

# WATS Happenings

Official Newsletter of the  
Waco Amateur Television Society (WATS), Inc.  
Volume 7, Issue 7, July 2002

## We Finally Did It!!!

by John Chamberlain, AC5CV

We'd tried without success for three years (or is it four?) in a row to get a high-altitude ATV camera to soar over the Field Day site. But finally in 2002 we did it!

At the June WATS meeting, the Directors authorized the investment in a tank of helium to inflate a 6-foot diameter balloon (previously purchased by John Gafford N5XAK). The plan was to attach the N5XAK Sky-Eye (a low-powered ATV camera and transmitter) to the balloon and loft it high above the Field Day site. Previous years' attempts were pretty disappointing: burst balloons, kites with too strong winds, and so forth.

But 2002 was looking pretty good! An on-site weather station reported wind speeds around 3 to 8 mph. N5XAK had a large tank of helium, one large balloon waiting to be inflated, and a working Sky-Eye camera and transmitter. To top it off, we had local news media there with their television cameras eagerly filming the inflation process, along with our growing excitement, as it grew more and more apparent that we were really going to make it happen this year!



KC5KQL, AC5CV, and N5XAK letting out tethers. Note the cross-bar and Sky-Eye below the balloon.

Nobody had calculated how much lift we could expect from a helium balloon, so we just "winged it." We inflated the balloon to about 3 feet, tied a knot around the balloon's nipple, attached the Sky-Eye assembly (including tethers), and released it. Well, the camera and balloon immediately sank to the ground. Not enough lift. So, back to the tank we went with the balloon. We increased the volume to over twice the first attempt, bringing the balloon diameter to almost 5 feet, and repeated the "lift test." This time it had plenty of lifting power! Hurrah!

So, KC5KQL and N5XAK carefully walked the tethered balloon over to a clear area where the trees were far apart and began feeding out the pair of tether lines. N5XAK had designed an approximately 3-foot wooden cross-rod for the camera assembly that could be somewhat

## Meeting Notice

**NOTE: Special Place**

**TSTC Kultgen Automotive Center**  
**(same as HOTARC—click for map)**

**Thursday July 18, 2002**

**Directors 7:00 pm, Members 7:30 pm**



**Just a little bit more...a little more...  
while the news media is filming away...**

stabilized using a pair of tethers. This would hopefully reduce the tendency of the camera to spin wildly beneath the balloon, and yield more usable ATV images.

David Bush KC5UOZ had set up a television monitor tuned to cable channel 60 under the park's pavilion, and everyone there was able to easily watch the overhead view from the Sky-Eye, showing the pavilion area growing smaller and smaller, as John N5XAK and Justin KC5KQL slowly fed out the tethers to 500 feet. The balloon steadily lifted its payload to the maximum altitude and delivered great images from high above the HOTARC-WATS Field Day site.

Congrats to N5XAK and all who participated and contributed! What a great exercise! And, a *fun thing to do!*



**Sky-Eye image of HOTARC trailer and ham vehicles (center), and pavilion rooftop (lower left) from about 500 feet.**

**Note: We lost color from this altitude.**



**KC5NT, KI5QT, and N5XAK: the "salvage operation."**

Oh...shall I say how the story ended? About an hour after the balloon had been tied off and everyone was getting pretty used to the images of the pavilion from 500 feet being shown on the television screen, there was suddenly a loud Bang! on the pavilion rooftop. The first thought was that HOTARC's 40-meter vertical had collapsed. But then it was apparent that it was not the antenna, but rather the Sky-Eye! The balloon had burst and the whole assembly came down in a crash—right on the edge of the pavilion. A videotape recording being made showed that the balloon wrapped itself around the camera and fell (or fluttered) for about 8 seconds before striking the pavilion! Thankfully, no one or nothing was hurt or damaged as a

result of the 500-foot fall! Even the Sky-Eye seemed to emerge unscathed, with little more than a cracked battery case. Once again, John's aluminum-box Sky-Eye construction seemed to justify itself!



