

A REVOLUTION IN STUDIO

An article by Rüdiger Kreckel, a member of VT Planning at ZDF Mainz, responsible for lighting equipment.

THE German television network currently consists of Channels 1 and 3 operated by ARD (Association of German Radio Stations) and Channel 2 operated by (German Television) ZDF.

The new TV centre at Mainz-Lerchenberg consists of two studios each with 200 sq.m. studio area and one studio 500 sq.m. with integrated telescopic auditorium seating as well as news and announcement studios with their supporting functions. In Studios 1 and 3 live productions will be handled, such as "Tele-Magazine" and "Sports Studio", and other programmes of topical interest. These programmes are relatively short productions of which several have to take place one after the other each day in one studio.

Based on this requirement and with the experience gained since 1964 from the provisional ZDF transmission centre at Wiesbaden, a new concept for the lighting equipment was employed which differs from conventional studio lighting practice.

The key part of this concept is the use of Kahoutek multi-purpose luminaires, where the various functions are motorized and can be operated by remote control. These Kahouteks are telescope mounted in a saturated rig with motorized vertical movements, allowing positioning and adjustment of luminaires from the studio floor, virtually at the push of a button. Lighting rehearsals can therefore be carried out with a minimum of time and personnel.

The realization of this concept required a new design for various components as well on extensive trial runs. A pilot installation was used, in one of the studios at Wiesbaden among others, which proved that remote controlled lighting equipment for studios is not only possible but that the higher initial expense would pay off.

