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Note: All **Blue** <u>underscored</u> items in this PDF newsletter are working links. (Click on the Link below to navigate to that section of Tech-Notes) We have removed the @ in e-mail address, replacing it with the word at.

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Editor's Comments

Television programming on January 1st of nearly any year in remembered history is synonymous with the Tournament of Roses, be it the Rose Parade or the Rose Bowl. The genesis of these events goes back to when the Rose Bowl was first broadcast in 1923 and the Rose Parade in 1926, both on radio: from there on the timeline reads like the evolution of broadcasting – both commercial and amateur.

It has been a lot of fun and very interesting gathering the information we'll presenting in this special edition of the Tech-Notes. It is our opinion that if the technical aspects relating to the history of broadcastings involvement isn't documented somewhere, it will be lost to future generations who may just ask: "How'd they do that?" In this spirit, we contacted the major networks and Los Angeles TV and Radio station, but didn't really get very far with any of them. Thank the heavens for friends who made this edition possible.

We'll start with a brief history of the Tournament of Roses, followed by a broadcast timeline. We hope our timeline doesn't leave anything out, as there is so much we weren't able to uncover. This will be followed by Harry Lubcke's experiments, John Silva's recollections and Amateur television's contributions. We hope you'll have a fraction of the enjoyment reading this as we had putting it together.



History

This January 1, 2007 marks the 118th Rose Parade and the 92nd Rose Bowl game, which are both part and



parcel of the today's Tournament of Roses. It all started out in 1890 when members of Pasadena's Valley Hunt Club, former residents of the East and Midwest, wanted to crow about the mild winter weather they had come to cherish to their friends back where they came from.

Professor Charles F. Holder once observed: "In New York, people are buried in snow. Here our flowers are blooming and our oranges are about to bear. Let's hold a festival to tell the world about our paradise," and that they did.

All on January 1st, except as noted.

1890 First Tournament of Roses was staged by members of Pasadena's Valley Hunt Club.





It all began with the Valley Hunt Club when they voted to stage on January 1, 1890, a parade of flower-decorated horse and buggies followed in the afternoon with public games. The games would be held at what was called the "town lot" (east of Los Robles near Colorado Blvd.). The founders had envisioned it to be the West's version of the festival of roses in Nice, France.

After the Parade, the afternoon's sporting events consisted of young men competing in a variety of foot races, tugs of war, jousts and a tourney of rings – an old Spanish game in which mounted horsemen carrying a 12-food lance tried to spear three rings hung about thirty feet apart. All these events inspired Professor Holder, the first president to name the day's events The Tournament of Roses. More than 2,000 people attended the first Tournament.

During those early years, the festival expanded to include marching bands and motorized floats. Even reviewing stands were built along the Parade route, and Eastern newspapers began to take notice of the event.

1893 (January 2nd) First year officials faced with the dilemma of having a Parade on Sunday-January 1st. Not wanting their events to interfere with church services, the "festival" was held a day later, implementing the "Never On Sunday" tradition which continues today.

<u>1895</u> the Tournament of Roses Association was formed to take charge of the festival, which had grown too large for the Valley Hunt Club to handle.

1900 First motion picture of the Rose Parade is produced by Vitascope Company. Even though it was screened days, weeks and even months later, this was the first time that the parade was seen "live" by audiences throughout the United States. This is also the year that the "town lot," where sporting events took place, was re-named Tournament Park. Things had changed. The games included ostrich races, bronco busting demonstrations and a race between a camel and an elephant (the elephant won).

<u>1902</u> This was the year that the Tournament of Roses decided to enhance the day's festivities by adding a football game – the first post season college football game ever held. Stanford University accepted the invitation to take on the power-house University of Michigan, but the West Coast team was flattened 49-0 and gave up in the third quarter. The lopsided score prompted the Tournament to give up football in favor of Roman-style chariot races.

1904 First chariot races staged, inspired in part by the best-selling book Ben Hur. The chariot races, held at Tournament Park, continued until 1915 when it was decided that while the event was indeed popular, it was far too dangerous and expensive

<u>1913</u> First and only elephant-camel race held. With a little goading from its rider, the elephant won.

1916 football returned to stay and the crowds soon outgrew the stands in Tournament Park. William L. Leishman, the Tournament's 1920

President, envisioned a stadium similar to the Yale Bowl, the first great modern football stadium, to be built in Pasadena's Arroyo Seco area.

<u>1920</u> The 31st Rose Parade marked the end of the horse-drawn era. Motor-driven floats, powered by electric and gasoline engines, took over completely.

1922 (January 2nd) Construction of the horseshoe-shaped stadium is completed with a seating capacity of 57,000 and is deeded to the city of Pasadena by the Tournament of Roses Association.



The new stadium hosted its first New Year's football game in 1923 and soon earned the nickname "The Rose Bowl."

The Tournament of Roses has come a long way since its early days. The Rose Parade's elaborate floats now feature high-tech computerized animation and exotic natural materials from around the world. Although a few floats are still built exclusively by volunteers from their sponsoring communities, most are

built by professional float building companies and take nearly a year to construct. The year-long effort pays off on New Year's morning, when millions of viewers around the world enjoy the Rose Parade.

Nicknamed "The Granddaddy of Them All" the Rose Bowl Game has been a sellout attraction every year since 1947. That year's contest was the first game played under the Tournament's exclusive agreement with the Big Ten and Pac-10 conferences. The 1998 Rose Bowl Game was the 52nd anniversary of that agreement, the longest standing tradition of any collegiate conference and a bowl association. Now, as part of the Bowl Championship Series, the Rose Bowl has hosted the National Championship Game between the top two teams in the nation in 2002 and 2006, and will host the National Championship again in 2010.

Time Line

Broadcast's Time Line of the Tournament of Roses

Broadcasting -

All on January 1st, except as noted.

1923 First radio broadcast of a Rose Bowl Football Game was by KHJ, Los Angeles.

<u>1926</u> First radio broadcast of the **<u>Roses Parade</u>** by KPSN-AM, owned by the Pasadena Star News.

1927 First coast-to-coast broadcast of the **Rose Bowl Football Game** was on NBC radio.



<u>1930</u> Radio allows coast-to-coast network basis with the <u>Rose Parade</u>, and movie houses featured the Parade throughout the country during the first few months of the year, making Pasadena a major attraction.

1932 First short-wave radio broadcast of the **Rose Parade**. The broadcast is heard internationally.



<u>1940</u> First experimental telecast of the Tournament of <u>Roses Parade.</u> It was done by W6XZAO (later to become KTSL – Don Lee, KNXT and now KCBS – CBS). This was also the first remote television broadcast west of New York City. (<u>See our story about this below.</u>)



<u>1947</u> First regularly scheduled telecast of the Tournament of <u>Roses Parade</u> by W6XYZ. Although the call letter were for an experimental TV station, W6XYZ became the first <u>commercial</u> TV station on the west coast on January 22, 1947 and has carried the call letters KTLA ever since. (<u>See our story about this by John Silva, below.</u>)



1948 First telecast of a Rose Bowl Football Game was done by KTLA. Michigan 49, USC 0.

<u>1954</u> First colorcast of the Tournament of Roses Parade done by NBC. This colorcast marked a series of significant "firsts" in television history including:

- First use of NBC's new mobile color TV unit;
- First West-to-East transcontinental transmission of color television;
- First West Coast origination of a color program under compatible color standards;
- First broadcast of a network color program by a coast-to-coast series of stations.

1955 First Los Angeles (local) station, KTLA, to originate color programs. Two years after NBC, KTLA was the first local station to colorcast "The Tournament of **Roses Parade**." (*See Parting Shots, below*)

<u>1959</u> First ever coverage of the <u>Rose Parade</u> from a Telecopter by KTLA. The Telecopter was invented by John D. Silva when he was KTLA's Chief Engineer earlier that year.

1962 First college football game to broadcast nationally in color was the Rose Bowl Football Game. Minnesota 21 - UCLA 3.

• First Amateur radio involvement with the <u>Rose Parade</u> when hams were asked and provided escort for the various floats from where they were made to the <u>Rose Parade</u> staging area. CBs had been used, but the range was insufficient for the task.



 $\underline{\mathbf{1968}}$ First "live" international satellite feed of $\underline{\mathbf{Rose\ Parade}}$ and $\underline{\mathbf{Rose\ Bowl\ Football\ Game}}$ to other parts of the world. USC 14 - Indiana 3

1968 First Amateur Television (ATV) involvement in the Rose Parade was in a Los Angeles County

Sheriffs Bell 47 helicopter for an eye in the sky. It was part of Amateur Radio's Amateur Radio Emergency Service (ARES) and Radio Amateur Civil Emergency Service (RACES) communications system.

1979 First Amateur Radio Television (ATV)'s involvement on the ground. A group of Southern California ATVers joined together to help with the logistics in putting on the Rose Parade.

1969 First Color coverage from a Telecopter by KTLA.

1981 A Motorcycle-equipped unit joins the ATV coverage of the **Rose Parade**.



1984 First Emmy award associated with the Tournament of Roses was won by NBC (1983-1984) "Daytime Emmy Award" for their coverage on of the 95th Tournament of **Roses Parade**. It was for Outstanding Individual Achievement in the Coverage of Special Events and for Technical Direction/Electronic Camerawork

1988 First live network broadcast of the **Rose Bowl Football Game** in Spanish.

- First live broadcast of the **Rose Parade** to luxury cruise ships.
- First live radio broadcast of the **Rose Parade** from atop a moving float by radio personalities Ken and Bob of KABC-AM (Los Angeles).



1989 First 3-D broadcast of the Rose Parade was carried on KTTV.

The Tournament of Roses celebrates its first centennial.



<u>1997</u> First online broadcast of the Tournament of <u>Roses Parade</u> on <u>www.ktla.com</u> with over 20,000 people join in.

1999 First broadcast of the Rose Parade in HDTV by KTLA.

2002 CBS won a (2001-2002) "Daytime Emmy Award" for their coverage on January 1, 2002 of the Tournament of **Roses Parade** "Coming Up Roses" for Outstanding Achievement in Multiple Camera Editing.



2004 – Hams out of the <u>Tournament of Roses</u> completely.

2007 KTLA, the oldest commercial broadcast television station west of the Mississippi will carry the **Rose Parade** once again marking their 60th consecutive year - and again, for the seventh consecutive year it will be in High Definition Color with surround sound. The **Rose Parade** will also be broadcast on ABC, NBC, Univision, HGTV, Travel Channel, and Discovery HD, as well as locally on Los Angeles television station KWHY. The Parade is also seen in more than 150 international territories. This year the 118th **Rose Parade** theme is "Our Good Nature."

Note: There was a time when every Los Angeles television station had a remote unit out and covered the Rose Parade.

Radio

There is undoubtedly more about radio than we have here, but we were unable to find it.

January 1, 1923 heralds the very first broadcast of any of the Tournament of Roses events when KHJ – 930 kHz – in Los Angeles, broadcast the first Rose Bowl Football Game



from the recently completed Rose Bowl stadium (1922) in Pasadena. KHJ was also new at that time, having only been on the air less than a year. It was owned then by the Los Angeles Times newspaper. KHJ broadcast of the game, which was then called the "East vs. West Football Game."

That first local radio broadcast of the

First Rose Bowl Game - Jan 1, 1923

Rose Bowl Game was announced by Pasadena sportswriter and ex-Olympic track star Charlie Paddock. USC played Penn State, beating them 14-3. This was confirmed by Jim Hilliker from a contemporary account in the Los Angeles Times.

The first radio broadcast of the **Roses Parade** was on January 1, 1926. The station having that honor was



KPSN-AM, a 1 KW station on 950 kHz, owned by the Pasadena Star News. The location was 525 Colorado Blvd. The station had only been on the air for a few months when they did this event. Unfortunately, KPSN went dark in 1931 when the Federal Radio Commission, predecessor to the Federal Communications Commission, took away their license for technical violations. (This information provided by Jim Hilliker, formally of KNOB and KYMS.)

Spanning the nation for the first time on January 1, 1927 with the first coast-to-coast

FOOTBALL GAME

broadcast of the **Rose Bowl Football Game** on NBC (Red), eager fans got to hear Stanford tie Alabama 7 to 7 announced by Graham McNamee.

<u>1930</u> Radio allows coast-to-coast network basis with the <u>Rose Parade</u>, and movie houses featured the Parade throughout the country during the first few months of the year, making Pasadena a major attraction.



Graham McNamee

<u>1932</u> First short-wave radio broadcast of the <u>Rose Parade</u>. The broadcast is heard internationally.

Experimental Television

The First Television Pick-Up Of the Tournament of Roses Parade, January 1, 1940

(Thanks to Don McCroskey and the Society of Motion Picture and Television Engineers for their assistance in providing the information for this article)

Harry R. Lubcke's impact on television is nearly synonymous with the term television itself. Unfortunately, when Lubcke passed away back in the early '90s, there were no notices of his death in the Los Angeles papers or trades, and his peers in the broadcast community didn't find out about it until about six months after his demise. Sadly, all of his technical papers and mementoes were apparently trashed.

