Antique Wireless Association of Southern Africa Newsletter

244 November 2026

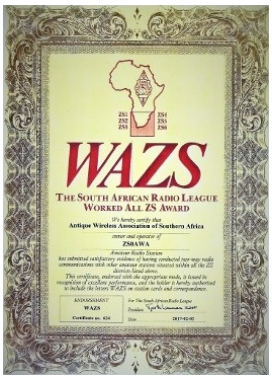
RCA Model 151

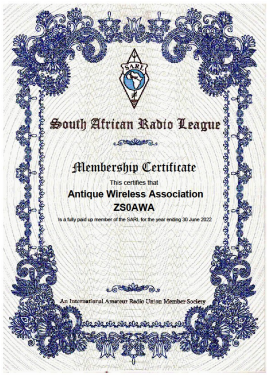


Uses a 1" 913 CRT for display. This scope was introduced around 1936 at cost of $47.50, by 1938 the cost was 39.95. These prices included tubes,



Inside chassis view of the RCA 151 oscillograph. Typical of most 1930's oscilloscopes, this uses a 885 as the horizontal sweep generator, 6C6's for the horizontal and vertical amplifiers and an 80 rectifier.





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AWA Committee:

* President—Chris ZS6GM
* Vice President—
* Technical Advisor—Rad ZS6RAD
* Secretary/PRO—Andy ZS6ADY
* KZN—Don ZS5DR
* WC—John ZS1WJ
* Historian— Louis ZS6SK
* Members—Renato ZS6REN Wally ZS6WLY

Reflections:

A Tribute to one of Ham Radios Greats.

It was with sadness that I received news of the passing of Cliff ZS6BOX. A callsign that has been associated with SA Ham radio for longer than I can remember.

I first met Cliff in 1984 shortly after I became a licensed operator and was still only on VHF. I was still working on the mines and we used to attend training courses at Macauvlei just on the outskirts of Vereeniging. I took my trusty Trio 700G with and had a fold up slim jim antenna. This enabled me to access the Vereeniging repeater. Calling CQ one evening, Cliff heard me and after a lengthy QSO arrangements were made to go and have supper at his QTH.

That was Cliff. His open heart and wanting to know people was a built in trait.

We developed a relationship and a friendship that lasted for years, and every time I went to Macauvvlei on another training course, we would meet. I am sure there are many who will have similar stories about Cliff.

We were both members of WACRAL (World Association of Christian Radio Amateurs and Listeners) and had many friends around the globe as part of this group.

Cliff of course was tied in to the SARL for many years being treasurer and a committee member from the days of yonk. Having served with virtually every President since the 1970's

His love for Valve radio and being an ardent Collins collector led us into another path when the South African CCA decided to open its doors to all Valve radio enthusiasts and the Antique Wireless Association of Southern Africa was born and Cliff was nominated the founding President in 2003. A task that he undertook with as much passion as always.

Cliff's love for aviation connected him to the SAAF museum groups and also to an air ambulance service which operated under the company he worked for. Cliff played a major role in the operation of this service.

To say that Cliff had a varied outlook on life would be an understatement.

He loved reading and I am sure read everything from Beano to Encyclopaedia Brittanica and all that would go in between. He was forever encouraging people to write their own books, especially those old timers who had had exceptional careers. His belief was that we should try and preserve as much as possible when it came to experiences, but never considered his own life as being exceptional.

