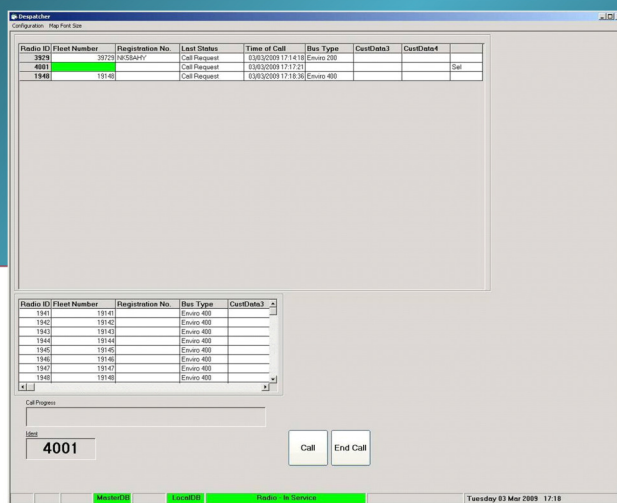# Keynet- Computer Aided Despatcher - Voice Version Operator Manual

Versatile Fleet Management Tool for voice and data communications

- Single Client or sophisticated multiple position operation with shared data base

- Multimode connectivity options - radio, landline, LAN, WAN, ADSL

- Radio Systems customisation options

- Upgradeable to voice plus fleet tracking with dual screens

- A proven integral part of Radio Systems Keynet solutions.

CONTENTS

1. INTRODUCTION

The new Radio Systems Voice Despatcher has been tailored, where possible, to meet the requirements a range of users. It provides the additional functionality offered by the Keynet II system with access to many operational features that are inherently available in the MPT1327 trunked system design. The main difference from the early versions is the provision of sounds to draw attention to incoming calls as well as sounds to indicate that the operator has performed a function.

The package is valid for radio, landline, LAN, WAN, ADSL or most industry standard forms of connectivity.

2. OPERATIONAL OVERVIEW

Operation is achieved using a standard desk top PC with either keyboard entry with assigned keys or by using the mouse to control these functions. The assigned keys are listed in the table provided later in this document. The appearance of the Voice Despatcher has been kept as simple as possible, but takes full advantage of the Keynet II Trunked system features.

3. VOICE FEATURES

Received audio from mobiles and portable radios is provided through desk top loudspeakers with adjustable volume. These are connected to the standard audio output ports at the back of the PC.

Transmitted audio is provided from a desk top microphone with a muting switch. The transmitted audio is processed through an automatic gain controlled amplifier (VOGAD) unit to allow for the variation in operator voice levels therefore maintaining a relatively constant modulation voice level.

Alternatively, when used with a radio Despatcher, the normal fist microphone or an adapted desk-top microphone may be used directly connected to the voice radio.

4. DESPATCHER OPERATION

4.1 Voice Calls

The Despatcher Operator Screen **(Fig.1)** is the opening screen and used for day-to-day communications control. Call management may be performed by using the keyboard or the mouse depending upon the preference of the operator. The mouse icon can be used to set up calls from the Despatcher screen.
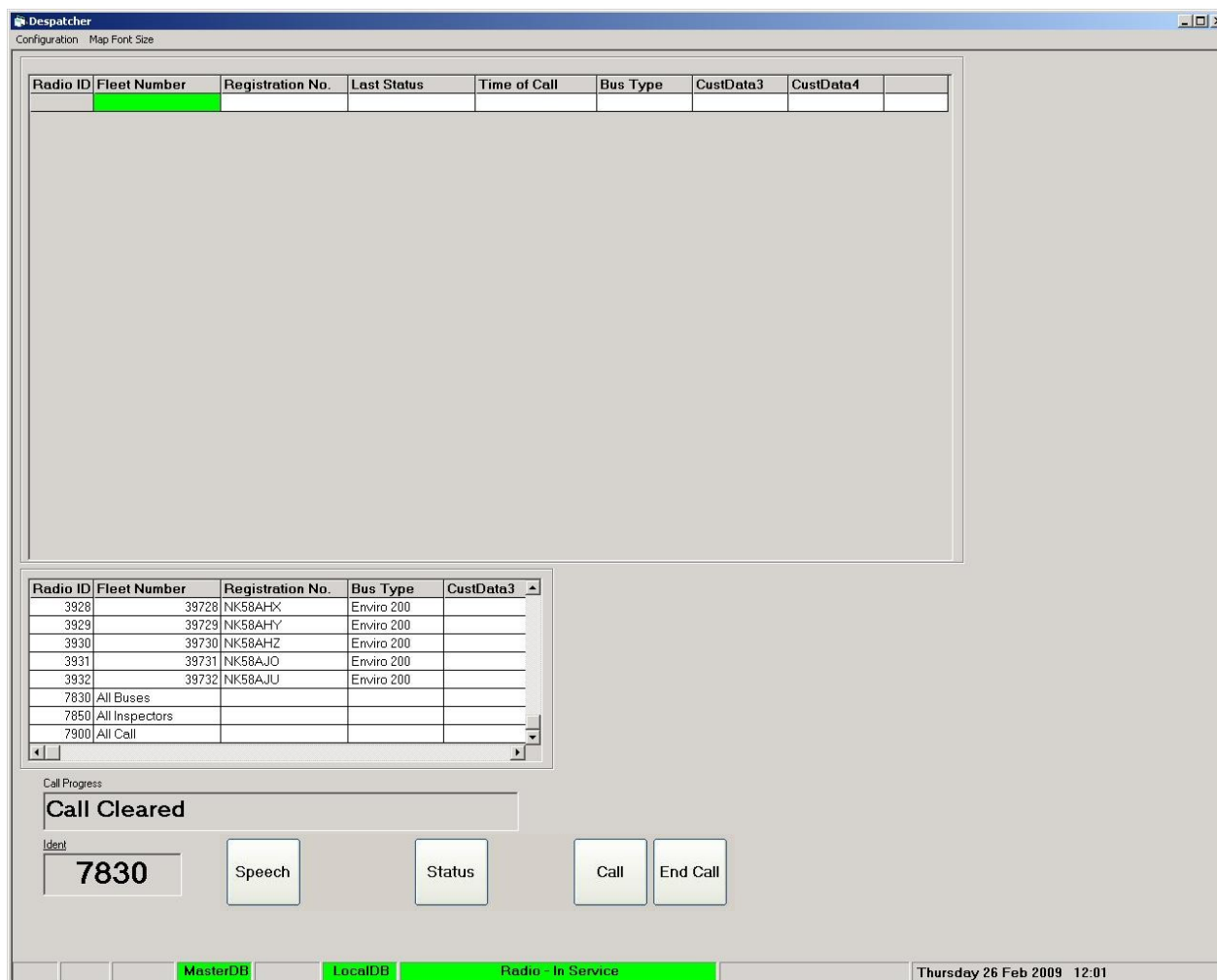