Lubcke's career in television started in 1929 with the Farnsworth Labs in San Francisco shortly after his graduation from the University of California at Berkeley, with a degree in electrical engineering. His main project was to develop an all-electronic scanning generator system. This was the first scanning system using an electronic sawtooth generator producing a linear scan, blanking to eliminate retrace scan, and pulses to synchronize both transmitter and receiver. The patent (US 2,059,219) also included a means for suppression of the DC component (the black level) at the transmitter and reestablishing it in the receiver. This patent was probably one of the more important items in the unprecedented settlement between Farnsworth and RCA in September 1939.

Lubcke left Farnsworth in June 1930. After a brief hiatus, he was hired by Don Lee, a southern California car dealer and new Los Angeles radio station owner, in November of that year. He was given the title "Director of Television of the Don Lee Broadcasting System."

It didn't take long for Lubcke to convince the Don Lee Broadcasting System to build an experimental television station in Los Angeles, so he applied for a construction permit for the first television station on the west coast, W6XAO.

On December 23, 1931, W6XAO went on the air from the eighth-floor transmitter at 7th and Bixel streets, in downtown Los Angeles, at 44 1/2 megacycles, to broadcast one hour daily except Sundays. This was one of the first VHF stations to go on the air in the United States.

In May 1932 a self-synchronized cathode ray tube receiver was demonstrated. Only film images were being transmitted at the time using a sine wave vibrating mirror, a CRT flying spot scanner, and a Knipkow disc. By 1936 daily demonstration broadcasts were being made from the Don Lee Broadcasting System's radio studios at 7th & Bixel streets using a 300 line 24-frame system. Interlacing was not used since the LA area was still using a mix of 50 and 60 Hz power. In 1938, RCA purchased certain patents and methods of Mr. Lubcke pertaining to synchronization methods and apparatus.

Lee also had a license for W6XS, which broadcast on a frequency of 2100-2200 kHz, using a mechanical camera that worked only with film. The picture had 80 lines and 20 frames per second. Since there were few commercially available TV receivers at the time, Lubcke prepared and distributed plans for construction of mechanical receiving sets to many amateurs in the area of Los Angeles. The 80 line picture was transmitted on both W6XS and W6XAO.

In the early 30s Lubcke started experimenting with all electronic television and by 1932 Lubcke had developed a Cathode Ray Tube receiver with self synchronization because Los Angeles had both 50 and 60 Hz electric power, and to facilitate use of CRT receivers, synchronizing pulses were included in the video signal.

In a paper presented at the 1940 Spring Meeting in Atlantic City, NJ on April 15, 1940, Lubcke submitted a paper recounting his efforts in covering the Pasadena Tournament of Roses Parade for the first time. It was a one time deal and was done more as an experiment than anything else. The first regularly scheduled broadcast was by KTLA on January 1, 1947, according to the Tournament of Roses web site and the KTLA.

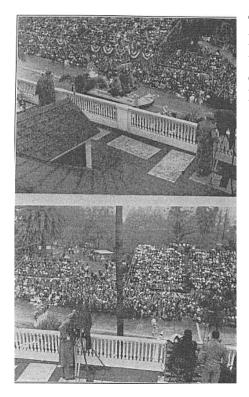
Lubcke's paper was included in the September 1940 journal of the Society



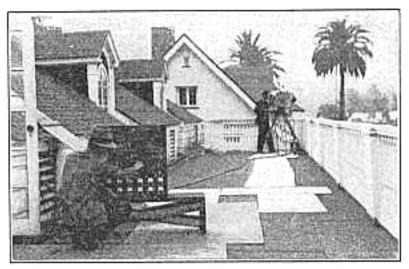
of Motion Picture Engineers – SMPE (television had not been included in the Society's title at this early date).

Things haven't changed much. The pick up point was where many broadcasters cover the

Rose Parade event today, the Pasadena Elk's Lodge.



The summary says: "The first television pick-up of the Pasadena Rose Tournament Parade was made on New Year's Day, 1940. This was accomplished with the "suitcase" type portable television equipment and beam Transmitter W6XDU of the Don Lee Broadcasting System.



Portable television transmitter W6XDUand one RCA camera as installed on third floor balcony of Elks' Club for parade telecast.

"Two television cameras were used to give long-shots and close-up views of the

floats, the cameras being, arranged to give instant switching of scene. The distant from Pasadena to the Don Lee Building site of the home transmitter W6XAO, is nine miles and the line of sight was interrupted by two hills and buildings. Since the portable transmitter operates at a wavelength of less than one meter, much effort was therefore directed toward erecting high and efficient antennas at the transmitter and receiver.

"Diathermy machines, as used by the medical profession, were found to cause interference even on the beam transmitter frequency of 324 megacycles, indicating the need for proper shielding of such devices.



"The sound portion of the broadcast was sent over the nationwide Mutual Network." Camera work and aural description were adequately synchronized. Although rain fell during the parade and the morning was darkly overcast, written statements of reception from W6XAO lookers up to 15 miles away reported clear images, enabling them to read the

A copy of Lubcke's complete seven page account can be had by contacting SMPTE. Much of what Lubcke

names on the floats and discern other items of detail."

reports in that document pertain to the antennas and relay system he developed to get the signal form the pick up point to the downtown Los Angeles television transmitter site.



"In 1940/1, Harry built a studio/transmitter site for Don Lee atop Mt. Lee, above and behind the HOLLYWOODLAND sign," according to Don McCroskey. The Hollywoodland sign was shortened to Hollywood as it looks today.



After the early 40's frequency/channel shuffle, W6XAO ended up on channel 2 and broadcast from the Mt. Lee site until about 1952, with time out for World War II. The building and antenna tower still exist.

McCroskey concluded by saying: "The pre 1940 info is derived from Al Abramson's "The History of Television". Post 1940 are personal recollections, which might be off by a year.

Harry Lubcke, while president of the Society of Television Arts and Sciences gave its award, the Emmy, its name. The term "Emmy," which Lubcke said came from a nickname given to the television camera pick-up tube in common use at the time, the Image Orthicon.



<u>Note:</u> Most early television cameras didn't have electronic viewfinders. See the mechanical one on this early model.





The SMPTE Logo before there was a "T" in it.

Thanks to SMPTE for their cooperation in making this story possible in the Tech-Notes.

Feature

The First Regularly-Scheduled Telecast of the



Parade by W6XYZ in 1947 and The First Telecast of the Rose Bowl by KTLA in 1948 KTLA – Celebrating 60 Years of Continuous Coverage 1947 - 2007

By John D. Silva

Editor's Note: We've had the privilege of working with Mr. Silva for many years now going back to the days when he hired your editor to work at KTLA as a staff engineer.



His contributions to the television industry are too many to list here, but, the most notable of which is his conceiving of, designing, and building the very first Telecopter, a device that has, without question, revolutionized broadcast news- gathering. That historic event, his involvement with the Lawrence Welk Show before it was ever a network program and his involvement with the first telecast of an Atomic Bomb Blast from the Nevada Desert are the documented events we've carried here in our Tech-Notes and we sincerely hope there will be more.

Mr. Silva had the insight to keep pictures documenting not only his own career, but also the history of the first commercial television station in the western United States, W6XYZ – KTLA, Los Angeles. This is a fortunate thing for us as KTLA has lost most all of their historical materials as the result of a flood in their storage basement.

For history buffs, this has got to be one of the best historic articles we've carried. There is a considerable amount of history and preparation that went into the early telecasting of the Tournament of Roses events. To set the stage, Mr. Silva has gone to great lengths to share his remembrances and pictures from his archives with our readers.

Prelude - Background

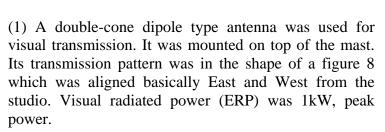
Experimental television station W6XYZ went on the air for the first time on September 18, 1942, on the

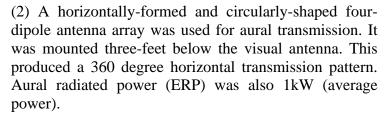


then-assigned television channel 4, (78 – 84 MHz). Its studio facility was set up in a modestly-sized sound stage on the Paramount lot in Hollywood, California.

The main transmitter was located and operated in the W6XYZ studio there at the Paramount Lot. The antenna system used to direct visual and aural signals to the public was mounted on the roof. The antennas were mounted on a vertical mast at the top of a 60-ft. tower that was attached by its base to the roof of the building. This resulted in an antenna height of 85 ft. above sea-level.

For technically oriented readers, the complete antenna system consisted of:







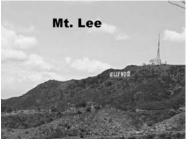
W6XYZ's first video broadcast cameras (two in all) were monster-sized iconoscope cameras that Klaus



W6XAO, owned and operated by Don Lee Corp, located on Mt. Lee, north of Hollywood and the W6XYZ studio. Paramount did not want to be left out



Landsberg (click here to read his biography) had brought with him from Dumont Laboratories in New York in 1941, where he was formerly employed before joining Paramount Pictures. He was assigned responsibility the organizing and putting W6XYZ on the air as the experimental second television station in Los Angeles, the first being



of the development of television broadcasting, as they could see the handwriting of the wall.

W6XYZ owned a mobile unit that had been designed by Klaus and built by the engineering staff. It was used to control the two iconoscope cameras. Its purpose was to serve as a camera control facility for both studio and remote programming. It was a "one other" or the situation, as is explained below.

When used for studio programming, the van was driven into the building

and cabled up for the job. Its equipment included iconoscope camera control units, necessary support

equipment, video monitors, video switcher, sync generator, video distribution amplifiers, audio mixer, microphones, audio speakers, intercom equipment, inter-connecting cables, etc. Program video and audio were sent from the mobile unit parked inside the studio, to the W6XYZ main transmitter, which was also located in the studio building.

For remote pick-ups, either one or two iconoscope cameras were usually mounted, as needed, on the roof



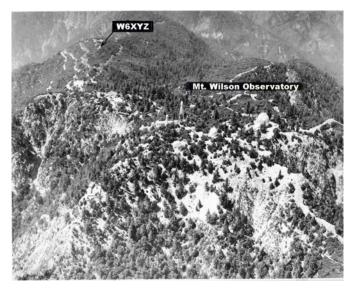


of the mobile unit. Program video and audio transmissions had to be handled by Pacific Telephone & Telegraph (PT&T - Bell). This was because a remote microwave transmitter/receiver did not yet exist at W6XYZ. Because of this, the mobile unit and equipment could not be used for effective

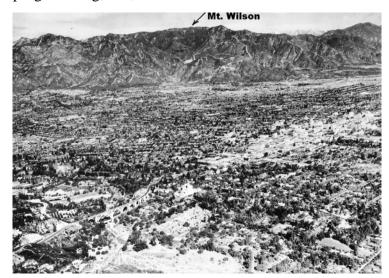
wide-range coverage of local breaking news events at that time.

As can be imagined, these first innovations and implementations of telecasts were, without doubt, outstanding and noteworthy. There were technical limitations at W6XYZ at that time in the flexibility of operations and in the expansion of existing capabilities in the future.

Klaus realized that he needed to dramatically enlarge the reception area of viewers that would be capable of receiving W6XYZ signals. To accomplish this he correctly surmised that it would be necessary to increase the transmitter antenna height significantly and also to increase the transmitter visual and aural power outputs.



In order to start doing remote telecasts, such as: news, special events, interesting and entertaining programming, etc., W6XYZ needed to have a mobile unit that could go out to various sites throughout the



highest peak there had an altitude of about 6,000 feet above sea-level. From that location, line-of-sight conditions to potential remote locations over the whole Los Angeles area, and beyond, were unbelievably good.

This did it! This was the ideal location for a new W6XYZ main transmitter. However, many things had to be considered to make it happen, such as:

- 1. Property at the site had to be long-term-leased.
- 2. A new road needed to be built to serve as an entry to the facility.
- 3. Power and general utilities, including: electricity, phone lines, water, gas, etc., had to be acquired.
- 4. A standby power-driven generator would be needed to be considered in the event of a power outage.
- 5. A building had to be built that would house a new main transmitter and supporting equipment.
- 6. An engineering crew would have to man this equipment on a daily basis, so the new building would have to contain living quarters and facilities.
- 7. A double garage would have to be built to house the crew's cars, particularly in the winter months.
- 8. Most importantly, a new and much more powerful audio and video transmitter would have to be designed and installed.
- 9. Also, a transmitting antenna would have to be acquired and be mounted on a tower having an appropriate height above ground.

Los Angeles area and transmit microwave signals to a receiver at the main transmitter site, so that resultant program content could then be directly sent out to the public. As Kinescope Recording and Videotape technologies had not yet been either invented or developed in those years, all television programming to the public had to be live, on the spot.

Looking for a solution for these needs, Klaus searched for possible locations for the station's main transmitter that would serve these requirements. In the process, he visited a mountain named Mt. Wilson, located about 18 miles north-east of the W6XYZ studio. The

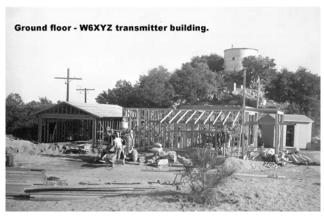


- 10. All of the items that would be located outside of the building would have to be able to withstand the high winds, rain, and snow that would exist during the winter months.
- 11. There would be other needed items that would come up that would have to be considered done.