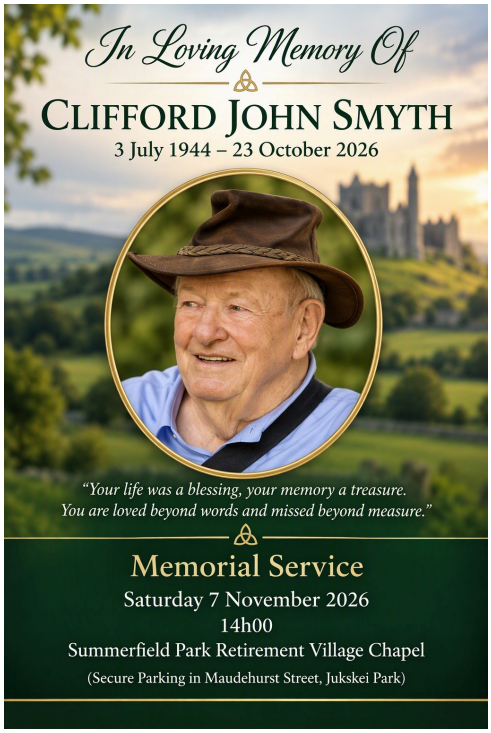
They say that behind every successful man stands a good woman. Such was the case with Cliff. Wendy supported him in all that he took hold of, being the host to many that Cliff invited for braai's, lunch, supper or just being there for him. Cliff always spoke highly of Wendy and her skills of being able to repair most things that he could not.

So it is that another big tree has fallen and he will be missed by many in the amateur fraternity and elsewhere wherever he made a mark.

Rest easy my friend, until we meet again.

Vy 73

De Andy ZS6ADY





AWA AGM – 2026

Notice is given for the 2026 AGM of the Antique Wireless Association of Southern Africa to be held on **Saturday 14th November 2026** at the premises of the **SAIEE in Observatory Johannesburg.**

DATE & VENUE

Saturday 14th November 2026
SAIEE premises, Observatory, Johannesburg.

TIMES & PROGRAMME

From 09:00 until 13:00
AGM held at approximately 10:00, thereafter flea market, braai facilities and eyeball QSO.

FLEA MARKET & DISPLAY

There will be a flea market and open display as well as free access to the SAIEE museum.
Bring along all your valuable junk that you wish to dispose of at the fleamarket.

THE SHACK

The SAIEE shack will be available for use.
The Shack will be on air from 08:30.

REFRESHMENTS & BRAAI

If you wish to bring your own meat and refreshments, please feel free to do so, otherwise meat packs and cold drinks will be on sale.

MEAT PACKS

Please let Andy ZS6ADY know if you would be interested in a meat pack, for planning purposes.

We look forward to seeing many of you there.

Andy Cairns ZS6ADY
(Secretary/PRO AWA)

President: Chris Turner ZS6GM | **Technical Advisor:** Rad Handfield-Jones ZS6RAD
Secretary/PRO: Andy Cairns ZS6ADY | **WC Liaison:** John Watson ZS1WJ
KZN Liaison: Don Radford ZS5DR | **Historian:** Louis de Wet ZS6SK
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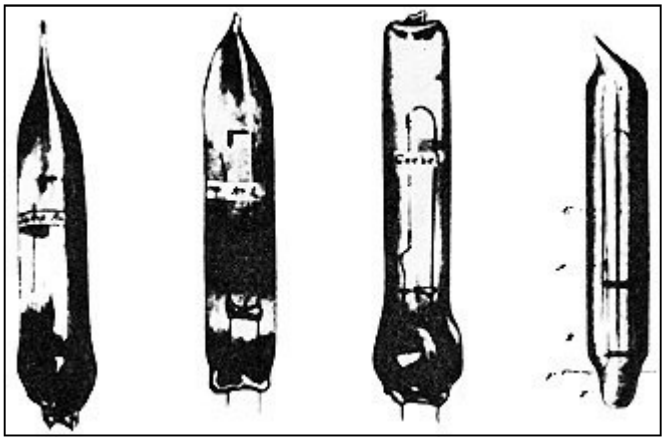
Battle of the Bulbs

August 1964 Popular Electronics

Not everyone whose name sounds like "Goebbels" was a bad guy. Heinrich Göbel was a German-born American mechanic and inventor, also known by his Anglicized name, Henry Goebel - as used here in this 1964 *Popular Electronics* magazine article that disputes whether or not Thomas Edison was the true inventor of the incandescent bulb. As with the debate over whether Gustave Whitehead beat the Wright brothers with the first man-carrying airplane to take off and fly under its own power, and whether Elisha Gray beat Alexander Bell, there were supposedly credible witnesses to prove claims. Courts have decided otherwise, but that does not rule out the possibility of error. Mr. Goebel reportedly had supporters who saw his home-brew incandescent bulbs burning in his New York shop a couple decades before Mr. Edison proclaimed his invention. The Goebel bulb is very different in appearance (like panel illumination bulbs) from the classic Edison bulb. Be sure to read the third paragraph very closely!



