Winlink 2000 RMS Express

A User Client for Emergency Communications

When it absolutely, positively has to get through!

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Course Content

• Winlink 2000 System Overview
• Common Session
  – Install walk through
  – Set up parameters and personal choices
• VHF/UHF Session
  – Hands on with equipment
• HF Session
  – Demonstration (hopefully!)
• Tactical Discussion – Time Permitting
Winlink 2000 System

• Is a worldwide *system* of volunteer sysops, radio stations and network assets supporting e-mail over radio, with non-commercial links to Internet e-mail.

• Resources come from Amateur Radio, the Military Auxiliary Radio System (MARS), government agencies, and non-government volunteer organizations.
Winlink 2000 System

• Provides valuable service to emergency communicators and to licensed radio operators without access to the Internet.

• The all-volunteer Winlink Development Team (WDT) is committed to continuous improvement using modern computer technology with the most effective radio modes and digital protocols for local, regional and long-distance applications.
Winlink Hierarchy

Telnet

Radio

VHF/UHF

P2P

WL2K

Pactor

WinMOR

HF

P2P

WL2K

P2P

WL2K
Typical Users

• State & County Gov’t
• US Coast Guard
• US Army MARS
• US Navy MARS
• Homeland Security
• ARES
• RACES
• Health Care Facilities
• Many others
Typical RMS Express Station
Typical RMS Express Station

Computer
Typical RMS Express Station
Typical RMS Express Station
Typical RMS Node Station
Typical RMS Node Station

...connected to the Internet
Winlink 2000 System Pictorial

Internet

RMS Node Station

RMS Express Station

ARC

OHS

EOC

DSS
Winlink 2000 System Pictorial

Internet

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RMS Express Features

- TELNET
- AX.25 PACKET
- PACTOR 1-3 & 4!
- Most any TNC (Packet)
- Sound card (HF)
- Peer-to-peer contacts
- "Keyboard" connections
- Up to 3 users
- Tactical address support
- Message precedence
- RMS Relay support
- Built-in message editing
- Attached documents
- Address book
- WL2K Catalog
- Update support (auto)
- Automatic polling (VHF)
- Cost: Free
RMS Express Features

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Overview

• RMS – **Radio Mail Server**
• Created by Winlink 2000 Development Team
• To augment the prohibitively expensive and proprietary Pactor modems
• RMS Express choices:
  – Telnet WL2K Internet
  – Packet WL2K TNC
  – Pactor WL2K Sound Card
  – WINMOR WL2K Sound Card
  – Pactor P2P Sound Card
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Additional features in RMS Express
RMSE Installation Process

• Go to the file transfer protocol download page:
  – ftp://autoupdate.winlink.org/User%20Programs

• Download the latest version:
RMS Express
Installation Screens

Welcome to the RMS Express Setup Wizard

The installer will guide you through the steps required to install RMS Express on your computer.

WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
RMS Express
Installation Screens

Select Installation Folder

The installer will install RMS Express to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".

Folder:  
C:\RMS Express\  
Browse...

Disk Cost...

Install RMS Express for yourself, or for anyone who uses this computer:

- Everyone
- Just me

Cancel  < Back  Next >
RMS Express
Installation Screens

Confirm Installation

The installer is ready to install RMS Express on your computer.
Click "Next" to start the installation.
Installing RMS Express

RMS Express has been successfully installed.
Click "Close" to exit.

Please use Windows Update to check for any critical updates to the .NET Framework.
RMS Express
Installation Screens
RMS Express
Installation Screens
RMS Express
Installation Screens
RMS Express
Installation Screens

[Image of RMS Express Properties window]

- **Call Signs**
  - My Callsign: [WE3KAS]
  - Optional auxiliary callsigns:
    - Aux Call 1: [MDCSEC]
    - Aux Call 2: [MDCPRGEEC]
  - My shortened callsign: [ ]
  - Add callsign suffix if required (optional): [ ]

- **My Grid Square**: [FM18NR]
  - Lat/Lon to Grid Square: [ ]

- **My Password (optional)**: [ ]
  - Use Secure Login: [ ]
  - NOTE: A password is required only if you use secure login.