Klaus then secured Paramount's approval and immediately set the wheels in motion to accomplish this difficult task, which had to be done over the following few months.

These pictures show the progress of this project.

Now that a new W6XYZ main transmitter was destined to be located on Mt. Wilson at 5,800 feet above sealevel, one more entity had to be designed, built, and put into operation to complete this new system. This was a new studio-to-transmitter link (STL) that would be used to send program video signals from the studio up to the main transmitter on Mt. Wilson. Program audio signals would go to Mt. Wilson via a Pacific Telephone & Telegraph (PT&T - Bell) equalized land line. The link would consist of a transmitter and receiver.







It was decided to use the station's engineering staff to design and build this unit. For this project, 500 MHz was chosen as the STL transmitter's operating frequency. The unit was to be located and operated in the studio. Its antenna, a Yagi-fed, 7-ft. parabolic reflector, was to be mounted up on the Studio roof. It would be connected to the transmitter with low-loss coax cable.

The receiver for the video STL was to be located and operated in the Mt. Wilson transmitter building. Its antenna would be mounted on the roof. Further,

this new STL microwave link was to be designed, built, and installed by the station's engineering staff.

Because there was a time-frame of about 6 months to complete the Mt. Wilson main transmitter facility, the STL task was able to be completed, including the testing for proper operation, with ample time to spare before it was needed on a regular basis.

The transmitter installation at the Mt. Wilson site also included a 75 foot tower. In the interim, the antenna



system that was formerly used at the W6XYZ studio was brought up at the last minute and was used as the main antenna. The altitude of the ground under the base of the antenna was 5800 feet above sea-level. This made the height of the tip of the antennas 5882 feet above sea-level.

Transmitter powers emitted from the antennas (ERP) were: 30 kW peak visual and 15kW average aural. Finally, in January, 1946, with all the above requirements accomplished, the new W6XYZ main transmitter, which had been designed and built by Alan B. Dumont Co., in New York, as directed and specified by Klaus, was installed and put into operation using the then assigned TV Channel 4 (78 – 84 MHz).

My Arrival

I joined Klaus Landsberg in March, 1946. This was the result of a 5-hour meeting with him in which we talked intensely about television engineering and his plans for W6XYZ and beyond. We also higher engineering discussed my education related to television and my 4year service in the Navy as a radar officer in the Pacific arena during World War II. The interview concluded with Klaus offering me a position as staff engineer. He asked if I could start as soon as possible as he had several important station projects that needed to be attended to and I did.









At the time of my arrival, the main on-air program sent out to the public was a once-a-week, 1-hour program titled: "Hits and Bits" with movie actor Dick Lane. The program consisted of Dick Lane conducting interviews with interesting people, exhibition boxing and wrestling, judo instruction, and



anything else of interest that Klaus and Dick would think of each week. "The public" then consisted of about 300 individuals or families that owned TV sets, many with only 7-inch screens. Some had even built their own.

My first significant engineering assignment at the station was to assist in building a pre-designed, home-made, and badly needed, 2GHz microwave transmitter and receiver to be used by the station for remote telecasts throughout the Los Angeles area. The new microwave transmitter was planned to be used to send video signals from remotes to its companion microwave receiver that would be located at the new W6XYZ main transmitter facility on Mt. Wilson.

There was also a plan to design and build a mobile remote unit in the near future to be used exclusively for remote telecasts which would house the new microwave link and cameras. Little did I know at that time, that Klaus would later assign me the task of designing and configuring it for planned off-lot programs and fast-breaking news events.

In the meantime, and during 1946, a grab for frequencies started and continued for months by FM manufacturers and end-users. After much political debate between presently assigned users and those wanting new frequencies for FM channels, it was mandated by the FCC that TV Channel 1 be removed from the television broadcast assigned channel band (to read more on this subject, click here) and the band of frequencies be transferred to other services. As a result, all former VHF TV channels were to get reassigned channels, and had to modify their transmitters by a specified date to comply.



For example, W6XYZ that was assigned to operate on TV Channel 4 (78 – 84 MHz) was then required to use Channel 5 (76 – 82 MHz). This meant that the main transmitter had to be re-tuned to conform to the 76 – 82 MHz band of frequencies, which amounted to a negative 2MHz over-all frequency shift of the band. This was not a hard task to do. In accordance with this decree, the W6XYZ main transmitter was modified to operate on the newly assigned TV Channel 5 one evening after sign-off in early August, 1946. It was then returned on-air the next morning at sign-on time, without any loss of air-time.



The Result of Moving the W6XYZ Main Transmitter to Mt. Wilson

Placing the newly designed W6XYZ main transmitter on Mt. Wilson providing an antenna height of 5,882 feet above sea level was a giant step forward in reaching a new and vast potential television audience. It paid off handsomely, and it turned out that other television entities would follow this example in the not-too-distant future.

<u>First</u>, the range of received signals from transmissions from the former and original main transmitter that was previously located on the Paramount Lot was confined to a figure-8 emission pattern directed East and West from W6XYZ studio. In 1944, W6XYZ transmission power was listed as 1kW aural and 1kW visual. Whereas, transmissions from Mt. Wilson at 5,882 feet above sea-level, with 30 kW visual peak power and 15 kW average aural power, greatly increased the reception coverage area to a range that included most

homes in the greater Los Angeles area, and beyond, including cities near and facing the Pacific Ocean. These included the cities of Newport Beach, Long Beach, Huntington Beach, Malibu, Ventura, Santa Barbara, etc. Later on, it was found that acceptable reception of W6XYZ signals were being received from as far away as San Diego at a distance of over 100 miles from our main transmitter.

<u>Second</u>, received pictures in this greatly expanded area were virtually "ghost-free", and the overall picture and sound quality had been noticeably improved.

<u>Third</u>, as we discovered after the fact, this move up to Mt. Wilson opened up a whole new world for doing remote telecasts. Now there were infinite possibilities for line-of-site locations for potential remote pick-up sites. Whereas, before this major change, transmitting from a potential remote location to the roof of the W6XYZ studio, would have been an iffy line-of-site situation, at best, due to the relatively low height of the roof of the W6XYZ studio where a receiving antenna would have had to be located.

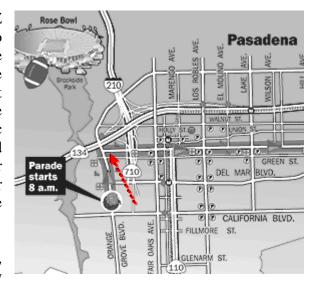


Testing the new remote microwave link

Once the new microwave link was completed and given a nominal in-house test, Klaus was anxious to take it out to a remote location in the field to see how well it performed in delivering "noise-free" pictures with desired quality to the receiving point on Mt. Wilson. Testing also needed to be repeated from a variety of other remote locations throughout the Los Angeles area.

Klaus had in mind telecasting the up-coming Pasadena Tournament of Roses Parade on January 1, 1947 from Pasadena, CA and every year thereafter. He and I both felt that this would be an ideal starting point in field-testing the new microwave link.

So, in October, 1946, we drove the pre-existing W6XYZ remote van with one iconoscope camera out to Colorado Blvd. in Pasadena, about 200 feet beyond the point where the marching participants would turn the corner off of Orange Grove on-to Colorado Blvd. going eastward, which is right next to the Pasadena Elks (Lodge) Club. We also brought the new microwave transmitter and a home-made 7-ft. parabolic antenna in an accompanying utility van. As pre-arranged with the Elks Lodge, we obtained power from them for our equipment and a phone line for communicating with our engineer at Mt. Wilson who would be manning the microwave receiver.



Reaching this point in the task, with camera equipment on, and the antenna positioned towards Mt. Wilson, it was now

my turn to switch power on the microwave transmitter and get the answer to our sixty-four-dollar question: does it work as expected? Lo and behold, soon after the equipment was turned on and warmed-up, and with the iconoscope camera signals feeding the microwave transmitter, Will Jewel, our transmitter engineer at Mt. Wilson, reported that he was receiving our signal and pictures of movement along Colorado Blvd. However, he also reported that the picture was somewhat noisy and really not good for broadcast.

At that point, my first thought was: "Oh! Oh!" Fortunately my second thought was: "Maybe the antennas need re-aligning." Continuing my conversation with Will, I said: "Let's swing our dishes (antennas) – one at a time, to maximize the reading on your signal-strength meter – You go first. This he did, and moments later he reported: "I got a max. The picture looks a lot better, but not perfect." So I said: "Now we'll swing our dish down here – so let me know when we get a max on your meter". We started by swinging left, and Will said, "Up", followed with, "Now down!" We then reversed the swing to the right. In an instant the reply was, "Up", then "Down". So then we continued with a slower back and forth swing movement until he replied, "Max! Hold it"!

Then I asked: "How's the picture now?" He answered: "Perfect"! "It's noise-free and as sharp as a tack!" - "Couldn't get any better."

At that point, happiness reined supreme. I shouted to Klaus and our crew, "The Mountain says our picture is perfect! Mission accomplished!" Klaus, in a very happy tone said to all: "OK guys, let's tear this equipment down and go home!" (Meaning back to the studio) The Tournament of Roses Parade was still a couple of months away.

Editor's Note: *Most all the pictures in this feature are from John Silva's personal archives.*

My first W6XYZ Remote Telecast

My first remote telecast at W6XYZ was the Sheriff's Rodeo in the Los Angeles coliseum. It was to take place on Sunday, October 25, 1946. What I thought was going to be a lot of fun and excitement turned out to be a monumental 3-day chore.

We would be using our two iconoscope cameras and the W6XYZ remote van. Our picture would be sent to our main transmitter on Mt. Wilson by Pacific Telephone & Telegraph's (PT&T - Bell) new experimental video link. Our sound was to be sent to the studio via PT&T's equalized program line, and then would be relayed to Mt. Wilson by our audio STL link at the studio. A private phone line would be used to communicate with our Studio in Hollywood and Mt. Wilson.

On reaching the Coliseum three days before the event, and after discussing the expected action that would

be televised with the rodeo program manager, it seemed that the best plan was to place the mobile unit down on the field with a camera mounted on top, and then have a second camera on a tripod, just off the playing field near center-field. Audio was to consist of about six microphones stretched all over the stadium, and would be mixed in the van.

We decided not to use the new 2GHz microwave transmitter/receiver to get our video signals up to Mt. Wilson as the mobile unit was located on the playing field and the high walls of the coliseum prevented a line-of-sight to Mt. Wilson.

This meant that, to achieve this, we would have had to place the microwave transmitter and antenna up on the very top of the coliseum near the press-box and we would have to run about 400 feet of large diameter, low-loss video coax cable as a connection between the mobile unit and the microwave transmitter, which did not seem practical at this time.

To my surprise, cabling became a monumental problem. Hundreds and hundreds of feet of Microphone, intercom, and video coax cable were needed. All cable types on-hand were on long lengths of factory-supplied cable reels, and were without connectors. Each one had to be separately cut to length and connectors laboriously soldered on.





We soon ran out of all connectors, and had to call the studio and have them shop for and bring us what we needed so we could complete the job. In the mean-time, the clock was ticking away. And to further add to the complication, it was decided that the main announcer would best operate from the press box way up on top of the center of the stadium.

This meant that not only did we have to run two lengths of about 300 feet of mike line (one for a spare), we also had to install a video monitor for him, and of course, 300 feet of coax cable, 300 feet of intercom cable, as well as other miscellaneous items.

Other needed microphone lines, inter-com, and coax cables for field announcers and stage crew that were spread here and there all over the field, added hundreds of feet more for each type.

Also, placing the huge iconoscope cameras where they were needed along with their monster camera cables were no small tasks in themselves.

The complete process of setting up for this unusual event lasted three days and caused us to work 23-straight hours up to air-time on Sunday.

Actually, the telecast went off quite well, and was declared quite interesting by many viewers. Esthetically speaking, once darkness approached, the pictures generated by the iconoscope cameras got very noisy. This was an inherent and adverse characteristic for this type of camera. Iconoscopes required lots of light, less they produce very noisy and unattractive pictures.

Lessons Learned From this Remote

Once this telecast was completed, I realized that an important lesson was learned, and it served well many times in the future: beyond having the right equipment ready and waiting when setting up a remote telecast, whether for a planned program or a breaking news event, you must have, ready and waiting, multiple sets of video coax, mic lines, intercom pairs, camera cable, etc., all cut to convenient lengths, with connectors.

I vowed that I would take on this task immediately. As a result it well served our purpose from that time on in performing remote pickups quickly and effectively, particularly when covering breaking news events in the many years that followed.

After the Sheriff's Rodeo telecast, I found myself intensely disliking iconoscope cameras because of their inconvenient size and weight, and they were a chore to move around and position. Also, they required lots of light to produce reasonable pictures, which many times we did not have. Further, they were prone to producing flares in the pictures. Controlling and shading those cameras in the control room, whether remote or studio, was an unpleasant and fatiguing experience, at best. As a matter of fact, they sometimes made me wonder if I really wanted to be a television engineer.

Getting Ready for the First Regularly Scheduled Telecast of the Tournament of Roses Parade

After recovering from the Sheriff's Rodeo in the Los Angeles Coliseum, we began thinking about our commitment of doing our first telecast of the Tournament of Roses Parade in Pasadena on January 1, 1947, which was only about 9 weeks away.