Fig. 1. Opening Screenshot of the Keynet PC Despatcher System

4.1.1 **Incoming Calls** that have been initiated by drivers come in via Status messages as "Call Requests" and immediately appear at the top of the call stack box at the top of the screen. The details about the call are visible in the table and it is possible, where more than one call is waiting, for the operator to select calls in any order they may feel appropriate from the list.

4.1.2 **Incoming Call Selection** may be made using the Up/Down arrow keys to select the call from the call stack followed by pressing the **F1** function key. Alternatively the operator may use the mouse to control the screen icon on to the desired caller in the Call stack **(Fig.2)**. After selection, at pressing the **F1** key the Ident will be copied to the **Outgoing Call** area at the bottom of the screen in the "**Ident**" box and the call will be set up with the caller. Similarly this action can be performed by placing the mouse icon on the "**Call**" box and clicking the left hand mouse button. Successful establishment of the call will be indicated by the word "**Connected**" being displayed in the "**Call Progress**" dialogue box. The Operator will then be able press the PTT switch on the microphone and commence speaking with the caller.
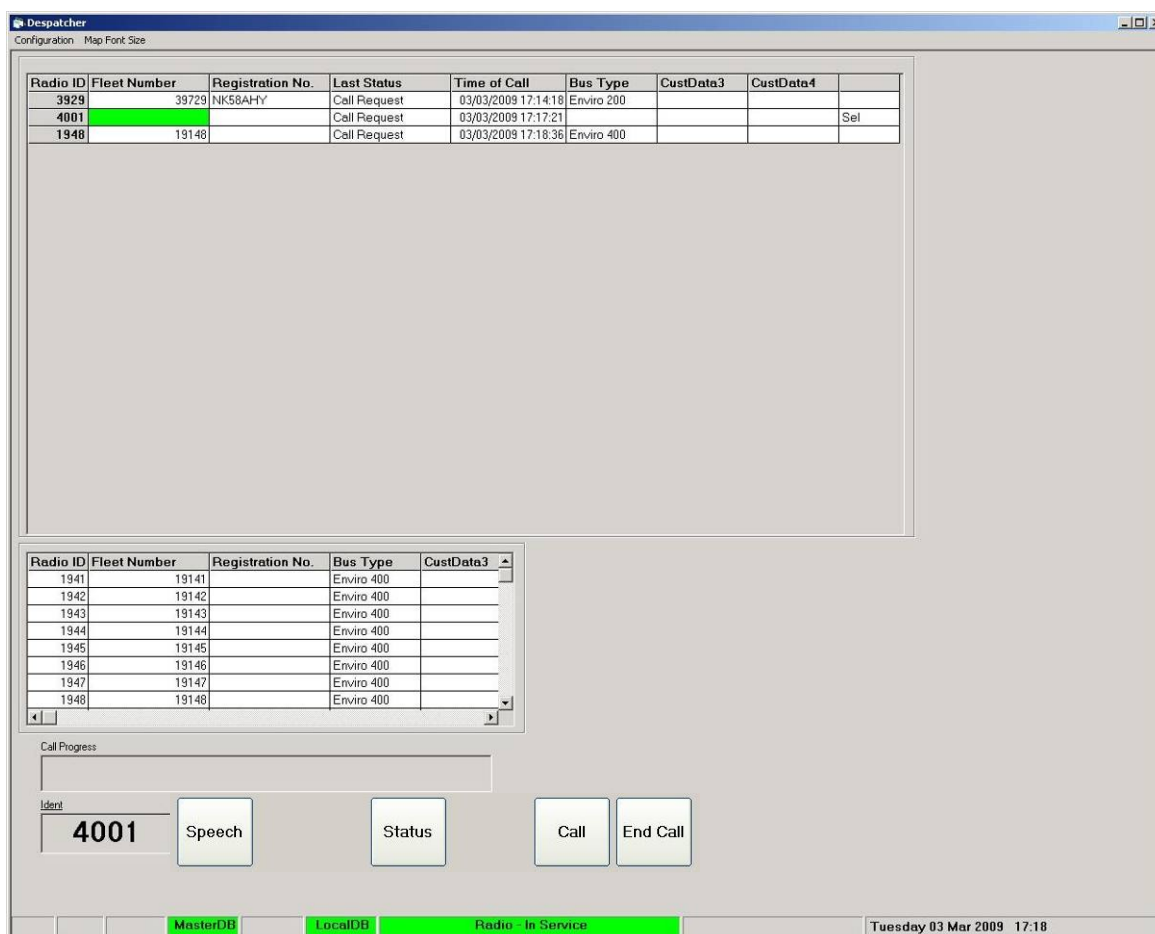