A fun time was had by many hams and visitors at the Field Day site who took their hand at driving around the KC5UOZ radio-controlled ATV "hot rod." A battery powered X10 camera module transmitted 2.4 GHz pictures back to a TV monitor. By watching the TV screen only, one could drive the car around the pavilion's picnic tables using the RC transmitter. Neat trick, David!

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## President's Column

Fellow ATVers:

Well, after four years of trying and being defeated by either Murphy or the weather, we finally demonstrated that we could loft a TV camera from a tethered balloon! This field day can go down in the books as an unqualified success. Thanks to all who assisted in the effort.



This month we will meet at TSTC courtesy of Norris Martin, KB5SLI. Our Secretary/Treasurer will not be in attendance for this meeting, and Norris has generously offered the same room that HOTARC meets in. As usual: third Thursday, July 18th. I don't have a program scheduled, but maybe David, KC5UOZ can show us some of his recent projects.

See you at the meeting.

Your Prez,  
John N5XAK

### Agenda for WATS Meetings Directors' Meeting

1. Call to order
2. Reading of the June Board Minutes
3. Vote of Approval
4. Reading of the Treasurer's Report
5. Vote of Approval
6. Old Matters
7. New Matters

### Members' Meeting

1. Call to order
2. Reading of June Member Minutes
3. Vote of Approval
4. Treasurer's Report as approved in Board Meeting
5. Old Matters
6. New Matters
7. Program: none planned

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## Waco Amateur Television Society (WATS) Minutes of the Board Meeting and Members Saturday June 15, 2002

The June meeting of WATS was called to order by President John Gafford N5XAK at 12:10 pm after a pleasant lunch at Picadilly Cafeteria (Richland Mall, Waco, TX). Those attending were all the Officers and Directors!

- John Gafford, N5XAK (President)
- John Chamberlain, AC5CV (Secretary/Treasurer)
- Horace Bushnell, W5TAH
- Norris Martin, KB5SLI
- Marshall Mabry, KD5IQ

...and one visitor: our webmaster, Justin Martin KC5KQL.

W5TAH moved to accept the minutes of the previous meeting as published in the June Happenings, seconded by KB5SLI, and approved unanimously.

KB5SLI moved to accept the Financial Report as published in the March Happenings, seconded by W5TAH, and approved unanimously.

N5XAK led a discussion of our Field day plans, involving SSTV and (fast-scan) ATV. With enthusiasm high for another high-altitude ATV attempt, AC5CV made a motion to authorize the purchase of tank of

helium (estimated \$75) to inflate N5XAK's balloon (from a previous year's failed Field Day attempt), weather permitting. KB5SLI seconded the motion, and the members present unanimously approved the motion.

Since AC5CV will be traveling during July, N5XAK announced that the July WATS meeting would be held at TSTC (presumably the Kultgen Automotive Building), Directors at 7:00 pm and Members at 7:30 pm. Let's include a map in the Happenings.

At 12:35 pm, the President heard a motion by W5TAH to adjourn the meeting.

Submitted by  
John Chamberlain, AC5CV  
WATS Secretary/Treasurer

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## Financial Report July 2002

Beginning Balance (1 June 2002)	\$861.18
Credits: None	0.00
Debits: Checks	<u>(\$56.51)</u>
Ending Balance (31 May 2002)	\$804.67
Outstanding (as of 7-7-02):	
Credits: None	
Debits: None	

John Chamberlain, AC5CV  
WATS Secretary/Treasurer

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## 2002 WATS Officers and Directors

**President:** John Gafford N5XAK, [jgafford@clearsource.net](mailto:jgafford@clearsource.net)  
**Secretary/Treasurer:** John Chamberlain AC5CV, [AC5CV@arrl.net](mailto:AC5CV@arrl.net)  
**Director (thru 2004):** Horace Bushnell W5TAH, [W5TAH@aol.com](mailto:W5TAH@aol.com)  
**Director (thru 2003):** Norris Martin KB5SLI, [nmartin@tstc.edu](mailto:nmartin@tstc.edu)  
**Director (thru 2002):** Marshall Mabry KD5IQ, [MabryM@aol.com](mailto:MabryM@aol.com)

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