



Technical Note TN-737

Short Data Message (SDM) Entry Enhancement in the Orca 5035 and 5040 Portables

2 October 2002

Applicability

This Technical Note applies to the Tait Orca 5035 and Tait Orca 5040 MPT Trunked radios with v4.14 (or later) Firmware and using v3.5.0 (or later) Trunked Programming Application (TPA).

1. Information

What is Short Data Message SDM ?

The Orca MPT Trunked radios have always been able to receive Short Data Messages. However the latest Orca 5000 MPT Trunked Firmware (version 4.14) has added an enhancement enabling the radios to also send Short Data Messages (SDM's). The supported radios are Orca 5035 and Orca 5040, ie: radios with display and keypad capability.

SDM's are alphanumeric text messages of up to 24 characters that can be sent to any other MPT Trunked radio with display capability.

The Orca 5035 and 5040 have 5 preset SDM's which are programmed to the radio using the Trunked Programming Application TOP-TPA v3.5.0. A Short Data Message page is now available in the programming application menu in conjunction with valid radio types. (See the screen-shot next page).

The Orca 5035 can then send any one of the 5 pre-programmed SDM's to any other radio in its fleet, or to those radios available from it's preset call list that also have display capability.

The Orca 5040 has the ability to edit the text of any of the 5 preset SDM's. The Orca 5035 can view its pre-programmed SDM's but can not edit them.

Any new text message edited and sent by the Orca 5040 is then saved in that position over the existing SDM preset.

NOTE: The SDM feature does not operate on Conventional channels (101 – 110) that may be programmed into MPT Trunked radios.