Fig. 2. Call Stack appearance

4.1.3 **Call Time** is indicated at the bottom of the Despatcher screen to the left of the date text box as a count down time in seconds whilst a call is in progress. The start time is dependent upon the system setting for the time-out period that will limit the maximum call length. If the timer is set to 120 seconds the time will decrement from 120 downward.
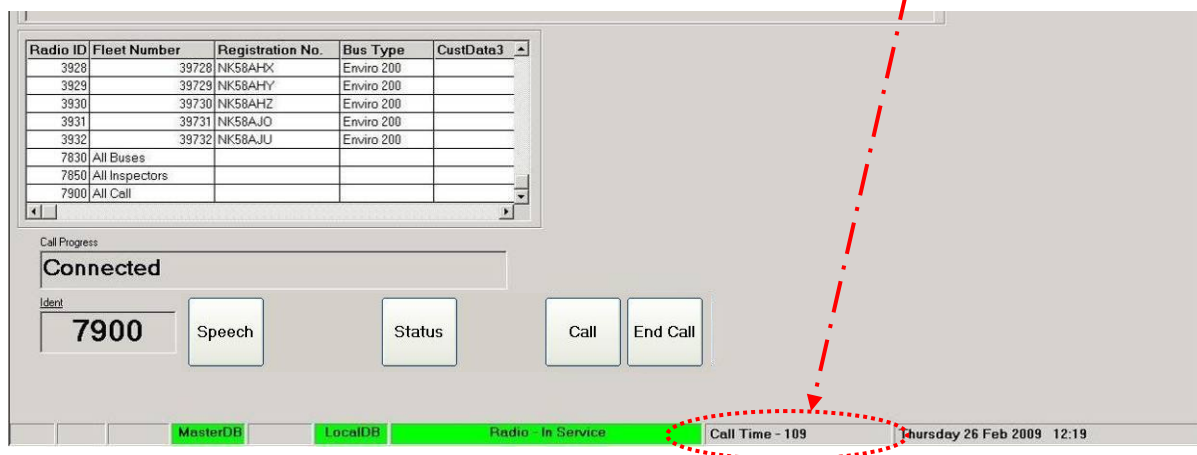

Fig. 3. Call Timer and Call "Connected"

4.1.4 **Outgoing Speech Calls** can be initiated by the Operator using either:

4.1.4.1 Using the **F1** function key to set up the call with the call at the top of the stack, (most recent call request)

4.1.4.2 Selecting from the Incoming Call stack using the mouse, then using the **Call Button.**

4.1.4.3 By direct number entry into the Outgoing Call **Ident** text box, then using the **Call Button** to set the call up,

4.1.4.4 From the **"Look-up List"** above the "Call Progress" text box by selecting the radio Ident using the mouse icon and scroll-down bar, then the pressing the **Call Button** to set the call up.