Digressing for a moment, six years earlier, in 1940, two development engineers at the Radio Corporation of America (RCA), named Harley Ambrose Iams and Alberts Rose, had previously invented a new and vastly improved camera pick-up tube called the "orthicon". Unfortunately, the tube proved to be very difficult to produce reliably in reasonable quantities. As a result, RCA spent 5 years to improve on the design and the yield.

In 1945, RCA introduced a problem-free and improved version with high yield capability. It was named the 5820 image orthicon camera pick-up tube. A year later RCA was able to market two camera models that incorporated the 5820 image orthicon tube. They were designated TK-10 for studio use, and TK-30 for field use. Not only were these camera pick-up tubes considerably smaller in size, so were the respective cameras that contained them. Compared to iconoscope cameras, these new image orthicon based cameras were like a gift from heaven.

The main advantages the 5820-based cameras were:

1. They had exceptionally high sensitivity combined with a spectral response approaching that of the

eye. The 5820 was characterized by a spectral response having high blue and green sensitivities, and very good yellow and red sensitivities. And most

importantly, they had practically no infrared sensitivity. This latter response characteristic prevented any color-masking by infrared, preserving the gray-scale which eliminated the need for gamma-correction circuitry, such as was needed for iconoscope cameras.

2. Further, un-like the iconoscope cameras, they were very stable in performance at all

incident light levels on scene objects, ranging from bright sunlight (several thousand foot-candles) to deep shadows (one foot-candle, or less).

Moving, positioning, and operating the TK-30 cameras was like heaven on earth compared to doing the same with iconoscope cameras. It was, at this time, that I was beginning to have renewed feelings that being a television engineer *was* the right way to go.

The only disadvantage of using the TK-30 cameras was that it was a proto-type model at that time, and did not come with an electronic viewfinder. Buying now meant that we would have to install a mechanical viewfinder with cross-hairs on the top surface of each camera until the

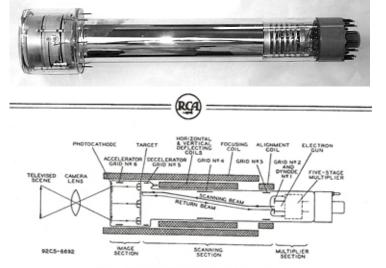


Fig. 1 - Schematic Arrangement of Type 5820.



electronic viewfinders became available. Klaus and I thought that this would not be an impediment, at least for a reasonable time period. Later, the camera was no longer classified as a proto-type. When this happened, an electronic viewfinder was included with each camera.

The question: should we purchase two TK-30 cameras to use for the Parade instead of the Iconoscope monsters? Klaus and I had a serious discussion about this. First, he would have to get approval for the purchase from Paramount Pictures Corporate Office in New York. Also getting delivery from RCA and learning the new camera equipment would absorb precious time. Further, we would need additional time to install them in a mobile unit and get familiar with their operation in order to guarantee producing beautiful pictures of the flowered floats and people marching in the parade. It was during this discussion that Klaus assigned me the task of designing and building the previously anticipated mobile unit for remotes, which would house the image orthicon cameras and the newly built microwave transmitter.

All things considered, we decided that if we could get Paramount's approval, if we could be assured of a quick camera delivery and special training from RCA, and if we could get a new mobile unit completed to house them, we should immediately order two new TK-30 image orthicon cameras if the answers to all of the above questions were found to be affirmative.

This being the case, we also needed to buy and build the new remote unit immediately. Money for it had already been approved. If we missed out on the timetable of 9 weeks 'til January 1, 1947, as a fallback position, we could do the Parade with the iconoscope cameras and the old mobile unit.

I was excited about being assigned to build the new mobile unit, and that we were probably going to get the new image orthicon cameras. This presented quite a challenge. Also, with this new mobile unit we could now go out in the field and test the new microwave system from different locations.

Klaus wasted no time in getting Paramount's approval for the new cameras. This came from Paul Raibourn, President of Paramount Television Productions. With this accomplished, my job was to:

- 1. Purchase the right vehicle to serve as the new mobile unit,
- 2. Place an order for the new cameras and support equipment from RCA. We previously had gotten price quotes and a guarantee of quick delivery with engineering training at our W6XYZ studios,
- 3. Secure help from the Paramount Machine Shop on the Lot to help design and build mechanical support structures and mounts for the equipment to be included in the new mobile unit, and
- 4. Order camera monitors and a master monitor, video switcher, video distribution amplifiers, an audio mixer, retractable steel cable reels for mic lines, video coax, camera cables, etc.; and equipment interconnect cables.

I secured help with installation from members of our engineering staff, which were very competent. Needless to say, I became a very busy young man at that time.

As a result of our making unbelievable haste at that time, we made great progress. I called RCA and gave them an order for two TK-30 cameras, control units, two camera monitors, a master monitor and synchronizing equipment, all contingent to getting quick delivery, and contingent to receive camera training at W6XYZ shortly after delivery, as had been promised earlier when I was getting pricing quotes.

I purchased a 1-HP Ford delivery type vehicle with over-head cab, a driver and passenger seat. We received it in about a week. When it first arrived, it looked a bit like an over-sized pie wagon. In about two weeks, the equipment was completely mounted, cabled, and tested. It was then professionally painted a two-tone blue (lower half) and yellow (Upper half). Once in that state, it began to look somewhat professional.

We purposely omitted W6XYZ lettering and logos on the sides of the vehicle. This was because we knew that in about three weeks after the Rose Parade (which was to happen on January 22, 1947); we would then become KTLA, Channel 5 - the first commercial television station west of the Mississippi.

Our First Remote Telecast with the New Mobile Unit and TK-30 Cameras

On November 29, 1946, a month before the 1947 Rose Parade, we had our first remote telecast with the

new mobile unit and TK-30 cameras. This was our first test. The event was Ice Hockey at the Pan Pacific Auditorium in West Los Angeles. The home team was the Los Angeles Monarchs. The remote set-up and coverage of the game took most of the day. Klaus directed, I was his technical director, and Ed Resnick and Jim Cassin were the cameramen. The coverage went off quite well, generally speaking. As a result, in a few days, Klaus secured a contract to cover the Monarch's home games in this arena.

One thing that stands out in my memory is that both Ed and Jim were having a bit of trouble keeping the hockey pucks in focus when using a semi-close-up lens. This was because of the non-electronic viewfinders on the cameras. Looking through a glass viewfinder with cross-hairs did not tell them whether or not their cameras were in focus. Klaus and I took turns guiding them into focus - sometimes even when their cameras were on the air. I think this was the time that Klaus came up with the term, "FOCUS MEAT-HEAD"!!! I think he should have copyrighted the term. I know that I've heard it used many times by quite a few directors over the years since.





Final Preparation for the Rose Parade Coverage

About three weeks before New Years Day, 1947, Klaus and I met to discuss how we were going to handle the parade coverage in Pasadena.

The result was we needed to:

- 1. Get a Pasadena City Parade permit,
- 2. Get a signed contract with the Elks Lodge to use their property as required,
- 3. Order program audio and telephone lines from Bell Telephone with extensions out to the mobile unit,
- 4. Reserve an adequate parking space for the mobile unit in their parking area near where the cameras were to be located,
- 5. Install the two image orthicon cameras on a platform near the south curb of Colorado Blvd., which the Elks Lodge would provide,
- 6. Acquire a platform for the announcer with table, chair, microphone, 12" B&W monitor, intercom headset, and all necessary interconnect cables, acquire a platform for the microwave antenna located up high enough to reach over the heads of the crowd and the floats as they went by, and
- 7. Set up microphones for crowd noise and band music.

These were to be my responsibilities as well as supervising our set-up crew, including cameramen Ed Resnick and Jim Cassin. Klaus would coordinate with our announcer and stage manager, be concerned with parade elements in their planned sequence, and to direct the complete show.

Two days after our meeting I went to the Pasadena City Hall and applied for, and received, the City permit to cover the Rose Parade. Next, I met with the General Manager of the Elks Lodge on Colorado Blvd. and secured an agreement to use their premise for our telecast needs on New Years day. They agreed to satisfy all of the above needs mentioned above that Klaus and I had listed in our planning meeting two days earlier. Also, they further agreed to allow us access to the Elks parking lot with all our needed vehicles used by the crew and talent.

A week later I took the majority of the crew that would be involved with the set-up and operation out to the Elks Lodge parade site to familiarize them with the logistics needed for telecast. Some of the effort was in measuring for required cable lengths, and making sure that we were in the best spot for our cameras, which we were.

Klaus and I had purposely chose this site because the sun would be at our backs and we would have great approach shots as the marchers made their turns off of Orange Grove onto Colorado Blvd., and advanced towards our cameras.

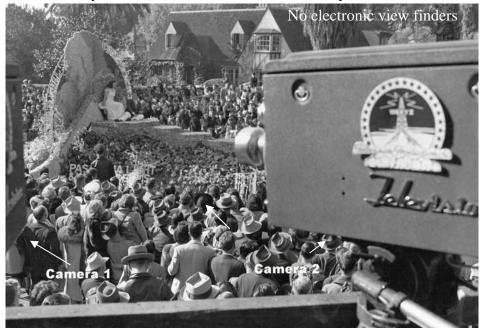
The day before the parade, our crew was on-site by 10 AM with all the needed equipment and cables. The idea was to completely set up according to plan, test all of the equipment including: cameras, microphones, etc. We also needed to check out our microwave signal and picture quality to the receiver on Mt. Wilson.

It was a long day for all of us, but we finished at about 6 PM. We had made arrangements with a local security company that supplied an armed guard to look out after our equipment. We had planned to leave

everything in-tact during the night and until we all arrived early the next morning. This gave the crew a chance to get a good night's sleep before the parade coverage next day.

The Telecast of the Parade

It was January 1, 1947. The crew-call was that every crew member was to be on-site by 5 AM. We all had



access to the Elks parking lot, so everyone made it on time. They were all excited about the task ahead. The parade was scheduled to start on Orange Grove at 7:30 AM. The front of the parade was expected to approach our cameras about 8:15 AM. Keith Heatherington was our parade announcer.

Suffice it to say, the parade went off extremely well. Our pictures of the marchers, flowers, equestrians, and floats were most appreciated by the audience, as reported by their phone calls and letters. Also,

the microphones placed to pick up sounds from marching units, bands, and the crowd definitely enhanced our pictures.

As a special note: Bob Hope was the 1947 Grand Marshal of the Tournament of Roses Parade, and we caught his smiling face and friendly wave as he was driven by.

When the parade was over, we all had good feelings about what we had accomplished, and we looked forward to covering it again in 1948, and in the years that followed.



Life after the Rose Parade and KTLA's Remote Unit Activity in 1947

Klaus was not a complacent individual. The next morning after the Parade, he invited me into his office. He said: "I don't want us to rest on our laurels. We've just started taking steps into the future." Continuing, he said, "there's just too much going on in the Los Angeles area, and it is only a matter of time when there will be many happenings that will qualify as breaking news, as well as opportunities to develop and telecast special entertainment and informational shows to the public from remote locations."

Later in that same conversation, he said: "Sometime in the very-near future, we needed to replicate our existing mobile unit in its entirety (cameras included), so that we will be able to make two telecasts simultaneously, if needs be." This meant that two additional TK-30 cameras would have to be ordered.

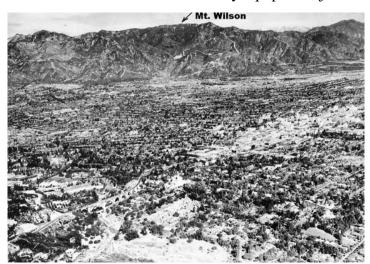
Having this new mobile arsenal would allow us to prepare for, and do, two remote telecasts at the same time, whether a news event, or not.

I told him that this was a really great idea. I then reminded him that RCA was now supplying electronic viewfinders with TK-30 cameras. He didn't want to hit Paramount with the extra expense at that moment; but he would let me know when the time was right, and to be prepared.

I said that, along with the second mobile unit, I would suggest adding an identical, but basically empty, mobile unit to serve as a companion carrier of surplus reels of cable and certain standby equipment, just in

case that a situation might call for it on a remote. He liked the idea, and he told me he'd add it to the list. In this discussion, Klaus surprised me by saying that he was pleased to promote me to the position of Remote Supervisor for the station. Of course, I was extremely pleased.

In addition to my regular duties, he told me I needed to go out in the field with our mobile unit to many places that he would select from time-to-time, and determine whether or not we could get a satisfactory microwave signal to Mt. Wilson. He would use this information for our future program planning, and it would give him the opportunity to let Paramount know what we had in mind for the future.



The next day, Klaus called me into his office to let me know that he had gotten immediate approval from Paul Raibourn at Paramount to spend the necessary money to purchase the new cameras and support equipment, as well as the two new mobile units that we had discussed the previous day. He concluded the meeting by telling me to immediately order all the items we had discussed. This I immediately did! Delivery from RCA on the new cameras was one week from that day. The two new mobile units were in our hands in 5 days.

W6XYZ became KTLA on January 22, 1947

"KTLA Day" was now only 3 weeks away. We had just moved from the sound stage on the Paramount Lot

to a building that was once a large-sized commercial garage located two doors south from the 5451 Marathon Ave. Paramount Gate. Renovating this facility to become a complete studio and supporting facilities with an STL on the roof, and sending program video and audio signals 18 miles up to our main transmitter on Mt. Wilson, was a three-month task starting in October, 1946.

