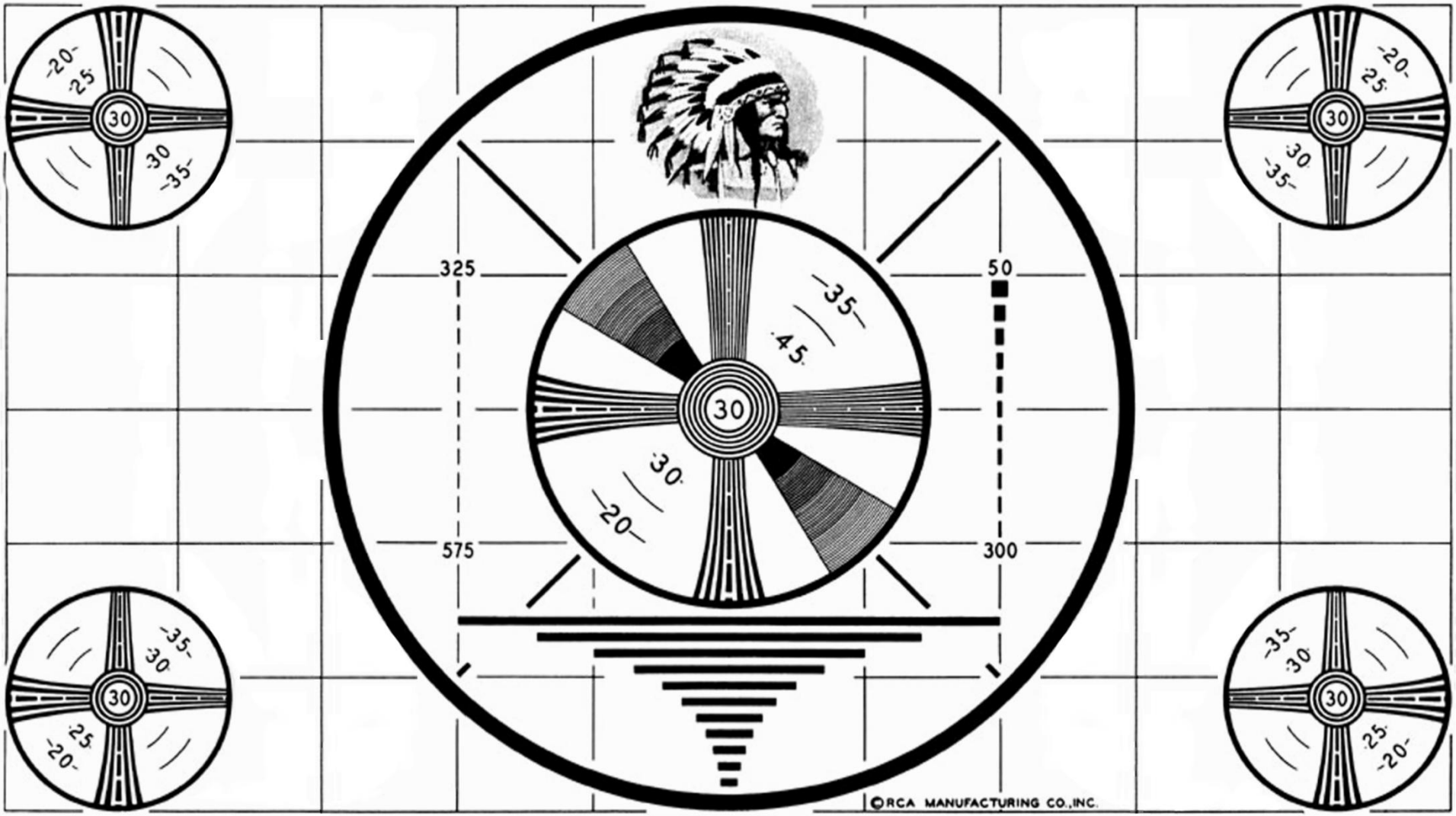
20
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300
©RCA MANUFACTURING CO.,INC.

Winlink 2000 RMS Express

A User Client for Emergency Communications

When it absolutely, positively has to get through!

Jim Montgomery
WB3KAS
Amateur Radio Emergency Service
Emergency Coordinator
Prince George's County, MD
ec@pgares.org
August 24, 2013

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

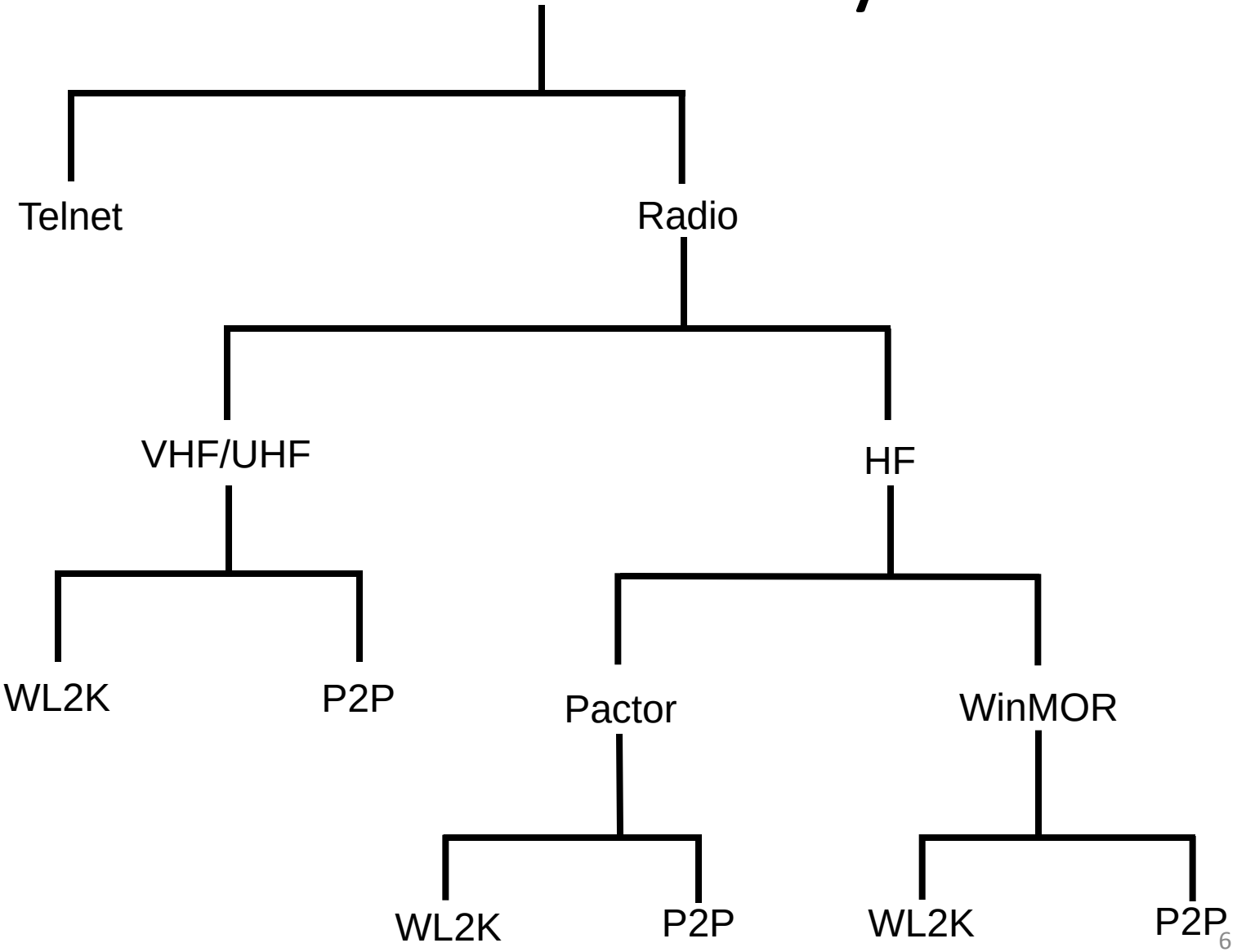
Winlink 2000 System

- 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



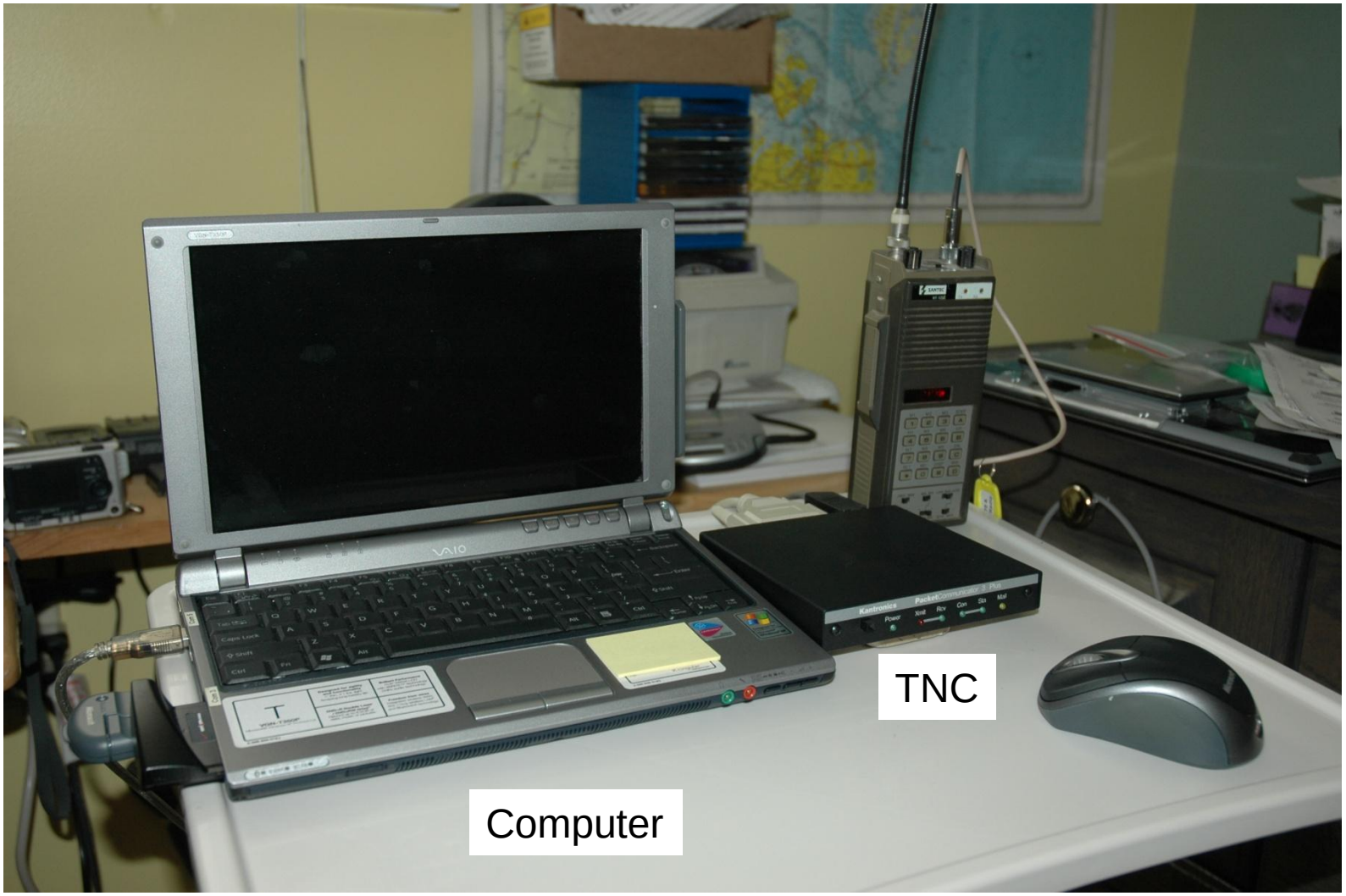
Typical Users

- State & County Gov’t
- US Coast Guard
- US Army MARS
- US Navy MARS
- Homeland Security
- ARES
- RACES
- Health Care Facilities
- Many others

