April 21, 1958

TO: Jim Schulke
FROM: John Silva

SUBJECT: Technical Status of the Telecopter Project

In my memo to you of April 2, 1958, I listed the electronic equipment needed immediately in order to complete the technical installation of the Telecopter. This list was arrived at after many hours of research and design, which included microwave signal strength analysis over numerous probable transmitter-receiver paths, using the Mt. Wilson receiver location as a reference.

As you know, I also made a trip to the General Electric Electronics Plant in Syracuse, N. Y to confer with their engineers regarding the center-fed helical antenna we will be using with the Telecopter to transmit picture and sound to the intended receiver on Mt. Wilson.

Consideration was given to all factors, including terrain, weather, propagation, signal-to-noise ratio, weight, practicality of operation, quality of pictures, dual use of equipment, and cost.

There is positively no doubt in my mind that reliable helicopter news coverage of the entire Los Angeles Basin, approximately 40 mile radius from Mt. Wilson - with the exception of back in the mountainous region - can be accomplished with the suggested equipment layout.

In my memo of April 2, I also listed certain equipment that would be needed sometime in the future if it were desired to expand the operation of the helicopter and improve the reliability of the system. This list included equipment that would allow the receiving antenna to automatically follow the helicopter in azimuth. This feature isn't necessary at this time, as the distance between the helicopter and the Mt. Wilson receiver will vary between 15 to 40 miles. Also, the parabolic receiving antenna has a beam width of 6 degrees, allowing an operator to easily follow the helicopter's motion and position with a motor-driven pan and tilt head.

In view of our competition in this project and that the automatic following device will have to be developed by us, taking time, I suggest that the above refinement be delayed until we have been first in the use of an operational helicopter mobile unit.

Further, because the microwave transmitting antenna in the helicopter will be non-directional in the horizontal plane and has a beam width of 12 degrees in the vertical plane, no automatic tracking equipment will be needed there.

Later on if we need to materially increase our range of news coverage with the unit, we can consider using a servo-controlled microwave antenna in the Telecopter at that time.

John Silva

The Engineering Supervisor, Roy White, has been with the company since 1948, assisted in the design and installation of the present studios, and plays an important part in the coordination of studio engineering activities.

The Remote Supervisor, John Polich, has been with KTLA since 1949, assisted in many of our important remote coverages (Atom Bomb Coverage, Kathy Fiscus, etc.), and plays an important part in the coordination of remote activities, such as surveying probable remote locations, etc.).