

AEQ LIVE & ARROW

REPORTER UNIT AND RADIOLINKS FOR OB VANS



LIVE 20TR



LIVE 20T



LIVE 20R



ARROW 50T



ARROW 50R



ARROW 50MIXER

**Application note. Description, applications and examples.
Department of Marketing**

For further information, please refer to:

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FAMILIES OF RADIO FREQUENCY EQUIPMENT

AEQ ARROW AND AEQ LIVE

Radio and communications lines are now complemented for the outside broadcastings.

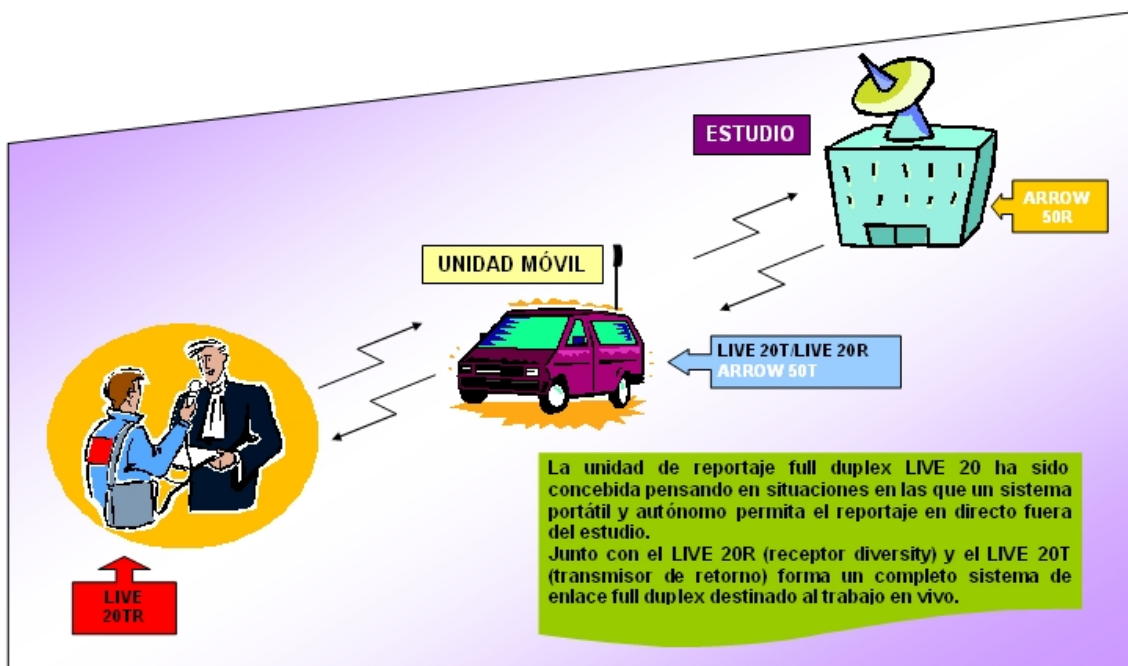
AEQ adds to their codecs and commentary units' catalogue, the reporter units and radio links for OB Vans.

Destined to the broadcastings of events such as soccer matches, automobile competitions or cycling championships, the new equipment of AEQ allow to transport high quality audio from the field reporter to the OB Van or the studio, several kilometres away.

Formed by two families: AEQ LIVE and AEQ ARROW. LIVE family is composed by 2 sets: LIVE 20 and LIVE 10, being different itself solely in the presence of return channel. Both families include an ample range of frequencies to work as much in VHF (send) like in UHF (return), memorization of 16 frequencies and reconfiguration by software.