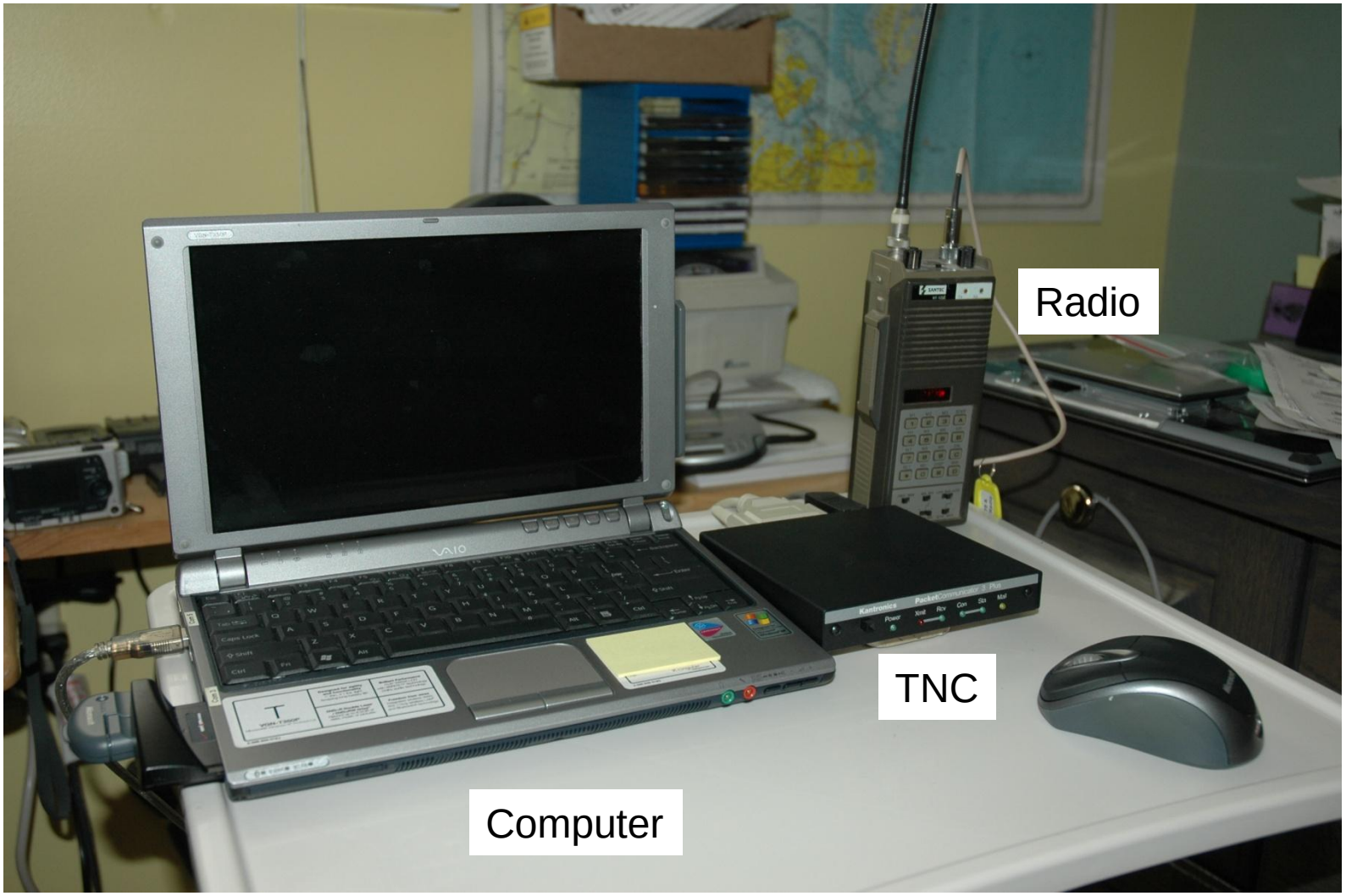
Typical RMS Express Station

Typical RMS Express Station

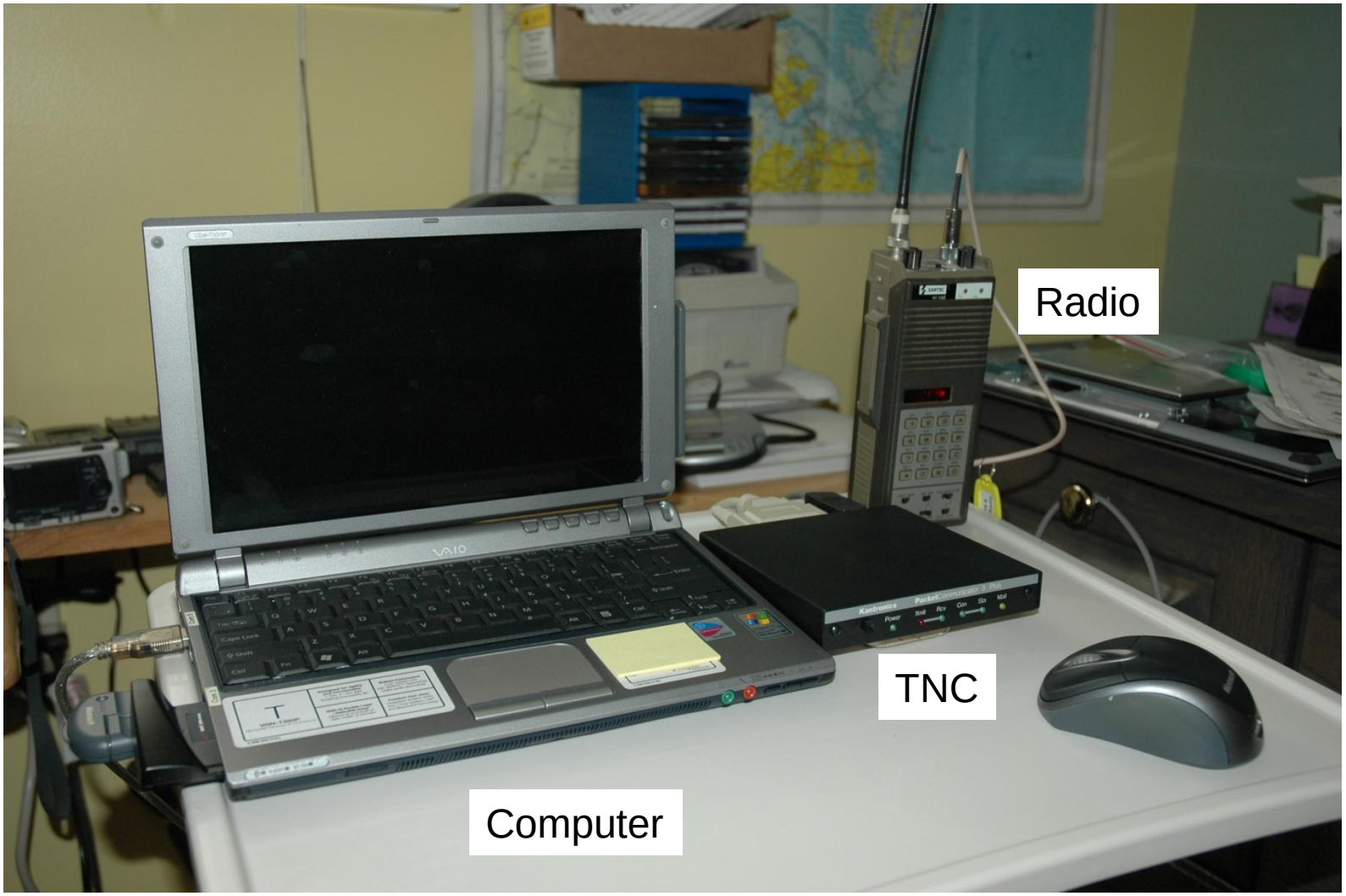
Typical RMS Express Station



Typical RMS Express Station



Typical RMS Node Station



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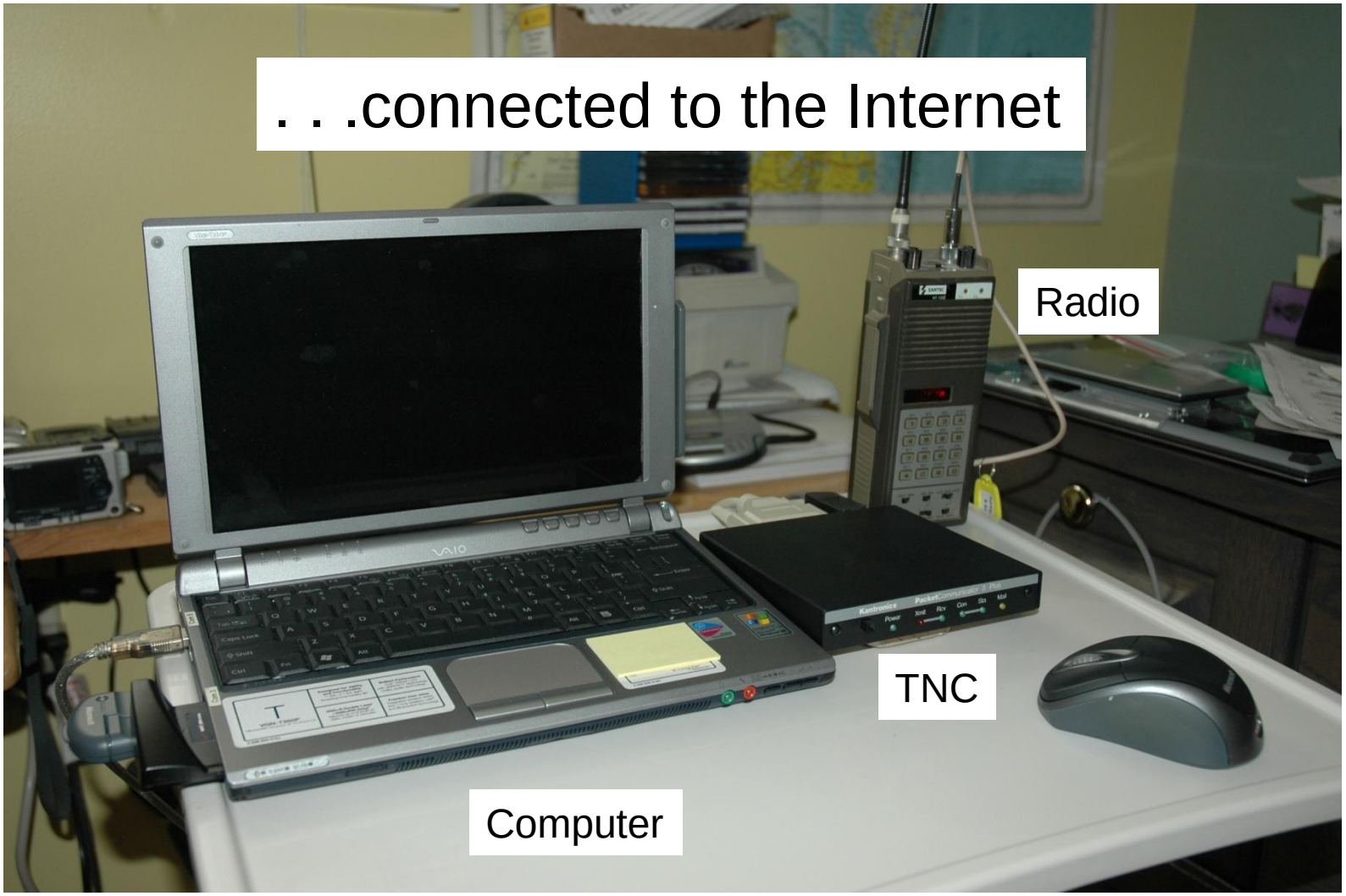
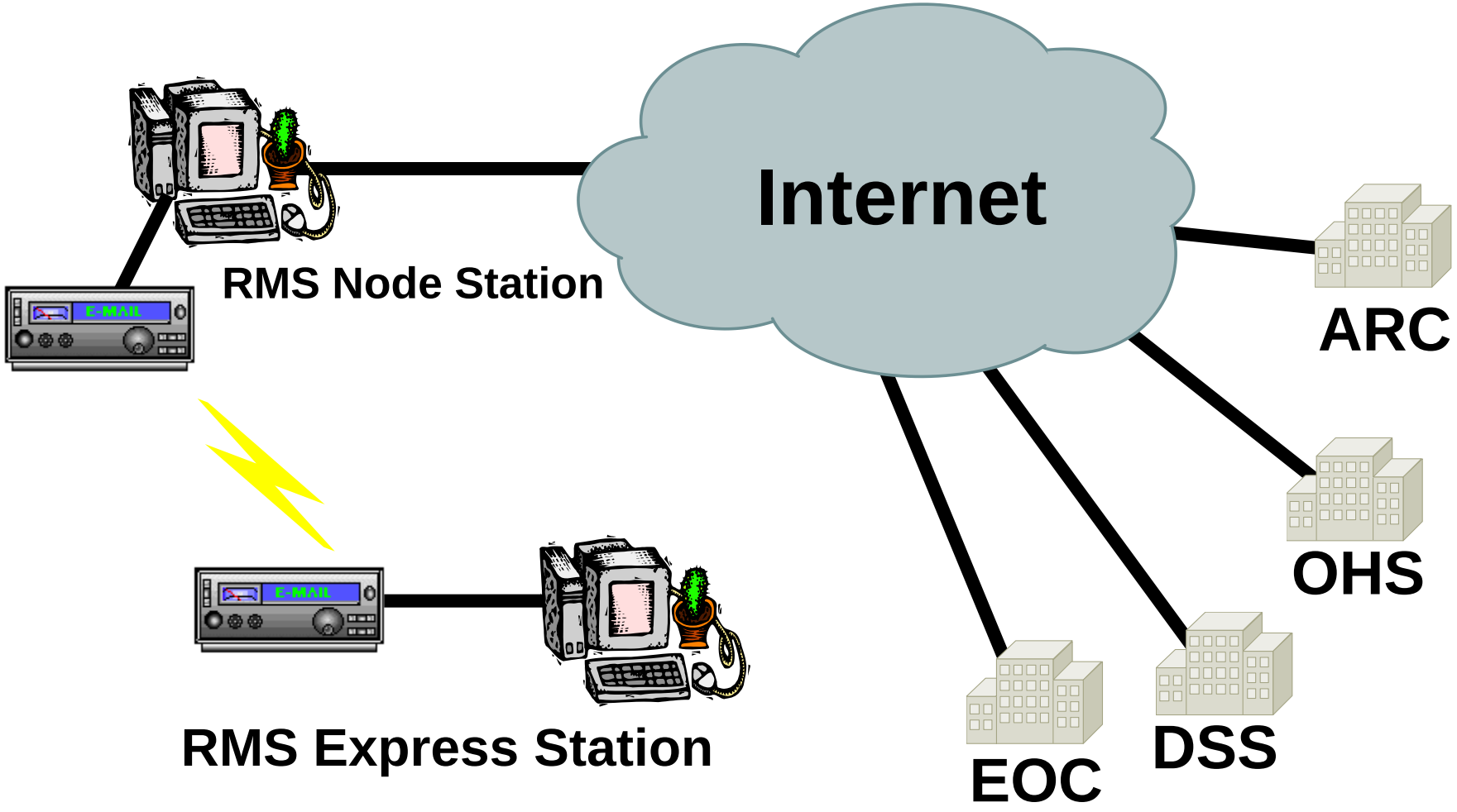


Winlink 2000 System Pictorial



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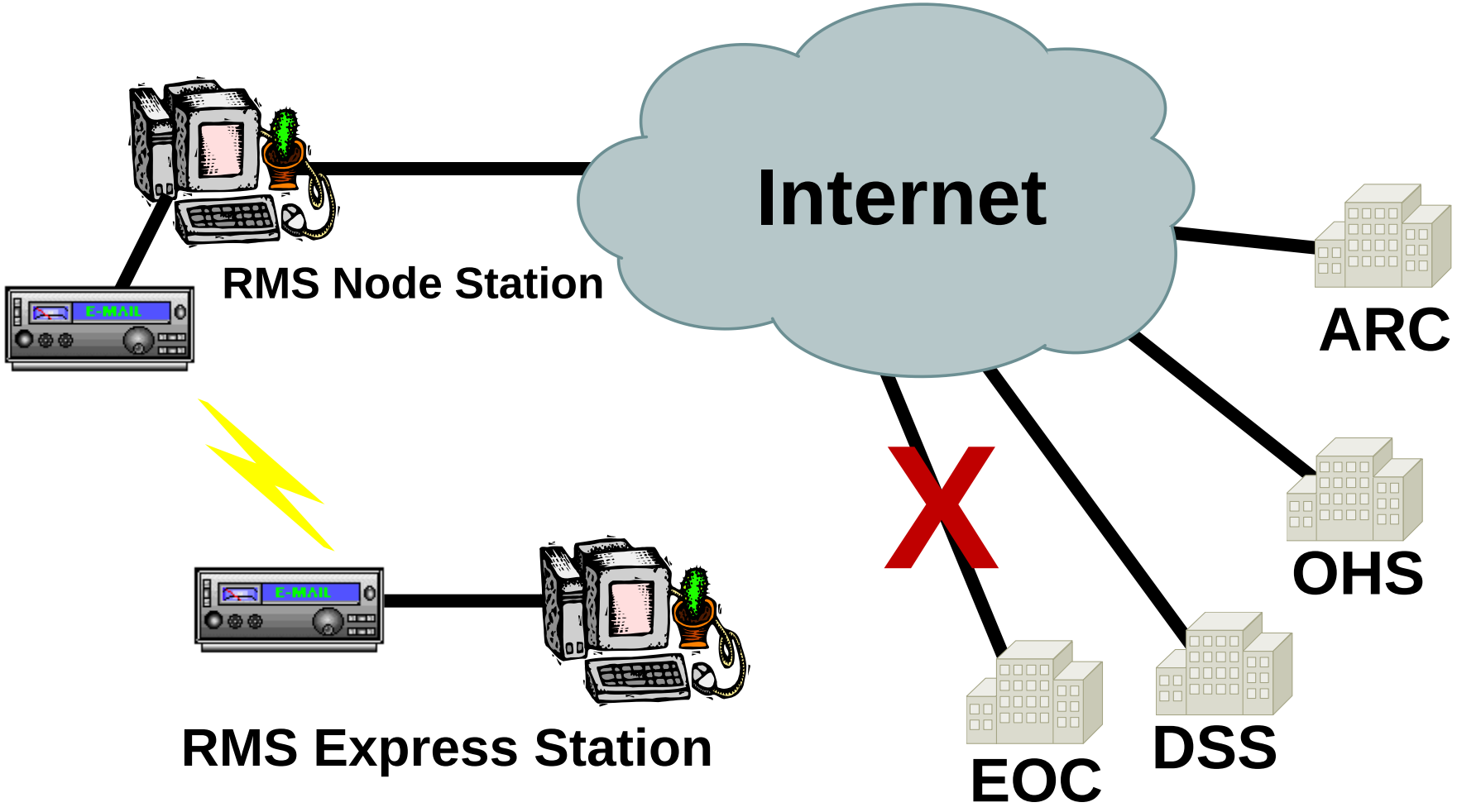

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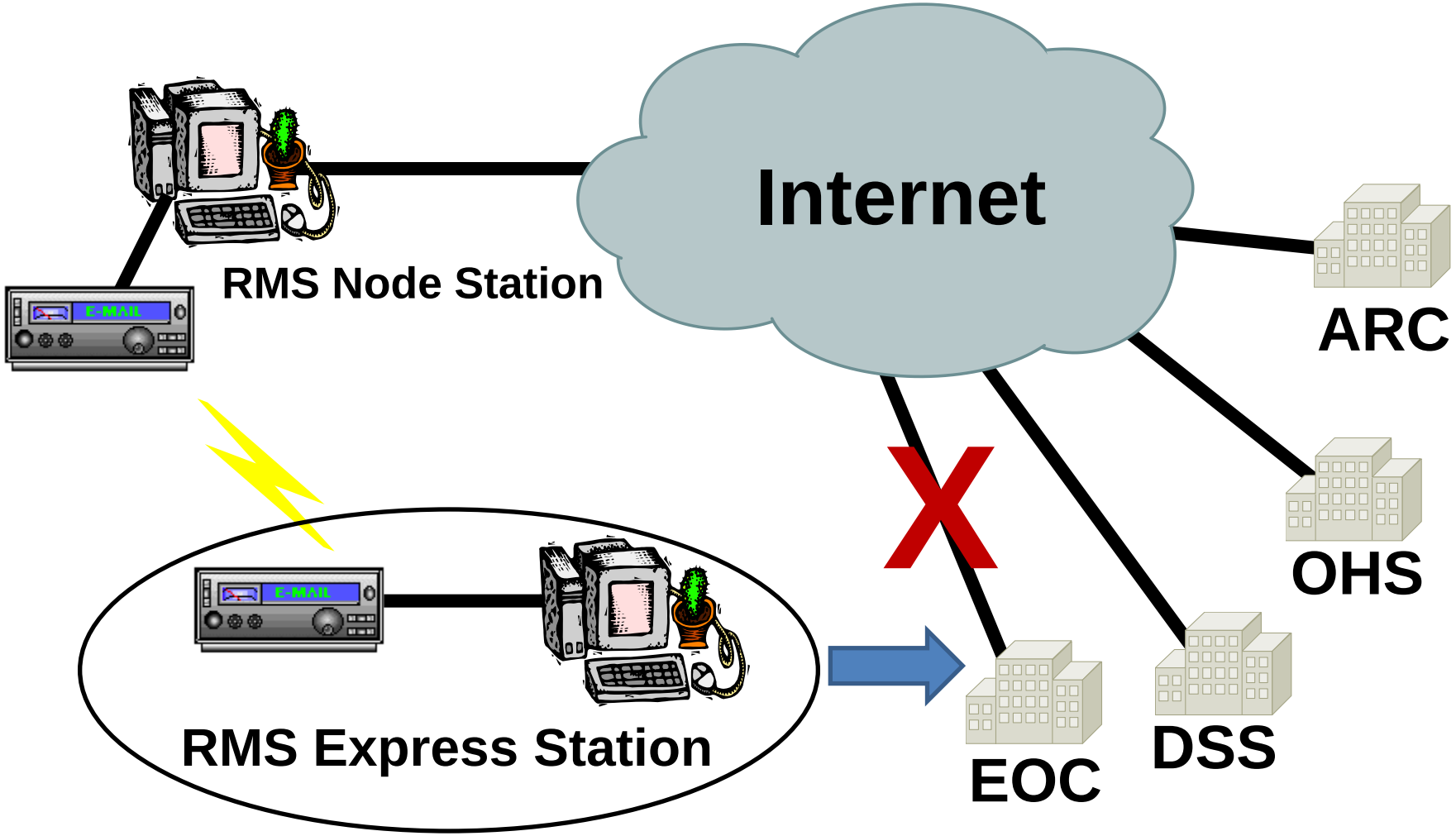

RMS Express Features

- 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***

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Overview

- RMS – ***R***adio ***M***ail ***S***erver
- 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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Airmail

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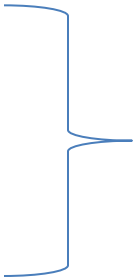


Additional features in RMS Express

RMSE Installation Process

- Go to the file transfer protocol download page:
  - ftp://autoupdate.winlink.org/User%20Programs
- Download the latest version:

FTP directory /User%20Programs/ at autoupdate.winlink.org

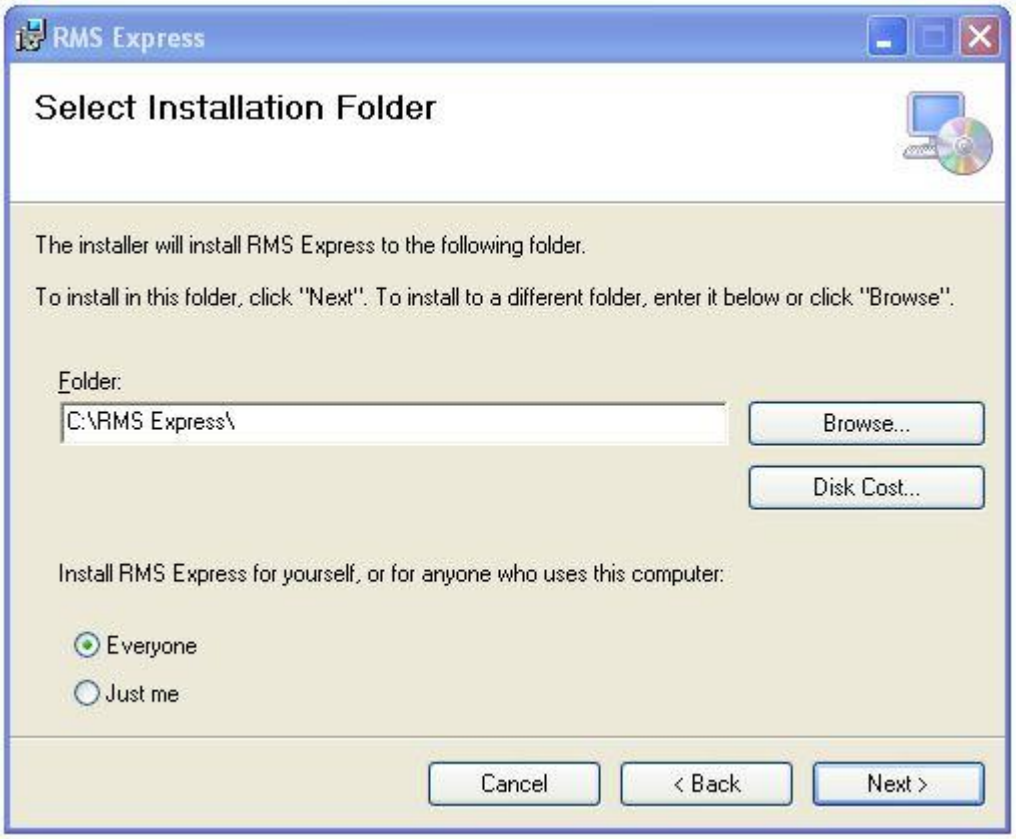
To view this FTP site in Windows Explorer, click **Page**, and then click **Open FTP Site in Windows Explorer**.