- **Winmor registration key (optional)**: [ ]

- **Display list of pending incoming messages prior to download**: [ ]
- **Warn about connections to stations holding messages**: [ ]
- **Disable Peer-To-Peer Message Transfer**: [ ]

- **Path to propagation forecast program**: [C:\path\]

- **Service Codes**
  - PUBLIC
  - (Use PUBLIC for ham call signs. Separate multiple service codes by spaces.)
  - If you change service codes, you must update the list of channels.

- **Recalculate HF path quality if SFI changes more than**: [25]

- **Keep logs for**: [2] weeks

[Buttons: Update, Cancel, Remove call sign]
RMS Express
Installation Screens
RMS Express
Installation Screens

1. RMS Express Properties
   - Call Signs
     - My Callsign: WE3KAS
     - My shortened callsign: 
     - Add callsign suffix if required (optional): 
     - Optional auxiliary callsigns
       - Aux Call 1: MDCSEC
       - Aux Call 2: MDCPRGEEC
     - My Grid Square: FM18NR
   - My Password (optional): 
     - Use Secure Login
     - NOTE: A password is required only if you use secure login.
   - Winmoe registration key (optional): 
   - Display list of pending incoming messages prior to download
   - Warn about connections to stations holding messages
   - Disable Peer-To-Peer Message Transfer
   - Path to propagation forecast program: C:\Path\File\Forecast.exe
   - Service Codes
     - PUBLIC
     - (Use <PUBLIC> for ham call signs. Separate multiple service codes by spaces.)
     - If you change service codes, you must update the list of channels.
   - Recalculate HF path quality if SFI changes more than: 25
   - Keep logs for 2 weeks
   - Update
   - Cancel
   - Remove call sign

2. RMS Express Properties
   - My Callsign: WE3KAS
   - My shortened callsign: 
   - Add callsign suffix if required (optional): 
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     - Aux Call 2: MDCPRGEEC
   - My Grid Square: FM18NR
   - My Password (optional): 
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     - NOTE: A password is required only if you use secure login.
   - Winmoe registration key (optional): 
   - Display list of pending incoming messages prior to download
   - Warn about connections to stations holding messages
   - Disable Peer-To-Peer Message Transfer
   - Path to propagation forecast program: C:\Path\File\Forecast.exe
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     - If you change service codes, you must update the list of channels.
   - Recalculate HF path quality if SFI changes more than: 25
   - Keep logs for 2 weeks
   - Update
   - Cancel
   - Remove call sign

3. RMS Express Properties
   - My Callsign: WE3KAS
   - My shortened callsign: 
   - Add callsign suffix if required (optional): 
   - Optional auxiliary callsigns
     - Aux Call 1: MDCSEC
     - Aux Call 2: MDCPRGEEC
   - My Grid Square: FM18NR
   - My Password (optional): 
     - Use Secure Login
     - NOTE: A password is required only if you use secure login.
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   - Display list of pending incoming messages prior to download
   - Warn about connections to stations holding messages
   - Disable Peer-To-Peer Message Transfer
   - Path to propagation forecast program: C:\Path\File\Forecast.exe
   - Service Codes
     - PUBLIC
     - (Use <PUBLIC> for ham call signs. Separate multiple service codes by spaces.)
     - If you change service codes, you must update the list of channels.
   - Recalculate HF path quality if SFI changes more than: 25
   - Keep logs for 2 weeks
   - Update
   - Cancel
   - Remove call sign
RMS Express
Installation Screens

1. RMS Express Properties

2. Call Signs
   - My Callsign: W6SKAS
   - My shortened callsign: [field]
   - Add callsign suffix if required (optional): [field]
   - Optional auxiliary callsigns:
     - Aux Call 1: MDCSEC
     - Aux Call 2: MDCPRGEEC

3. My Grid Square:
   - FM18NR
   - Lat/Lon to Grid Square

4. Service Codes
   - PUBLIC

5. Additional settings:
   - Recalculate HF path quality if SFI changes more than: [field]
   - Keep logs for: [field] weeks
   - Update, Cancel, Remove call sign
RMS Express
Installation Screens
RMS Express
Installation Screens
RMS Express
Installation Screens

![RMS Express Installation Screens](image)

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Unco.</th>
<th>Compr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1RGGZDVKGBNQ</td>
<td>263</td>
<td>228</td>
</tr>
<tr>
<td>2ZBJ80G1KCY7</td>
<td>296</td>
<td>250</td>
</tr>
<tr>
<td>0V9FH85Y2QB3</td>
<td>804</td>
<td>502</td>
</tr>
</tbody>
</table>

Check the messages you want to download.