REPORTER UNITS: LIVE 20 AND LIVE 10

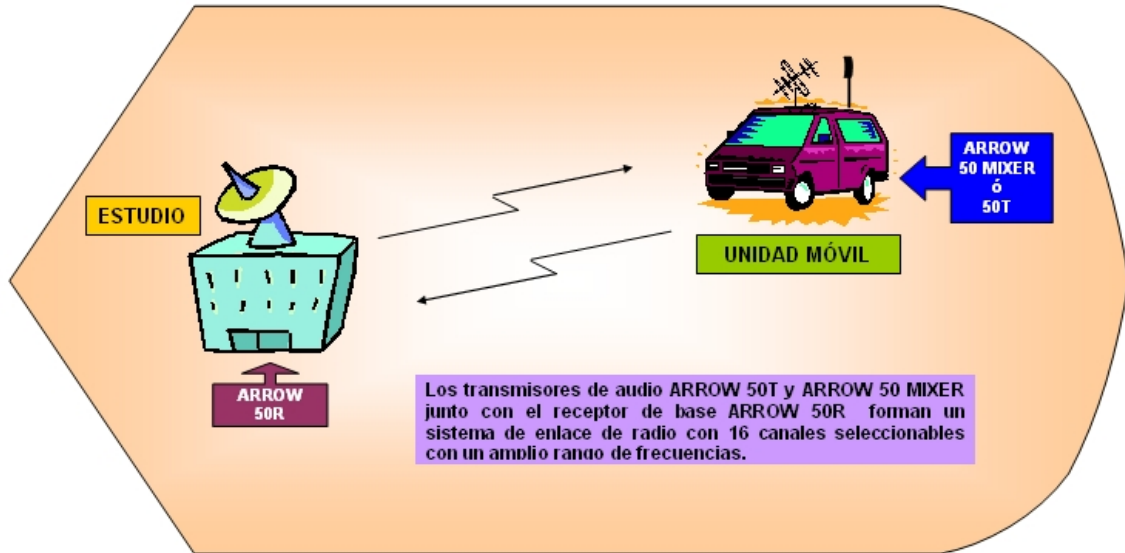
The LIVE 20 set, formed by a station base (LIVE 20R True Diversity receiver), LIVE 20T (transmitter) and the reporter unit (LIVE 20TR), offering a power of 2.5W with full-duplex communication. The complete set allows to the communication between the field reporter with the OB Van at a maximum distance of 1 kilometre, establishing a program send and coordination return with the reporter. Its autonomy of at least 4,5 hours, with intelligent Ion-Lithium batteries, is sufficient for the broadcasting of the event along with the previous periods and later interviews. In order to ensure high quality communications the use of the shoulder adapter is recommended.



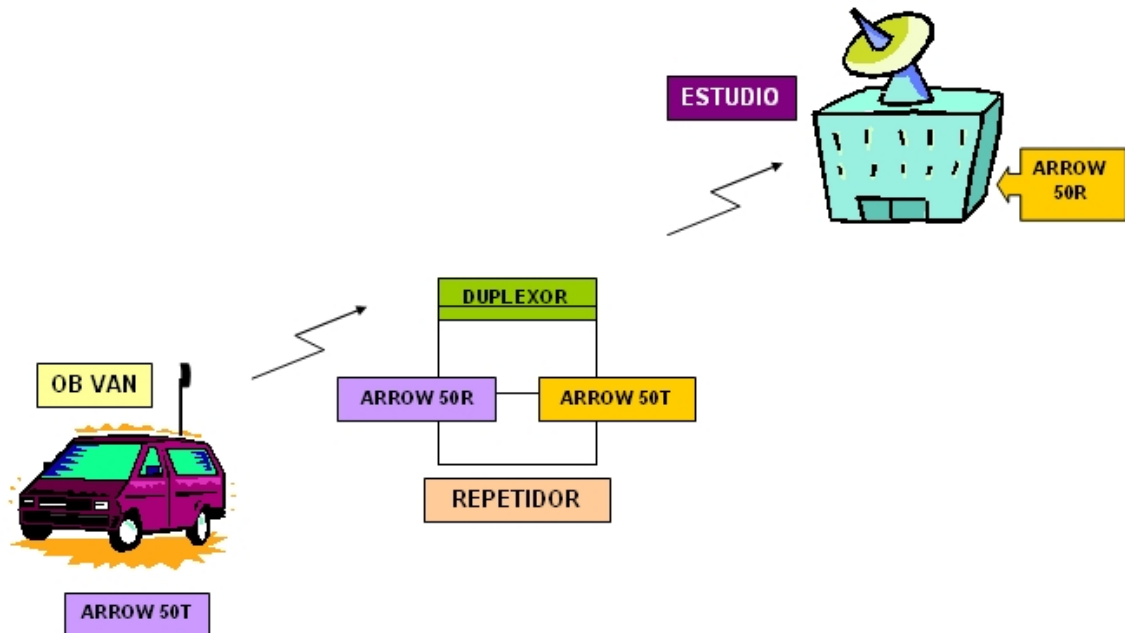
(See details from the equipment, antennas and connections in following diagrams)

PROGRAM LINKS

ARROW family, formed by receiver ARROW 50R and two possible transmitters: ARROW Mixer 50T with a mixer of 3 mic/line inputs and the ARROW 50T without mixer and rack format, both providing 30 W and with 16 selectable frequencies. Its mission is to facilitate the send of audio from the OB Van to the studio or to a repeater located in a radius of up to 50 km, depending on the vision with the receiving antenna.