Now the task shifted to making sure that all the equipment and necessary production and business items were in place and working. We continued to test our television broadcast





equipment (cameras, control equipment, lighting, etc.), to make sure that it was performing to its maximum capability. Further, we moved our STL transmitters from the roof of our old building on the Paramount lot to the roof of our new studios and insured that they were working properly.

Soon, January 22, 1947 and the magic hour was upon us. We were still W6XYZ; but then super-star, Bob Hope appeared on-camera, as planned. He first signed W6XYZ off, and in a

blink of an eye, signed on KTLA (he unfortunately pronounced it, "KLA") as the first commercial television station west of the Mississippi. This was the beginning of the feature program for the evening

titled, "Western Premiere of Commercial Television."



Regardless of the flub by this renowned gentleman, who deserved to be forgiven, and was; this was a magic moment, in which it must have been proclaimed from above that this new television station was to do very well in the future.

Three days prior to going commercial, we had the "KTLA Television" and "Paramount Television Productions" lettering painted on both sides of our original remote unit. With this done, the mobile unit definitely looked quite professional. Shortly thereafter, the two new mobile units just purchased were also

identically painted followed with side-lettering to match the first unit.

1947 Activity and beyond

Now, as Remote Supervisor for the station, part of my job, on a scheduled basis, was to carry out the plan of testing for microwave coverage to Mt. Wilson from the selected remote sites, as directed by Klaus. Most days, this involved setting up as many remotes as could be fitted in during daylight hours, all over Los Angeles (sometimes 10 a day). Almost all of these were strictly exercises, not actual on-air shows; but some were.

Our First Breaking News Event as KTLA

When we became KTLA, it was not until February 27, 1947 that we were alerted to our first on-the-spot

breaking news event. It was the Pico Blvd. Electroplating plant explosion in Los Angeles, in which there was massive property damage, and several deaths.

We were satisfied that we were adequately prepared for this breaking news event. We now had two identical mobile units with cameras (two of which had electronic viewfinders), and a third vehicle for carrying supplies of cable, etc.

Actually, there was an hour delay in getting on the air.

The problem was in getting a commercial program line for our program sound. This is how long it took PT&T to put it in for us. In reality, this was quite fast, considering that they weren't set up for emergency service at that time.

As a result of this delay, which was embarrassing, the next morning I checked to see what equipment was available that would allow us to transmit program sound to Mt. Wilson from the mobile unit. In researching this, I found equipment that would







modulate a sub-carrier with program audio and embed it into the program video signal.

In actual operation of this equipment, program audio was fed to the "audio input" of an external "signal-combiner" unit, and program video was fed to the "video input". This then, internally produced an audio-embedded video signal which was subsequently fed to the "video input" of microwave transmitter to produce a resultant FM-modulated carrier.

At the receiver end, the embedded video signal was demodulated from the modulated carrier to recover the audio-embedded video signal, which then appeared at the "video output" receptacle of the microwave receiver. This signal was then cable-fed to an external video/audio separator unit. Internally, the audio signal was recovered by filtering out the audio-modulated sub-carrier and then demodulating it to produce received program audio at the "audio out" receptacle of an external "signal-separator" unit. The program video signal, which was now void of the audio-FM-modulated sub-carrier, was then available at the "video output" receptacle of the external video/audio separator unit.

This may all seem a bit complicated; but it worked very well. I immediately purchased, and put into operation, this equipment in both mobile units, which included a signal combiner unit for the microwave transmitter, and a signal separator unit for the microwave receiver.

Better a late solution than never! This equipment solved our immediate problem in getting program audio up to Mt. Wilson with the video signal during "on-the-spot" news coverages, and for many years to come. We also used this equipment on most of the other types of non-news remote telecasts, as well.

After the event, we were informed by the Press that KTLA's coverage of the Pico Blvd. Electroplating plant explosion was the first ever done, world-wide. This made everyone at the station feel quite proud of this accomplishment

This new commercial TV broadcast status signaled a very busy year for KTLA. The year seemed to go by quickly. In December of 1947 we got the word that not only was the station doing the Rose Parade on January 1, 1948, but Klaus had contracted to televise the Rose Bowl game that followed in the afternoon of the same day. This latter event would be the first college football ever televised in the Rose Bowl. This contest was between Michigan and USC.

It seemed that the first part (the Rose Parade) would be relatively easy to do, as it would be basically a repeat of what we did on January 1, 1947. However, the second part, the Rose Bowl coverage, would not be as easy a task, and would be a three-camera set-up.

1948 – The First Telecast of the Rose Bowl and Rose Parade

Set ups the Day Before

December 31, 1947 was a busy day for the remote crew. Part of the crew went out to the Rose Bowl the



day before the game, and set up three camera cables and two TK-30 cameras and supporting equipment for the 2 PM telecast. The two cameras were set-up on a special platform located in-line with the fifty-yard line, about half way up from the sideline to the press-box at the top.

Cable was laid out for a third camera that that would work on the near sideline. It would be used for close-up action of USC players going in and out of the game, and the USC coach giving them instructions. The third camera and control unit would be brought to the Rose Bowl after the Rose Parade had ended.



Since only two camera control units were installed in each mobile unit, one had to be brought over and added to the other two in the mobile unit at the Rose Bowl to make three. Program video and audio were to be sent to Mt. Wilson via



PT&T. The reason for this was that we were concerned that there would not be enough time between telecasts to tear down the microwave link at the parade, transport it to the Rose Bowl mobile unit, and do a complete microwave set-up before the game – antenna included.



The set-up for the Rose Parade was basically identical to that for the 1947 telecast. As before, it was a two-camera set-up with special platforms and supporting items. This time the two cameras used were the new TK-30's with electronic viewfinders. This was done to help the cameramen stay in focus as the marchers and floats closely approached them.

Just as in the previous year, the parade went off extremely well; even better than the year before. Our pictures of the marchers, flowers, equestrians, and floats were again most appreciated by the audience, as reported by their

phone calls and letters. The microphones were even better placed to pick up sounds from marching units, bands, and the crowd, which definitely enhanced the over-all presentation. The parade ended and we concluded telecast about 11:00 AM.

At this time, Klaus, myself, and the two cameramen who were to perform the camera work at the game, Ed Resnick, and Jim Cassin, placed both cameras, both camera control units, and an assortment of other miscellaneous items in our utility mobile unit, and delivered them to an awaiting crew at the Rose Bowl. The second camera and control unit were spares in case of a camera failure during the telecast. The third camera and control unit were then promptly installed and checked out. When finished, we actually had a two-hour wait before kick-off time. And yes, as it turned out, we could have avoided the PT&T charges for the video feed to Mt. Wilson by bringing over our microwave transmitter and antenna from the parade site when the parade ended; but how were we to know before hand that we would have the extra time to do it?

The telecast of the game went off quite well, as expected. Klaus directed and I was his technical director. There were no technical or production problems. Unfortunately, the local team (USC) did not fare well at all – the final score: Michigan 49, USC 0. --- Poor Trojans!

As a matter of note: in 1902, Michigan and Stanford played a football game in California, but not in the Rose Bowl, as it did not exist at that time. The final score was: Michigan 49 - Stanford 0. --- Poor Stanford!



(Editor's note: John Silva attended two years at MIT, but graduated from Stanford.)

Closing Remarks

This concludes my reminiscence of W6XYZ and KTLA in the early years from 1942 up to 1948. It has been a pleasure for me to do "instant replays" of the many interesting events that took place in that period of time. Perhaps there will be more in the future.

Klaus Landsberg was most deserving of the often referred to title of "Mr. Television." This was long before Milton Berle received the same title for a

different accomplishment. Klaus' solid engineering background and production knowledge, and his creative programming genius, served well in the early development of television broadcasting. He started many trends that are still followed today. His managerial prowess and personal achievements were some of his other additional outstanding traits. I was privileged to be around and participate with him in those exciting years when television broadcasting was in its infancy, and then rapidly progressed into adulthood. I am proud of, and feel honored, that during this time, we became and remained the best of friends through it all.

So what is KTLA doing this January 1, 2007?

By Larry Bloomfield



Joe Quasarano, a guy who wears many hats at KTLA, is still the Executive Producer and Producer of the Tournament of Roses Parade after twenty-ninth years. If anyone knows, he should. He told us that this year KTLA will have 8 cameras – all HiDef. The audio will be in 5.1 Dolby Surround Sound and for the first time they will have an RF Hi-Def camera on the street. The 8 cameras are part of the



NHK Hi-Def truck that KTLA has been using for the past several years.

KTLA had their own color truck up until about 25 years ago, but for several reasons, renting facilities seems to be the way to go today. Quasarano says he really likes the NHK truck's facilities.

Since 9-11, only one aircraft is permitted to do flyovers. This year the Good Year blimp will be equipped with a Hi-Def camera that will be a pool feed to all the stations and networks covering the parade for that eye-in-the-sky shot.



Not to worry, those who will be watching in standard definition, KTLA will be converting their Hi-Def signal down, which Quasarano says: "will provide for even better standard definition pictures than if they originated in standard definition," adding that, "Most all the Tribune stations will carry both the standard and Hi-Def versions of KTLA's coverage of the parade, along with KRON in San Francisco."

KTLA' coverage will also be sent via satellite to over 122 countries – some will air it live, others, because



of time differences, will air it on tape or server delay. In addition to this HDNet will also carry KTLA's feed, so those who have either Dish Network or DirecTV HD service can see it via those sources.



There will be two pre-parade shows produced by KTLA: One is a 4 camera 2-1/2 minute Hi-Def musical commemorating Oklahoma's statehood centennial. The other will be a standard definition pre-parade show from the Wrigley mansion. KTLA is one of the "super channels" carried on Dish Network and if you have that service, you can watch it there.

A story about the Rose Parade wouldn't be complete with out mentioning KTLA's 59 year veteran (and



still on staff), Stan Chambers. Chambers is probably the best known and loved visible personality in the Los Angeles area. A graduate of USC, Stan has worn a plethora of hats at KTLA from sales manager to reporter. Although none of those hats were technical, he was there and watched it all happen. One of those hats has been host of the Pasadena Rose Parade.

Chambers is without question a legend in his own time. Just this year, The Associated Press Television and Radio Association (APTRA) named its lifetime achievement award after Stan Chambers.

In a recent conversation the 83 year old Chambers, he recalled the years he hosted the Rose Parade with Eleanor Powell (Glen Ford's wife). He mentioned the time he went to her home to discuss their plans and his car wouldn't start. With a push from Glen Ford, he was able to be on his way.

There were many years KTLA did pre-parade shows from both the construction areas of the floats and the staging are on Orange Grove; Stan Chambers was usually the face you saw beaming at those ungodly hours. The remote trucks that did those pick-ups were designed by John Silva.

FYI







Amateur Television

And the Pasadena Tournament of Roses

By Larry Bloomfield, KA6UTC – Certified ARRL Instructor With the assistance of many fellow Hams – (see credits at the end).

Background

Experimenters have been a part of electronic communications almost since that very first day, May 24,

1844, when Samuel F. B. Morris sent the world's first electronic message: "What hath God wrought?" It was 32 years later, on March 10, 1886, when Bell told his assistant, Thomas Watson, that he wanted to see him and telephonic communications was established. These were wire-bound communications, but what about wire-"LESS" communication?

According to several Google searches and sources, several men were involved in the invention of radio. None-the-less, experimenters have always been around to contribute to the development of the technology. Until the early 1920s, it was difficult to tell the difference between the experimenter and what would become to be called "amateurs."

Even beyond those early days, amateur radio operators were and are, in many cases today, the same folks who work as professional engineers/technicians in the broadcast industry in the daytime that send CQs and hold QSOs in the evenings and on the weekends. There's little question that these early amateur radio operators contributed significantly to the development of the industry, art and persona of broadcasting, be it commercial, non-commercial or amateur. There isn't an electron that has ever been able to distinguish the difference between a piece of commercial or amateur broadcast equipment.

As the years passed on, like most folks with a common interest, Amateur Radio operators congregated and shared their interest, passion and technological achievements with each other. One of the earliest occasions of this happening was in January 1909 when the first amateur radio club, The Junior Wireless Club, LTD of New York was organized.

Radio of all flavors first came under the auspices of the Department of Commerce until 1927 when the

Federal Radio Commission was established followed in 1934 by the Federal Communications Commission. In 1912, the Department of Commerce issued Skill Certificate No. 1 to <u>Irving Vermilya</u>, who, by the way, is considered the first licensed Amateur Radio Operator.

Only two years later, in 1914, <u>Hiram Percy Maxim</u> organized the American Radio Relay League (ARRL), which has continued into modern times and is arguably "the" persona of amateur operators in the United States.

Not everyone was on the side of the amateur radio community. In 1910, a senator introduced a bill that virtually prohibited amateur experimenting. Luckily for all of us, the bill never saw the light of day. There are those, even today, who don't have an appreciation of the value amateur radio operators have and can play.