Select what to do with unchecked messages:
- Hold unchecked messages until later
- Permanently delete unchecked messages

Display this message review screen for each download cycle

[Download Checked Messages]
[Select All Messages]
[Deselect All Messages]
RMS Express
Installation Screens
RMS Express
Installation Screens

Message Reading Options
- Viewing seconds before marking message read: [ ]
- Automatically move read items to Read Items folder [ ]

Message acknowledgement options
- Default to requesting message read acknowledgements [ ]
- Automatically send message read acknowledgements without prompting [ ]
- Ignore read acknowledgement requests on incoming messages [ ]

Message sending options
- Automatically add contact entry for each destination address [ ]
- Add "///WL2K" to the subject of messages [ ]

Distance Units
- km [ ]
- Miles [ ]

Update  Cancel
RMS Express
Installation Screens
RMS Express
Installation Screens

User Options

This dialog will create a message to request or change your user options. Once created the message must be forwarded by radio or telnet to the Winlink system.

Forward my message to this alternate address. Make or leave blank to prevent forwarding:

Limit the size of messages (in compressed form) addressed to me to:
120000 Bytes

Use the follow out-of-country prefix with my callsign:

Use the follow out-of-country suffix with my callsign:

Query Only  Post  Cancel
Installation Complete
RMS Express Screen Icon
Configuring RMS Express Sessions
Configuring Telnet
Telnet WL2K Session
Telnet WL2K Session
Telnet WL2K Session
Telnet WL2K Session

Telnet Properties

Telnet Connection
Telnet by default always connects to the first available CMS site. This is normally all that is required and no telnet properties need to be set.

If you have a need to connect to an RMS Relay site then check the box below and enter a path name to the site. If RMS Relay is running on the same machine as this program use the path name 127.0.0.1.

- Use RMS Relay

TCP/IP path to the RMS Relay site: 127.0.0.1

Local IP address: Default

AutoConnect Time
Times shorter than 15 minutes should be used only for emergency or priority situations.

- Disabled

Update  Cancel
Telnet WL2K Session
Telnet WL2K Session
Telnet WL2K Session
Telnet WL2K Session
Telnet WL2K Session

“FF” indicates you have no messages for the CMS servers

“FQ” indicates the server has no messages for you
Configuring Packet
Packet WL2K Session
Packet WL2K Session

Packet WL2K/P2P Setup

TNC Connection
- Packet TNC Type: Kantronics
- Packet TNC Model: KPC-3+
- Serial Port: 
- Serial Port Baud: 9600

AutoConnect Time: 15 Minutes

TNC Parameters
- TX Delay (Milliseconds): 300, 300
- Maximum Packet Length: 128, 255
- Maximum Frames: 2, 7
- Frack: 4, 2
- Persistance: 64, 224
- Slot time: 30, 20
- Maximum Retries: 10, 5
- Disable Xmt Level Adjust
- Transmit Level: 100, 100

Update | Cancel
Packet WL2K Session
Packet WL2K Session
Packet WL2K Session
Packet WL2K Session
Packet WL2K Session
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Packet WL2K Session
Packet WL2K Session
Packet WL2K Session

```
*** Standby...
*** Initialization failed - *** Failed to open serial port on . Port may be in use by another application.
```
Packet WL2K Session
Packet WL2K Session
Packet WL2K Session

![Packet Channel Selector](image)

<table>
<thead>
<tr>
<th>Callsign</th>
<th>Frequency (MHz)</th>
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<th>Grid Square</th>
<th>Group</th>
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<td>PUBLIC</td>
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<td>PUBLIC</td>
<td>014</td>
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<tr>
<td>W3CB-10</td>
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<td>PUBLIC</td>
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<td>000</td>
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Packet WL2K Session