Up to higher level directory

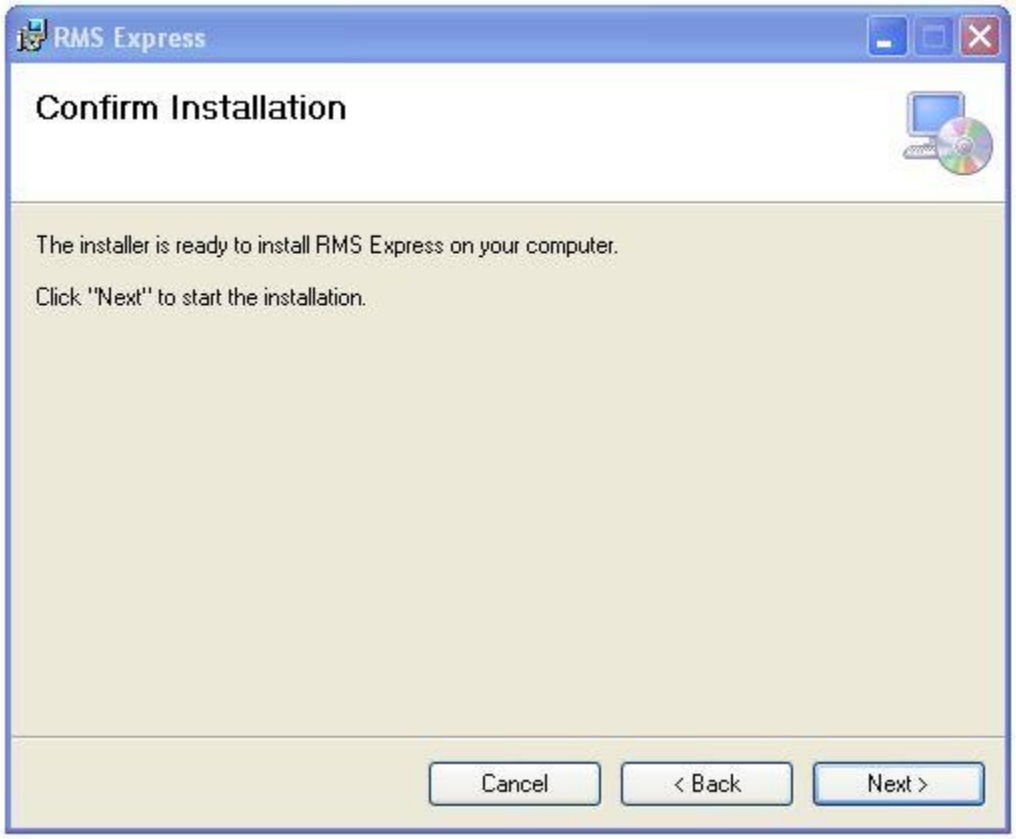
07/25/2012 12:00AM	3,233,022	itshfbc_120722.zip
10/10/2012 12:00AM	1,723,540	Paclink_setup_4-3-4-0.zip
06/29/2011 12:00AM	1,111	README_Install_Instructions.txt
05/06/2013 12:00AM	7,524,427	RMSMessageLog_setup_1-9-0.zip
07/09/2013 11:04PM	10,263,995	RMS_Express_setup_1-2-13-0.zip
05/13/2012 12:00AM	12,176	SCS_PTC-IIIusb_and_end_of_PTC-IIusb_IIpro__IIex.pdf
06/23/2012 12:00AM	3,483,544	V4Chat_1.0.4.0_Full_Install.zip
09/07/2011 12:00AM	200,155	WINMOR_TNC_1.4.0.0.zip

