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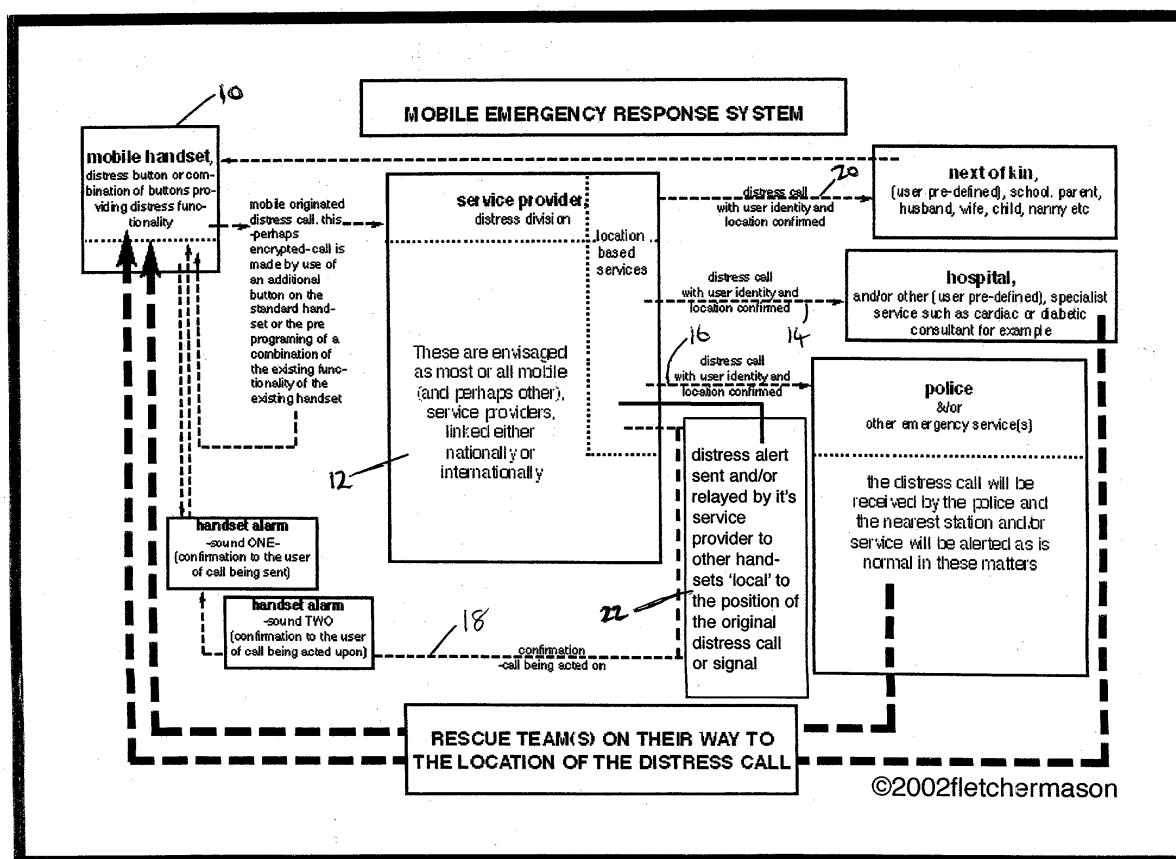
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(54) Distress Alert

(57) A distress condition is indicated by transmission of a signal from a portable transmitting or receiving device (10) such as a mobile telephone. A receiving station (12) receives the signal and identifies from the sig-

nal the nature of the distress condition and its location. The receiving station then automatically notifies the relevant authorities of the distress condition and its location and they can react accordingly.



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Description

[0001] This invention relates to the signalling of a distress situation such as an assault or the sudden onset of an illness.

[0002] Portable transceivers such as mobile telephones are in wide-spread use. Furthermore with modern technology it is now possible to identify precisely the location of a user of a mobile telephone by means of a mobile phone operator's location system employed in their own location based services which may be based on triangulation in conjunction with or alternatively or by means of what is known as the GPS system. The present invention makes use of these facilities.

[0003] According to one aspect of the present invention there is provided a method of signalling a distress situation which comprises transmitting from a portable transmitting and receiving device such as a mobile telephone a signal indicative of a distress condition, receiving the signal at a receiving station which can identify the location of the device, and alerting one or more authorities of the distress condition including its location.

[0004] The mobile telephone may have been adapted in order to enable it to transmit the distress signal. This adaption may take the form of an additional button on a standard handset, the operation of which causes automatic transmission of a signal indicative of the distress condition. Alternatively the adaption may take the form of software modifications which allow the mobile telephone to transmit a distress signal in response to operation of one or more of the conventional buttons.

[0005] The receiving station may be a station of a service provider. The station may be provided specifically to deal with distress situations. The station can identify, using the telephone operator's locator system or GPS techniques, the origin of a distress signal transmitted from a mobile telephone and can also identify from data in the transmitted distress signal the nature of the distress condition. The receiving station is also arranged to notify automatically authorities such as the Police or hospitals whose response will be required in order to deal with the distress condition.