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Configuring WinMOR
WinMOR WL2K Session
WinMOR WL2K Session
WinMOR WL2K Session

This is the Virtual Sound Card TNC
WinMOR WL2K Session

This is the Virtual Sound Card TNC
WinMOR WL2K Session
WinMOR WL2K Session
WinMOR WL2K Session
WinMOR WL2K Session

[Image of the WINMOR Setup window with fields for WINMOR Capture Device, WINMOR Playback Device, Virtual TNC host address/name, Virtual TNC Command Port, Inbound Session Bandwidth (Hz), Drive Level, Data Port, and buttons for Update and Cancel.]
WinMOR WL2K Session

![WINMOR Setup window with configuration settings]
WinMOR WL2K Session
WinMOR WL2K Session
WinMOR WL2K Session
WinMOR WL2K Session

This is what works with an Icom 706 and a SignaLink USB Sound Card Interface
WinMOR WL2K Session
WinMOR WL2K Session

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# WinMOR WL2K Session

![HF Channel Selector screenshot](image)

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WinMOR WL2K Session

Go to QRZ.COM and obtain the current SFI
WinMOR WL2K Session

SFI = 125 taken at 1845L
WinMOR WL2K Session

SFI = 125  but taken at 1901L
WinMOR WL2K Session

---

**Winmor Winlink 2000 Session - WB3KAS**

Exit | Setup | Switch to Peer-to-Peer | Channel Selection | Best chan. | Next chan. | Hide TNC | Start | Stop
---|---|---|---|---|---|---|---|---

- **VA3LK1**
- Center Freq. (Hz): 7092.000
- Dial Freq. (Hz): 7090.500
- Bearing: 341
- Quality:

**Favorites:**
- Select
- Add to favorites
- Remove from favorites

**Channel Free:** In: 0/0 Out: 0/0 BPM: 421/121 Disconnected

---

***Connected to WL2K RMS: VA3LK1 @ 2013/08/16 14:19:09 USB Dial: 7090.500***

**RMS Trimode 1.2.4.0 - HF / INTERNET RELAY - Fort McNicol, ON., Canada***

**WB3KAS has 60 minutes remaining with VA3LK1***

(SPI = 123 on 2013-08-16 11:00 UTC)

***MTD Stats Total connects = 271 Total messages = 70***

**[WL2K2.7.8-2-B2FWIHIJMS]**

**PQ: 54755986**

**Perth CMS via VA3LK1:**

**FW: WB3KAS MDCSEC MDCPRGEC**

**[RMS Express-1.2.13.0-2BFWIHIJMS]**

**PR: 40667769**

**VA3LK DE WB3KAS (FM18NR)**

**FF**

**FC EM GVDQP58EI XP 361 290 0**

**FF**

**FS Y**

---

***Receiving GVDQP58EI XP***

**GVDQP58EI XP - 374/299 bytes received**

**FF**

***Disconnected from WL2K RMS: VA3LK1 @ 2013/08/16 14:23:55***

***Session: 4.5 min; Avg Thruput: 0 Bytes/min; 1 Min Peak Thruput: 421 Bytes/min***

---

WinMOR Sound Card TNC Ver: 1.5.1.0 Port: 8500

**Help | Hide | Send ID**

---

**Connection State:** DISCONNECTED

---

**Receive**

- Rcv Level: [Bar Graph]
- Remote Station Offset: -174.0 Hz
- Squelch: [Input]

---

**Transmit**

- 0 Avg ACK Percentage 100

---

**Xmt Frame:**

- 500 Waterfall 2KHz
- 2500
- 4FSK / 49

---

94
Running RMS Express
Running RMS Express
Running RMS Express
Testimonies
N7NMS-5
Westernport, MD

- Latitude 39.487678 (39° 29' 15" N)
- Longitude -79.030426 (79° 1' 49" W)
- Grid Square FM09ll
- US State Maryland US County Allegany
- Bearing 295.1° WNW (from WB3KAS)
- Distance 129.1 mi (207.8 km)
- 3587.5KHz at 0455L
W2GSA
Holmdel, NJ

