

"A.T.I. RESULTS AT THE UNITED STATES MILITARY ACADEMY"

Arriving at the Academy, accompanied by E. D. Carter and J. A. Sanabria of our A.T.L. engineering staff, I found Captain Garland had kept the A.T.I. equipment in perfect shape and had it in operation. The navy men from Annapolis were guests of West Point prior to the Army-Navy athletic meet the next day, and it turned out that our television lecture proved to be a real feature show to those assembled. We were located beyond the horizon from the Empire State building and behind a mountain, but, with the use of special reflectors designed by Captain Krueger, we picked up the N.B.C. Empire State television transmission perfectly.

The preliminary television signal was less marred by interference than the sound, but by proper adjustments we eliminated all difficulties. In the afternoon we saw a track meet transmitted from Long Island in New York through the R. C. A. telemobile. We of A.T.I. received immense satisfaction watching the unbelieving expressions on the faces of our audience as they fastened their eyes to the screen of the telecast receiver and watched the track meet. One of the navy men spoke up and said: "Man o' life! You can almost feel the cinders flying in your face!"

The Telecamera operator turned in a fine job on keeping the runners in continual focus. Between events, and to show the possibilities of a remote control pick-up, the operator cruised up and down the stadium with the lens

of his telecamera capturing the unsuspecting expressions of the spectators. As we witnessed these candid shots of people at play, it occurred to me that when these telecameras become commonplace in amusement quarters, like cafes and ball parks, it will be quite dangerous to use the old alibi of "visiting a sick grandmother" — because one's image can be picked up by the "roving telecamera man" and his whereabouts transmitted to the television receiver.

Since the audience at West Point did not know what to expect, we started the lecture and demonstration showing the old mechanical television system in operation. They were quite pleased with the operation of this device. We explained in detail how it worked — we showed how a flying spot made a line, and then how a series of lines made a field of light, and how this light is converted into an electrical signal and then sent, like any electrical signal, through communication devices to a distant receiver where the amplified signal is converted again back into light.

After that, slides were exhibited to illustrate the tremendous size of our biggest mechanical unit. We then portrayed how the electronic camera has greatly reduced the size of television sending apparatus, and how the A.T.I. Double-Electronic equipment (now furnished to A.T.I. and A.T.L. associates who request it) was more perfect than the mechanical system. Our audience readily appreciated the vast improvement of the image received over our regular student equipment, and they were generous with their exclamations of pleasure.

The climax of the show was our announcement that the receiver on the lecture table, equipped with a big fourteen inch tube was to be used to show the latest steps in the perfection of television — and that the N.B.C. Empire State telecast was to be picked up by our receiver. Although there were obvious expressions of skepticism on the part of the audience, a certain tenseness, that I enjoyed, prevailed as we snapped on the switch. In a half minute the receiver warmed and then — Allah! There, as sharp and brilliant as the image on the screen of your best theater, was the "March of Time"! The heretofore military discipline of our audience dissolved with the alacrity of ice on the Mojave, and they gathered about the television receiver as a family might huddle about the hearth fire on Christmas eve. For one hour and a half it was as quiet as though a miracle had transformed into a living, breathing reality — and, indeed, such was the case to these men of the Army and Navy.

I am sure that there will be quite a number of receivers in demand at West Point as a result of this showing. I urged the use of television in military work, and I secured considerable interest on the part of some of the officers in the Television Aerial Torpedo. I pointed out that for less than the cost of one battleship, a good research organization like the A.T.L. could collaborate in the development of weapons using television principles. This would be a great money saving formula for taxpayers, and be far more useful in the defence of our country. If we keep pushing television in military circles, I am positive that eventually we shall be able to expand into many further industrial corners. I have found that such work goes on in other countries, and surely our nation must not be unprepared if war eventualities require you and me to protect America.