Heinrich Goebel died in 1893 at the age of 75- the same year that an American court acknowledged the priority of his lamp.



By Hans F. Kutschbach

Necessity may be the "mother" of invention but, with many brainchildren, there's a fight about who the "father" is!

The closer we bring our technology to the ultimate, the more vigorous are demands of various countries to have one of their citizens credited with inventions or early developments that first contributed to the state of the art.

A story is whispered behind the Iron Curtain that a Russian peasant was working in a forest and found a wire strung between two trees. On the strength of this discovery, Russia claimed credit for the invention of the telegraph. At about the same time, a peasant in Red China was plowing a rice paddie and did not find any wires, so the Red Chinese government claimed the invention of the wireless!

Everybody knows that Thomas Alva Edison invented the electric light bulb in 1879. Everybody? Not in the town of Springe, Germany! The citizens of Springe are convinced that the light bulb was invented by Heinrich Goebel, born there in 1818. So convinced are the townspeople of Springe that they have erected a memorial to Goebel in the shape of a huge incandescent lamp.

On the base of the memorial, a commemorative tablet reads as follows (translated into English):

To the honor of the inventor of the
incandescent lamp
HEINRICH GöBEL
Born April 20, 1878, in Springe
Died December 76, 1893, in New York
Erected June 26, 1954, by the Town of
Springe on the occasion of the centennial celebration of the invention

Who Invented What?

Henry Goebel (his Americanized his name) operated an optics shop in New York City. In 1860, according to reliable witnesses, he used an electric lamp which he had made himself to illuminate the store and to attract customers. A cylindrical glass tube closed at the top, it contained a "high vacuum." The light-giving part was of a hair-like thinness and consisted of a carbonized grain.

Goebel wasn't the only one to work on the incandescent lamp. In 1845, two inventors named Starr (an American) and King (an Englishman) experimented with lamps in which thin bars of coal were brought to a glow in a vacuum. In 1878, in Berlin, Alexander Siemens experimented with an electric lamp, and in the same year, J. W. Swan, in Newcastle, England, developed a carbon filament lamp whose filament had a 1-mm. diameter.

How Goebel Made His Lamp

Goebel stripped a piece of bamboo cane between the knots, taking a piece one-inch long. This was ground with planishing rollers to hair-like thinness. After carbonizing the bamboo, the center was moistened, and the filament was bent to a hairpin shape over a hot iron. The piece was held until it cooled, and retained this shape. Many of these filaments were packed into a



A memorial to Goebel was built at Springe, Germany, in 1954. The illuminated lamp that tops the stone pillar is used as an airplane beacon at night.

gas-coal mold, forming a packing of bituminous coal. Wires were fastened to the lower ends of the bamboo fibers, and these were packed with wood shavings. The whole was then packed with more powdered gas-coal and the airtight assembly was heated for an entire night. The next morning it was allowed to cool, it was opened, and the filament was ready for use.

Edison vs. Goebel

The Goebel lamp operated from batteries and had a limited life because of the current drain required from the batteries. The Edison lamp used dynamo power and wasn't affected by current drain.

The Edison Company brought suit against the firms making Goebel lamps in 1893. Goebel introduced proof that his invention was prior to Edison's, and among others, a professor of physics and chemistry and the president of the Electric Company of New York testified that he had indeed seen the Goebel lamp in 1860, and the court did indeed acknowledge the priority of Goebel's invention.
In the same year, at the age of 75, Goebel passed away. His heirs let the matter drop, and this decided the case. If they had continued the fight in court to its end, there's no telling how it would have been resolved.