- Latitude 40.383890 (40° 23' 2" N)
- Longitude -74.170569 (74° 10' 14" W)
- Grid Square FN20vj
- US State New Jersey US County Monmouth Bearing 50.1° NE (from WB3KAS)
- Distance 183.0 mi (294.5 km)
- 7095KHz at 0820L

- Garden State Amateur Radio Association Inc.
KB8UVN-5
Worthington, OH

- Latitude 40.102230 (40° 6' 8" N)
- Longitude -83.057805 (83° 3' 28" W)
- Grid Square EN80lc
- US State Ohio US County Franklin
- Bearing 288.1° WNW (from WB3KAS)
- Distance 345.6 mi (556.1 km)
- 10133KHz at 0922L
VE3AWN-5
Metcalf, Ontario

- Latitude 43.233700 (43° 14' 1" N)
- Longitude -80.550600 (80° 33' 2" W)
- Grid Square EN93rf
- Bearing 329.3° NNW (from WB3KAS)
- Distance 367.3 mi ( 591.2 km)
- 7098.5 KHz at 1942L
W1EO-5
Carlisle, MA

- Latitude 42.520000 (42° 31' 12'' N)
- Longitude -71.293333 (71° 17' 35'' W)
- Grid Square FN42im
- US State Massachusetts US County Middlesex
- Bearing 46.1° NE (from WB3KAS)
- Distance 391.9 mi (630.7 km)
- 14102.7KHz at 1300
W4JLE-5
Gilbert, SC

- Latitude 33.904460 (33° 54' 16'' N)
- Longitude -81.401673 (81° 24' 6'' W)
- Grid Square EM93hv
- US State South Carolina US County Lexington
- Bearing 218.8° SW (from WB3KAS)
- Distance 418.3 mi (673.2 km)
- 7079.5KHz at 1108L, 2059L
W6IDS-5
Richmond, IN

- Latitude 39.888453 (39° 53' 18'' N)
- Longitude -84.900195 (84° 54' 0'' W)
- Grid Square EM79nv
- US State Indiana US County Wayne
- Bearing 283.2° WNW (from WB3KAS)
- Distance 438.5 mi (705.7 km)
- 7061KHz at 0627L & 1936L
VA3LKI-5
Port McNicoll, ON

- Latitude 44.750000 (44° 45' 0" N)
- Longitude -79.815000 (79° 48' 53" W)
- Grid Square FN04cs
- Bearing 340.7° NNW (from WB3KAS)
- Distance **444.3 mi** (715.0 km)
- 7082KHz at 0756L, 0936L, 1915L
WB9FHP-5
Paoli, IN

- Latitude 38.535564 (38° 32' 8" N)
- Longitude -86.461987 (86° 27' 43" W)
- Grid Square EM68sm
- US State Indiana US County Orange
- Bearing 271.6° W (from WB3KAS)
- Distance **519.5 mi** (836.0 km)
- 3575KHz at 0635L
- 7076.5KHz at 0602L, 1350L, 1936L
KB1TCE-5
Owls Head, ME

- Latitude 44.081327 (44° 4' 52" N)
- Longitude -69.086543 (69° 5' 11" W)
- Grid Square FN54kb
- US State Maine US County Knox
- Bearing 44.8° NE (from WB3KAS)
- Distance 546.3 mi (879.2 km)
- 7088KHz at 1318L
- 3590KHz at 0625L
N9LOH-5
Elkhorn, WI

- Latitude 42.682649 (42° 40' 57" N)
- Longitude -88.539027 (88° 32' 20" W)
- Grid Square EN52rq
- US State Wisconsin US County Walworth
- Bearing 297.8° WNW (from WB3KAS)
- Distance **670.7 mi** (1079.5 km)
- 7095KHz at 0717L

- *** Disconnected from WL2K RMS: N9LOH-5 @ 2011/12/18 12:18:35 *** Session: 0.8 min; Avg Thruput: 222 Bytes/min; 1 Min Peak Thruput: 317 Bytes/min
KN6KB-5
Rockledge, FL