Over the years, amateurs have not only had fun, but have been the backbone of a



significant amount of much needed emergency communications in times of disaster; be it earthquakes, hurricanes, floods, tornados, tsunamis and the list goes on: i.e. just ask the folks who were victims of Katrina! Many can recount from personal experience of how "hams" stepped up and played a major roll in helping. Organizations within the amateur radio community such as Amateur Radio Emergency Services, more commonly



called "ARES," or even Radio Amateur Civil Emergency Service (RACES) have many instances to their credit.

Needless to say, as electronic communications developed and pictures were added to the broadcast arena, amateurs were not to be left behind. There are many active amateur television (ATV) stations in full operation around the world, some of which could rival the gear found in a small town TV station.

There doesn't have to be an emergency to get a group of hams out to help with an event in any of various capacities. There are numerous occasions when amateur radio operators have assisted with various civic and public events such as helping traffic control, coordination, etc.

Keep in mind that hams either build or buy their own equipment, out of their own pockets and may <u>never</u> charge for any services they provide. This is a hobby and is no way ever permitted to be a commercial endeavor. Keep in mind, as previously mentioned, there isn't an electron that has ever been able to distinguish the difference between pieces of commercial or amateur broadcast equipment.

History of Amateur Radio with the Tournament of Roses:

There is little doubt that Hams have probably been involved one way or another for many years in the Tournament of Roses, but we haven't been to substantiate anything much until 1962 when Tom O'Hara, (W6ORG) the emergency coordinator for Pasadena was asked to provide float escort to the staging area from the float builder's locations. From the information we've gathered, CB radios had been used prior to this, but didn't have sufficient range or coverage to do an adequate job.

If anyone can organize anything, probably Hams have a very good grip on doing so. Beginning in the early '70's, the Tournament of Roses Radio Amateurs (TORRA), was formed in an effort to play a role in the Tournament of Roses Parade to assist law enforcement. Since then, support for the Tournament of Roses has continued to grow to over and TORRA now has an active membership of 300 today, even though they're not currently permitted to participate in the Tournament of Roses.

The purpose of TORRA was to provide quick and efficient radio communications for Tournament officials upon their request. TORRA is a support communications organization that responds to specific requests of the Tournament to the best of their abilities and within the confines of the legalities of Amateur Radio.

The Tournament of Roses is composed of committees that have rotating chairs with aides, called "White Suiters." It is to these White Suiters that TORRA has traditionally responded. In the past, when TORRA participated, assignments began on New Year's Eve when the floats were brought into the formation area. During the parade, TORRA members were everywhere that they were needed, usually accompanying a White Suiter on the streets.

Ham radios that operate in the two meter and 70 centimeter bands are usually capable of both simplex and duplexed-repeater operation. Repeaters are capable of extending the range of a low power handheld to the extent of the location (altitude) and power output of the repeater itself. In Southern California and other areas with mountain top repeaters several thousand feet high, ranges of several hundred miles are not uncommon.

Service by TORRA to the Tournament typically began before the parade and continued for most of the day long after the parade had finished. In fact, Packet Radio has been used during the post parade float viewing to keep data and to assist with "Lost Persons." For the 1997 Parade, TORRA added Automated Packet Reporting System (APRS) to track float convoys.

As Amateur Television (ATV) gained momentum, it is only reasonable that it would eventually play a roll in the Tournament of Roses Parade. The early reasons for being at the Tournament of Roses Parade and providing coverage ATV coverage started just for the purpose of watching the floats make those nasty turns at the two main intersections, plus for public safety.

TORRA also has an Amateur Television (ATV) cadre. ATV has supplied Tournament officials with a visual image of the parade and any problems that may occur along the parade route.

One example of their help was one year, while the route was being cleared at the last moment, motorcycle police were running the edge markers trying to get the public along the route to move back behind the painted lines on the edge of the street. A child ran out into the street in front of one of the cycles. The cop spilled his machine as fast as he could but it still struck the child. An ATV camera caught the incident and it's on video tape. It was never used, but there it was and still is.

Media people like to see parade progress such as when the flow of the parade is slow or stopped. This is very helpful to the air talent so they may judge their on air pace.

Other useful purposes are for the Tournament parade coordinator to see what needs to be done in order to keep the parade moving when a float brakes down. One such instance was when a Honda float, one year, broke a rim off of a wheel under a very heavy rain laden float and its spokes now dug into the pavement like a plow. The normal towing truck could not pull it.

One of the ATVers stuck his camera under the float and the parade coordinator saw the problem. Two heavy duty tow trucks were ordered to work in tandem to pull the float off of the parade route. The damaged float made a very nice furrow, but the parade was then able to proceed. Try to render this kind of help with a cell phone!

Another instance where ATV really shined was when another Honda float outfitted with a trapeze artists and rigging tried to make the turn at Orange Grove and Colorado. It got its rigging caught in a street light. The Tournament people were watching on the ATV monitor and were able to direct the proper people to tie a rope to the post, tie it to a tow truck and pull it down. Problem solved, but to the chagrin of the city maintenance crews.

Besides the fun of helping on the ground, many emergency ham communications groups have put ATV in local government helicopters for an "eye in the sky" as part of their ARES or RACES communications system.

One of the early uses of ATV was a service performed by Tom O'Hara, W6ORG. The picture at the right is the first experience of putting ATV in a Los Angeles County Sheriffs helicopter. W6ORG told us: "I flew my ATV converted RCA CMU-10 in the victim basket of the LA County Sheriff's Bell 47 in both '68 and '69 so that the Pasadena Police Dept. could get a real time view of the traffic congestion going to the Rose Bowl for the game after the parade ends at Orange Grove and Colorado. The Pasadena Police Dept. liked what I did so much they started their own Aero Bureau and bought their own Enstrom helicopter." This story was also reported in <u>ARRL</u>'s magazine, QST (May 1968 page 106).





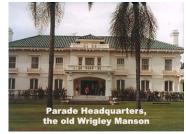
Cockpit of the Enstrom telecopter showing the P. C. Electronics TC70-1 ATV transceiver driving a 15 watt Mirage amp.



The Enstrom N595H - before Tom bought it was used in Hawaii around 1980 as a camera ship in the production of Magnum PI. The paint job is the same as the Island Hoppers Hughes 500 copter seen in the series. Tom owned this ship from 1987 to 1992 using its ATV gear for many public service events besides the Rose Parade.

As said earlier, hams do this for fun! O'Hara/W6ORG continued, "So I was out of a fun job until ATV started from roof tops in '79. I enjoyed my spot by the rail road tracks, then later ATV with my motorcycle mobile and one year from my Enstrom helicopter.

The Southern California ATV Club has provided live video coverage of the Tournament of Roses Parade, to benefit the Rose Parade organizers, helping them determine the status of the parade at various locations along the parade route. The club set up several camera/transmitter positions along the parade route, transmitting live video on 434 MHz back to Parade Headquarters, the old Wrigley Manson, on Orange Grove Blvd. in Pasadena.



Eventually the ATV club developed a video repeater system so that the cameras would transmit video to the repeater, which was located atop a tall building along the parade route. The repeater transmitted back to Parade Headquarters via a microwave link on 1240 MHz.

There were two Hams who really spearheaded this project, Ernie Williams, WB6BAP and Tom O'Hara, W6ORG. As alluded to earlier, Tom has provided live video coverage from his personal helicopter! Bear in mind, this was NOT a toy or remote controlled device, but a real helicopter that he piloted himself. As Tom and others gave of themselves, remember, hams may not be compensated in anyway for their services.

As a result of Tom O'Hara's involvement and interest in ATV, he started a business (P. C. Electronics) in 1965 that serves the amateur television community even today. He has designed and produced many ATV products for fellow amateurs including the "Kreepie Peepie," a 1 Watt 434 MHz ATV transmitter board used by many hams for public service events.

A lot of planning went into these events. As early as a month or two before, the ATV participants met to find the best way to do things. This is a meeting at a ham's QTH (residence) in Alhambra, CA in November of 1979 to plan the first ATV coverage for parade officials. At this meeting, it was decided to use 434 MHz from Orange Grove and Colorado (S/E) corner next to CBS and NBC's location to the command building (Gardener's shack). Sam Luitwieler, K6VLM's 1 watt 1240



MHz transmitter was borrowed to link from Sierra Madre and Colorado to TORRA's 434 MHz location.

In 1980, the ATVers added more positions along the route and used the brand new WA6SVT ATV repeater on Mt. Wilson to the gardener's shack at the Parade headquarters. Planning and credential meetings moved to the Mansion.

Homeland Security would be proud of the ATV group. Ernie Williams, WB6BAP reports: "We had the luck to see Iranians coming down Green Street toward Orange Grove to protest the USA and interrupt the parade, our camera was able to show it and public safety got it stopped."

Hams never seem to rest, trying different things that would fit their needs of rendering service. In 1981, they added a Motorcycle mobile and in 1983, one of their numbers built a 10 GHz link and a repeater location on the Bell Telephone building, added a telescope to look at Colorado and Orange grove from the repeater site.



Broadcasters could not figure out at first where the camera was. Another problem that year was with fog getting the feed horn wet and reducing the signal.

As time and requirements continued on, a 1289.25 MHz link was added to get a signal to Public safety.



Pictures of the gear Hams/ATVers have provided over the years when assisting with the Tournament of Roses Parade

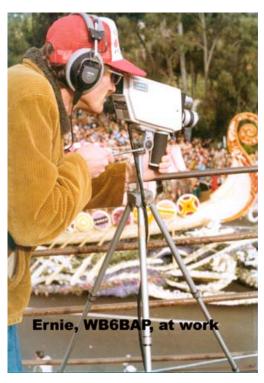


Better than the first set up in 1979, here is the TV tray cam 1 system. This is the first year we used the X-band system. The antenna for the X-band was the 17 db gain horns.





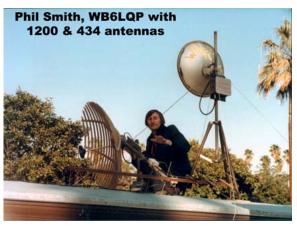




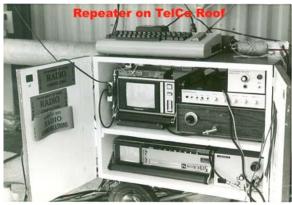














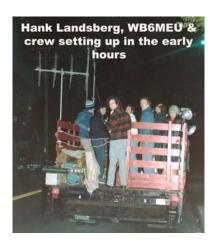














In 1989, the ATV group had big plans to go via satellite. This was kind of cool as we an endorsement from Michael Landan, thanks to Allan Pettibone, who did the spot for us. Needs of service continued to grow, so in 1990 we provided an ATV repeater the operated at 434 MHz in and 919 MHz out on the Bell telephone building for better coverage of the parade.

Through the years of working the technical aspects of getting video to the Tournament House, various methods were used. One year, we used 1200 MHz AM from Sierra Madre Blvd Cam 2 to Orange Grove, the Cam 1 position. Then 434 MHz AM to the Tournament House. The video was switched between the 1200 RX to the local Cam 1 camera.

On another occasion, the ATV group tried a 434 MHz in, 1200 MHz repeater on Mt. Wilson. It looked good on paper, because we could add cameras anywhere along the parade route that could see the Mt. Wilson repeater. We had some problems with just that, seeing Mt. Wilson with some of the Kreepie Peepies and also problems with interference.

That is when Ernie got the idea of the X-Band system. So with about 300 hours of time, he built and designed the X-Band system around Gunnplexer modules, designed the I.F., the limiter, the discriminator demodulator using two pieces of RG174 coax, and the video amplifier: It worked very nice.

We did have problems with Mt. Wilson's channel 4 RF getting into the I.F. as the Gunnplexer was in a box and the rest of the circuitry in another box with a coax in-between. That little piece of coax and BNC connectors picked up a little bit of channel 4, so, all of it went into a bigger box. Problem solved.

Now, at this time, 1983, it decided to input 434 MHz at the Camera 1 site from all of any Kreepie Peepies with a yagi antenna just below the cam 1 level on the bleachers. This had some ghosting but did work. X-Band was from the Sierra Madre Blvd. camera location, 3.38 miles down the Colorado Blvd.

In time we were able to move this rudimentary ATV repeater to the TelCo building on Colorado Blvd. TelCo also had a two meter Ham repeater that we were able to use too. Ray Grace was our go-between as he was a ham working there at Pac Tel.

The photos with the repeater in a wooden box with wheels were on the roof many stories above the parade at 177 E. Colorado Blvd. We tried different 434 receive antennas here. X-Band went from the TelCo to the Tournament House; 0.8 miles... 1200 MHz from the repeater went to the Public Safety (the Pasadena Police). We had upgraded the system through the years of experience.

With the TelCo site, the X-Band system, we had virtually no interference. The only problem was the individual hams ATV transmitters badly tuned and adjusted; maybe some RF from their own 434 MHz TX getting into their cameras.

Notes from Ernie, WB6BAP, about the pictures and other things.

The 10 GHz link was modified and made better each year we used it. We started with just the 17 db horns ending up with 2 foot dishes and an LNA. Somewhere in our scheme of things, we ended up with a local

ATV repeater on top of the TelCo building at 177 East Colorado, as noted above. All 434 MHz signals from each one of the Creepy Peepies, would be aimed up at the building and then repeated via 10 GHz to the Tournament House.