From Arizona's Desert to Oceanside: The Epic Ride of the Swan

A portrait of the man, the grit, and the unpretentious transceivers behind Swan Electronics

"Build a radio that the average working ham can actually afford, and you will capture the heart of the amateur bands."

By Paul ZS6PMS

Introduction: The Counter-Trend of Democratic Design

Herbert G. Johnson, W6QKI (originally licensed as W7GRA), is a name forever etched into the landscape of post-war amateur radio. To many modern vintage collectors, his industrial legacy is firmly captured through a catalogue of heavy desktop cabinets, distinctive silver-rimmed dual-rate tuning dials, and the famous sweep-tube final amplifiers that once populated thousands of shacks across the globe. Yet, simply listing production statistics or compiling basic equipment reviews misses the true character of the man.

To truly understand Johnson, one must look past the bustling, high-volume factory floors of Oceanside, California, and picture a lone, determined amateur operator shivering in a converted garage in Benson, Arizona, during the bleak winter of 1960–1961. At a time when single-sideband (SSB) voice operation was rapidly pushing traditional amplitude modulation (AM) into obsolescence, upgrading one's station was a luxury few could dream of. Premium rigs like the legendary Collins KWM-2 were mathematically beautiful and electronically pristine, but their astronomical price tags made them an unattainable dream for the average working-class amateur operator.

Unlike his high-end contemporaries who approached radio design with severe, laboratory-grade perfectionism, Herb Johnson viewed the hobby through the lens of pure accessibility, structural simplicity, and practical hustle. He understood that technical brilliance meant absolutely nothing if a ham couldn't afford to buy the gear. That exact combination of technical resourcefulness, entrepreneurial grit, and deep consumer empathy became the governing pattern of his life.

The Apprenticeship: Burbank, Gonset, and the 1950s Laboratory

Before the name "Swan" ever resonated across the high-frequency bands, Herb Johnson spent the 1950s sharpening his engineering teeth in the highly competitive Southern California electronics boom. Working out of Burbank, California, Johnson served as a key design engineer for Faust Gonset at the famous Gonset Company. Gonset was highly respected within the amateur community for its innovative, compact mobile equipment—most notably the iconic "Gooney Box" line of VHF transceivers.

At Gonset, Herb specialised in designing high-stability oscillator circuits and weak-signal VHF arrays. He even co-authored the highly acclaimed VHF Handbook alongside legendary amateur radio author William "Bill" Orr, W6SAI, in 1955. His work directly influenced the development of the Gonset G-76, a multi-band mobile AM/CW transceiver.

It was during this era that Herb's self-taught mastery came to fruition. Herb possessed no formal university or engineering college degree. He was an entirely self-made, self-educated electronics designer who had built his first radio at age 14 and earned his amateur ticket at 15. He didn't rely on academic credentials; instead, he relied on an innate, intuitive grasp of circuit layouts, component tolerances, and real-world operational testing.

Furthermore, when Herb decided to strike out on his own, there was no massive family fortune or inheritance waiting to back him. His parents, Sven and Ruth Johnson, were hardworking people of modest means. The support Herb received from his family was purely mental and emotional—a profound, shared belief in his engineering vision and an unyielding family work ethic that would soon prove to be his greatest capital asset.

The Desert Garage Start: A Two-Person Operation

When Herb left the corporate security of Burbank to set up Swan Engineering in the dry desert air of Benson, Arizona, in late 1960, it was a painfully lean operation. Many historical retrospectives mistakenly paint this as a completely isolated, single-handed venture. In reality, it was a tightly knit, two-person partnership. Herb was the sole technician, layout engineer, and assembly line in the garage, but his wife, Helen Johnson, was the unsung operational engine behind the scenes.