- Latitude 28.313660 (28° 18' 49" N)
- Longitude -80.723914 (80° 43' 26" W)
- Grid Square EL98ph
- US State Florida US County Brevard
- Bearing 198.6° SSW (from WB3KAS)
- Distance 752.6 mi (1211.2 km)
- 7083KHz at 0722L
- 10131.5KHz at 1218L, 1538L
VE3ONN-5
Thunder Bay, Ontario

- Latitude 48.328700 (48° 19' 43" N)
- Longitude -89.269999 (89° 16' 11" W)
- Grid Square EN58ih
- Bearing 321.0° NW (from WB3KAS)
- Distance **908.4 mi** (1462.0 km)
- 7088KHz at 2044L

*** Connected to WL2K RMS: VE3ONN-5 @ 2011/12/18 01:44:00
*** USB Dial: 7088.000 VE3ONN RMS WINMOR
- THUNDER BAY, ONTARIO (EN58JK)
- 120 Minutes remaining [WL2K-2.7.0.7-B2FWIHM$] ;
- PQ: 44536975 SanDiego CMS via VE3ONN-5 > [RMS Express-1.1.1.3-B2FHM$] ;
- PR: 00058475 ;
- VE3ONN-5 DE WB3KAS (FM18NR) FC
- EM T1VO4N36RUBH 855 562 0 F> 83 FS Y
*** Sending T1VO4N36RUBH...
- FF
- FQ
*** Disconnected from WL2K RMS: VE3ONN-5 @ 2011/12/18 01:47:09
*** Session: 3.0 min; Avg Thruput: 289 Bytes/min; 1 Min Peak Thruput: 643 Bytes/min
KB5OZE-5
Marrero, LA

- Latitude 29.848453 (29° 50' 54" N)
- Longitude -90.122125 (90° 7' 19" W)
- Grid Square EL49wu
- US State Louisiana US County Jefferson
- Bearing 235.0° SW (from WB3KAS)
- Distance **973.2 mi** (1566.2 km)
- 3585KHz at 0546L

- *** Connected to WL2K RMS: KB5OZE-5 @ 2011/12/20 10:38:05
- USB Dial: 3585.000 RMS WINMOR (EL49WU)
- 60 Minutes remaining [WL2K-2.7.0.7-B2FWIHJM$] ;PQ: 17054328 Wien CMS via KB5OZE-5 > [RMS Express-1.1.1.3-B2FHMS$] ;PR: 69331640 ;
- KB5OZE-5 DE WB3KAS (FM18NR)
- FC EM JLL82SWF85UP 662 463 0 F> 7F FS Y
- *** Sending JLL82SWF85UP...
- *** Disconnected from WL2K RMS: KB5OZE-5 @ 2011/12/20 10:47:04
- *** Session: 8.9 min; Avg Thruput: **24 Bytes/min**; 1 Min Peak Thruput: 45 Bytes/min
IS0GRB-5
Cagliari, Sardinia, IT

- Latitude 39.246628 (39° 14' 47" N)
- Longitude 09.182888 (9° 10' 58" E)
- Grid Square JM49of
- Bearing 59.2° ENE (from WB3KAS)
- Distance **4425.7 mi** (7122.4 km)
- 3585KHz at 0546L
- *** Connected to WL2K RMS: IS0GRG-5 @ 2013/18/17 01:37:30
- USB Dial: 14111.000 RMS WINMOR (JM49OF)
- 300 Minutes remaining with IS0GRB-5
- San diego CMS via IS0GRB
- IS0GRB-5 DE KA3AHI (FM18NR)
- FFY
- FQ
- ***Disconnected from WL2K RMS: IS0GRB-5 @ 2013/18/17 01:41:07
- ***Session: 3.3 min; **Avg Thruput: 0 Bytes/min**; 1 Min Peak Thruput: 210 Bytes/min
- 14111.0KHz at 2141L
## Throughput Speeds

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### Strategic National Stockpile Form