Well, at the end of the News Years Eve night, say along 10 PM or so, a bunch of us were very tired from getting all of the gear up and running. But when we saw the Commodore Vic 20 TORRA (Tournament of Roses Radio Amateurs) rose logo on the monitor at the Tournament House, we know it all was OK. Almost every year it all changed while we were exploring our options.

With respect to the Kreepie Peepie, well if you are old enough, you will remember this term that came from the political conventions. Years ago, the politicians would know where they could go to stay away from the media because the cameras and news persons were tethered to coax cables. BUT, one year, with technology, came the portable camera system that worked on batteries and RF: The Kreepie Peepie. The politicians had no where to hide now. I don't remember what year that was, but our ATVers did the copy thing and you can see a picture of Austin Bennett, K6YGX (above) modeling our version of it for the Rose Parade. This allowed us to have many cameras out on the Blvd as we had about 14 of them in 1989.

As far as the Media room is concerned, I did not have much to do here but in my understanding, it was kind of a liaison room between the white suiters and the media – the ones who actually had the on camera hosts, the networks and such. We ATVers were asked to provide the nasty video, the video showing the bad stuff happening with the floats so that the media on camera personalities could get reliable info about problems that would hold the flow of the parade from going smoothly. For instance, the Honda float with its rigging getting caught in a traffic signal/street light. They could see that it is going to take a while plus see the progress, so they'd say – "GO TO COMMERCIAL".

A similar room with our video was set up for the Pasadena Police Dept. so they could see as they called for, any situation that was public safety related – may be a truck parked in the way or a child running around on the street.

In 1982, we were able to put a more sophisticated system up on the roof top of the telephone building at 177 E. Colorado because there was already a 2 meter ham club repeater in the penthouse.

As the years went along, our gear included a 434 MHz ATV receiver, to pick up the Kreepie Peepies, the motorcycle mobiles, and the final year, Tom O'Hara's Enstrom Telecopter. The Telecopter was complemented with a 1200 MHz TX to the public safety group, a 10 GHz FM 100mw TX to the Tournament House link, a VHS VCR, a Commodore VIC 20 to generate that TORRA rose, which came on every ones screen when no incoming 434 MHz signal was seen, automatically and it was all put into a rolling box for portability.

As for the X-Band RX, when we first started, we had two frequencies 434 MHz and 1200 MHz. 1200 was fairly new then and the guys in ATV were doing a lot of playing around with the higher frequencies and cross band repeaters were just coming into play. This was just an easier way to do this.

The first years we tried using the Camera 1 location as the repeater site but we found that it was not to good to get signals from the Keepie Peepies mid-parade and not at all workable north on Sierra Madre Blvd. So, we installed a repeater on Mt. Wilson, just to the north of the area. Excellent coverage! And it did kind of work, but, the interferences were not very nice to "my" image quality standards. Our

"customers" were not technically inclined and it would be too hard to explain, so we came up with the X-Band system that I spent 3 months day and night designing and building, using the Gunnplexer systems: Lots of experiments, lot of talking to EEs at work and finally I worked up a 10 mw system that seemed to do really great. Later, I upgraded it to a 100 mw output with a higher power Gunn diode. WOW!. In one of the photos above, you can see the receiver with a two foot dish. Using an STL system that will do 20 miles easy, over a 1.25 mile path, meant a "coax" clear picture... Now you're talking!

I have to say that 1989 was the best year as we were able to up linked our video via satellite to the rest of the United States so that HAMS could watch and learn how to do public service via ATV. We started the program with Michael Landon with an intro (one of the ATVers in the Southern California ATV club worked on the Highway to Heaven set with Landon). Phil Smith, WB6BAP went into discussing ham TV and its uses for public service with many video examples. Then we went into the equipment including the X-Band video link I put together...

I guess the best had to be my last as 1989 was the last year that I headed up the technical committee. I had 57 wonderful HAMS to work with, 17 camera locations and a satellite link so that hams interested in ATV could see how we tried to do a ham public service of large proportions. It was a Walter Mitty deal for me.

DE: Ernie, WB6BAP - 73s





VS.



It is truly a shame when mature adults can get crossways with each other and that appears to be the case with the Tournament of Roses Radio Amateurs (TORRA) and the Pasadena Tournament of Roses, itself.

It is nearly certain that TORRA and the ATVers will not be present to assist with the Tournament of Roses Parade on January 1, 2007. This is a loss on both sides. Part of the purpose of Amateur radio is providing community service and there certainly is a need for the kinds of services Amateur radio can provide, especially when it comes to the television.

It has been clearly demonstrated that through the years, ATVers have provided the kinds of things that need to be seen by both Public Safety officials as well as those governing the progress of the parade itself. Much of what the ATVers and TORRA have provided, commercial broadcasters would never want to put on the air for the general public to see.

Just remember what Confucius said: "A picture is worth a thousand words." A conversation on a cellphone could very likely allow a situation to get very much out of hand doing the thousand word routine when one of the TORRA/ATV video shots could help to resolve the issue in a fraction of a second.

To conclude this section of the Tech-Notes, we'll present three points of view: (1) a reprint of a story that was carried by the Pasadena Star News, (2) a reprint from an Amateur Radio Relay League newsletter, and (3) an opinion of one of the members of TORRA.

Ham radio operators to skip Rose Parade Star-News (Pasadena, CA) – November 12, 2004 Gene Maddaus, Staff Writer

PASADENA -- A pair of ham radio operators were lugging equipment onto the grounds of Tournament House in preparation for last year's parade when they were stopped by a "senior Tournament official."

"This senior Tournament person came absolutely unglued," reports Allen Hubbard, a board member of the Tournament of Roses Radio Amateurs. "He was accusing them of lying to get on the grounds."

Although they are not officially part of the Tournament of Roses, the radio amateurs have been providing a communications link along the Rose Parade route for more than 30 years. Radio operators have routinely

"shadowed" Tournament White Suiters, behaving like a volunteer signal corps straight out of World War II.

But in the age of cell phones, they have begun to feel unwanted.

This week, the Tournament of Roses Radio Amateurs voted not to participate in the upcoming parade, after suffering what they perceived to be a series of indignities.

"This has been building for at least the last four years," Hubbard said.

For many of the more than 250 club members, the incident at Tournament House last year was the last straw.

"I think it's come to the end of a run," said Bill Flinn, the Tournament's chief operating officer. "We're sorry to see them go."

Most White Suiters have cell phones, and don't need a radio operator shadowing their every move. Nextel is a corporate sponsor of the parade, and has donated a number of phones to the Tournament. That doesn't sit well with the ham radio operators, who point out that cell phones often lose reception in areas where ham radios work.

Amateur radio operators also tend to pride themselves on being hobbyists, and on not being profit-seekers.

"We provide a genuine service to the Tournament," said Earle Bunker, a club member for 20 years. "The people we work with the White Suiters are very much for us. They tell us that. It's somebody farther up the line."

Bunker, who has traditionally handled ham radios at the post-parade float viewing, said the radios often come in handy.

"Two years ago a fellow lost his insulin kit," Bunker said. "Somebody turned in the kit at one of the gates."

Radio operators made the connection, and the kit was returned.

The radio group has also tracked floats with global positioning devices and installed a dozen video cameras up and down the parade route.

"Every year, there's \$70,000 worth of private equipment brought in to help the Rose Parade," Bunker said. "I think there are some who think they can do it all with Nextel. I don't think they can."

Over the years, the group has coordinated its activities from a room inside Tournament House that acted as a nerve center. But a recent remodeling transformed the radio room into archive storage. Over the past few years, the group has had to transmit from a mobile trailer.

"We used to get what we felt was better cooperation," Hubbard said. "People on the board have felt that Nextel has put pressure on the Tournament to get rid of us. They want people using Nextels."

Representatives of Nextel Communications did not return calls for comment.

The radio group had been negotiating with the Tournament in an effort to keep the relationship alive. The minutes of a July meeting suggest that at the time, relations were strained but the radio club remained optimistic that it could still be useful.

"Time was spent reviewing the TORRA assignments list, clarifying, confirming and deleting positions," the minutes state. "Most TOR chairs will not need shadows since they have Nextels."

The minutes also suggest that radio operators were left stranded and bored last year, without a White Suiter and with nothing to do. When Ed Afsharian, chair of communications and credentialing for the Tournament, suggested that one radio position be cut, the radio amateurs responded that the position was so important that an extra operator should be added.

The negotiations finally broke down Sunday, when the radio amateurs' board voted to back out of the Jan. 1, 2005, parade.

The Tournament will get along without the radio operators this time, Flinn said, and consider having them back for the 2006 parade. Hubbard said his wife is looking forward to taking him out for a New Year's Eve party for the first time in 15 years.

"They say new technology will take care of it, but I don't know," said Bunker's wife, Mary Louise, herself a ham operator and a former mayor of Alhambra. "A lot of gals don't know what good a husband is until he goes on a business trip."

"It's going to be a real interesting New Year's."

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(<u>Editor's Note</u>: Cellphones are public utilities and those services may not be given away in California. Someone has to be paying for this "gift" to the Tournament of Roses or Nextel is possibly violating California law.)

Amateur Radio to have no role in 2005 Rose Parade

The Tournament of Roses Radio Amateurs (TORRA) < http://torra.us/> will not be providing any support for the New Year's Day 2005 Rose Parade in Pasadena, California – The traditional event precedes the Rose Bowl College football game.

Although TORRA and the Tournament of Roses were unable to agree on 2005 Amateur Radio communication support arrangements, TORRA initially intended at least to provide some Amateur Television coverage. The group now says the Tournament of Roses has decided not to use ATV either. A November 17 statement from the TORRA Steering Committee to TORRA members outlined the chain of events that led to the eventual disconnect, beginning with the Tournament's reallocation of building space

after the 2004 event and the consequent removal of TORRA's equipment from the net control position and ATV storage facilities.

While TORRA and Tournament personnel did sit down to explore the role of Amateur Radio and changes necessary for 2005, TORRA eventually concluded that "there was still too much to do and not enough time to do it" for a successful operation. TORRA announced November 22 that ATV coverage was out as well. TORRA indicated it will meet with Tournament officials in January "to restructure our role and the communication services we provide." Amateur Radio has had a communication support role in the Tournament of Roses parade since the 1970s. "We have a longstanding relationship with the Tournament of Roses, and both organizations wish to maintain that relationship," the November 17 TORRA letter said.

http://www.arrl.org/arrlletter/04/1210/

My Observations on Why Ham's Aren't Involved in the Tournament of Roses Anymore

By Dave Gross, W6JDG

I'm sure that you'll hear lots about competing technology and how different groups interpret what each has the capability of doing, so I'm going to try to stay away from that issue in this letter. In my opinion, one of the pivotal issues that led to the parting of the ways between the Tournament of Roses and Tournament of Roses Radio Amateurs (TORRA) was essentially a culture clash issue. Tournament volunteers tend to come from a rather homogenous upper middle class of society. They tend to be successful business owners or executives of corporations. Ham radio operators, on the other hand, are a very heterogeneous group of hobbyists who come from all walks of life.

Having TORRA members assigned to shadow Tournament "White Suiters" sometimes created a very interesting mix. There were a few White Suiters who refused to have HAMs assigned to them for years before the final break.

Related to this is the different approach to assignments. TORRA members were able to keep their assignments year after year by continuing to participate. The Tournament of Roses, on the other hand, rotates assignments every two years in an effort to develop the future leaders of the Tournament. Often HAMs knew more about a particular assignment than the White Suiter assigned to that post and so served as a resource for the White Suiter, I think that this too was resented by some on both sides. In retrospect, I think that it might have done TORRA a lot of good to have rotated assignments. We might have had better input for the development of support activities.

Finally, perhaps TORRA became a bit too possessive. We were a very independent subgroup working to support the Tournament. Sometimes I think that we may have lost sight of just who was pushing the cart and who was pulling. It's natural to take possession of what you are doing, everybody does, but maybe our independence got in the way this time.

<u>Credits</u> –

Tech-Notes wishes to thank the following for their contributions to this Section:

Larry Wilson, Editor, Pasadena Star News Ernest R. Williams, WB6BAP Mike Collis, WA6SVT Tom O'Hara, W6ORG Hank Landsberg, WB6MEU Phil Smith, WB6LQP Dave Gross, W6JDG

ABC & the 50's

By Larry Bloomfield
Photos supplied by Don McCrosky (ABC Retired)



Things haven't changed much in television over the years. Have a highly successful show and you'll soon see a plethora of variations of it filling the ethers. Once KTLA had covered the Rose Parade and its success was obvious, the Tournament of Roses Parade became a stable of New Year's Day television with the other Los Angeles television stations and national networks joining in on the action. You couldn't tune to a TV station that was on the air from around 8 to 10:30 AM in Los Angeles and see anything else.

Our good friend and associate, Don McCrosky, dug into his archives and came up with a number of pictures which documents ABC's participation in the 1950 Tournament of Roses Parade. Because New Years Day that year fell on a Sunday, the Parade took place the following day (Monday, January 2, 1950) and ABC, represented by their local O&O KECA-TV, was on hand to participate. (KECA-TV were the original call letters for what is now KABC-TV, Channel 7 in Los Angeles)

The Pictures and captions tell the story.