Helen took full responsibility for everything outside the solder smoke. She meticulously managed the company bookkeeping, handled early marketing campaigns, and ran public relations with a growing web of eager radio distributors and component suppliers. They balanced this intense startup grind alongside raising their son, Les Johnson. Les inherited his father's love for

the airwaves, earning his novice license as a teenager with the callsign KN6PUR (later K7AMW when the family moved to Arizona), frequently helping out in the home shop and testing prototype assemblies under his father's watchful eye.
Operating out of their home workshop, Herb and Helen recognized a massive structural gap in the market. The amateur world desperately wanted to migrate to SSB, but the financial entry barrier was an unscalable wall. Herb's business plan was brilliantly simple: strip away the unnecessary luxury frills, focus entirely on robust mono-band performance, and aggressively lower the cost of entry.
To honour his family heritage, Herb chose the brand name "Swan" in memory of his father. His father's original name in Sweden was Sven, which had been Americanised to Swan upon his immigration to the United States.



Swan 140 40 meter single bander early Benson AZ production 1961

The 50% Up-Front Mail-Order Strategy

Launching a manufacturing startup with virtually zero outside venture capital required serious financial ingenuity. Because components like high-quality intermediate frequency (IF) crystal filters and custom chassis plates required up-front cash, Herb and Helen devised a brilliant, self-sustaining financial framework.
They began advertising their mono-band transceivers via specialized amateur radio publications as a direct mail-order business. The catch was unique: customers were required to pay a 50% down payment up-front with their mail order. In an era where consumer trust was heavily grounded in personal reputation and peer-to-peer accountability across the airwaves, this strategy turned out to be immensely successful.
The cash flow generated from these 50% deposits directly funded the raw material procurement for the exact radios being built on the workbench. It completely eliminated the need for predatory bank loans or restrictive outside investors, allowing Swan Engineering to remain entirely self-funded and agile during its critical incubation phase.
This meticulously hand-wired first batch consisted of just ten mono-band rigs. Serial numbers 101-1 through 109-1 became the SW-120 (built exclusively for the 20-metre band), sold at a fraction of the cost of any competing SSB gear. The tenth unit, 110-1, was tailored as the SW-140 for the 40-metre band. They were simple, visually unpretentious, but featured exceptionally punchy audio and strong output power. The word spread like wildfire across the bands: there was a couple out in the Arizona desert building radios that worked beautifully, and you didn't have to mortgage your house to buy one.

The Amicable Competitors: Swan vs. SBE

As Swan Engineering began its rapid climb, a fascinating historical parallel occurred back in California. Faust Gonset, Herb's former employer, also recognized the massive potential of the low-cost SSB market. Faust left his original company and founded Sideband Engineers (SBE), introducing the incredibly compact, innovative SB-33 hybrid transceiver in 1963.
Suddenly, Herb Johnson and his former mentor found themselves locked in a direct head-to-head battle to capture the budget-conscious amateur market. SBE utilized highly advanced, unique bilateral circuits and innovative solid-state diode switching, while Swan leaned into high-power, robust vacuum tube layouts that maximized output wattage per dollar.
Tragically, this direct rivalry between the two designers was cut short when Faust Gonset passed away in November 1963, the very same year the SB-33 hit the market. Yet, the passing of its founder did not signal the end of the corporate battle, nor did it tarnish the ethos behind it. The friendly competition carried on with SBE under new corporate stewardship.
Throughout the 1960s, both Swan and SBE competed fiercely for the exact same consumer demographic, but the relationship remained entirely amicable. They were both authentic "radio men" who shared a deep, mutual respect for each other's engineer-

ing capabilities and work ethic. On the airwaves and at major electronics conventions, Swan and SBE representatives frequently shared technical insights and light-hearted banter. This friendly rivalry pushed both companies to continuously innovate, turning the Southern California region into the undisputed centre of amateur radio design during the mid-twentieth century.