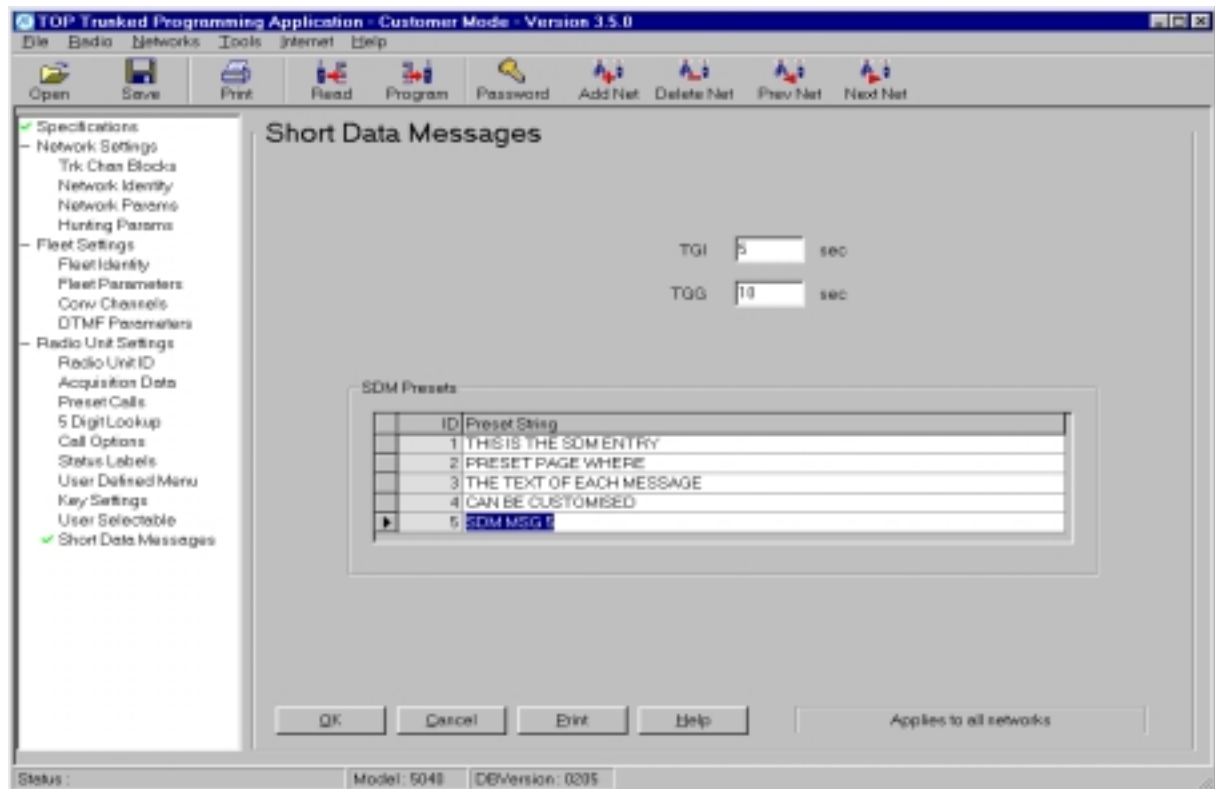
2. PC Application changes

Short Data Message Presets

The 5 presets in the Short Data Messages page can be edited in the Programming Application to any text up to 24 characters, including spaces.

SDM Messages 1 to 4 have been modified from the default settings below as an example.

The Orca 5040 user can change any of these messages at a later time using the SDM edit mode from the radio's menu.

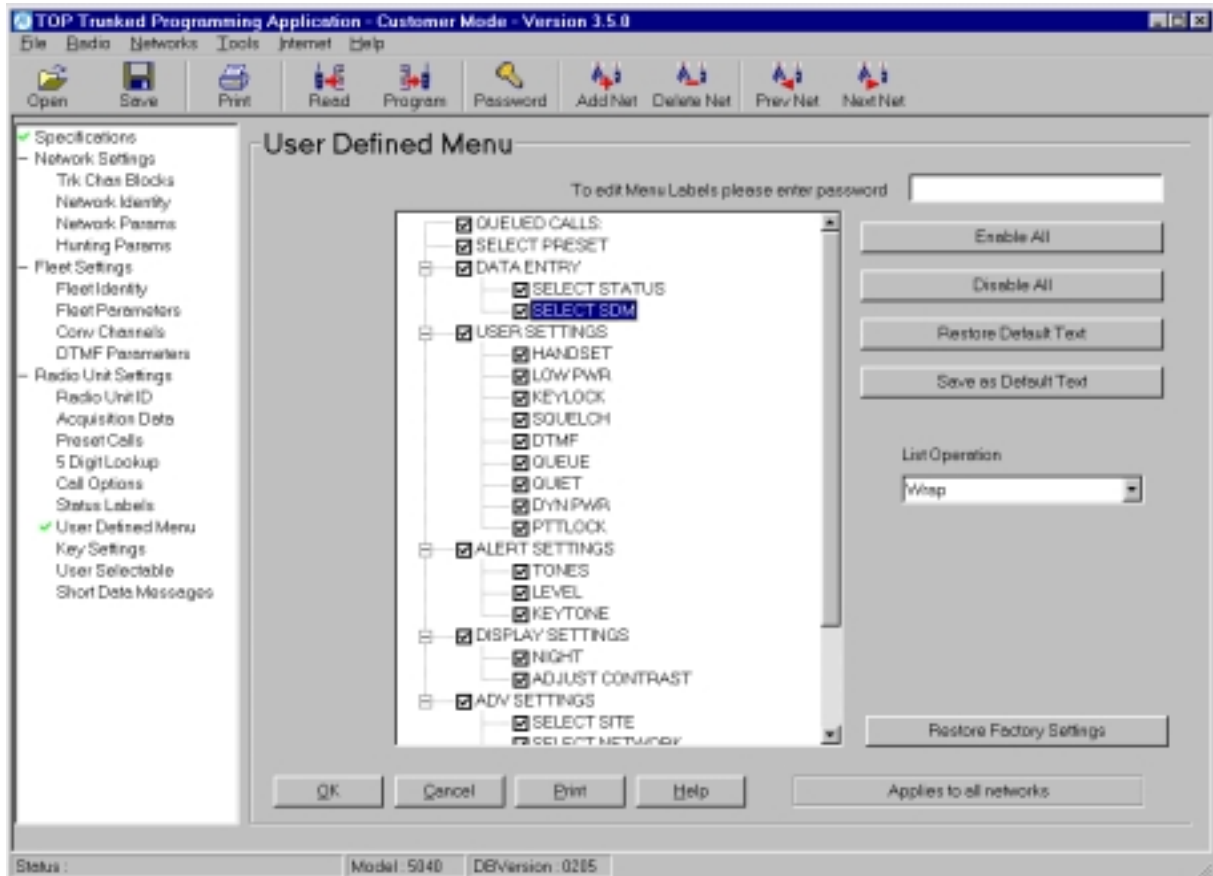


Changes in the Programming Application

Once an Orca 5035 or 5040 has been upgraded to v4.14, it will require the SELECT SDM option to be enabled.