(See details from the equipment, antennas and connections in following diagrams)



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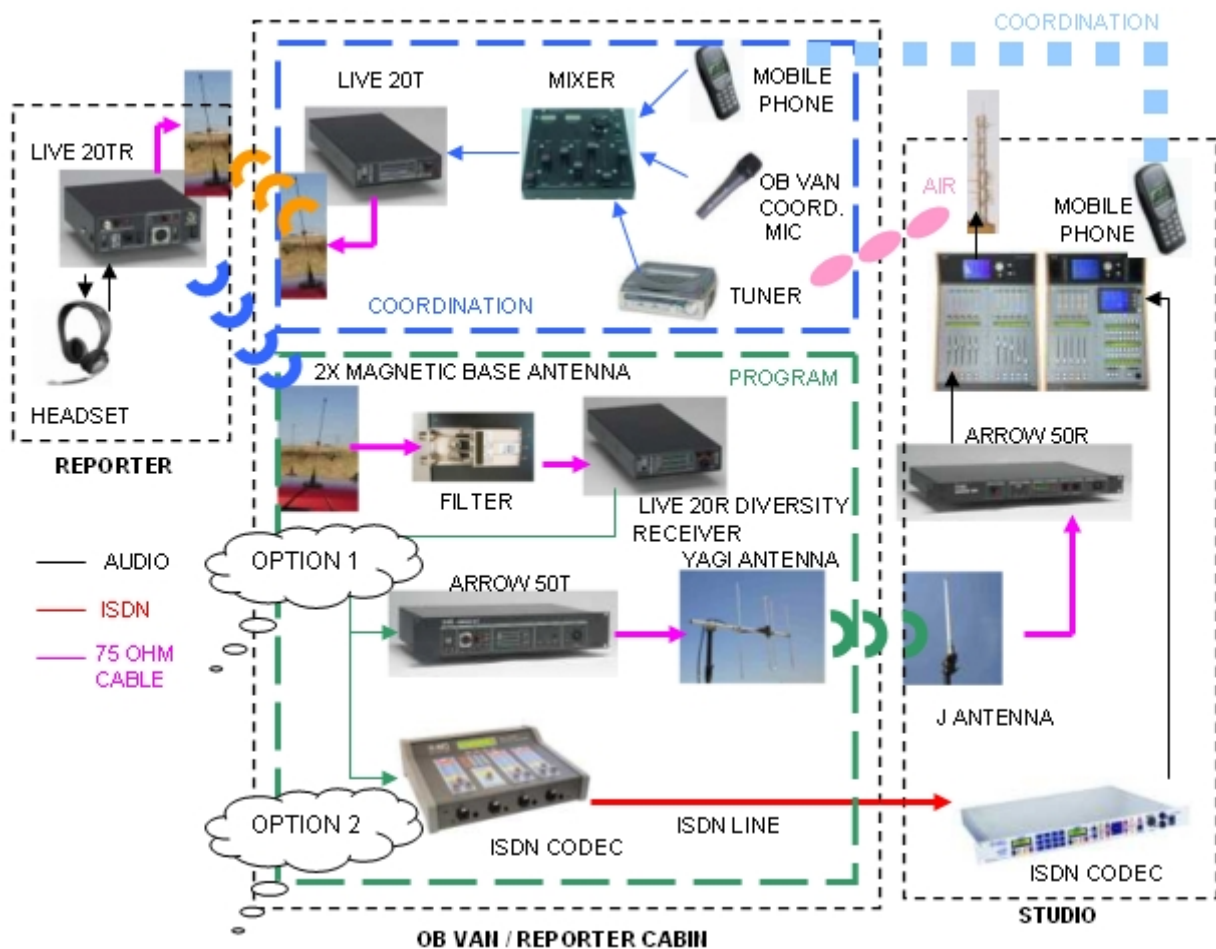
EXAMPLES OF INTEGRATION OF BOTH SYSTEMS IN THE BROADCASTING OF SPORT EVENTS

Next you will find the possible implementation of the broadcasting of events like a cycling championship or soccer matches, integrating both LIVE and ARROW systems.