RMS Express Installation Screens

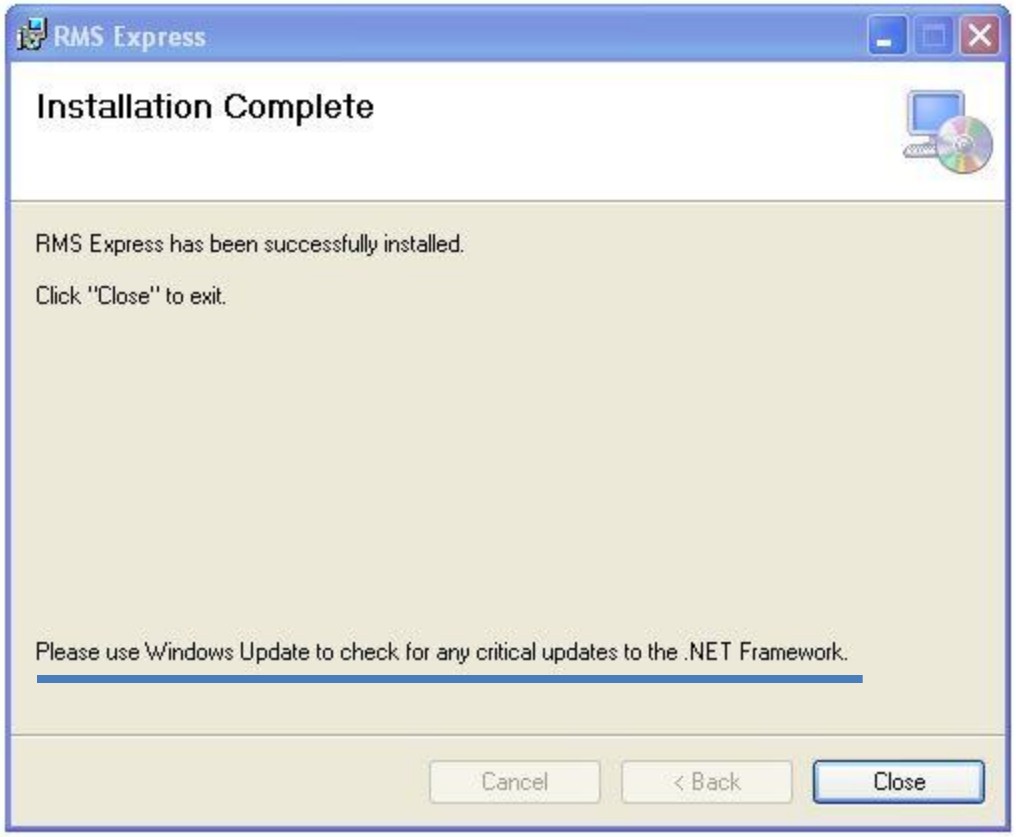
RMS Express Installation Screens



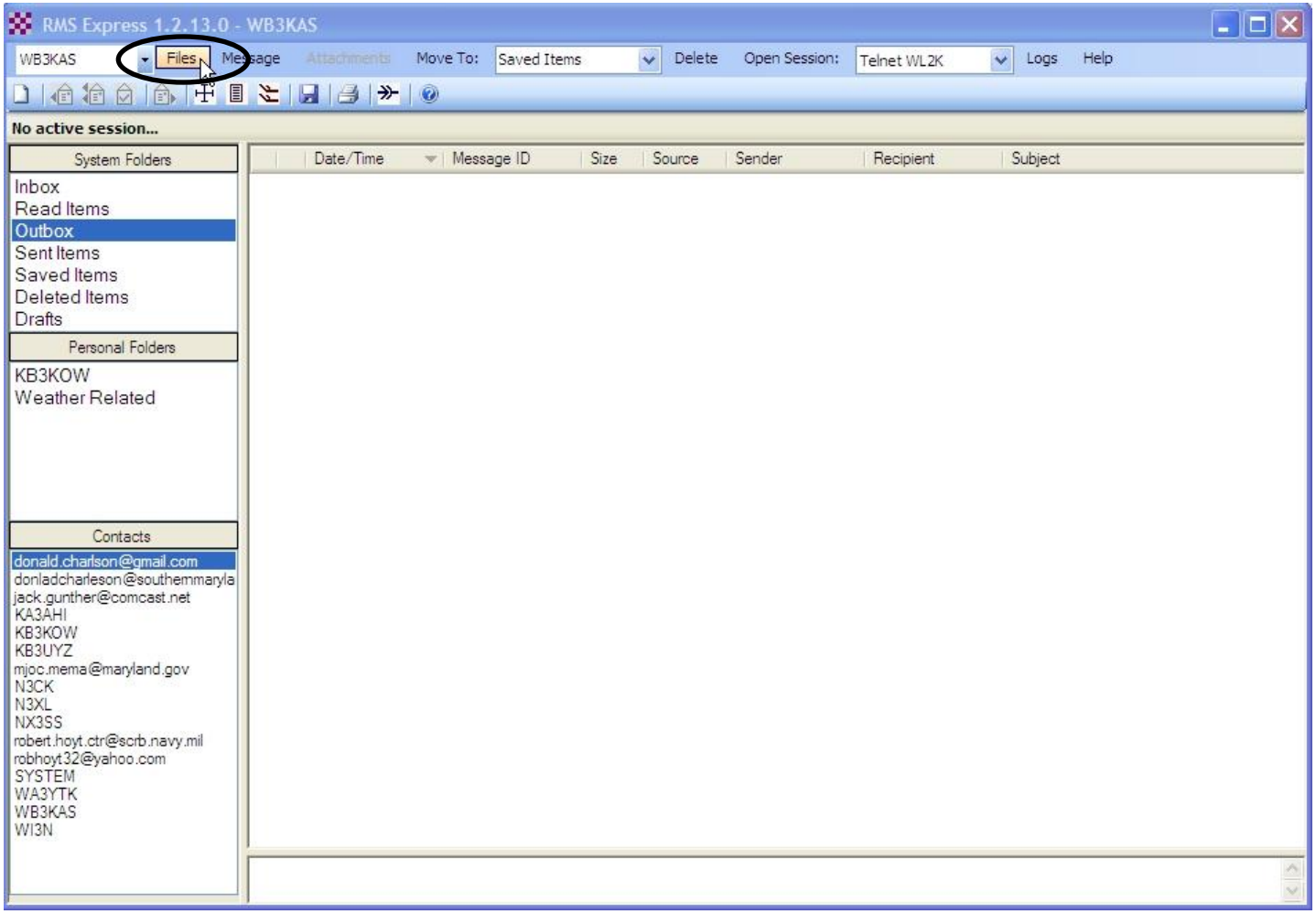
RMS Express Installation Screens



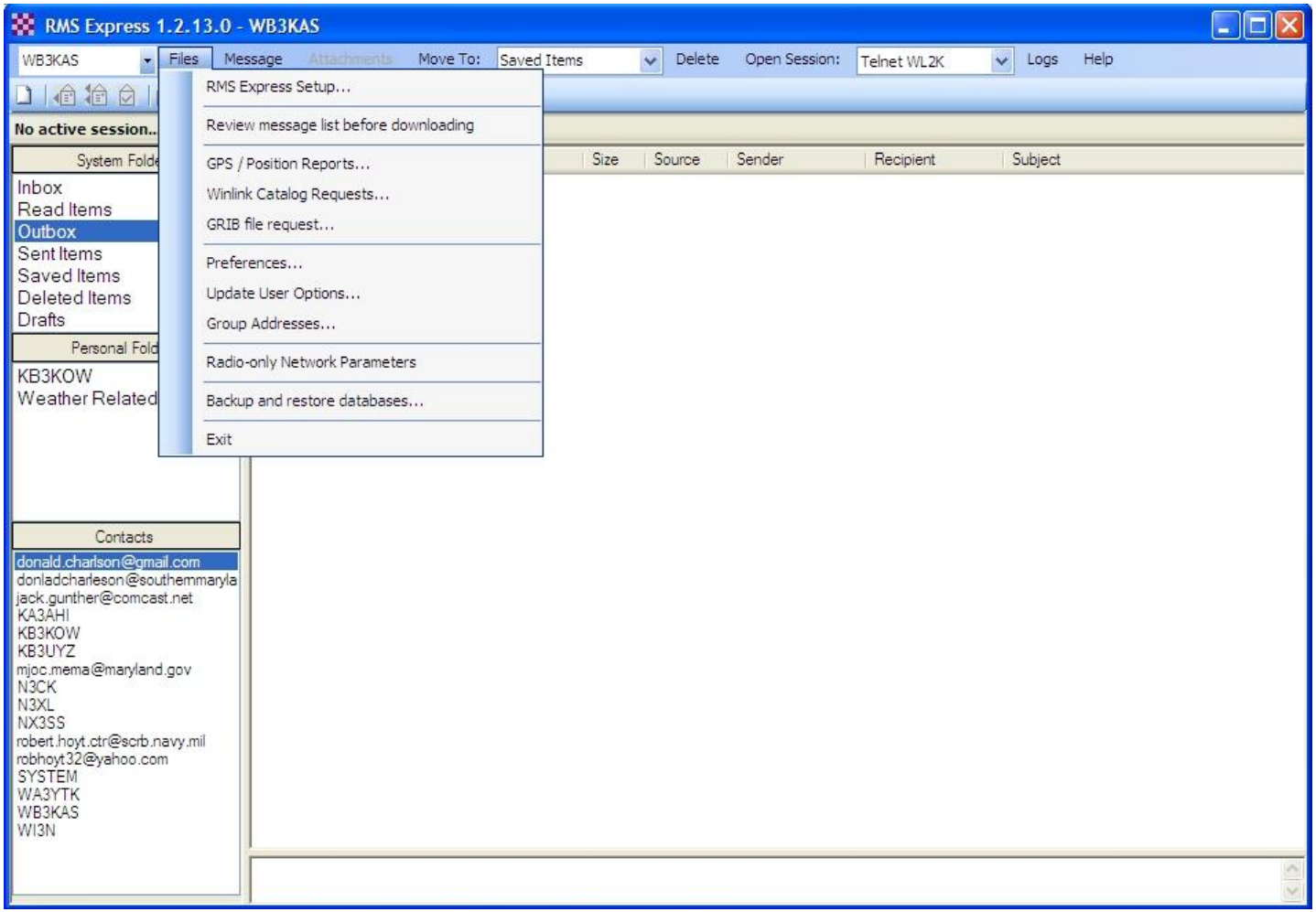
Installing RMS Express



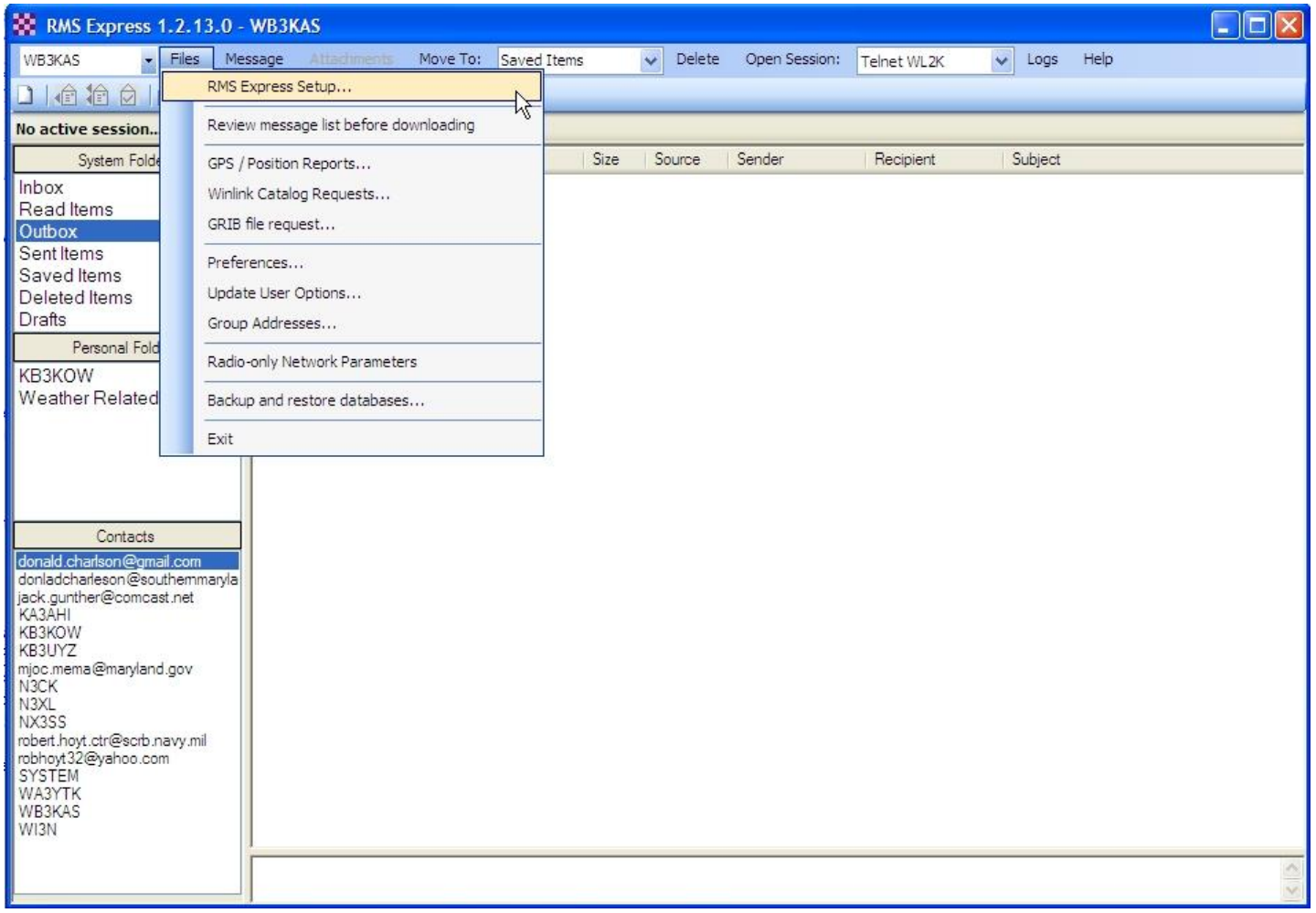
RMS Express Installation Screens



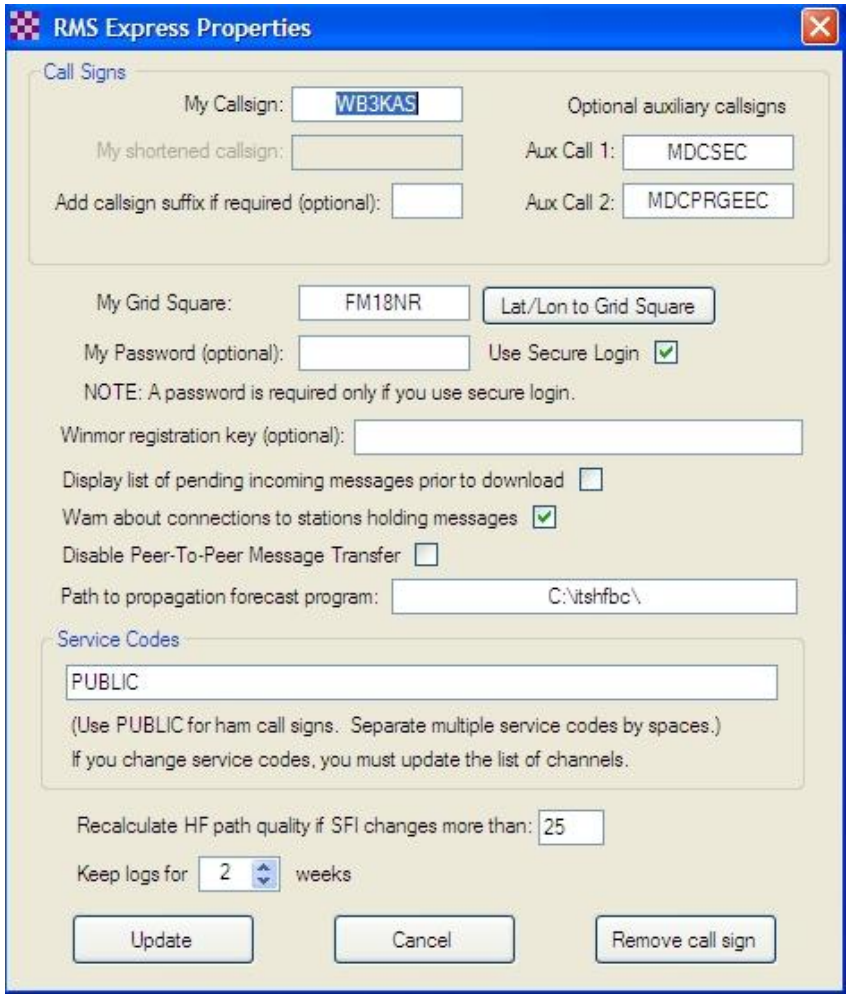
RMS Express Installation Screens



RMS Express Installation Screens



RMS Express Installation Screens



RMS Express Installation Screens

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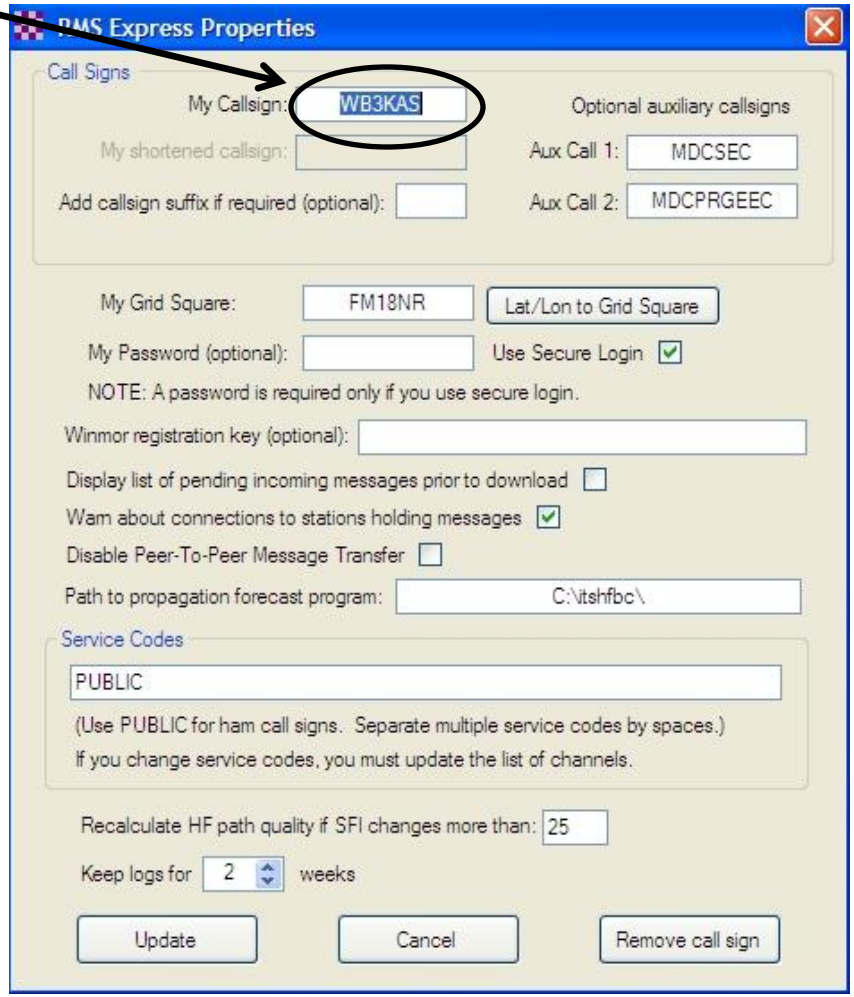
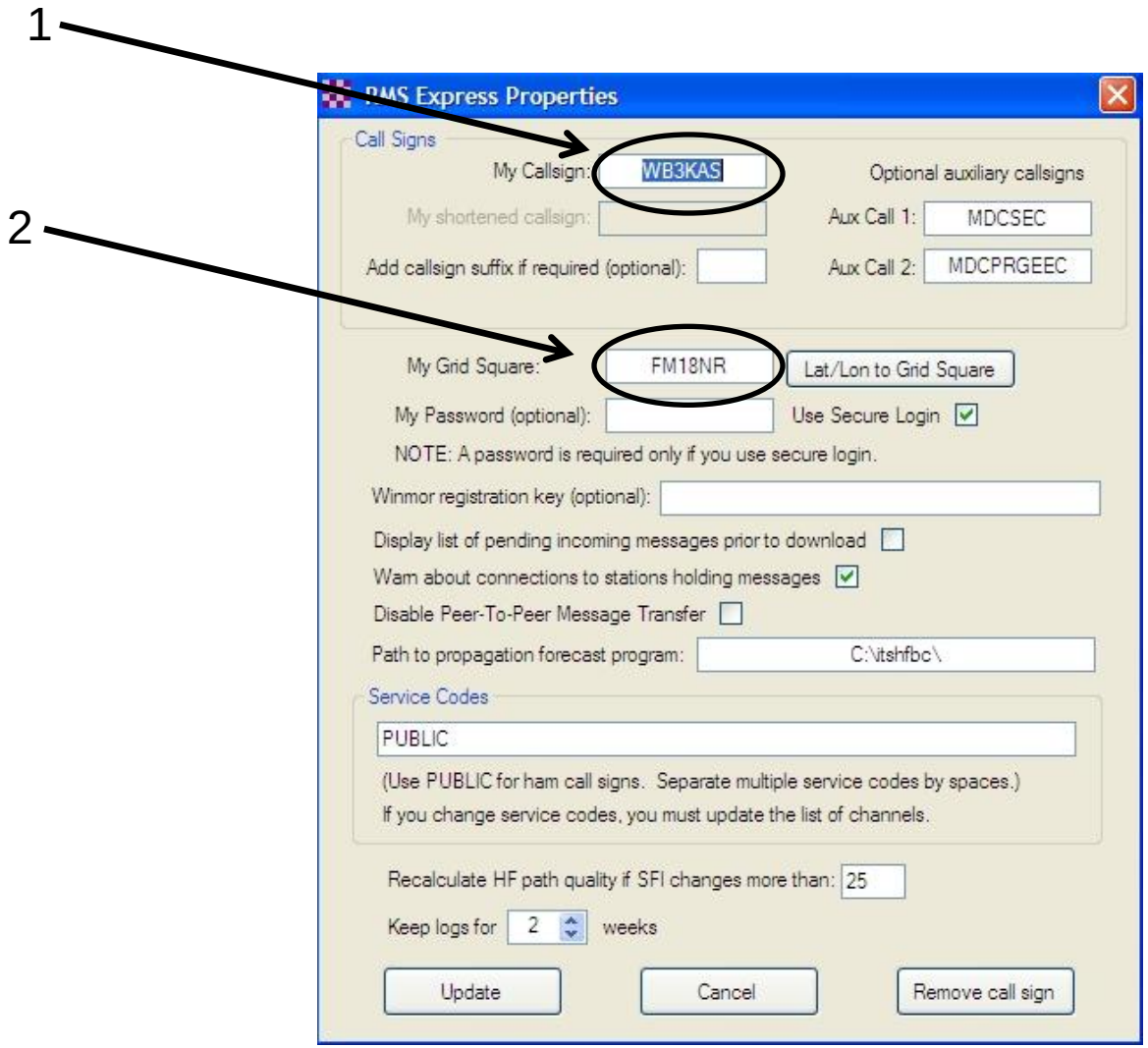
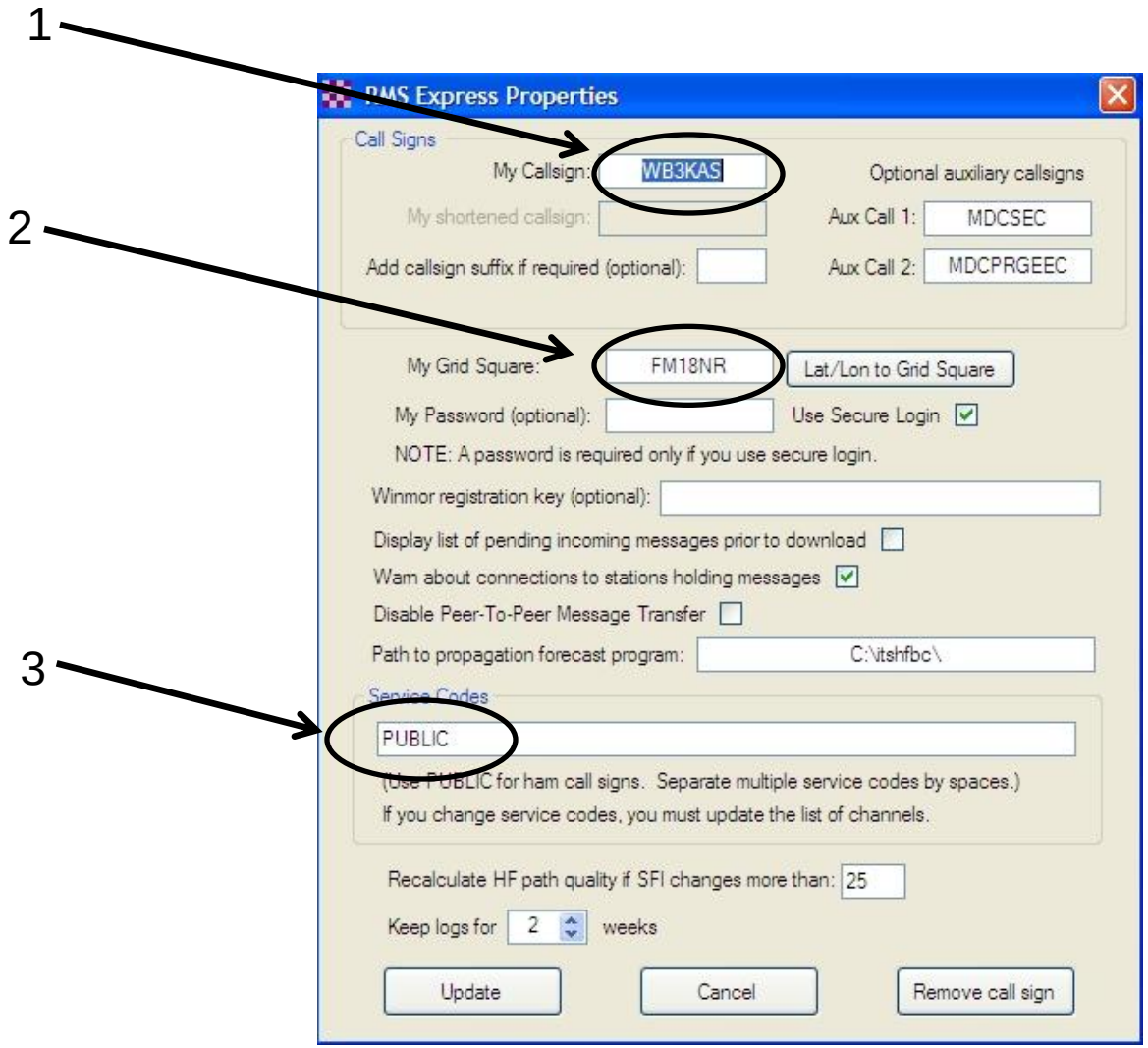


RMS Express Installation Screens



RMS Express Installation Screens



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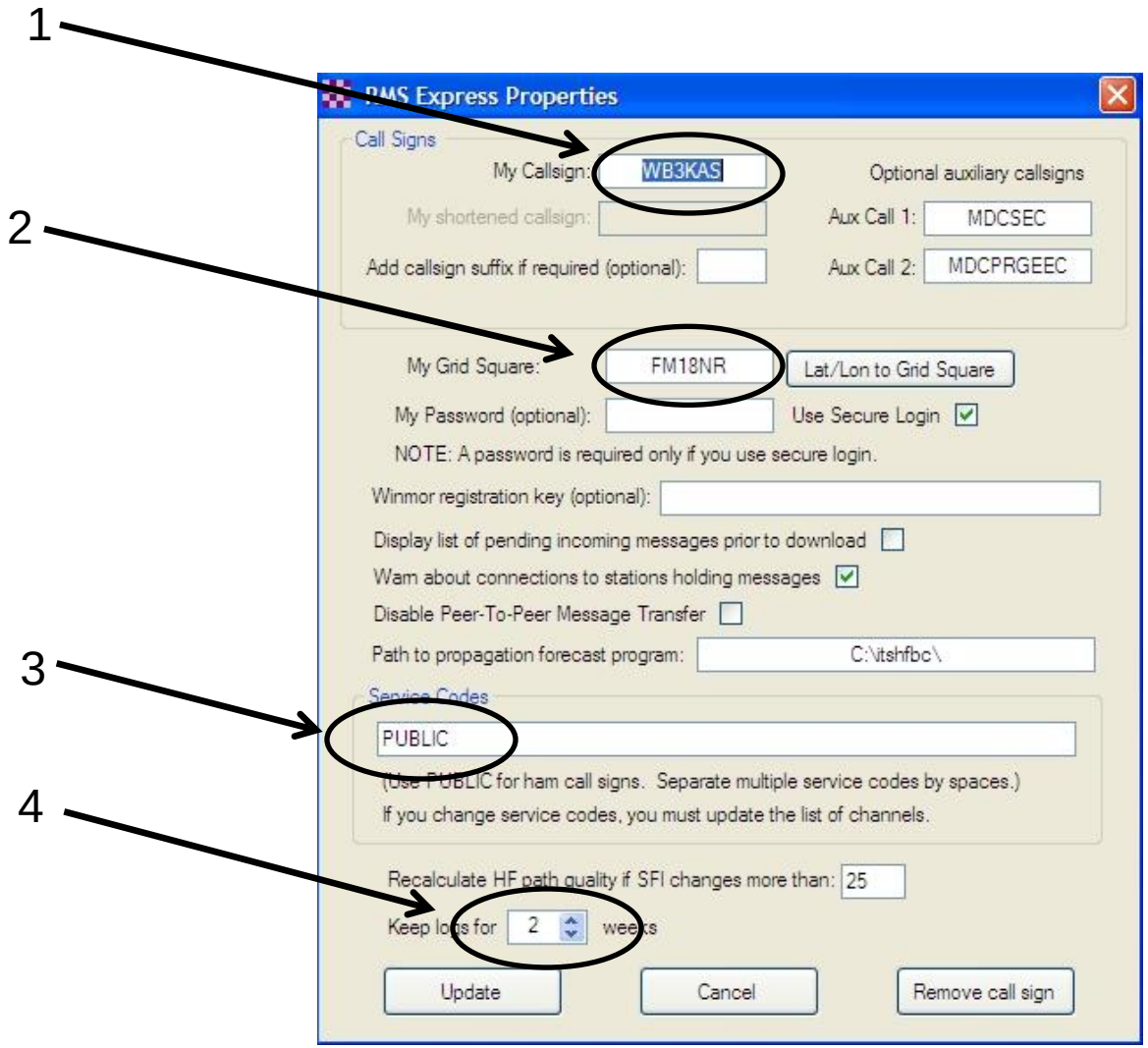

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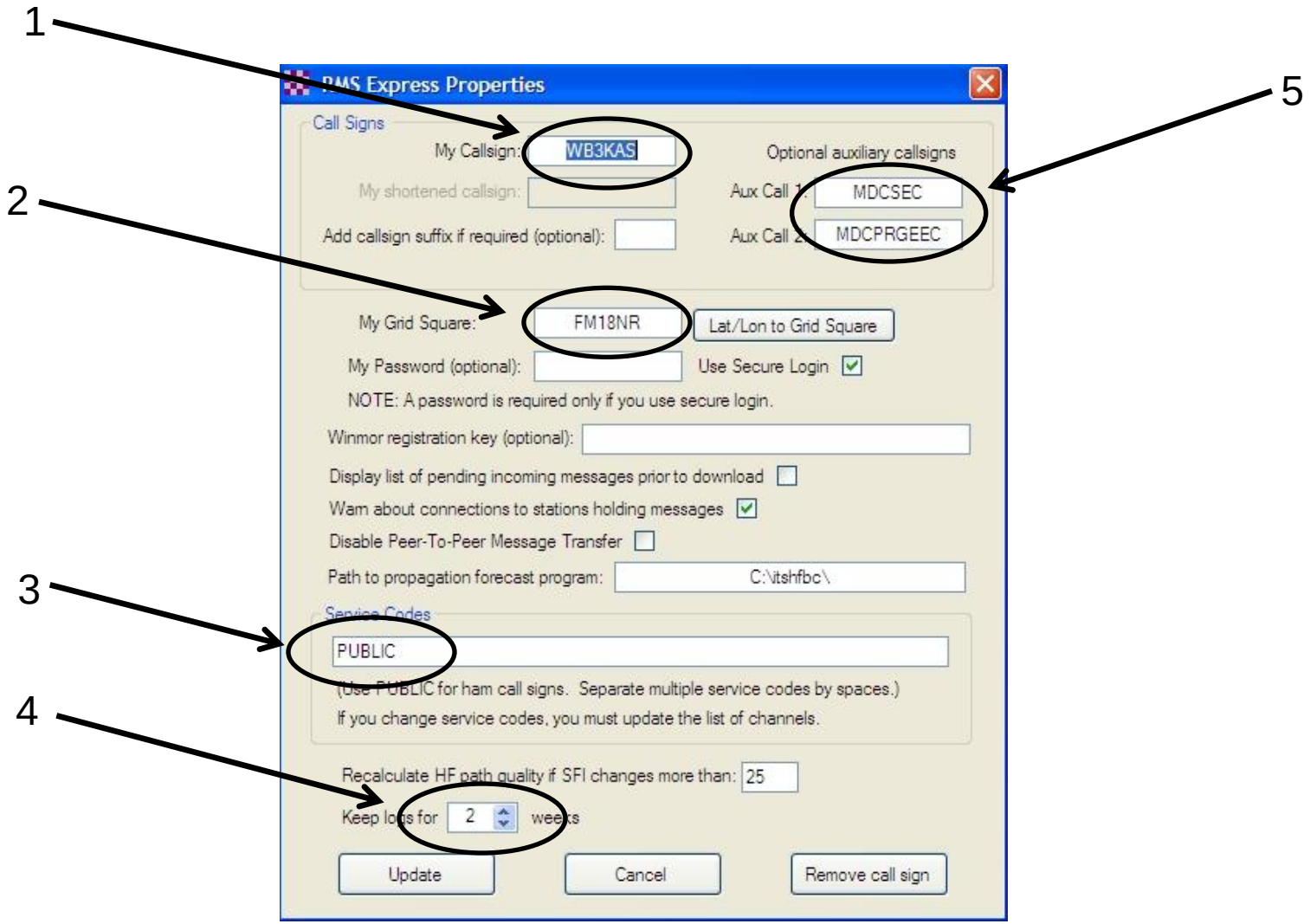