4.1.5 Call Clearance

For voice calls set up using the **Voice Despatcher** screen, call clearance is achieved by pressing the **F8** function key or by placing the mouse icon over the "**End Call**" box and clicking the left hand mouse button. Successful disconnection of the call is indicated by the word "**Call Cleared**" being displayed in the "**Call Progress**" box **(Fig. 4)**.
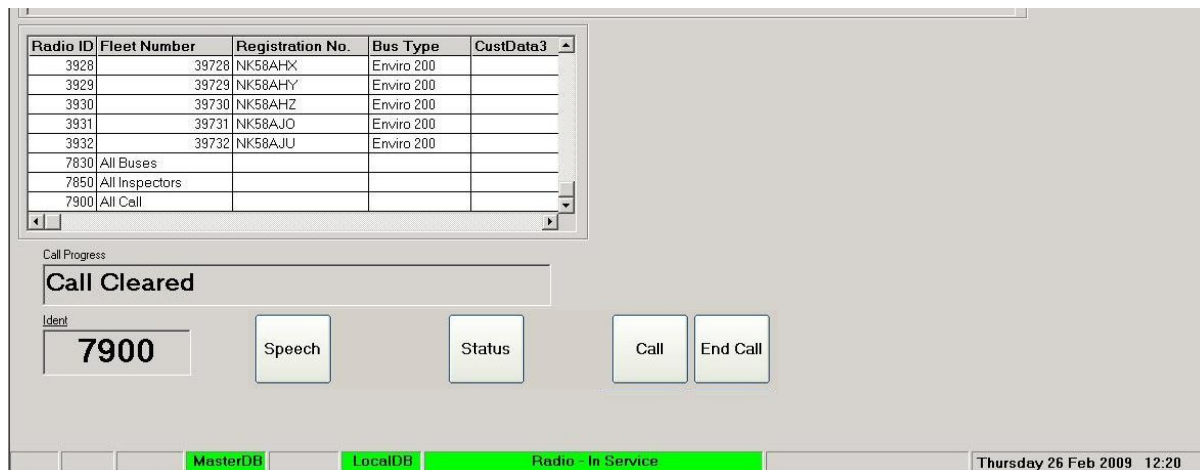

Fig. 4. "Call Cleared" indication

4.1.6 **Call Ident** is always a 4-digit number using 0's ahead for any lesser number to make up the 4-digit field and can be of:-

4.1.6.1   an **individual vehicle radio.**

4.1.6.2   an **individual Inspector.**

4.1.6.3   a **Group Ident** to a specified group of vehicles and/or Inspectors.

4.1.6.4   a **Global Ident** to all vehicles and inspectors logged on to the system at the time of the call.

4.1.7 **Group and Global Ident** information is held in the database in the PC. The number can be entered manually into the Ident box before using the **Call Button** to transmit the message to a **Group** or make a **Global** call.

These numbers in the 79xx or 78xx series are also selectable from the "Outgoing Call" list where they will be found by scrolling to the bottom of the list.

Fig. 5 below shows a Group call in progress to Group ID 7900. Other Group numbers are held in the look-up listing, for example 7830 "All Buses" and 7850 "All Inspectors" are assigned and useable.

Fig. 5. Group Call to 7900 in progress

4.1.8 **Emergency Speech Calls** incoming to the Despatcher operator will result in a large, white dialogue box opening containing the word "*Alarm*" in large red letters. There will be an audible alarm that continues until the Emergency call in selected using the **Call Button** or the **F1** function key.

The Emergency call will also be displayed at the top of the **Call Stack** with the word Emergency in black font on red background in the "**Last Status**" column and it will remain at the top of the call stack until it is actually cleared from the screen using the **F10** function key.
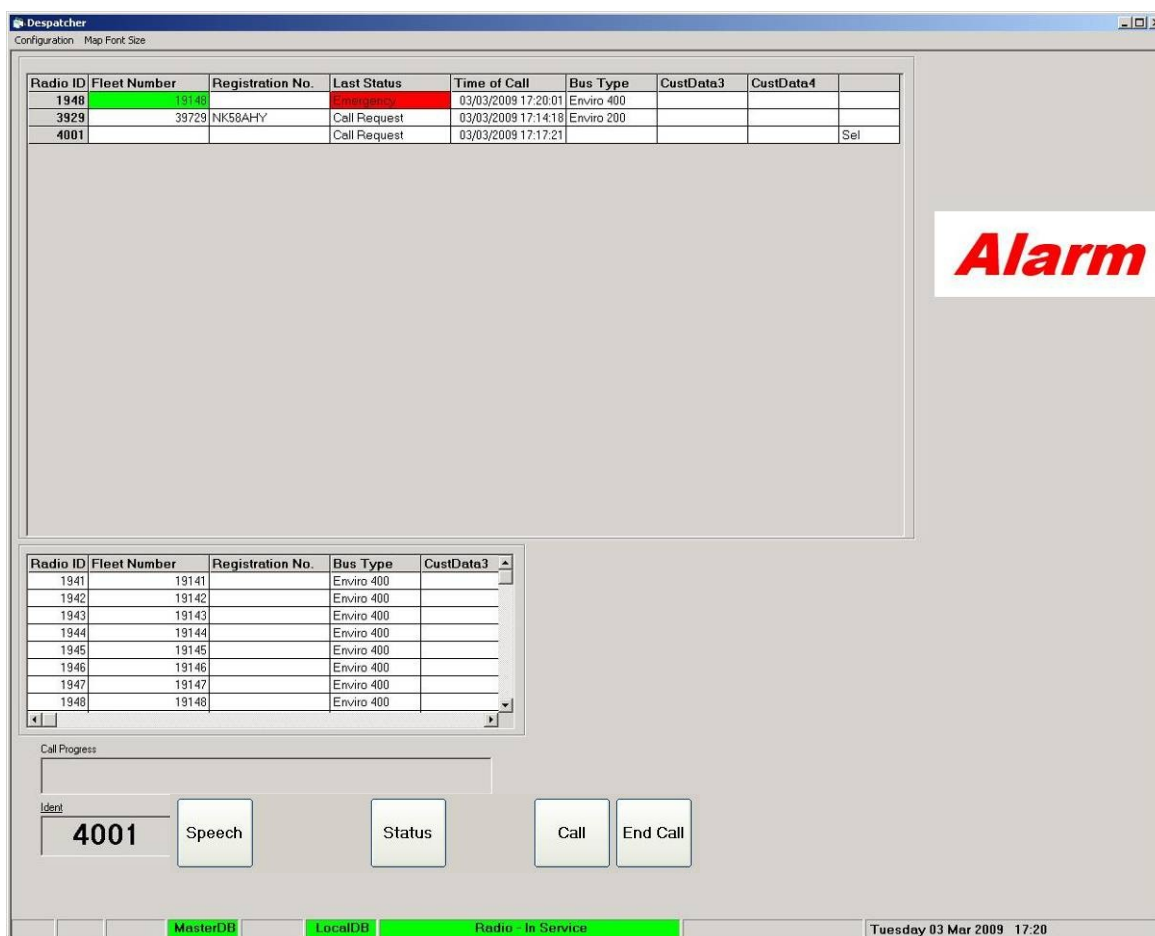

