, there was of course no braking. Ralph adroitly used asymmetrical power and locking the

brakes on the opposite side, swung the aircraft around 180 degrees and was then sliding backwards down the runway. He simply added power to bring the bomber to a stop.



This feat had been done numerous times on frozen lakes. Likely, few have done this on a strip of concrete 3000 feet long and 50 feet wide!

The most amazing feat of airmanship, in my view, is the loss of all electrical and vacuum Bonanza story spelled out by Kent Westedt in the earlier story. (copyright Billy Walker) ©