[0006] According to another aspect of the present invention there is provided a portable transmitting and receiving device such as a mobile telephone which has been adapted so that a user can by operation of one or more predetermined keys cause the device to emit a signal indicative of a distress condition so that the signal can be received at a receiving station which can identify from the signal the nature of the distress condition and the location of the device.

[0007] According to a further aspect of the present invention there is provided a system for providing a response to a distress condition as signalled by a signal transmitted from a portable transmitting and receiving device such as a mobile telephone, comprising a receiving station for receiving the transmitted signal, said receiving station being arranged to identify from said sig-

nal the existence of the distress condition and the location of the transmitting and receiving device and on the basis of said identification to alert one or more authorities of the distress condition and its location.

[0008] The invention will be described now by way of example only with particular reference to the accompanying drawing which is a block schematic illustration of a distress condition signalling system in accordance with the present invention.

[0009] The distress condition signalling system shown in the drawing is based upon the use of an existing mobile telephone or device, or a modified mobile telephone which can be used by a user who find himself in a distress situation to transmit a signal indicating that distress situation. The modification can take the form of an additional button on the handset which when actuated causes the mobile telephone automatically to transmit a signal indicative of the distress condition. The provision of an additional button means that a user of the mobile telephone should, even in a threatening situation such as an imminent assault, be able to operate the button to transmit the signal. The transmitted signal may be an encrypted signal. Alternatively, the modification of the mobile telephone may take the form of additional software which allows the telephone to transmit the signal indicative of a distress condition in response to the actuation of one or more of its existing keys.

[0010] Distress signals transmitted by a mobile telephone (10) are received at a service provider station (12) which may provided specifically to deal with distress conditions. The service provider will be able, from the data contained in the transmitted signal, to identify a distressed user and possibly the nature of the distress condition being signalled. Additionally by virtue of the service provider's location system which can use a known triangulation technique or the GPS system it will be able to identify precisely the location of the device which is transmitting the distress signal. On the basis of this information the provider station (12) can then notify the appropriate authorities of the existence of the distress situation and its location. This can be an automatic operation. This is illustrated in the drawing at (14) and (16). Typical authorities will be a hospital or the Police. Additionally it is possible for the service provider station (12) to notify the next of kin (20) of the user of the mobile telephone since this information will normally be available to the service provider. The user may select, possibly in advance, what information to provide to the distress service. A further facility which can be provided is shown at (22). The service provider (12) can send a distress alert to one or more other mobile handsets which are currently in the vicinity of the handset which transmitted the distress signal.

[0011] Thus in the case of, for example, an assault, as soon as the Police or other emergency services become aware of the existence of the assault and its location they can immediately arrange for a rescue team to travel to the location in order to deal with the distress

situation. The system as illustrated at (18) can include a facility which enables a confirmation signal to be transmitted to the distress handset to advise the handset user that their call is being acted upon. This confirmation signal can cause the handset to emit a particular audible tone.

Claims

1. A method of signalling a distress situation which comprises transmitting from a portable transmitting and receiving device a signal indicative of a distress condition, receiving the signal at a receiving station which can identify the location of the device, and alerting one or more authorities of the distress condition including its location. 5
2. A method according to claim 1 wherein the portable transmitting and receiving device is a mobile telephone. 10
3. A method according to claim 2 wherein the mobile telephone has been adapted in order to enable it to transmit the distress signal. 15
4. A method according to claim 3 wherein this adaption takes the form of an additional button on a standard handset, the operation of which causes automatic transmission of a signal indicative of the distress condition. 20
5. A method according to claim 3 wherein the adaption takes the form of software modification which allow the mobile telephone to transmit a distress signal in response to operation of one or more of the conventional buttons. 25
6. A method according to any preceding claim wherein the receiving station is a station of a service provider. 30
7. A method according to claim 6 wherein the station is provided specifically to deal with distress situations. 35
8. A method according to claim 6 or claim 7 wherein the station is arranged to identify, using the telephone operator's locator system or GPS techniques, the origin of a distress signal transmitted from a mobile telephone and also to identify from data in the transmitted distress signal the nature of the distress condition. 40
9. A method according to claim 8 wherein the receiving station is also arranged to notify automatically authorities such as the Police or hospitals whose response will be required in order to deal with the 45

distress condition.

10. A portable transmitting and receiving device such as a mobile telephone which has been adapted so that a user can by operation of one or more predetermined keys cause the device to emit a signal indicative of a distress condition so that the signal can be received at a receiving station which can identify from the signal the nature of the distress condition and the location of the device. 50
11. A system for providing a response to a distress condition as signalled by a signal transmitted from a portable transmitting and receiving device such as a mobile telephone, comprising a receiving station for receiving the transmitted signal, said receiving station being arranged to identify from said signal the existence of the distress condition and the location of the transmitting and receiving device and on the basis of said identification to alert one or more authorities of the distress condition and its location. 55