Fig. 6 Emergency Incoming Call – *"Alarm"*

When an Emergency call is connected to the Despatcher the Alarm sound will cease. When the Emergency call is cleared the Alarm sound will restart and the only way to stop this from sounding is to either reconnect to the radio originating the Emergency call or by deleting it from the call Stack using the F10 key.

4.1.8.1 Silent Microphone Operation

Silent Microphone operation is a function provided within the vehicle radios to enable the Despatcher Operator to listen to any activity in the cab after an Emergency call has been initiated by that vehicle's driver.

Where a vehicle has been fitted with an Emergency Call red button, pressing this will initiate an Emergency Speech request to the Control Despatcher. The destination of this request message is pre-programmed in the vehicle radio.

On receipt of the Emergency Speech request the PC Despatcher displays a white screen with red text "Alarm", and the alarm sounds from the loudspeaker.

Direct speech call set-up by the mobile to the Control Despatcher is not allowed, but there is a message sent to the vehicle radio that a request has been received, but there is no indication either audible or visible at the vehicle radio.

When the operator selects the Alarm call, this action automatically stops the alarm sounding from the Despatcher PC, but does not initiate a return Emergency Speech call to the vehicle. There are two ways to initiate contact with this vehicle:

a) Pressing the F1 key will connect to the vehicle radio to start a two-way speech call. The PC mouse may also be used to select the Call button.

b) Using PC mouse and selecting the Status button will bring up the Status message list. By selecting Status 27 message and pressing Call will connect to the vehicle radio. *(See Fig. 7 on next page)*

At this point a traffic channel on the radio system is commandeered, closing any conversation that may have been taking place on that channel if it was busy at that time.

Once the Alarm call has been selected by the controller using a Status 27 call, the vehicle radio automatically transmits for 15 seconds once the call has been set-up. As the vehicle microphone is live during the periods of transmission the Controller can hear what is happening in the cab of the vehicle.

After the 15 second period of transmit the vehicle radio switches back to receive giving the controller an opportunity to speak to the driver if this is considered safe and necessary. After a further 15 seconds the vehicle radio will revert back to transmit.
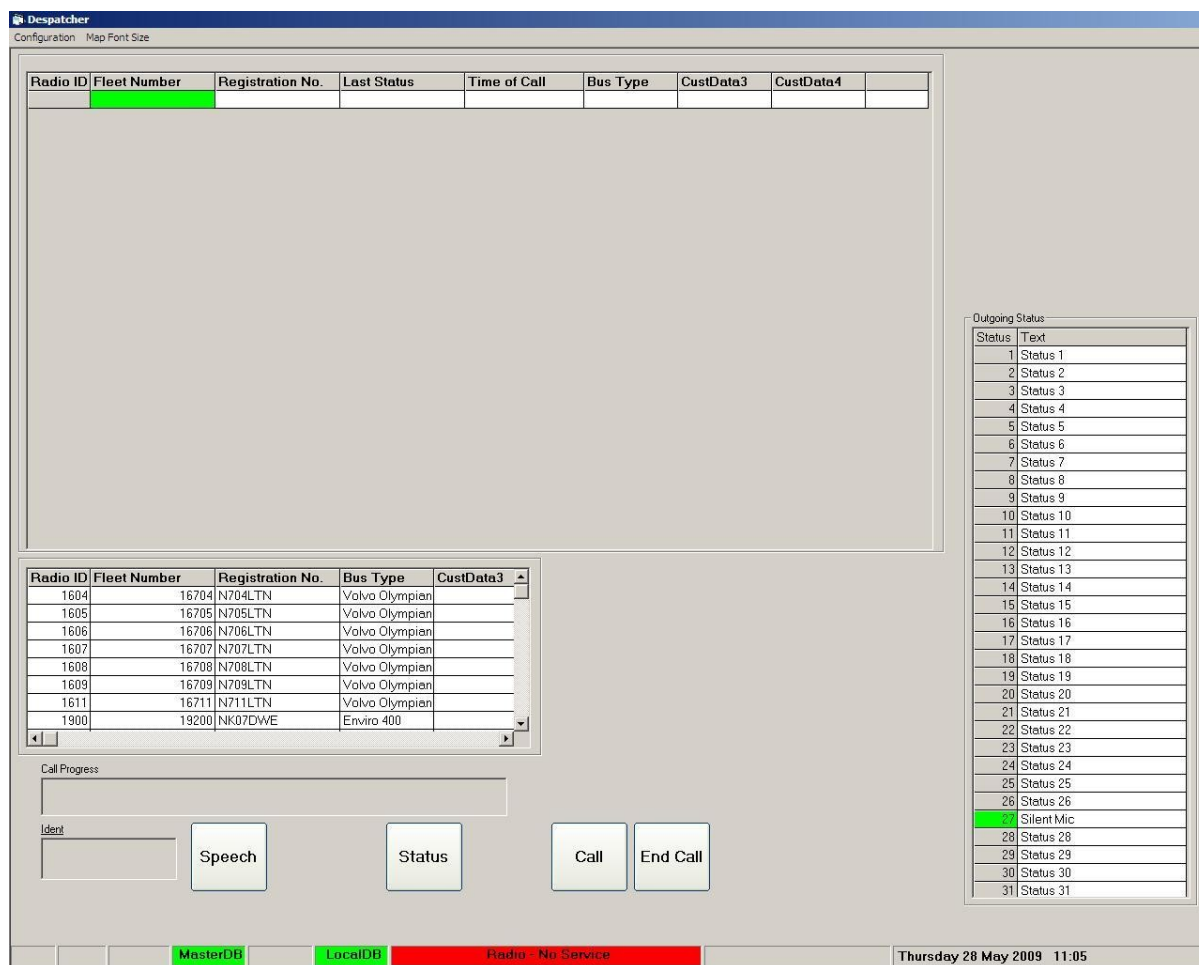
Fig. 7 Outgoing Status Messages –Selection column