<table>
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<tr>
<th>DESCRIPTION</th>
<th>Stock Number</th>
<th>Unit of Issue</th>
<th>Quantity Requested</th>
<th>Quantity Shipped</th>
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<tbody>
<tr>
<td>Acyclovir, 1000mg/20ml</td>
<td>55390-613-20</td>
<td>PKG of 10</td>
<td></td>
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</tr>
<tr>
<td>Aero Chamber Plus, w/large mask</td>
<td>58-80710</td>
<td>CS of 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aero Chamber Plus, w/o mask</td>
<td>58-79710</td>
<td>CS of 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aero Chamber Plus, w/small mask</td>
<td>58-88710</td>
<td>CS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Albuterol Nebulizer Solution, 0.83mg/ml, 3ml</td>
<td>00172-6405-49</td>
<td>PKG of 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol pads, isopropyl, 70 1 1/4&quot; x 2 1/2&quot;</td>
<td>MDS090730</td>
<td>CS of 3000</td>
<td></td>
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<tr>
<td>Amoxicillin 400mg/5ml oral suspension, powder, 100ml bottle</td>
<td>63304-970-04</td>
<td>CS of 96</td>
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<tr>
<td>Amoxicillin 500mg oral Capsule unit of use #30 cap bottle</td>
<td>66336-511-30</td>
<td>CS of 40/80/480</td>
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<td>Amoxicillin 500mg oral capsules #500 cap bottle</td>
<td>0172-7414-70</td>
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<td>Amphotericin B IV 50mg vial</td>
<td>0013-1405-44</td>
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<td>Aspirator, Laerdal, Battery, rechargeable</td>
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<td>Aspirator, Medline 601</td>
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# SNS Throughput Speeds

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Tricks of the Trade
EmComm Status

• Obtain VHF & HF Channel Updates:
  – BEFORE YOU DEPLOY

• If you decide to use the Auto Connect feature:
  – UNCHECK PREVIEW DOWNLOADS
  – KEEP IN MIND WHAT TRAFFIC YOU ARE EXPECTING

• Windoze likes to control your Audio
  – CHECK AUDIO SLIDERS OFTEN – KEEP THEM MAX

• Inbox traffic folder: ALWAYS KEEP IT EMPTY
  – Move traffic to appropriate folder

• Keep Outbox window active when sending traffic
Tactical Considerations
Tactical Considerations

WL2K Path

W3LRC-10

WL2K Path

W3PGC-10

WL2K Path

FWMC

WL2K Path

WB3KAS-10

LRH

DCH

SMHC
Tactical Considerations

- W3LRC-10
- WB3KAS-10
- W3PGC-10
- WL2K Path
- LRH
- DCH
- SMHC
- FWMC
- WB3KAS-10

X indicates a potential issue or consideration in the tactical setup.
Tactical Considerations
Solution 1

FWMC

DCH

SMHC

LRH

WL2K Path

W3LRC-10

W3PGC-10

Digi Path

WB3KAS-10

WB3KAS-10

W3PGC-10

W3LRC-10
Tactical Considerations
Solution 1

- W3LRC-10
- WL2K Path
- Digi Path
- WJPGC-10
- LRH
- DCH
- SMHC
- FWMC
- WB3KAS-10
Tactical Considerations
Solution 2

WL2K Path

FWMC 144.97

W3LRC-10

LRH 145.01

DCH 144.95

SMHC 145.07

P2P Path

P2P Path

P2P Path
Tactical Considerations
Solution 2

FWMC 144.97

W3LRC-10

WL2K Path

LRH 145.01

P2P Path

DCH 144.95

P2P Path

SMHC 145.07

P2P Path
Tactical Considerations
Solution 3

FWMC → W3CB → LRH → SMHC → DCH → FWMC

P2P Path
Tactical Considerations

Solution 3
The Ideal EmComm Station
The Ideal EmComm Station

Inbound P2P Message From Served Agency

RMS Express
The Ideal EmComm Station

Inbound P2P Message From Served Agency

Outbound HF Message To Internet Gateway

RMS Express
Email via Radio!

I’m ready, are you?
Send an email from here? No problem.

Can your radio do that?

http://www.winlink.org