Sailing to Oceanside: The Siren Call of the Pacific

By 1962, the deluge of orders generated by the SW-120, SW-140, and the multi-band SW-240 completely broke the physical limits of the Benson, Arizona garage. Swan desperately needed a dedicated factory space, a larger labour pool, and streamlined shipping infrastructure. However, the choice of where to relocate the expanding company was driven by one of Herb Johnson's greatest personal passions: sailing and yachting.

Herb was an avid, lifelong sailor who felt a constant, powerful pull toward the ocean. He spent his free hours skippering a beloved series of racing sailboats—all appropriately christened *Vector*—in highly competitive, long-distance regattas along the rugged coasts of California and Mexico.



Swan tri-Bander 240 for 20-40-80 metres

When looking for a new corporate headquarters, Herb targeted a location that could seamlessly bridge his industrial ambitions with his maritime lifestyle. He chose Oceanside, California, a beautiful coastal city situated just north of San Diego. Moving the company to Oceanside in late 1962 allowed Herb to build a state-of-the-art manufacturing plant by day and walk down to the docks of the Oceanside Yacht Club by night. The maritime environment directly influenced his mindset, instilling a deep appreciation for gear that could withstand harsh, corrosive, real-world environments—a trait that would define Swan's mechanical construction.

The Oceanside Boom and the "Three Drifty" Reality

The relocation to Oceanside paid off exponentially. Officially renamed Swan Electronics, the company scaled up production at an astonishing rate. By expanding their product line into full 5-band HF desktop transceivers, Swan created the quintessential "boatanchor" look that defined an entire generation of amateur radio operators.

Rigs like the Swan 350 and the subsequent Swan 500 series became absolute commercial blockbusters. Their aesthetic was unmistakably bold: clean, massive blue-black-silver front panels, robust knobs, and a heavy, wrap-around steel cabinet. The engineering genius lay in their final amplifier stages. Instead of utilizing highly specialized, expensive RF transmitting tubes, Herb designed the circuits around heavy-duty, widely available television sweep tubes, most notably the 6HF5 and 6LQ6. These tubes were manufactured by the millions for colour TV sets, making them incredibly cheap to procure.

However, this aggressive cost-cutting and simplified circuit design came with a notorious technical trade-off: frequency drift. Because Swan transceivers relied on a single-conversion VFO architecture and lacked highly sophisticated, expensive temperature-compensating enclosures around the oscillator tubes, the radios were notoriously unstable from a cold start. A Swan transceiver did not like to stay in one spot during an entire QSO; it would slowly meander up or down the band as the sweep tubes heated up the cabinet.

Amateur operators worldwide quickly noted this temperamental quirk, and the radio community responded with affectionate, yet notorious nicknames. The Swan 350 was almost universally dubbed the "Swan Three Drifty" or the "Drifty Three Fifty." Operators joked that a Swan owner didn't just tune a radio—he chased it across the band. Experienced hams learned that the only way to combat the issue was to leave the rig turned on 24/7, allowing the chassis to reach a steady, high thermal equilibrium before attempting to transmit.



Swan350 Transceiver

Despite the drift, the radios sold by the tens of thousands because they represented unmatched watt-per-dollar value. At its absolute production peak in Oceanside, the facility was a manufacturing juggernaut, churning out roughly 600 transceivers every month. Over its operational lifespan, Swan sold more than 80,000 vacuum-tube transceivers.

The Transatlantic Connection: Rowley Shears and KW Electronics

As Swan's reputation grew globally, it caught the attention of Major Rowland "Rowley" Shears, G8KW, the founder of KW Electronics Ltd. based in Dartford, Kent, England. KW Electronics was the undisputed king of the British amateur radio manufacturing market, famous for high-quality gear like the KW Vanguard and Viceroy.

In the mid-1960s, Rowley Shears designed the KW2000 series, a highly compact, elegant HF SSB transceiver built around a mix of British styling and a design concept influenced by Collins. Recognizing that the massive United States market was where the real wealth lay, Shears sought a footprint across the Atlantic. A strategic corporate relationship was forged between Rowley Shears and Herb Johnson.