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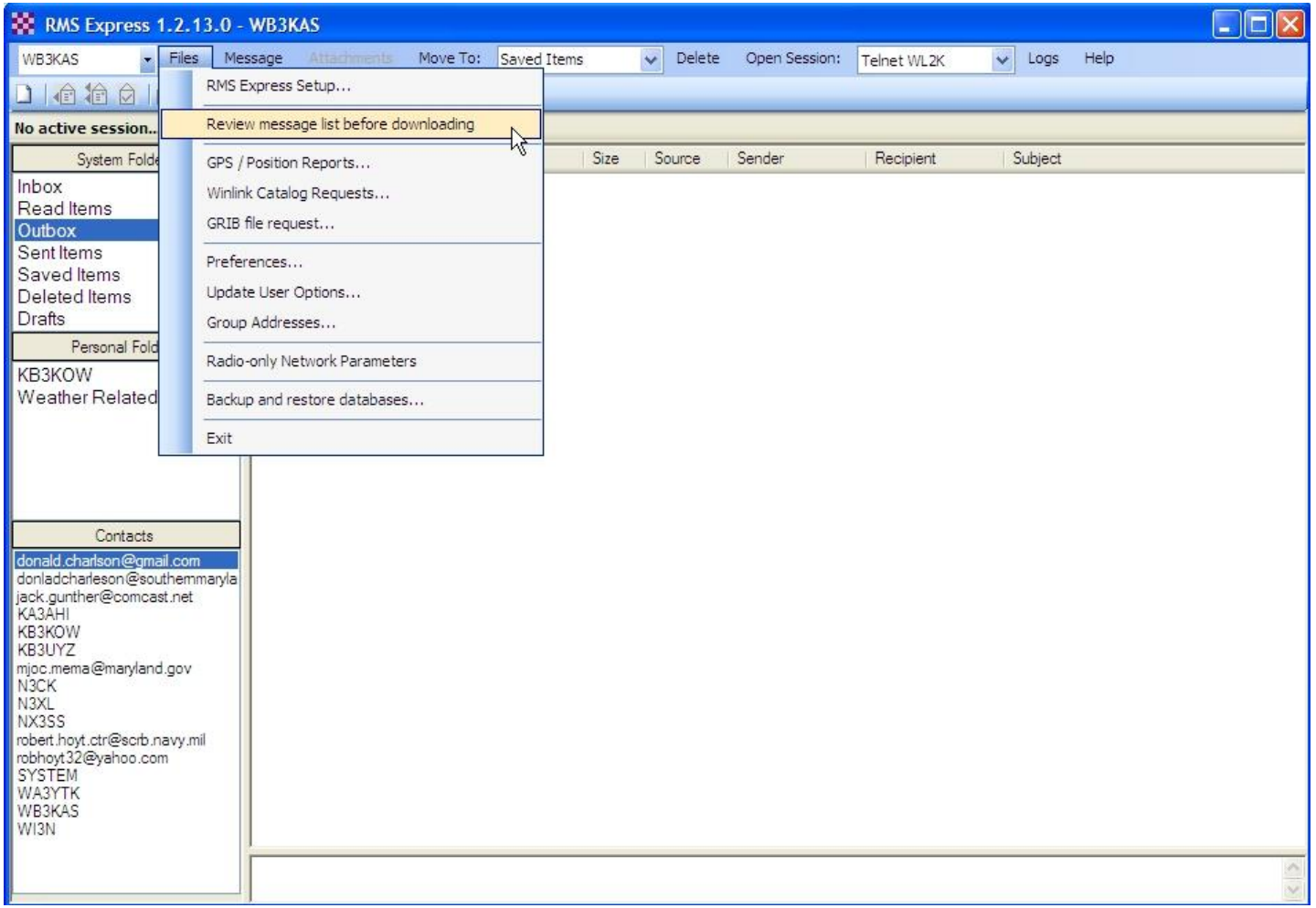

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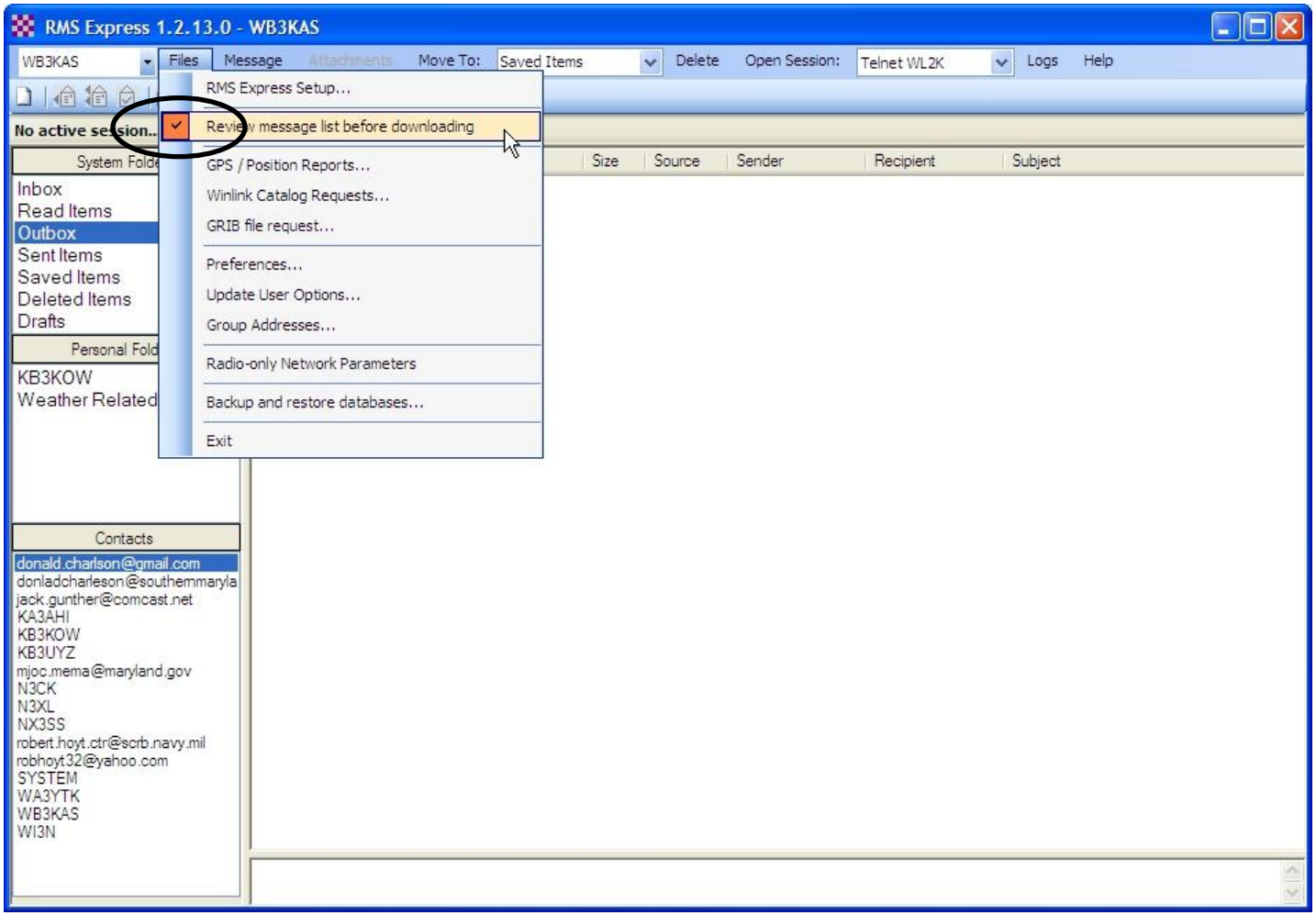

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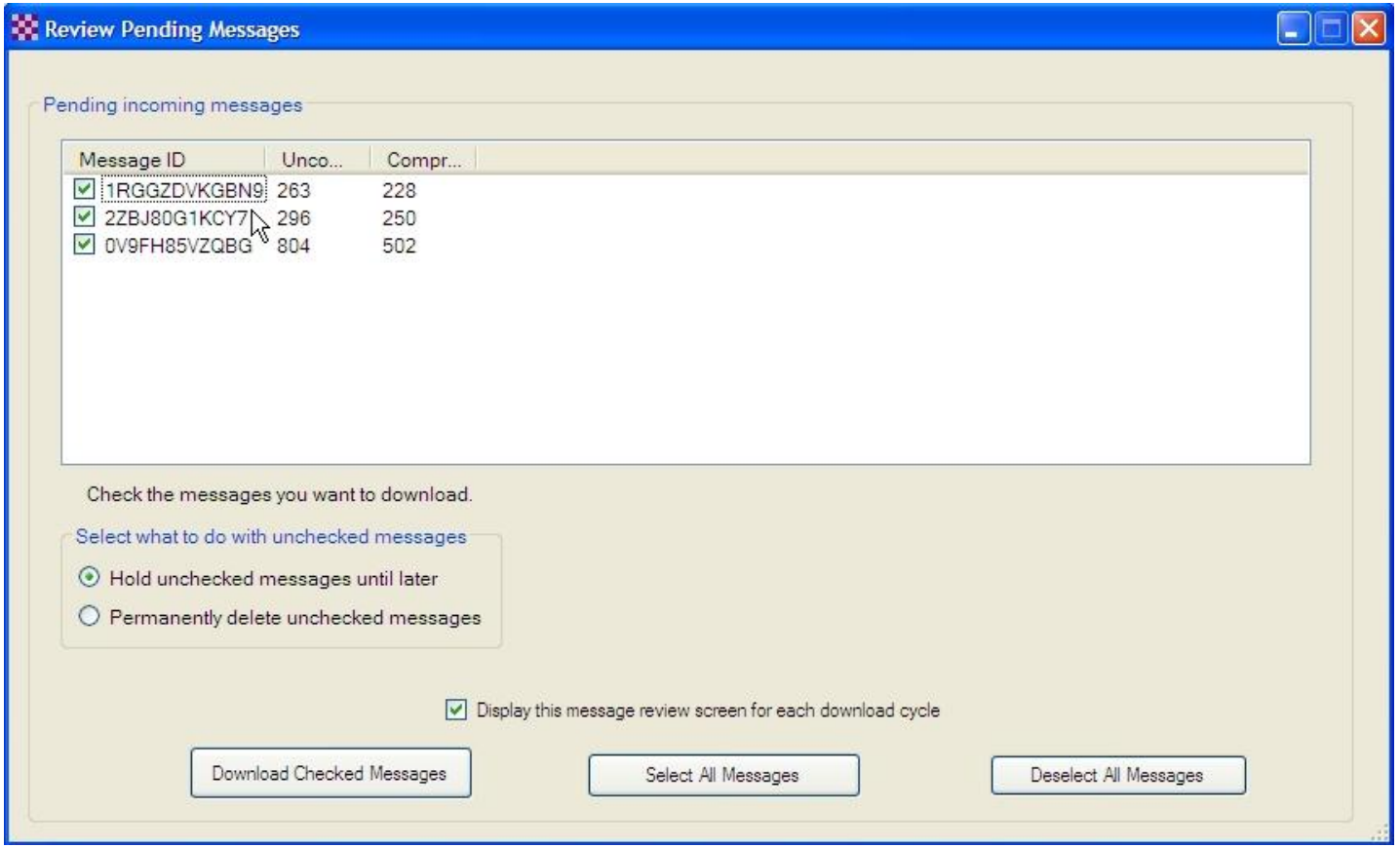

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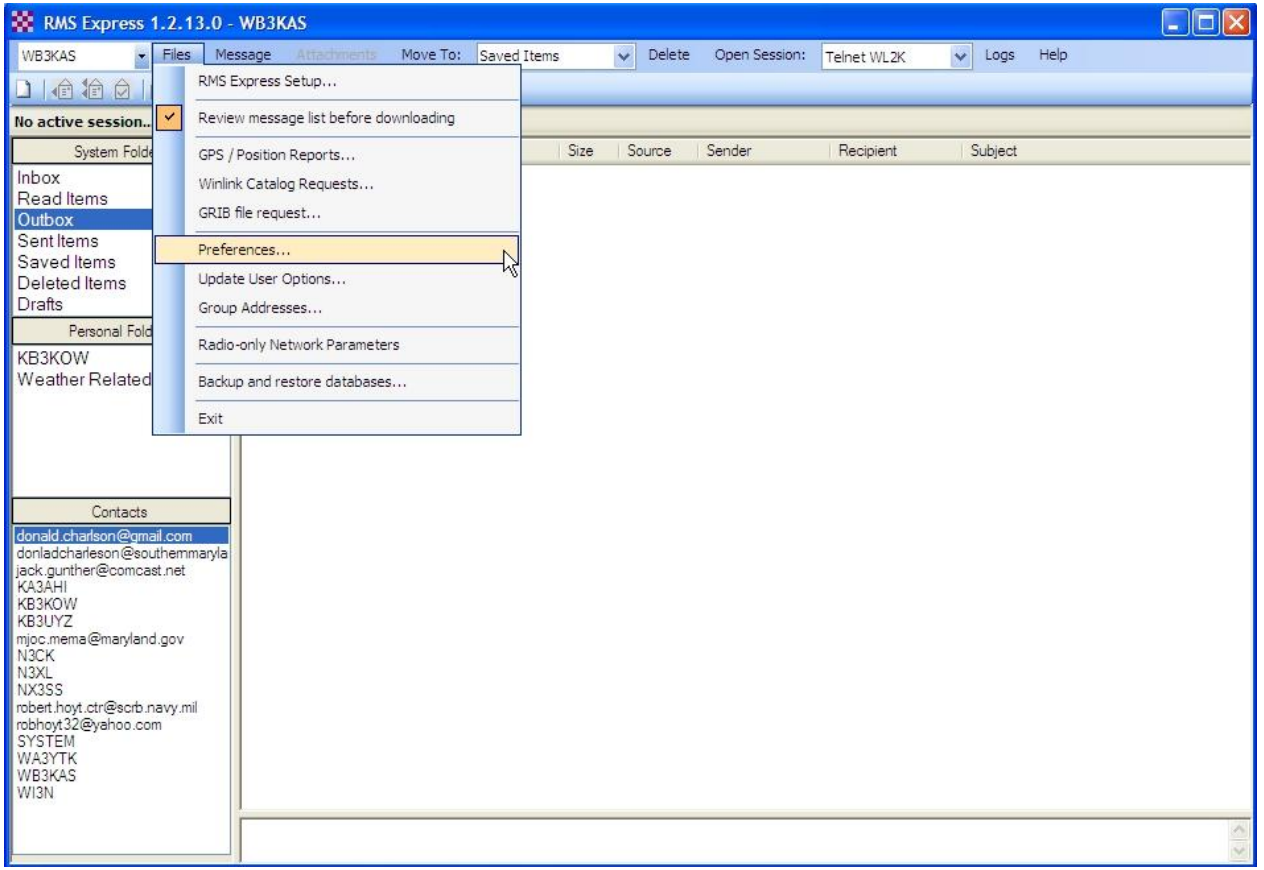

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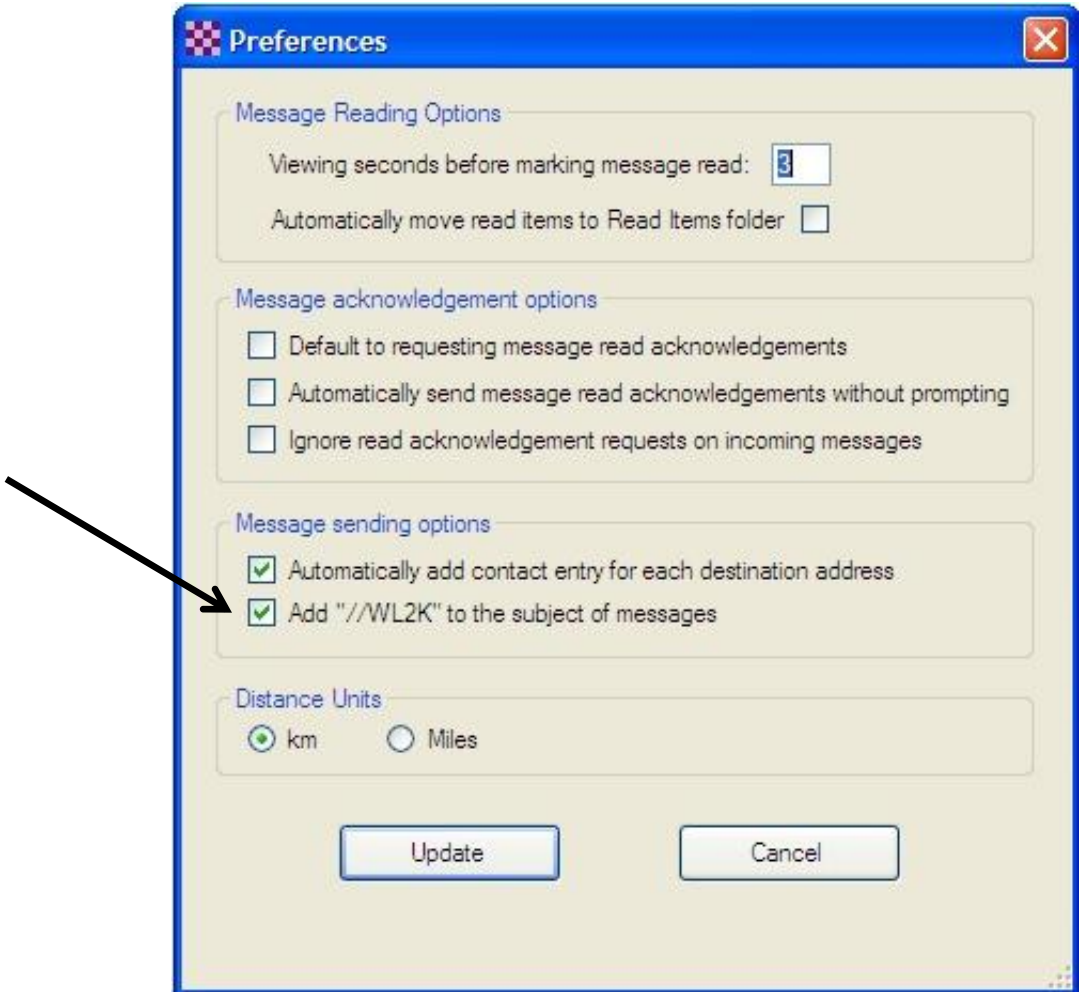