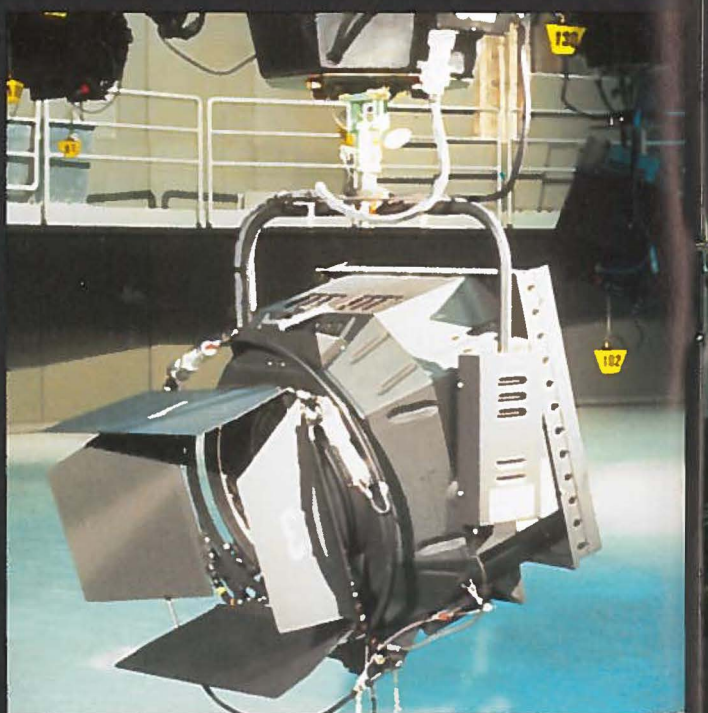
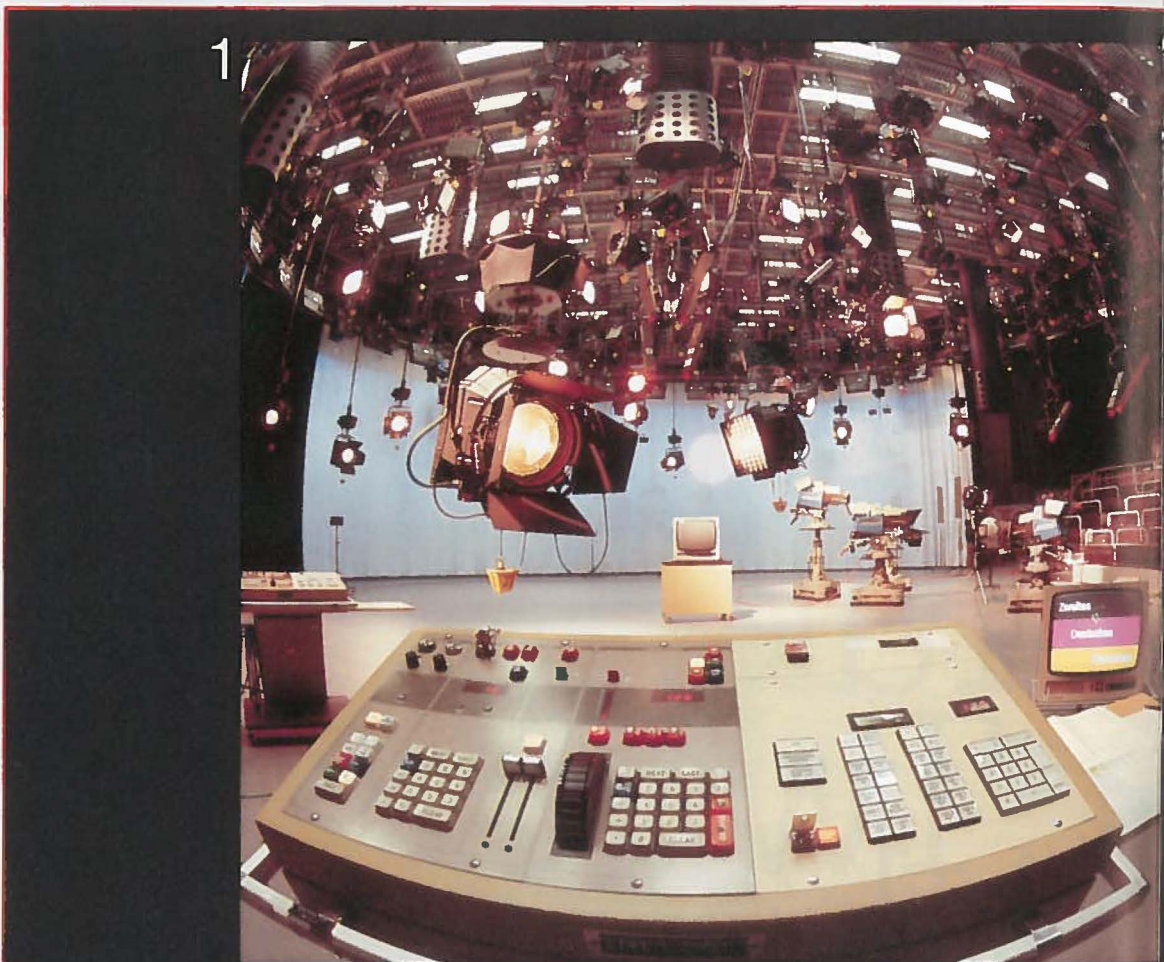
The motorized Kahouteks, combining the functions of a Fresnel spot and a soft light in one unit, and can have their rating changed from 5 to 2.5 or 3.75 to 2.5 or even 1.25kw. The various functions on remote control are pan, tilt, focus, full rotation of barndoors with 4 leaf movements and the change from Fresnel spot to soft light. All of these functions are remote controlled from a portable control desk on the studio floor or from the associated control room which also houses light and camera controls.

The saturated rigging guarantees that over the whole studio area units are available at the right place, avoiding the reshuffling of lanterns. This in conjunction with adjustment of the luminaires through remote

control eliminates preparation time. Each unit is selected individually by number and can be immediately adjusted to requirements, and its light intensity also selected.

The multi-purpose lanterns are

mounted on telescopes which can be lowered by remote control down to 1.2m above the studio floor. The telescopes can be moved in the slots of the grid which can be moved to adjacent service and main-



1. View into Studio 3
2. Telescope
3. Motorized Kahoutek
4. Lighting control
5. Studio control panel (portable)
6. Working grid
7. Power distribution Panels (patch panels)