During this type of operation there is no indication visible or audible that the radio is active that may compromise the driver.

This alternating transmit/receive operation will continue until:

- The call timer reaches the end of the 4½ minutes timeout period, or
- The driver presses the PTT switch. At this action the radio will return to normal transmit and receive speech call operation, or
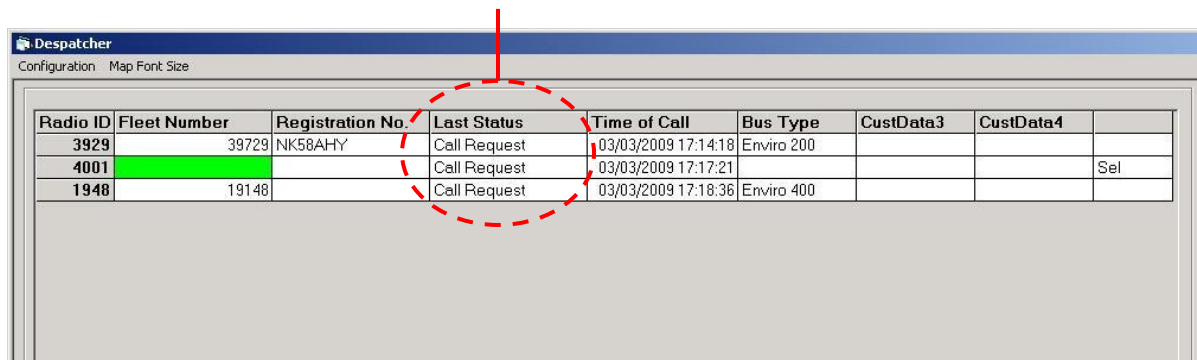- The supply power to the vehicle radio has been removed or interrupted.

Once the Emergency call has been cleared the radio will return to normal operation.

4.1.9 **Call Stack Deletion** is achieved by placing the mouse icon over the call to be cleared and clicking the LH mouse key. Using the **F10** function key will remove the individual call information line. If the mouse icon is placed over the bottom most, oldest call record, and selected for deletion, as the **F10** key is pressed successively then each of the oldest calls will be progressively deleted from the stack from bottom upward. Multiple call deletion from Call Stack is not possible.

All call information is permanently retained in the Call Record day log in the database and this is not affected by the call stack deletion process.

4.2 Status Messages

4.2.1 **Incoming Status Message from the Buses or Inspectors** are displayed in the **"Incoming Calls"** stack under the heading **"Last Status" – (See Fig. 6)**. Any necessary response will be at the discretion of the Despatcher operator.