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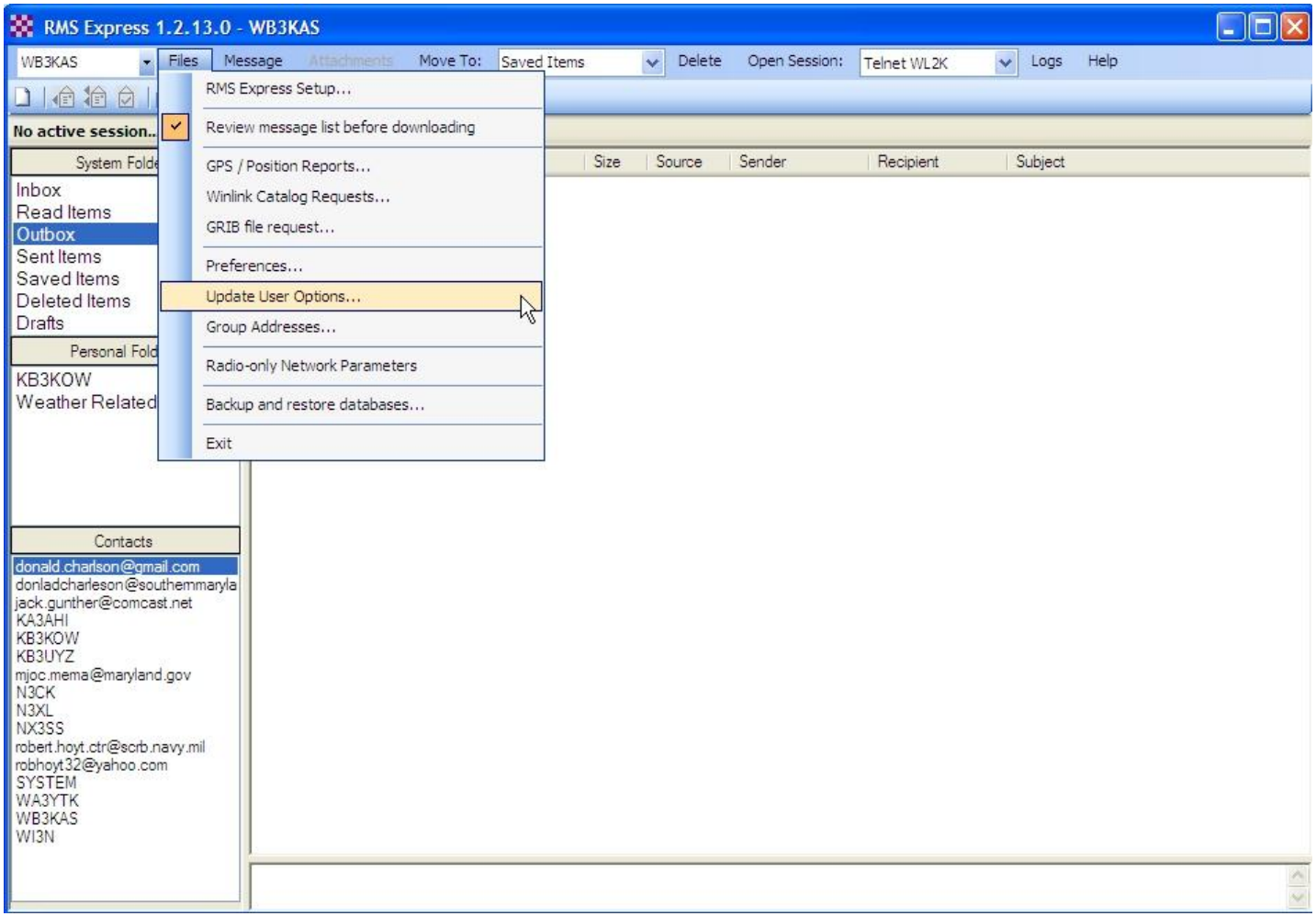

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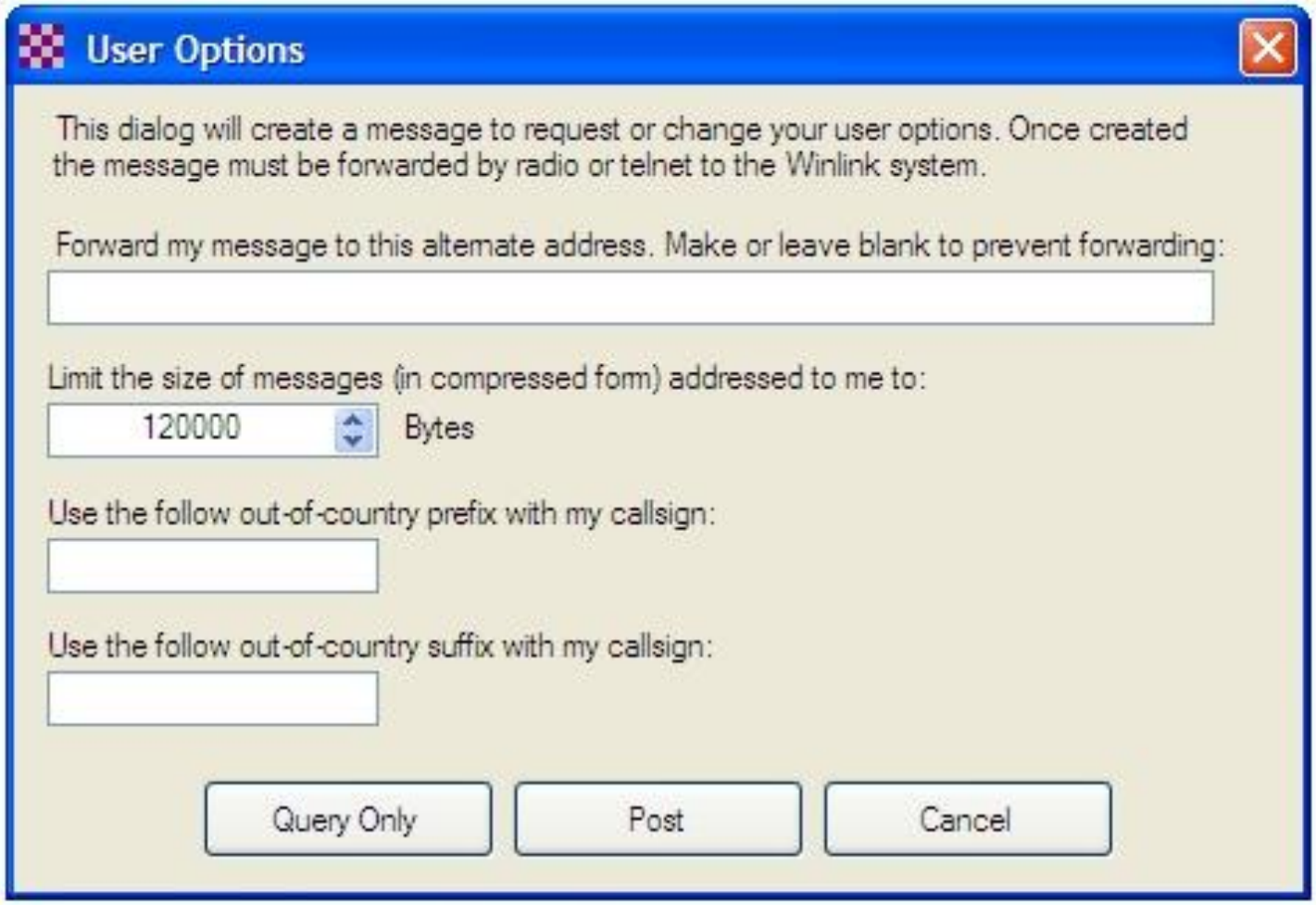


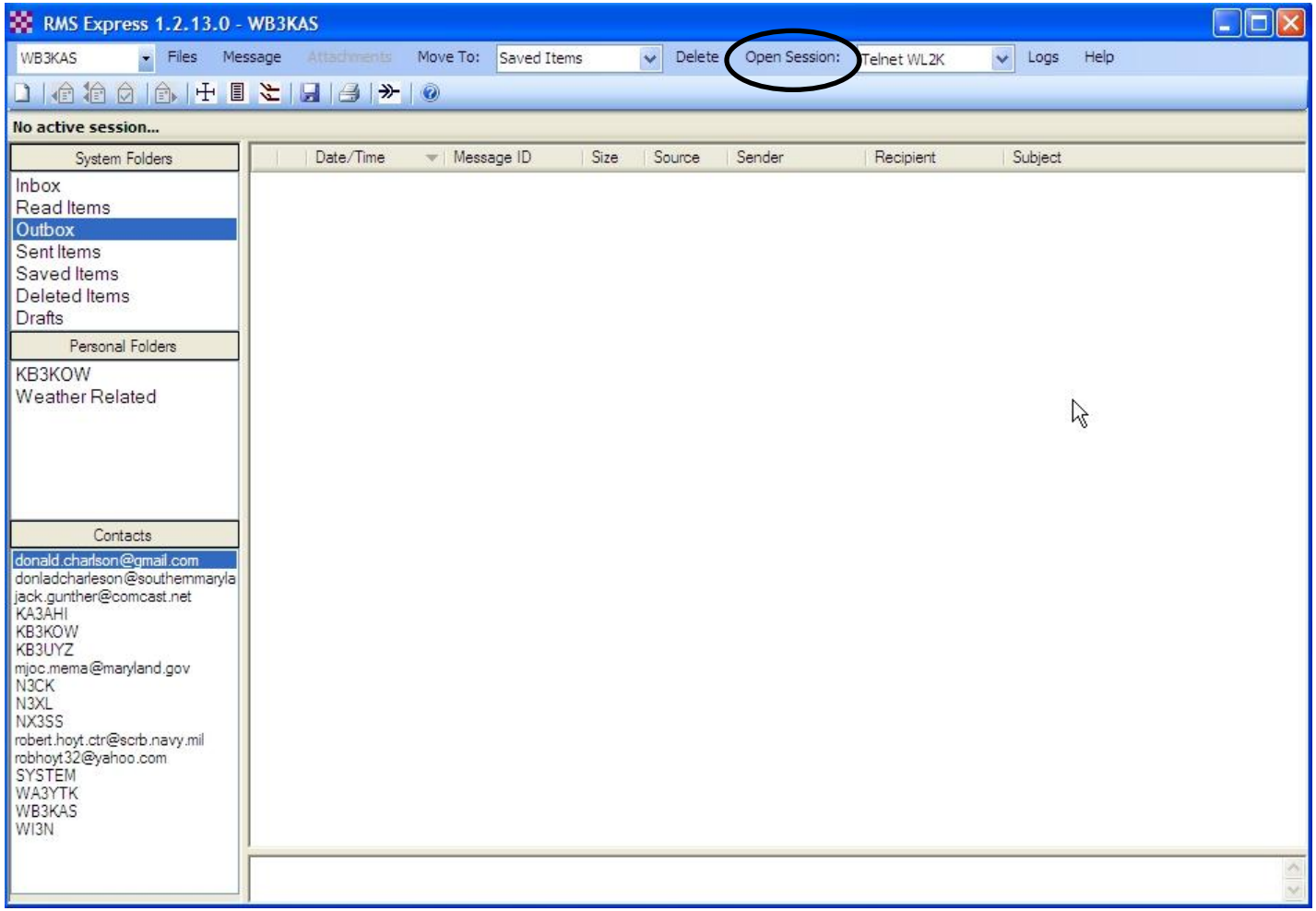
Installation Complete

RMS Express Screen Icon

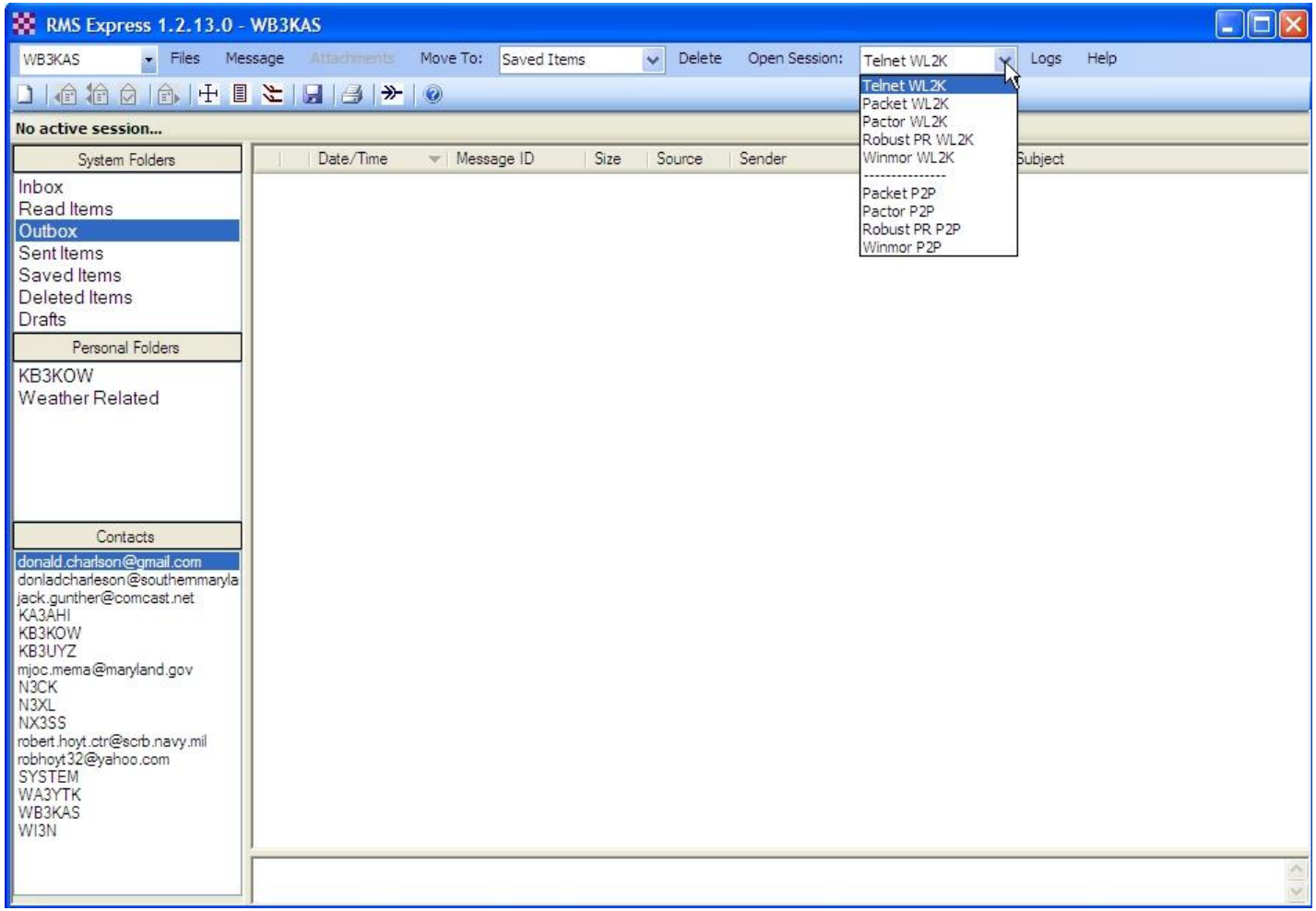
Configuring RMS Express Sessions

Configuring Telnet

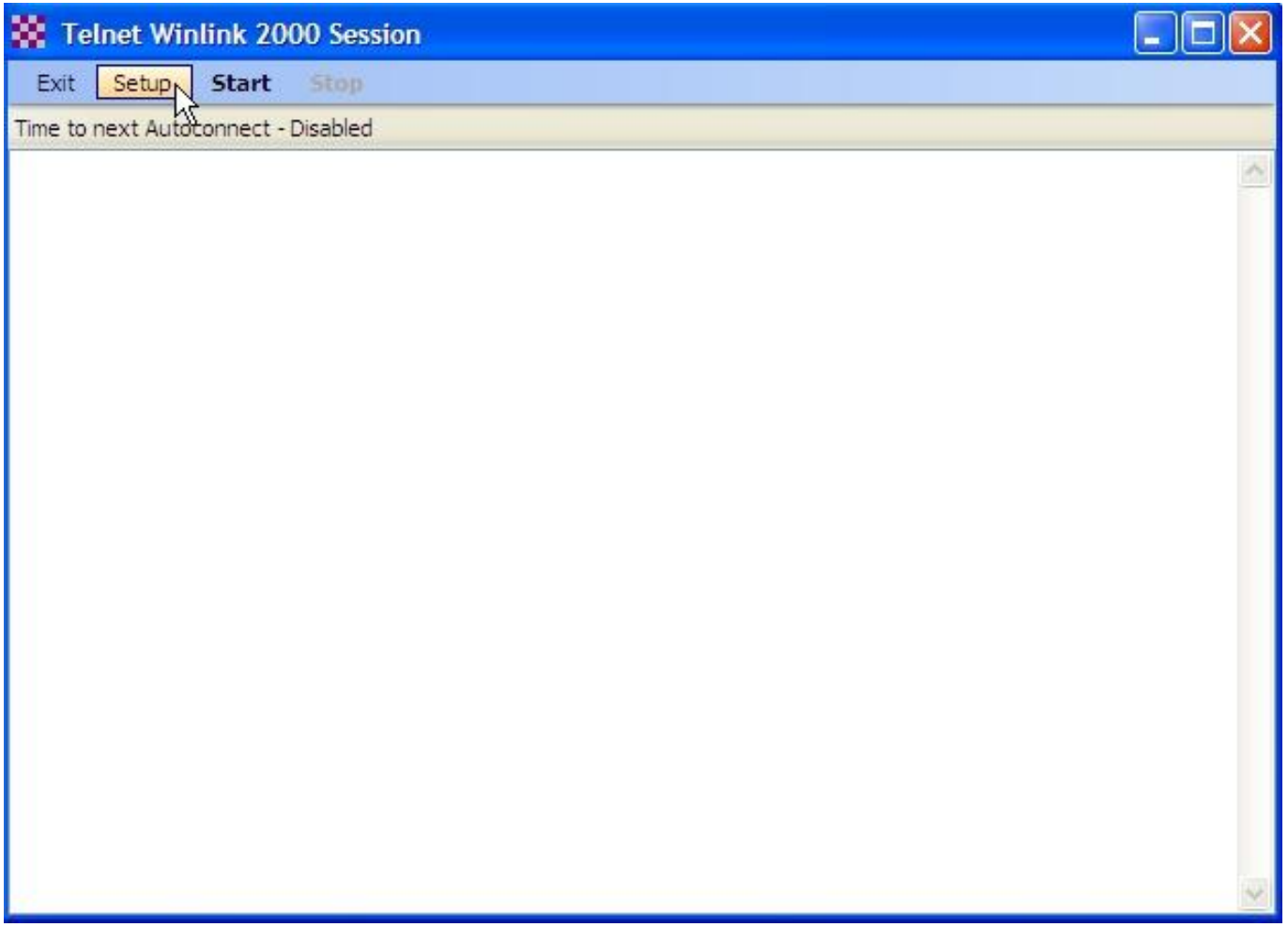
Telnet WL2K Session



Telnet WL2K Session



Telnet WL2K Session



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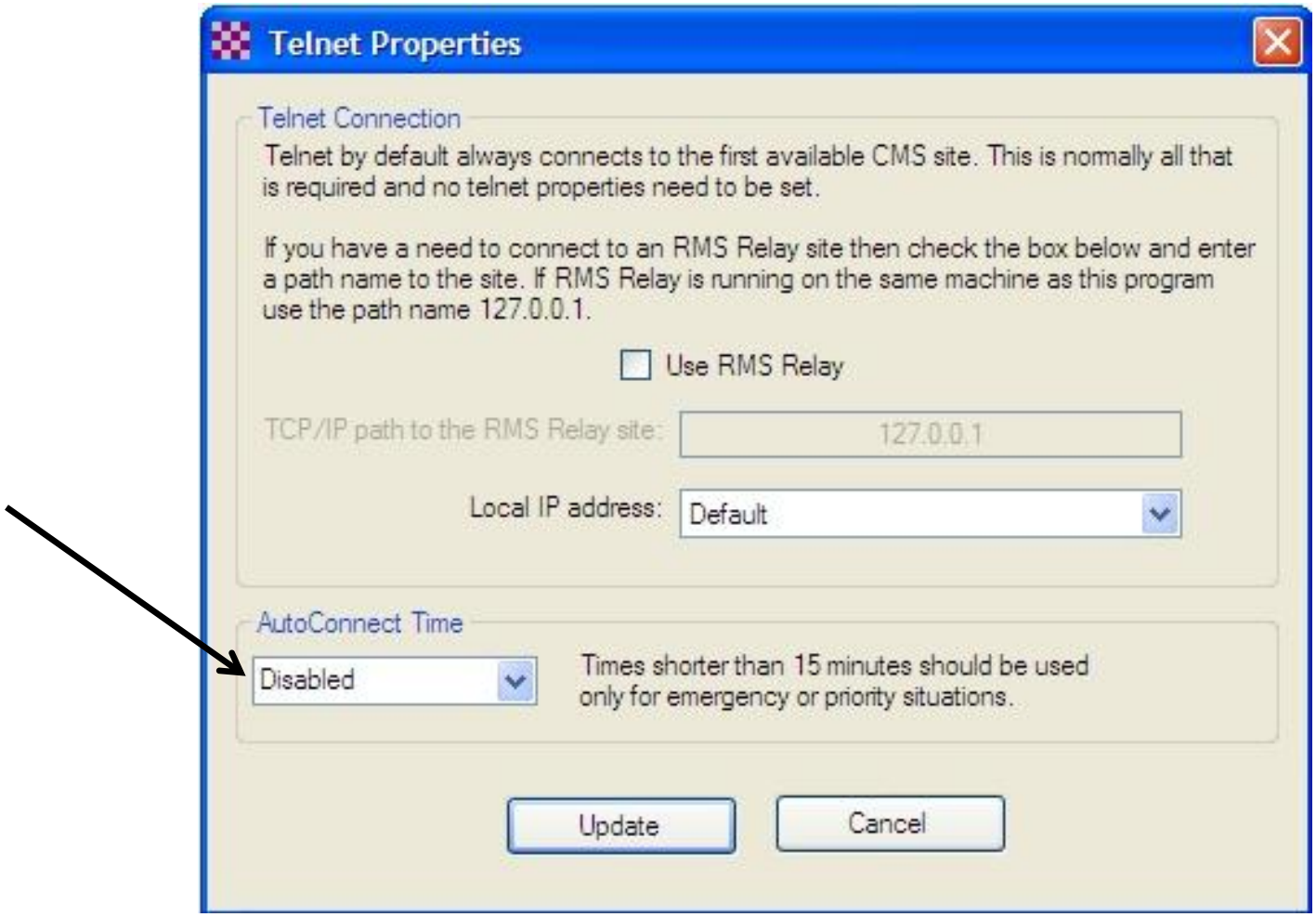