Shears attempted to utilize Swan's massive American distribution network to export and market the KW2000 transceivers directly to US hams. Later, into the 1970s, this transatlantic alliance transitioned toward Herb's second venture, Atlas Radio, as KW Electronics sought to co-brand and distribute high-performance solid-state equipment. While aggressive American import tariffs and fierce domestic competition meant the KW2000 export drive achieved mixed commercial

success, the alliance cemented a lifelong mutual respect between Shears and Johnson—two decorated European and American radio pioneers bridging the Atlantic via a shared dedication to the amateur craft.

The Solid-State Revolution and Atlas Radio

In 1967, looking to secure the company's long-term financial future, Herb orchestrated a corporate merger with the San Diego-based defence conglomerate, Cubic Corporation. He remained at the helm as managing director of the Swan subsidiary until 1973, when the shifting tides of corporate management and the arrival of highly efficient solid-state gear from Far East manufacturers (such as Yaesu and Trio-Kenwood) caused him to step away.

True radio men never truly retire, and Herb Johnson was no exception. Following his departure from Swan/Cubic, he founded his second great corporate venture: Atlas Radio Inc. in 1974, based right out of Oceanside, California. Partnering with the brilliant solid-state engineering mind of Les Earnshaw, Herb set out to realize a new vision using a strict engineering directive he famously dubbed the KISS Principle ("Keep It Simple, Stupid"). Herb's radios of his Swan line where in fact "simple" too. Single conversion, 4-pole Cystal-filter and 5175 kHz IF. A remarkable fact is that he used a 7360 beam deflection valve in the balanced modulator right from the beginning in his garage in Arizona and continued to do so in Oceanside. This valve represents the absolute pinnacle of valve technology resulting in 80dB carrier suppression if the stage is designed well.

Atlas started dropping the heavy power transformers, fragile glass tubes, and tedious plate-tuning transmitter controls of the past, Atlas introduced the revolutionary Atlas 180, 210, and 215 series transceivers. These were among the very first commercially successful, entirely solid-state high-frequency (HF) amateur transceivers to hit the global market. They featured fully broad banded, no-tune solid-state power amplifier finals.

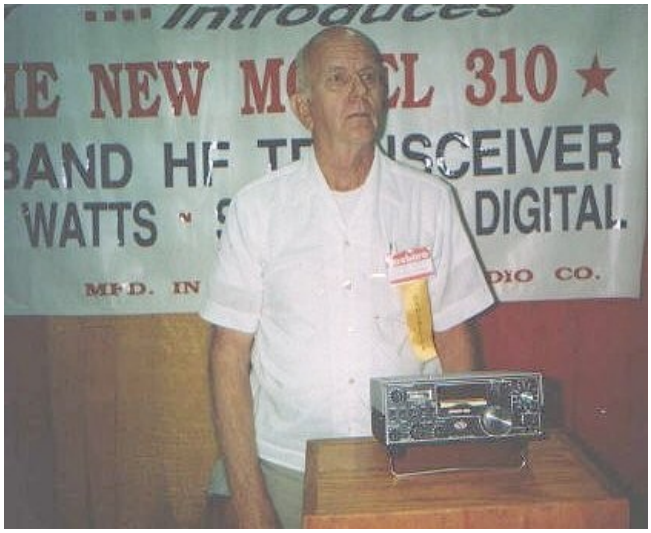
Because these ultra-compact rigs could run directly off a standard 12-volt DC automotive battery without requiring a massive external power supply, Atlas radios completely revolutionized HF mobile operation. For the first time in amateur history, an operator could easily bolt a high-performance, multi-band HF transceiver directly under the dashboard of a compact car, or tuck it neatly into the bulkhead cabinet of a boat. Over its run, Atlas produced and sold more than 19,000 solid-state units, proving once again that Herb's knack for reading the practical desires of the everyday ham was unmatched.

