

## Guidance on Electronic Monitoring Equipment

Reference:

A. AP600, Chapter 4.3.

### Background

1. Electronic Monitoring Equipment (EME), also known as 'Tagging', and Curfew Orders are community sentences that are deemed appropriate in cases where the criteria for a custodial sentence has not been met. EME is a form of non-surreptitious surveillance consisting of an electronic device attached to a person, especially certain criminals, allowing their whereabouts to be monitored. In general, devices locate themselves using GPS and report their position back to a control centre, for example via a cellular (mobile) phone network. The EME can be categorised into its 2 areas of use; the ankle tag transmitter used to monitor an individual in curfew situations and the waistband transmitter used to monitor individuals regarding exclusion zones.
2. **The Ankle Tag.** Essentially the ankle tag is fitted to an individual and paired with a Monitoring Unit (MU). The MU is then situated at the curfew address where it will receive signals from the ankle tag transmitter. The ankle tag transmitter has a limited range and sends out an extremely weak signal. The signal is digital and the transmission period is of short duration, between 12-20ms per burst. Each transmission is encrypted and has at least 10 million, million combinations.
3. **The Waistband.** The waistband is essentially a tracking unit, with a wireless connection to the ankle tag. Satellites will transmit signals to the tracking unit, which contain GPS receivers. The waistband/tracking unit will then transmit its location via the telephone network (GSM). Like the ankle tag the signal is digital and the transmission period is of short duration, between 12-20ms per burst. Each transmission is encrypted and has at least 10 million, million combinations.
4. The frequency transmission used for both devices is classed as being within the commonly used bandwidth; similar to an electronic garage door remote. It also has a negative effect as opposed to a positive one. For example, the ankle tag transmission would not activate an electronic garage door. However, should the ankle tag send a transmission at the same time a person is using the electronic garage door remote, the door may not open. It should be noted that this would only happen if both the tag and remote were operated in the same 12-20ms period and that the particular transmission of the tags 10 million, million combinations, matched that of the remote.

### Impact of EME on Future RAF Service

5. In all cases, OC P1/PSF is to seek advice from Air Personnel Casework in the first instance. If the specific case was one where custody (including a suspended sentence) was being considered, and the court was considering a curfew and tagging order as an alternative, then stating that tagging is not an option may force the court to imprison, resulting in the airman's discharge.
6. When considering effect on employment, the impact of such a tag on Flight Safety and Tempest regulations is to be considered. From a TEMPEST perspective it would be highly unlikely to gain any information from the burst transmission given the low power output of the EME and the short transmission period. However, the tags are still classed as transmitters and therefore the necessary TEMPEST precautions indicated at Reference A should be adhered to; predominantly maintaining a distance of 2 metres from any RED Protectively Marked systems.