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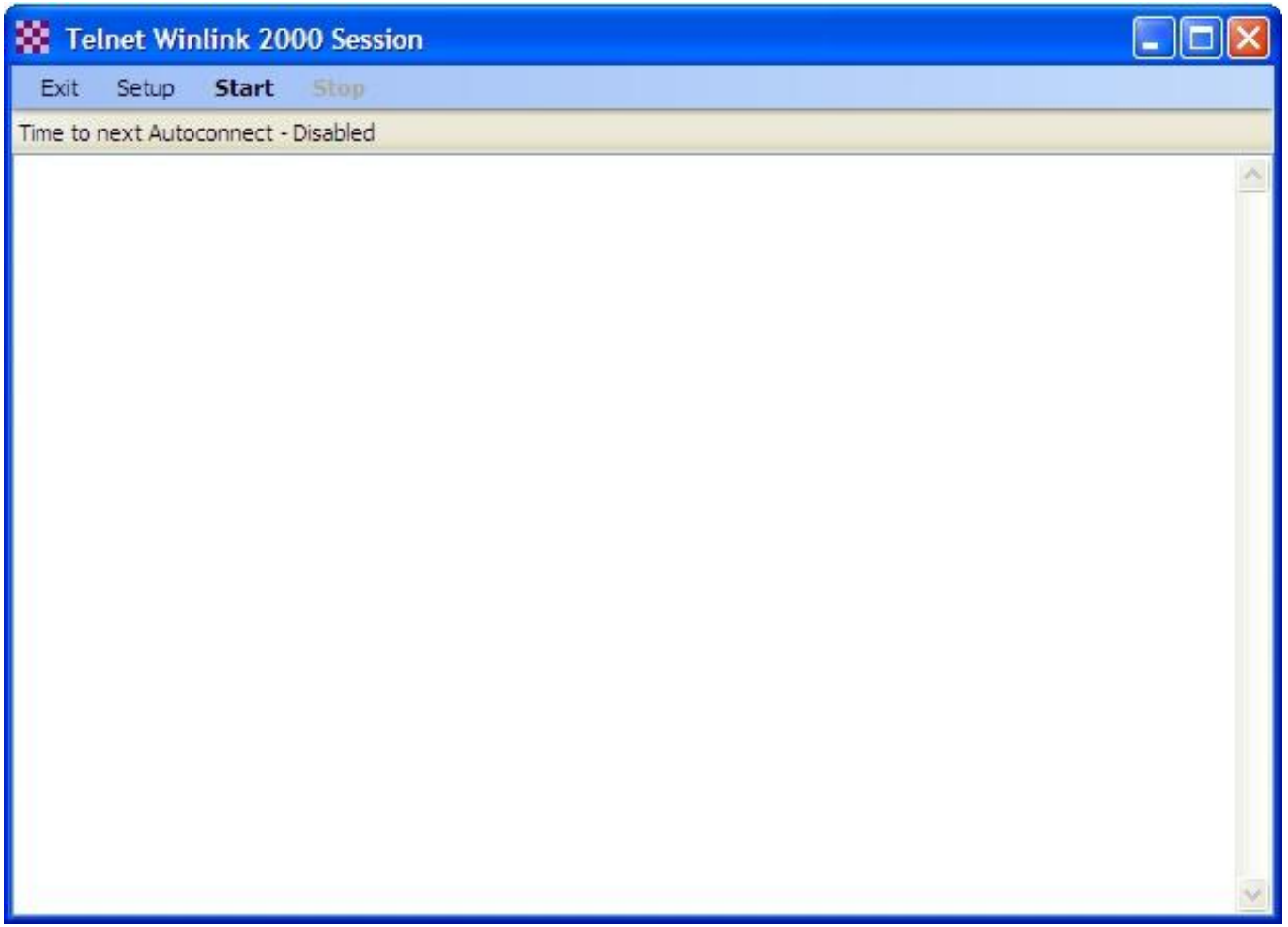

Telnet WL2K Session

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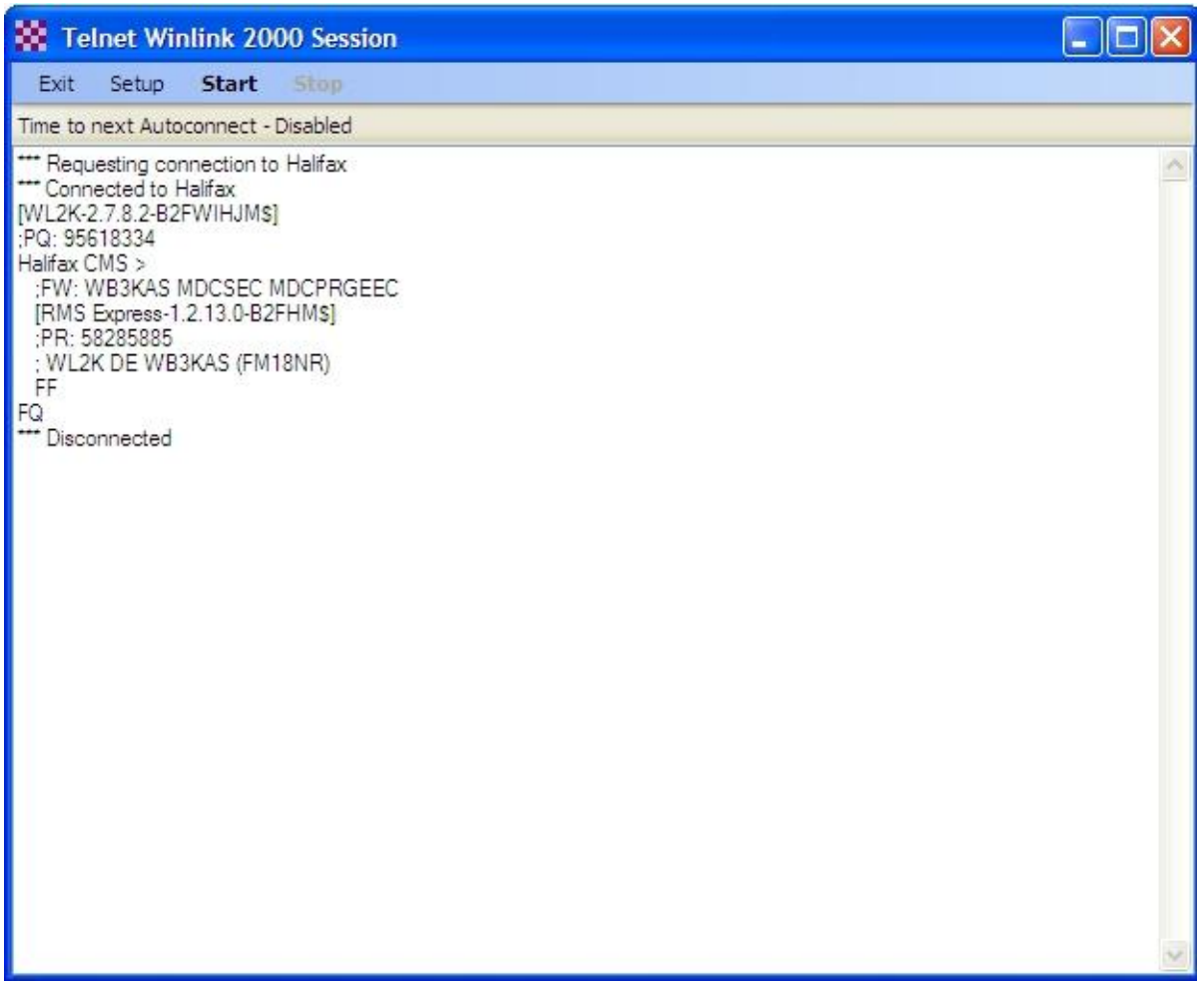

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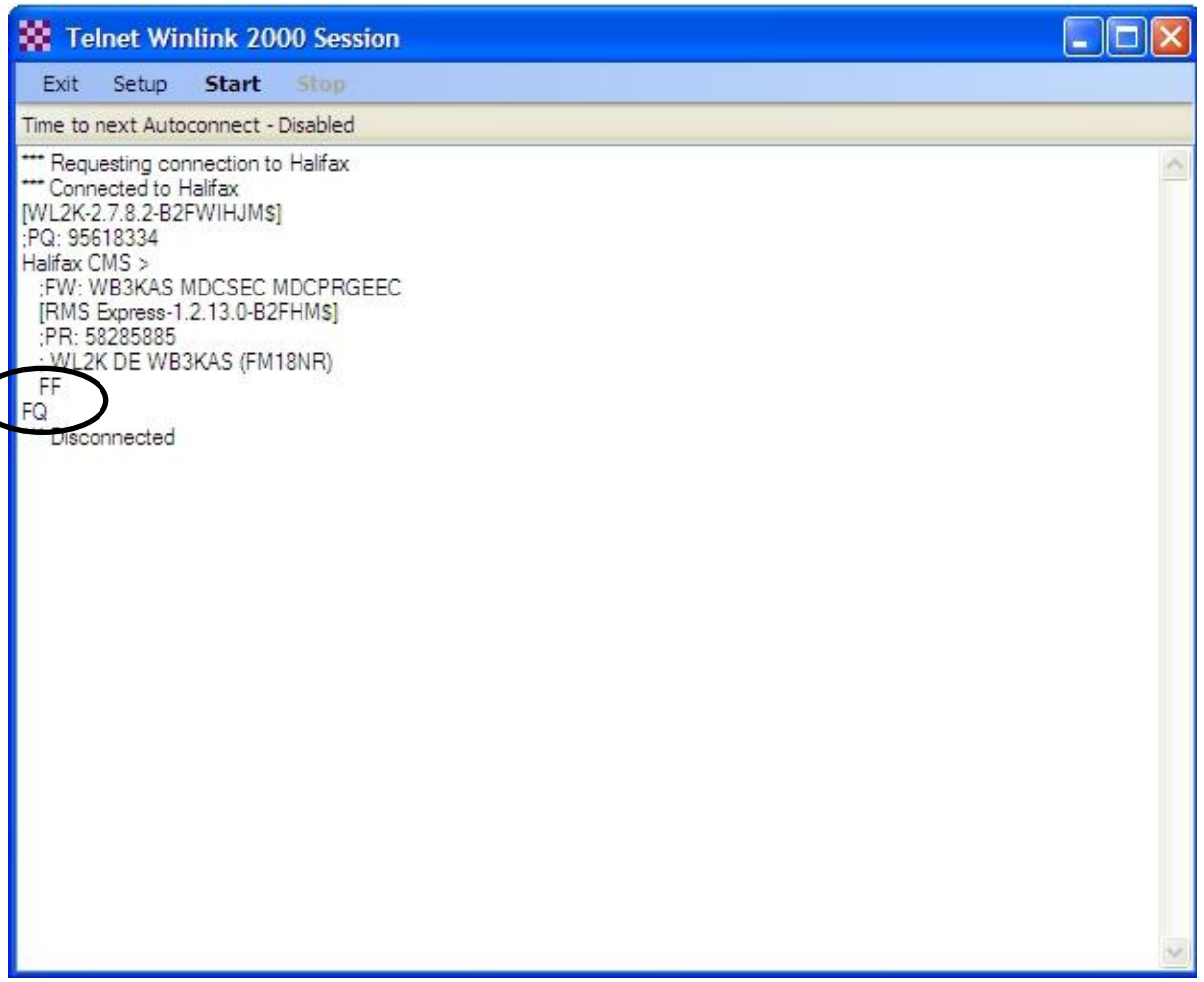
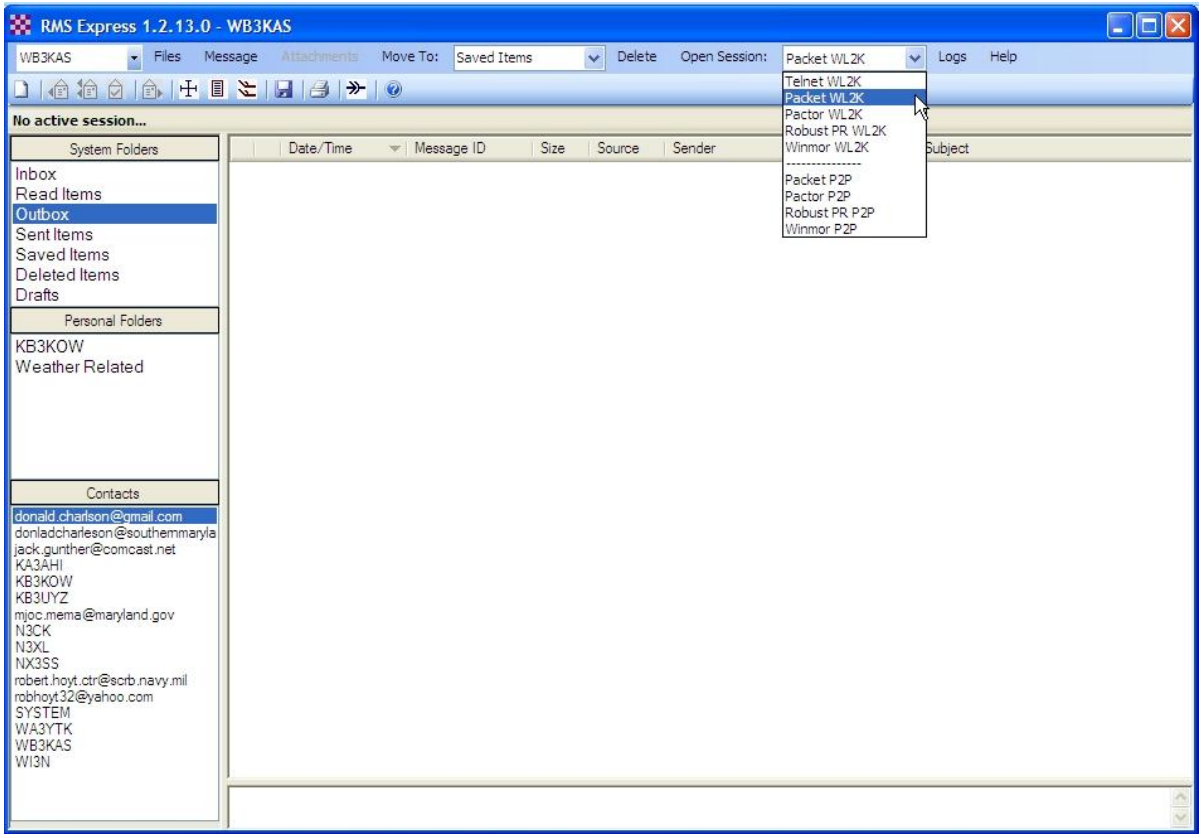


Telnet WL2K Session

Configuring Packet

Packet WL2K Session



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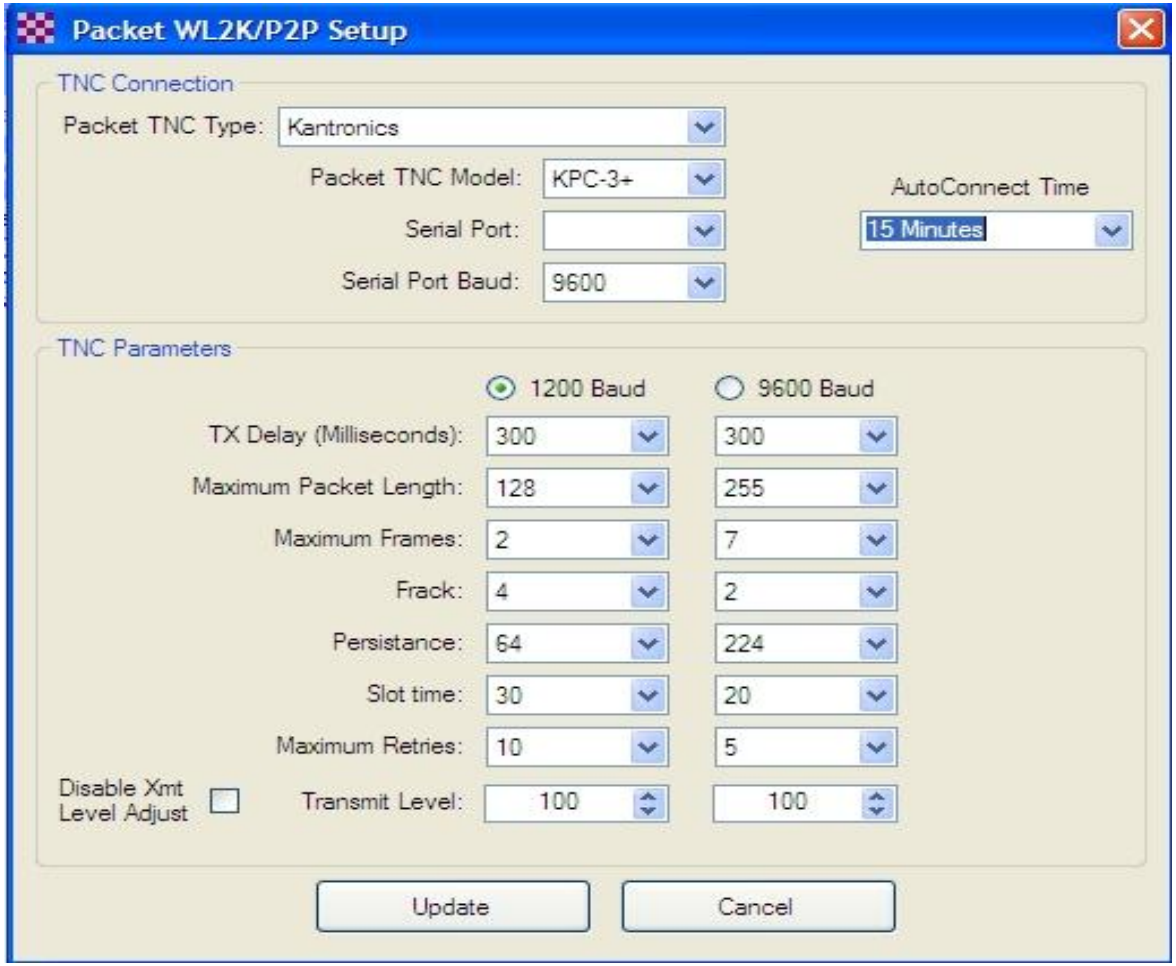