The Final Signal and Legacy

When Herbert G. Johnson passed away from heart failure on 1 February 2000 at the age of 79 in Cardiff, California, the amateur radio world lost one of its most genuine icons. His active involvement in the hobby and his love for sailing had remained completely undiminished well into his late seventies, maintaining his status as a longtime, respected fixture at both the Oceanside and San Diego Yacht Clubs.

The deep historical significance of his contributions to maritime and amateur wireless communication was beautifully codified in 1979. When historians and radio amateurs set out to restore the historic, long-abandoned Wireless Room aboard the legendary RMS Queen Mary museum ship in Long Beach, California, Swan Electronics equipment was proudly selected and donated to outfit the permanent exhibition. It stood as a fitting tribute: a rugged, accessible American radio operating from the radio room of the world's most iconic ocean liner.

Herb Johnson was the ultimate champion of the average ham. He took single-sideband technology out of the restrictive, high-cost corporate laboratory and dropped it directly onto the kitchen tables and workbench desks of everyday operators worldwide. In every single sense of the classic term, Herb Johnson was, and will always be remembered as, a true radio man.



Herb Johnson behind one of his Atlas products courtesy WA1RI

Verified Archival Sources & Further Reading

*1. **The ARRL Letter Archive** (Vol. 19, No. 5 - February 4, 2000): Official obituary and corporate timeline for Swan and Atlas Radio founder Herbert G. Johnson, W6QKI.*

***2. U.S. Federal Census Records & FinIndex (Memorial #205089338): Biographical registry** confirming parents (Swan and Ruth Johnson), birth in Pittsburgh (10 Nov 1920), and passing in California (1 Feb 2000).*

*3. **Historical Radio Club of America** Collections (RCA Journal Archive, Vol. 2008, No. 2): Correspondence indices logging Herb Johnson's early 1950s work on VHF weak-signal testing and family survivors (wife Helen Johnson, son Les Johnson, callsign K7AMW).*

*4**. K.W. Electronics Historical Compendium** (G3ZPS Engineering Pages): Documentation mapping Major Rowland "Rowley" Shears (G8KW), Dartford Kent manufacturing, and the mid-60s transatlantic export agreements for the KW2000 series via Swan/Atlas distribution routes.*

*5**. CQ Magazine Historical Archives** (November 1963 / January 1964): Industry announcements detailing the launch of the SBE SB-33 and the sudden passing of Sideband Engineers founder Faust Gonset in November 1963.*

*6. **The VHF Handbook** (First Edition, 1955): Co-authored by William I. Orr (W6SAI) and Herbert G. Johnson (W6QKI), published by Radio Publications Inc., Burbank, CA.*

*7. **Amateur Radio Memory Repository** (K5LAD Chronicles, Vol. 49): Technical analysis of single-conversion VFO thermal drifts and the origin of the "Swan Three Drifty" / "Drifty Three Fifty" nicknames within the 1960s ham community.*



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Antique Wireless Association of Southern Africa

Mission Statement

Our aim is to facilitate, generate and maintain an interest in the location, acquisition, repair and use of yesterdays radio's and associated equipment. To encourage all like minded amateurs to do the same thus ensuring the maintenance and preservation of our amateur heritage.

Membership of this group is free and by association. Join by logging in to our website.

Notices:

Net Times and Frequencies (SAST):
Saturday 07:00 (05:00 UTC) —Western Cape SSB Net —7.140; Every afternoon during the week from 17:00
Saturday 08:30 (06:30 UTC)— National SSB Net— 7.125
Echolink—ZS0AWA-L;
ZS6STN Sandton repeater—145.700
Kempton Park Repeater—145.6625
Relay on 10.125 and 14.135 (Try all and see what suits you)

Saturday 14:00 (12:00 UTC)— CW Net—7.025

AWASA Telegram group:

Should you want to get on the AWA Telegram group where a lot of technical discussion takes place, send a message to Andy ZS6ADY asking to be placed on the group. This is a no-Nonsense group, only for AWA business. You must download the Telegram App first. …..+27824484368