To achieve this, read the radio's personality into the Programming Application, edit the Short Data Messages page, (if desired) then tick the SELECT SDM tickbox found in the User Defined Menu page. (See the screen-shot next page).

Then program this personality back to the radio.



3. SDM Operational Instructions

Queued call list changes with the SDM enhancement

The introduction of v4.14 Firmware with SDM entry capability has meant modifications to the radio's queued call list. These changes are:

- **The list has a maximum of 15 members (originally 20)**
- **The list can hold up to 2 received SDM's (originally 1)**

The first letter of the radio's queued call list now indicates what type of message was received, for example:

- CL1/4 indicates call 1 of 4 was a voice call
- SCL3/4 indicates call 3 of 4 is a Status call.
- MCL2/4 indicates call 2 of 4 is a SDM

How to SEND a Preset SDM

Once the Orca 5035 or 5040 has been upgraded to v4.14 (or later) Firmware you will be able to use the menu to send a preset SDM to another radio. To do this:

Long-press the menu button (✓), scroll to DATA ENTRY using the arrow keys (◀ ▶), short-press (✓), scroll to SELECT SDM, short-press (✓), then scroll through the 5 presets for the desired message.

a) To send this message to a call sign in the radio's preset calls list: short-press (✓), the radio will display SEND SDM TO: use the scroll keys to find to the correct receiving identity, then press (✓) to SEND the preset.

Or,

b) To send this message to another radio: short-press (*) and the radio will display SEND SDM TO: and will await the entry of the receiving radio identity from the keypad, then press (#) to send the call.

How to EDIT a Preset SDM (Orca 5040 only)

Once the Orca 5040 has been upgraded to v4.14 (or later) Firmware the user will be able to use the menu to edit existing preset SDM's. To do this:

- Long-press the menu button (✓), scroll to DATA ENTRY, using the arrow keys (◀ ▶), short-press (✓), scroll to SELECT SDM, short-press (✓), then scroll through the 5 presets for the message to be edited.
- Long-press the menu button (✓), the cursor will now flash over the first character of the old message. Use the keypad to type a message of up-to 24 characters (including spaces). The keys will display the letters of each key then the number of that key. The zero (0) key will insert a space, the one (1) key will only display that numeral.
- To cancel without changing the message long-press the (X) and the display steps back one level.

a) To send the new message: either short-press the (✓) and use the preset callsigns in the radio's list,

Or

b) Short-press the (*) key for entry of another radio's identity.

How to VIEW a received SDM

When the Orca 5035 or 5040 receive a SDM the display will indicate QUEUED CALLS and the (📞) symbol appears on the display bottom row.

- To view the call long-press the (✓) and the display will indicate MCLx/x and the caller's identity
- Short-press the (✓) to view the SDM
- a) To delete the message long-press the (X) with the message displayed and the radio will return to the normal idle screen

Or,

- b) To keep the message short-press the (X) and the radio will step back one level at each press until the normal idle screen is reached. The (📞) symbol will still be displayed.

Compliance Issues

None, unless a specific Firmware version is required by a network provider

CSO Instruction

Please inform all technical and sales staff and accredited dealers of these enhancements.

4. Issuing authority

Name and position of issuing officer

Graham Brenchley
Customer Support Engineer

Confidentiality

Confidential – This message or document contains proprietary information intended only for the person(s) or organisation(s) to whom it is addressed. All Recipients are legally obliged to not disclose Tait technological or business information to any persons or organizations without the written permission of Tait.

Distribution Level

Tait Only

Document History

Original Release	2 October 2002	GCB
------------------	----------------	-----