<u>Back row</u>: Allan Hess, Charles Coleman (TD), Bob King (VO), John De Mos (cam), Dick Loeb (cam), Arch Griffin (cam), Harold Huntsman (field supry).

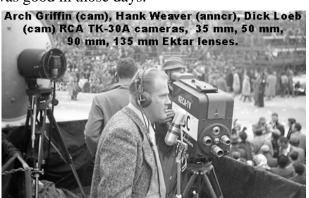
<u>Front row</u>: unknown, Jim Morris (cam), Dexter Haymond (util) Don McCroskey (audio)

John De Mos (cam) Bach 3:1 Zoomar

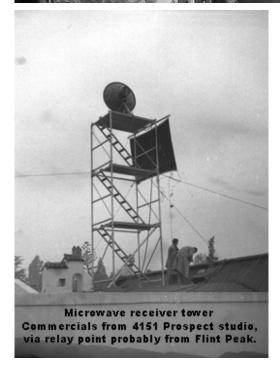
John De Mos (cam)



Note the RCA TK-30a remote cameras used and in particular the Bach 3:1 zoom lens – that was good in those days.



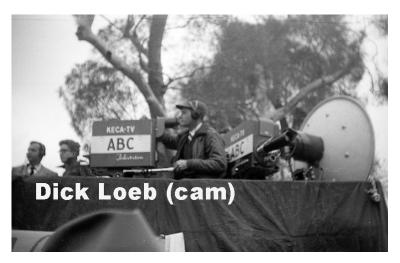


























Obituary

We regret to inform you that Panasonic Broadcast & Television Systems Company has announced the

passing of Phil Livingston, Vice President. Mr. Livingston died November 8, 2006 in Secaucus, NJ.

Phil has been a friend to both your editor and the Tech-Notes, supporting us in our early efforts with the Road Show. We will truly miss him and his very warm and generous personality.

John Baisley, President of Panasonic Broadcast said, on the occasion of Mr. Livingston's passing that: "Phil was tremendously respected for his knowledge and contribution in the broadcast industry. The entire Panasonic community will truly miss the invaluable contributions he made in furthering the company's initiatives in the broadcast and production industries for over 28 years. Of more significance, Phil was a true gentleman and a gentle man. Our heartfelt sorrow and prayers are with his wife, Jan, and his family during this very difficult time. Phil's memory will live on with the people of his Panasonic Broadcast family."



Mr. Livingston was a 28-year Panasonic employee and held numerous technical positions there. Most recently he was responsible for Panasonic Broadcast's strategic business development activities. For the last five years, he directed the company's innovative Technology Partnering Program where he worked with more than 30 of the industry's leading manufacturers to incorporate Panasonic's leading digital compression technologies into their products and systems.

Phil Livingston began his broadcast career, which spanned over four decades, in radio at WVOS and WVIP in upstate New York. He helped build WOKR-TV in Rochester, N.Y. and developed an Instructional Television system for the City School District there. Subsequently he served for 10 years as Associate Director for Instructional Resources at the State University of New York at New Paltz.

He represented Panasonic on the Board of WHD-TV, the Digital Model Station in Washington, and had been involved in the work of the Advanced Television Systems Committee (ATSC) since 1987. He served on the ATSC Board of Directors from 2002 to 2006 and as Board Chairman from 2002 to 2005. He was a member of SMPTE, a SMPTE Fellow, and chaired the Committee on Television Production Technology (P-18) for two years. He wrote numerous white papers and articles, and gave many presentations throughout the United States and abroad on emerging technology. He recently received a 2006 SMPTE Award for co-authoring a paper entitled "A News Solid State Memory-based Television Acquisition System."

His family wishes that donations be made to Compassionate Care Hospice, of 140 Littleton Road, Parsippany, NJ.

Parting Shots

By Larry Bloomfield



Me and the Tournament of Roses

Having been born and raised in Southern California, it's not hard for me to have seen some of what we've been able to bring together for this special edition – as it happened. Permit me to give you a little background prior to and then my experiences with the Tournament of Roses events.

I've been to the Rose Parade only twice in my life; the first time when I was too young to get away from the family and explore the broadcasting side of things. It may even have been before we got our first TV set. I do remember going to it the night before and being on Colorado Blvd. very early in the morning just to get a good vantage point. My family was fortunate. My mother had a cousin who lived on North El Molino Ave., only a couple of block north of Colorado Blvd. We were permitted to park there. I have no clue how others were able to find a place to park – it was a nightmare, after the parade, traffic could have been the subject for one of the levels of hell in Dante's Inferno.

I guess I was a strange kid growing up in Southern California, but then what else is new about kids growing up in any part of California. I've always had a keen interest in broadcasting. When other kids would go down to the beach on school holidays, I went into Hollywood to see what broadcast facilities I could get into to learn about this new thing call television. In those days, most all broadcast facilities, radio and television, were located within a mile or two of each other near Sunset Blvd and Vine St. so it wasn't difficult for me, once there, to walk to nearly any of them.

I do recall, one day while celebrating a school holiday, I was wandering through the halls of NBC, when it



was at Sunset and Vine. A few "pages" (they kind of acted as security in those days), try to throw me out. Much to my surprise, a couple of the engineers told them to let me be: "He's trying to learn something about this business." I got to stay. I was fascinated by



the iconoscope telecine camera chains where I could watch slides and film on the mosaic; the image orthicon camera that sat at one end of a control room and shot its pictures through the glass of an announce booth where the afternoon movies were hosted.

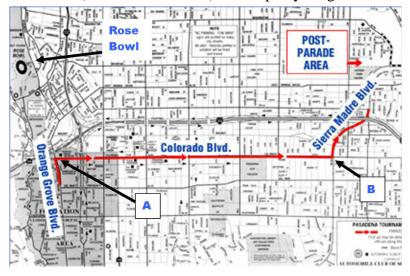
When my buddies were building forts and tree houses, I was building a mock TV studio set up in my backyard. It had wooden cameras with cut down vacuum cleaner nozzles for lenses. My dad, who was a special effects guy at the studios, made me most of this stuff. He even made me a "mock" RCA 44BX mic – stand and all. It was neat! Sure wished I knew what happened to it. I've even got a picture of me, standing in my front yard, guess I was about 8 or 9, with large headphones on, this fake mic, looking like I was covering the news event of a life time. I'd be too embarrassed to publish it here, beside, I don't know where it is. (Good thing for me!)

As the years passed, my folks moved from the West Los Angeles – Beverly Hills area to the mountain community of Cedar Glen, CA in the San Bernardino National Forest. It was for my dad's health. I

attended and was in the first graduating class of Rim of the World High School – a school that had a view of Southern California to die for. On a clear day one could see the Pacific Ocean and Santa Catalina Island, some 100 miles away, west and almost to San Diego, south. Television reception up there was from an antenna up in a very tall pine tree that had been topped for that purpose; reception it wasn't very good – at best.

While living in this beautiful mountain environment (5,500 ft. elevation) to keep my fingers in the

broadcast pie I wrote a column for the local newspaper in Lake Arrowhead, CA (Lake Arrowhead Mountain News) while I was still in high school. The column was called TV-Tips. I still have a scrap book with many of my articles in it. I got press release from the various TV stations and networks by the dozens daily in our PO Box to the point our family had to get a bigger PO Box. The column eventually syndicated: and appeared in the Big Bear Grizzly (Big Bear, CA) and in the Crestline Courier (Crestline, CA) – remember this is still while I was in High School.



When I found out that on New Years day, 1955, NBC was doing the Rose Parade for the second time in color and KTLA was doing it for the first time in color, I had to be there! So, the second time I went to the Rose Parade, I was older and completely mesmerized by this crazy business. My mom got to see her cousin and I was going to experience the thrill of a crazed kid; it was a win-win situation for both of us. Dad, he just went along with us.

Although the Tournament of Roses people had no idea I was just a high school kid, they did know the guy at the other end of the letter head was a bona fide member of "the press," so I was issued a press credential and had access to nearly everything I wanted to see.

I got there the night before and met up with some of those engineers I'd once know from the NBC plant in Hollywood (I believe by that time NBC had moved to Burbank). Even the engineers from New York were most gracious and took the time to explain all the things they were doing to set up for the next morning's event. The location was very near where Orange Grove (the staging location for the parade) and Colorado Blvd. met. Most all the TV stations set up near this corner.



I got a kick out of seeing an ordinary heating pad inside stretched over the three image orthicon deflection yokes to help keep the camera stable. I believe these were TK-40s. There were two up on the balcony of the



Pasadena Elk's Lodge #672 and one next to the two trucks it took to make the event happen. I don't remember if there was a fourth camera on the street or not, but there probably was.

I do know the area inside the Elk's lodge where the "talent" did their thing from was lit with huge lights that had blue filters on them to help color balance with the out door lighting temperature. I was learning! What an experience!

Next to the Elk's Lodge (see point A on the map) was scaffolding that was as high as the Lodge building where KTLA had a complete set up: remote truck, set piece for their talent and all the regular stuff to cover the parade from that location in back and white.

The Rose Parade, which typically starts at 8 AM, lasts about 2-1/2 hours from any given point. The parade route is 5 1/2 miles long extending from Ellis Street & Orange Grove, continuing North on Orange Grove then East on Colorado Blvd. Soon after the turn onto Colorado Blvd. it passes the Elk's Lodge. It then runs Ease on Colorado Blvd. for quit a few miles to Sierra Madre Blvd., where it turns north to Paloma Street to the post parade area where the floats are on display for a few days.

KTLA had elected to do their first colorcast from an area down the parade route (see point B on the map) and after the parade had finished at the Elk's Lodge area and was arriving where there had set up. Actually, at that stage of color television's development, in retrospect on my part, it was probably easier to deal with the changing light of the day and light temperatures where KTLA did that first colorcast from than near the Elk's Lodge. This is speculation on my part and has no other validation than that.

As the parade finished off there near the Elk's Lodge, I wanted to get down to the other end where KTLA's color set up was located. Don't ask me how or why, but I was able to con one of the motorcycle security guys into letting me ride on the back of his bike as he escorted the KTLA talent from where they had just finished, down to the colorcast location. This whole deal was a fantasy come-true for me.

KTLA had all their high-price and very talented help there to do this event in color. Names like, Klaus



Landsberg, John Silva, who in later years I worked for and now writes for us, Roy White and the list went on. The cameras were on top of a Fruehauf trailer in which all the rest of the equipment was located.

When I got there, I stood outside the trailer near the side door. I had it cracked open so I could see in. During one of the breaks, when they had thrown the show back to the studio for a commercial break, Landsberg turned toward the trailer door and said: "You will come in or you will go out, but you won't stand there with the door open!"

That was all it took. That was my invitation to be part of the audience already in the trailer. Keep in mind, color monitors weren't all that bright and many had to be in semi-light rooms to see the pictures clearly.

It was hotter than all get out. It took quite a few racks to house what was necessary to make the two TK-40 cameras work, not to mention the terminal and switching gear. Remember, this was back in the days when tubes did most of the work.

I was impressed to no end, but my fantasy wasn't quite over – yet. Once again, during one of those commercial breaks, Landsberg turned toward me and said: "You will learn nothing standing back there. Come up here and I will teach you color television." For the remainder of the show/parade, I stood right behind Landsberg, John Silva and Roy White as they did their magic to put on the first local colorcast of the Tournament of Roses Parade.

None of the crew, including Landsberg, spoke to me further that day. They didn't have to. I was living a dream that I could never have authored myself. I will always cherish that experience.

I do have to say that I'm looking forward to viewing the Tournament of Roses Parade in high definition this year. I hope many of you will have this same opportunity.



As for the Rose Bowl, I've never done a Rose Bowl game, but I was hired by KOA in Denver to provide the equipment and cover Super Bowl XXI, on January 25, 1987; the year the Broncos played the Giants. – The final score, N.Y. Giants 39, Denver 20. True I was 25 days late for the Rose Bowl game, itself, but I'd never done a football game before, so it was fun. Yes, it was radio, but I was there and got paid to go – after all I got my start in radio. How many people do you know that got paid to go to a Super Bowl game?



Now three other items: First, I will never understand how the Tournament of Roses folks would permit a television network to cut out of the granddaddy of all parades, before it is finished to go to some other event, bowl game or not in another part of the country or not. I believe that is disrespectful and rude and if that is to be the case, that network should loose its parade covering privileges.

Secondly, I do not understand how blind the Tournament of Roses folks can be to the tremendous service the amateur community has provided to not only them, but to many other events through out this great land of ours. To summarily exclude them in favor of cell phones is a travesty of justice, unpardonable. Perhaps they don't realize that the popularity of their events can be directly linked to the broadcasting of them to

not only our nation, but to the world in general. Broadcasting can link, directly many of its advancements to things hams have developed in their basements, tested and turned over to the broadcast industry.

You know, I've never met an electron that could tell the difference between commercial broadcast and amateur circuitry. The only differences are the rules that govern those services, not the circuits, and that's all!

Thirdly, I'll never understand why broadcast facilities don't do more to document the means by which they get their material to the public. I'm speaking of getting pictures of the gear and the folks who make it possible. Without the technical staffs at the various facilities, be they Radio, TV, Satellite, Cable or whatever, none of this would be possible and to hear some of the managers at these places talk, they just don't realize it!

Well now, that's about it for this time. What do you think about all of this?

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