Fig. 8 Incoming Call Stack – "Last Status" column

4.3 Screen Appearances

4.3.1 Radio Despatcher Operator Screen (Fig 7)

Fig 7 shows the operator screen which the first screen to open when the Despatcher Program is opened on the PC. This screen gives access to all the functions provided in the system and the default opening window is for Voice Call operation.
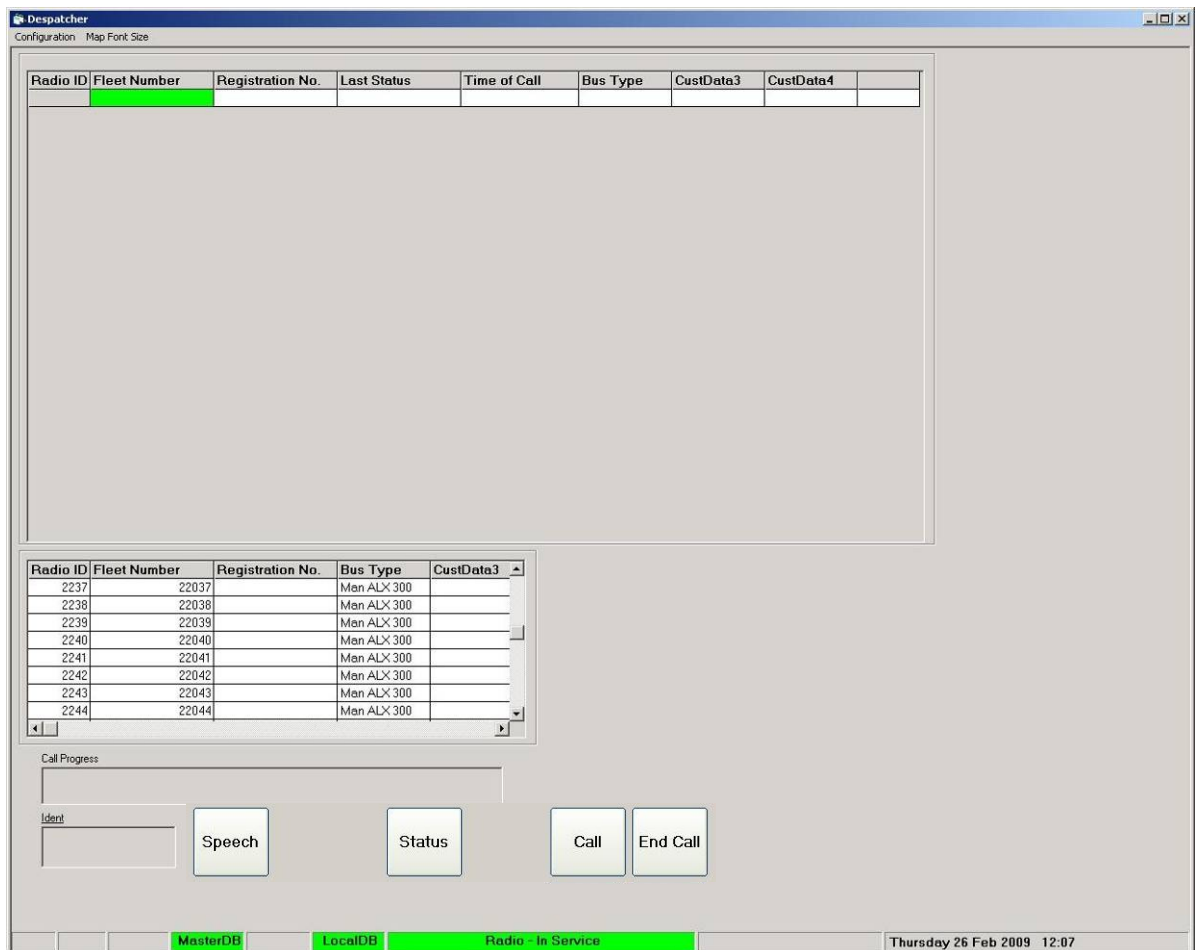