In the case of a soccer match, the field reporter, equipped with a LIVE 20TR and a set of microphone and headphones, will be able to move by any zone of the stadium (field, clothes, press room, etc.) sending his program audio to the commentator located in the OB Van or a cabin, by means of the LIVE 20R. This speaker can as well send to the field reporter a return pertaining to a cell call from the studio, the output of a tuner or even his own voice through a microphone by means of the LIVE 20T. The necessity of a certain separation of frequencies for the send and return must be considered as well as the distances between antennas, along with the use of capacitive filters in the OB Van to improve the carrier-noise separation.

Next, the audio must be sent to the studio being possible to do it also by radio frequency, using an ARROW 50 set (OPTION 1 in the drawing), or by an ISDN line (OPTION 2 in the drawing). In the first case, if the distance between the OB Van (OB Van, moto, car or helicopter) and the studio were greater than the coverage given by the ARROW 50, a repeater could be installed (receiving + transmitter) to increase it.

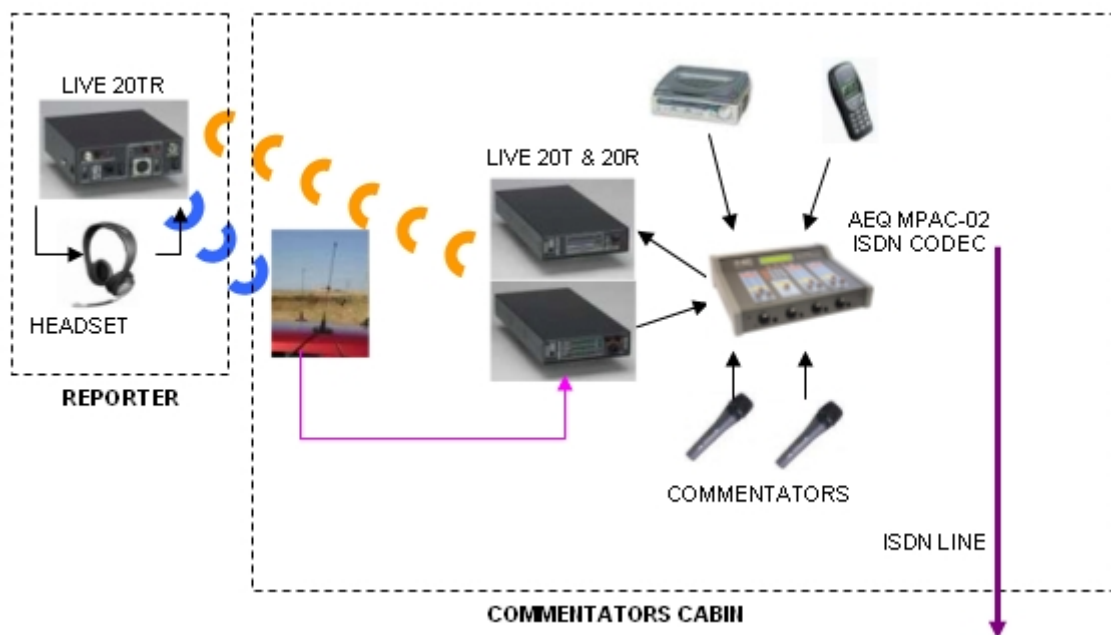
FOOTBALL MATCH BROADCAST EXAMPLE



In the case of a cycling championship, we will have two possible cases: first one where we have a cabin and a reporter at the goal who will send the program audio through an ISDN line; or the second one in which from a motorbike or car we communicate with the OB-Van or a helicopter that will send the program audio by radio frequency with an ARROW 50 equipment.

In the first case, the field reporters will carry a LIVE 20TR (or LIVE 10T in case he does not need return) and in the cabin a LIVE 20R receiver (or LIVE 10R) who will give its output to a mixer whose output will be sent to the study by an ISDN line.

EXAMPLE 1.CYCLING CHAMPIONSHIP FIXED BROADCAST



In the second case, the reporter retransmitting from a motorbike or car will send his audio by means of a LIVE 20TR to the car, OB-Van or helicopter equipped with a LIVE 20T and a LIVE 20R. The program audio is sent by an ARROW 50 MIXER (that can be fed by the 12 VDC connection on the car) that offers the possibility of mixing 3 mic-line inputs, to the studio.

EXAMPLE 2. CYCLING CHAMPIONSHIP MOBILE BROADCAST