Fig. 9 Radio Despatcher Screen

4.3.2 Manual Ident Entry

By clicking the mouse with its icon in the Ident text window an ident can be typed in from the keyboard. To connect to that radio merely requires using the mouse to click on the "Call" button. **"Waiting"** will appear in the Call Progress box and this will change to **"Connected"** one the call is established.
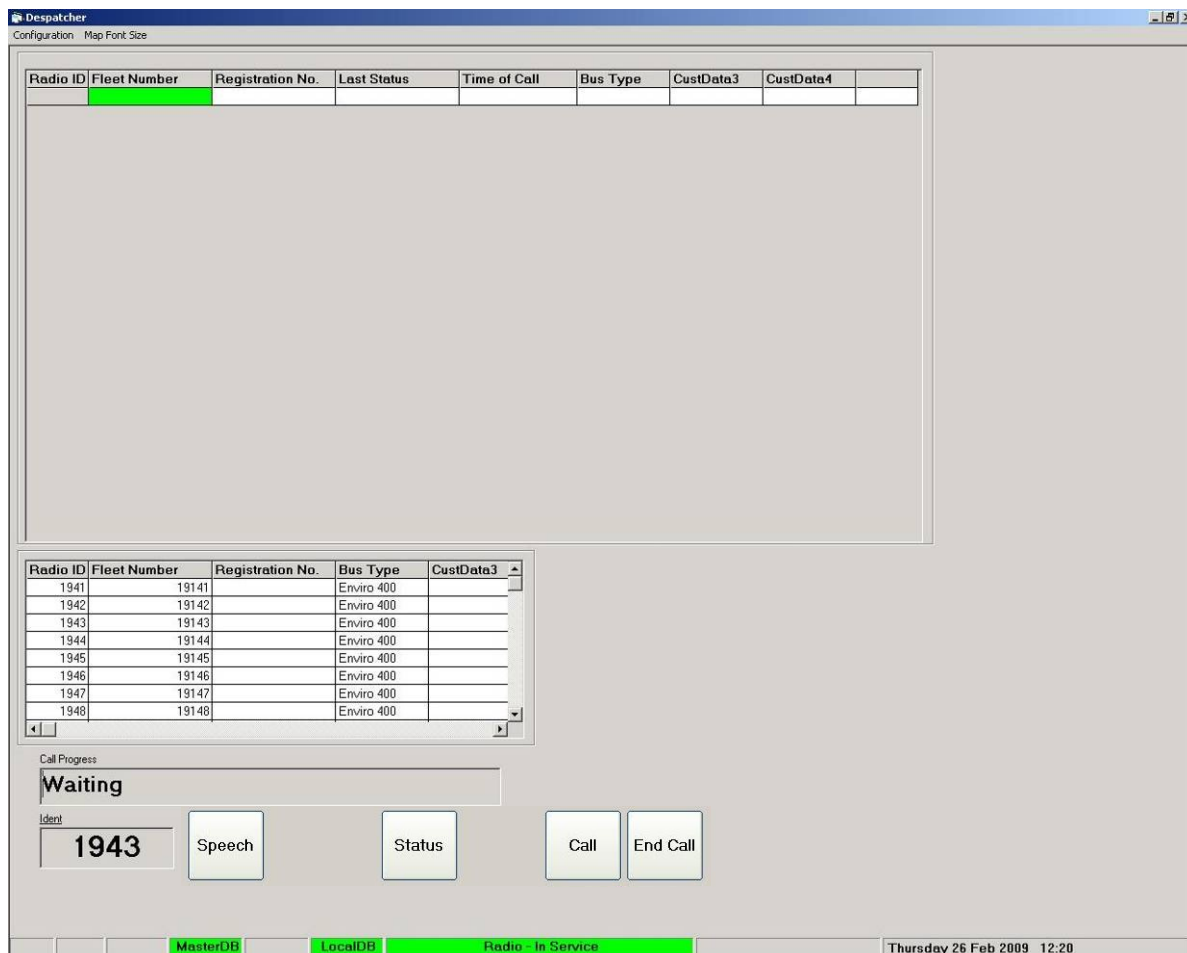

Fig. 10 Radio Despatcher Screen – Manual Ident Entry

4.3.3 Failure to Connect Indications

In the event that the mobile is out of radio range of the system or switched off then the call will fail resulting in either of the following screens, Figs. 9 and 10:
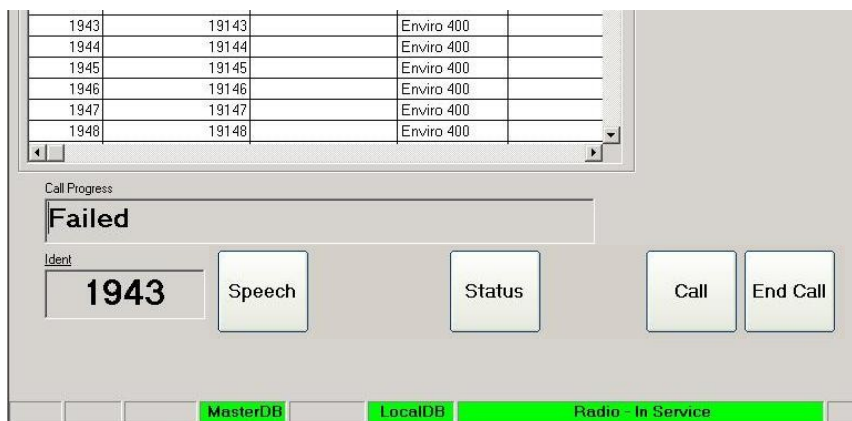

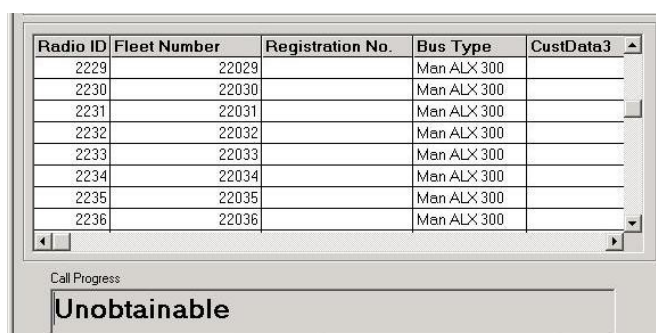**Fig. 11 Radio Despatcher Screen – Failed to Connect**

Fig. 12 Radio Despatcher Screen – Unobtainable

ANNEX 1

Keynet Despatcher Keyboard Assignments

F1	Connect key for latest entry at the top of the Call Stack and EMERGENCY Calls.
F2	Not Assigned.
F3	Not Assigned.
F4	Not Assigned.
F5	Not Assigned.
F6	Not Assigned.
F7	Not Assigned.
F8	Clears a connected call.
F9	Not Assigned.
F10	Deletes an entry from the call stack.
Numerical Keys	The default state of numerical keys on the keyboard is to enter numbers into the **Ident** box. Note that all keyboard shortcuts can also be entered using the mouse to activate the **Call** and **End Call** buttons