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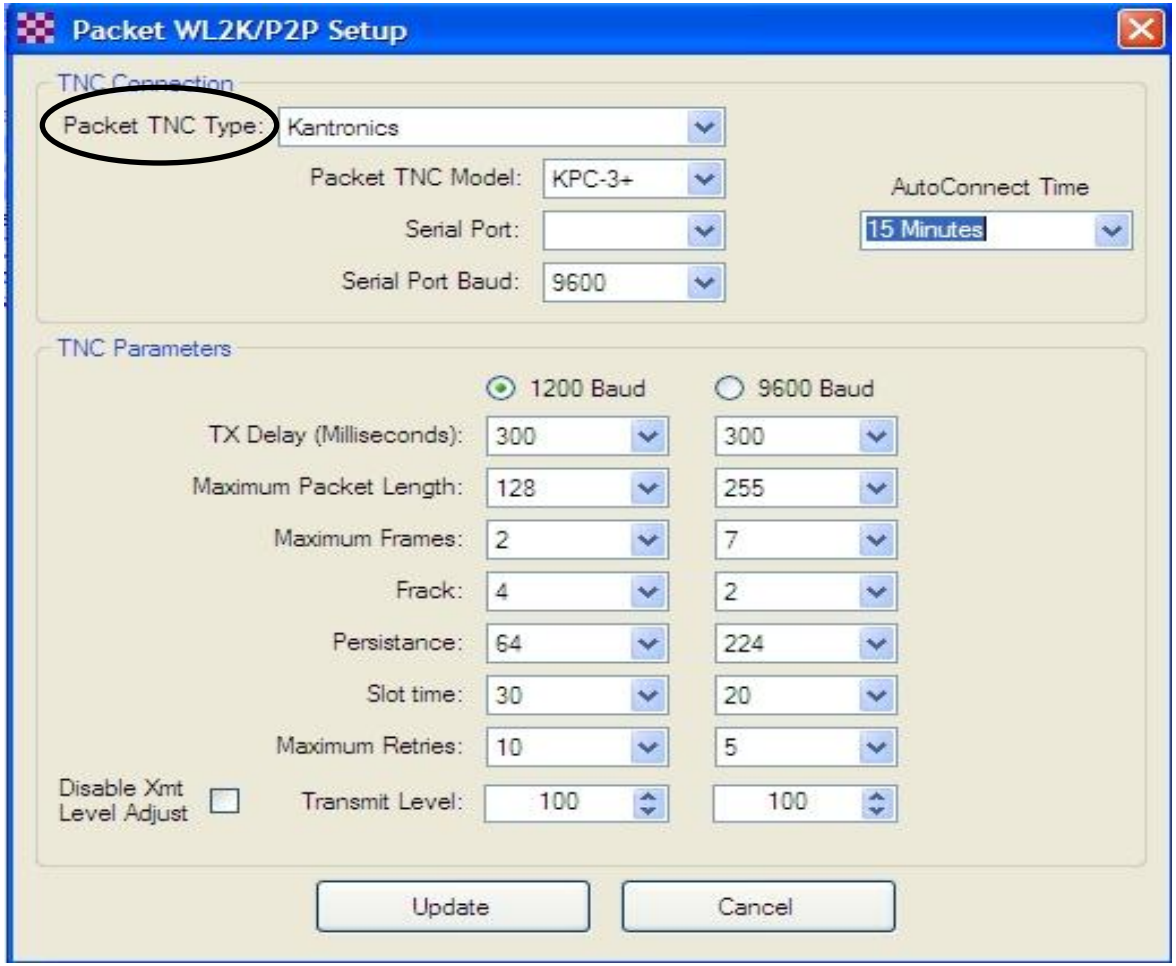

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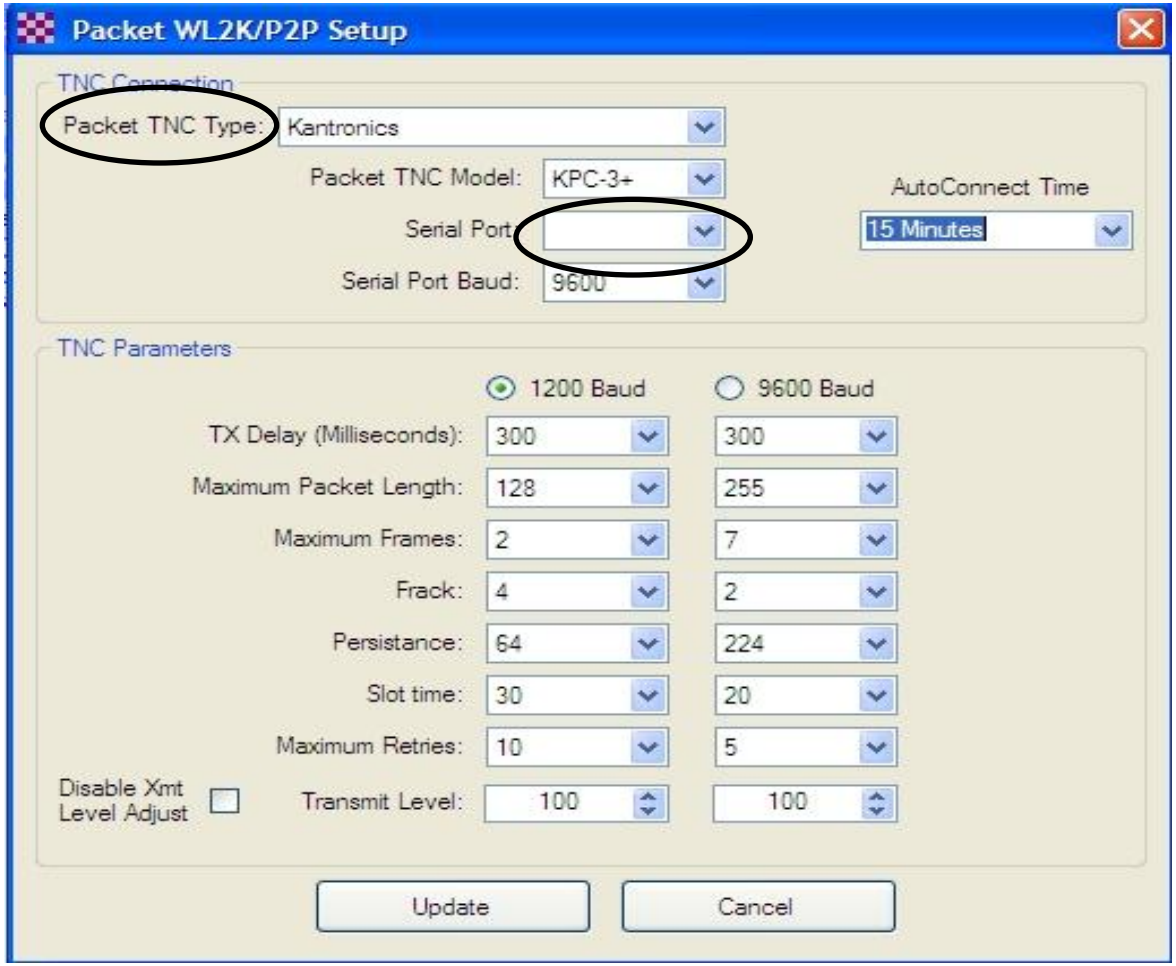

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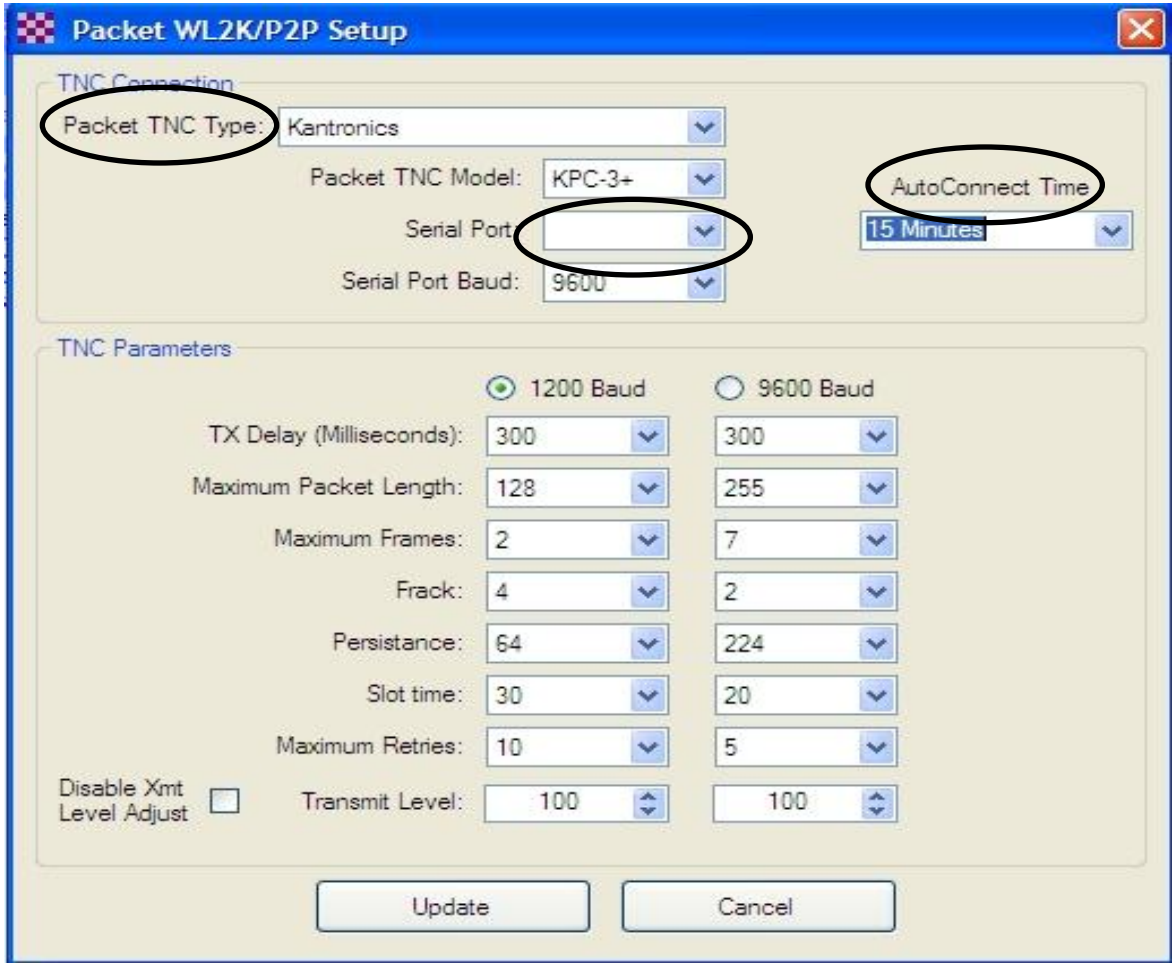

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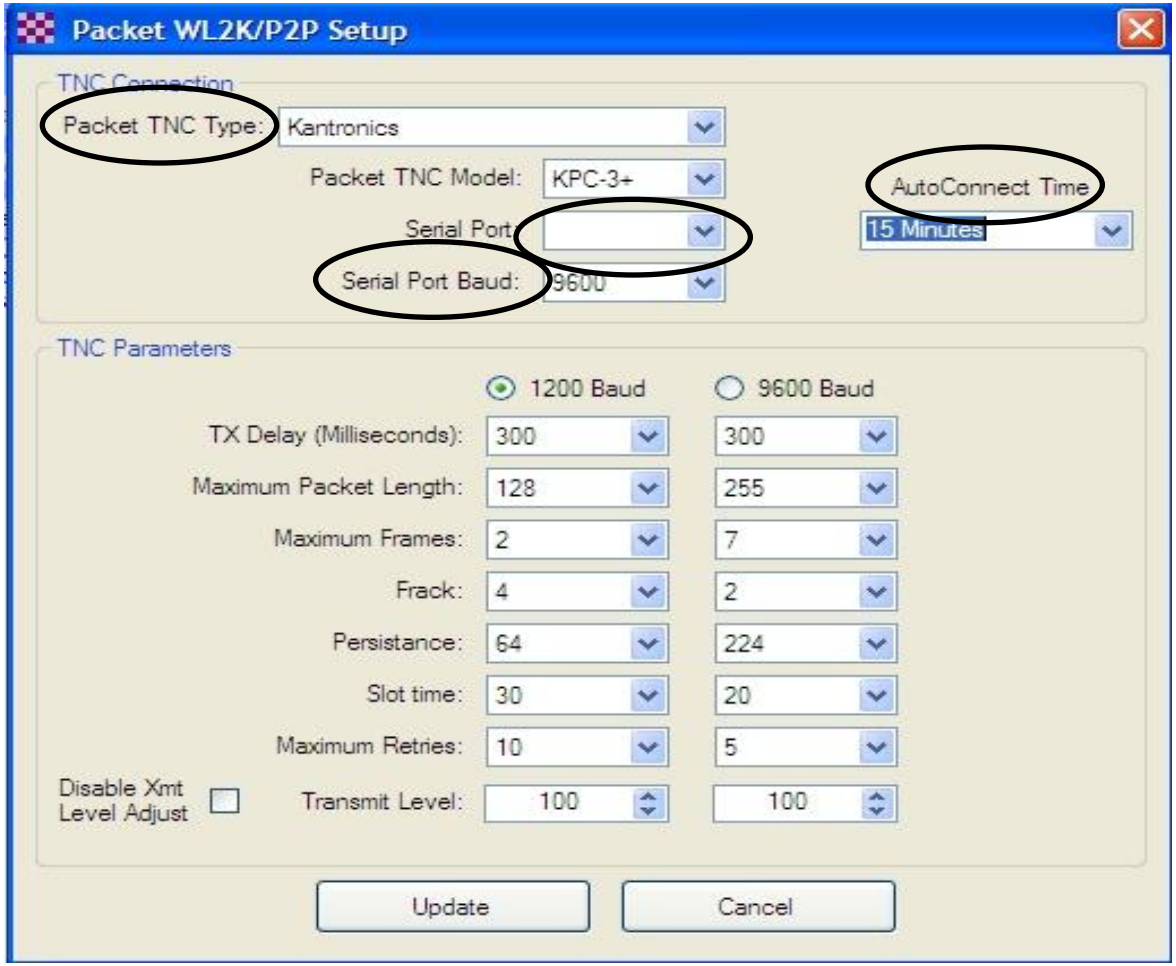

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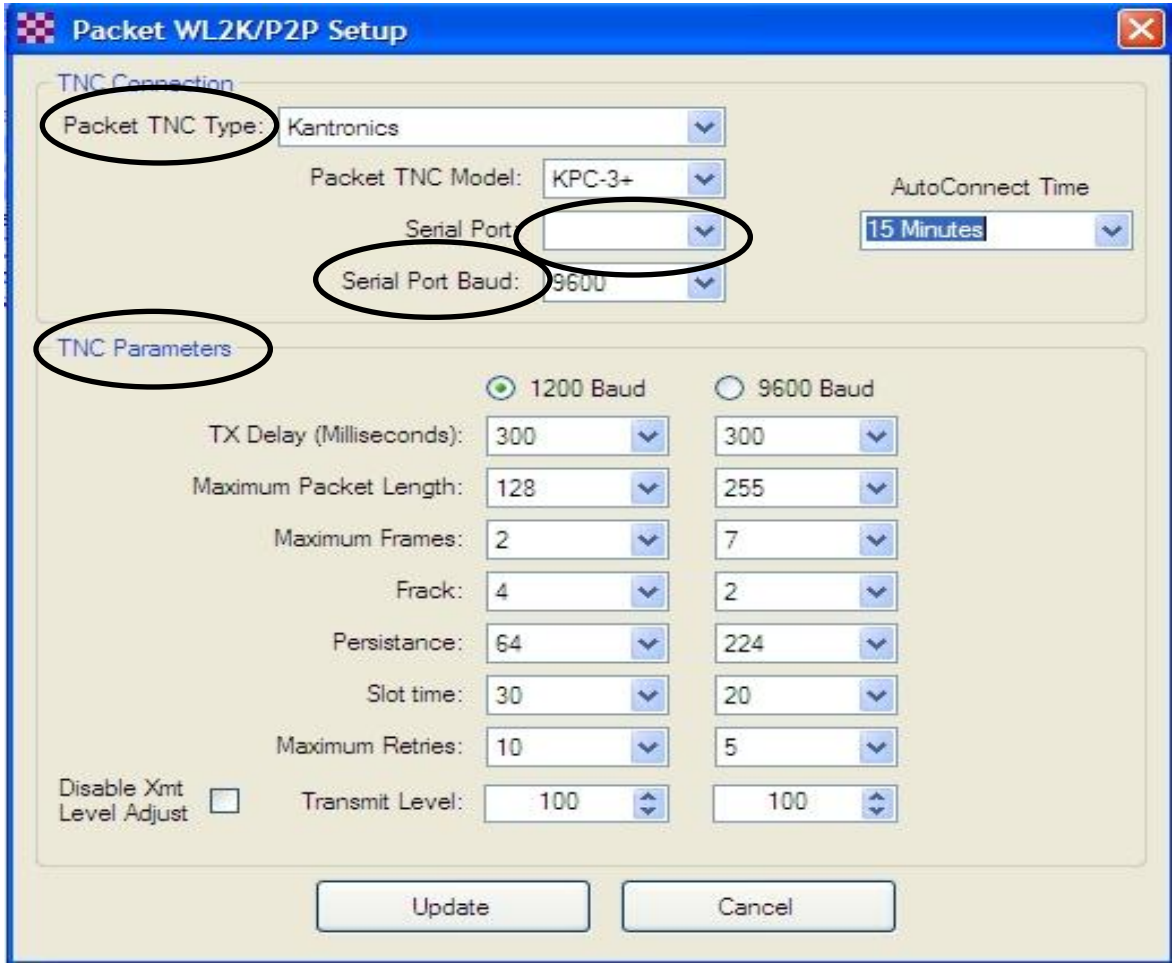

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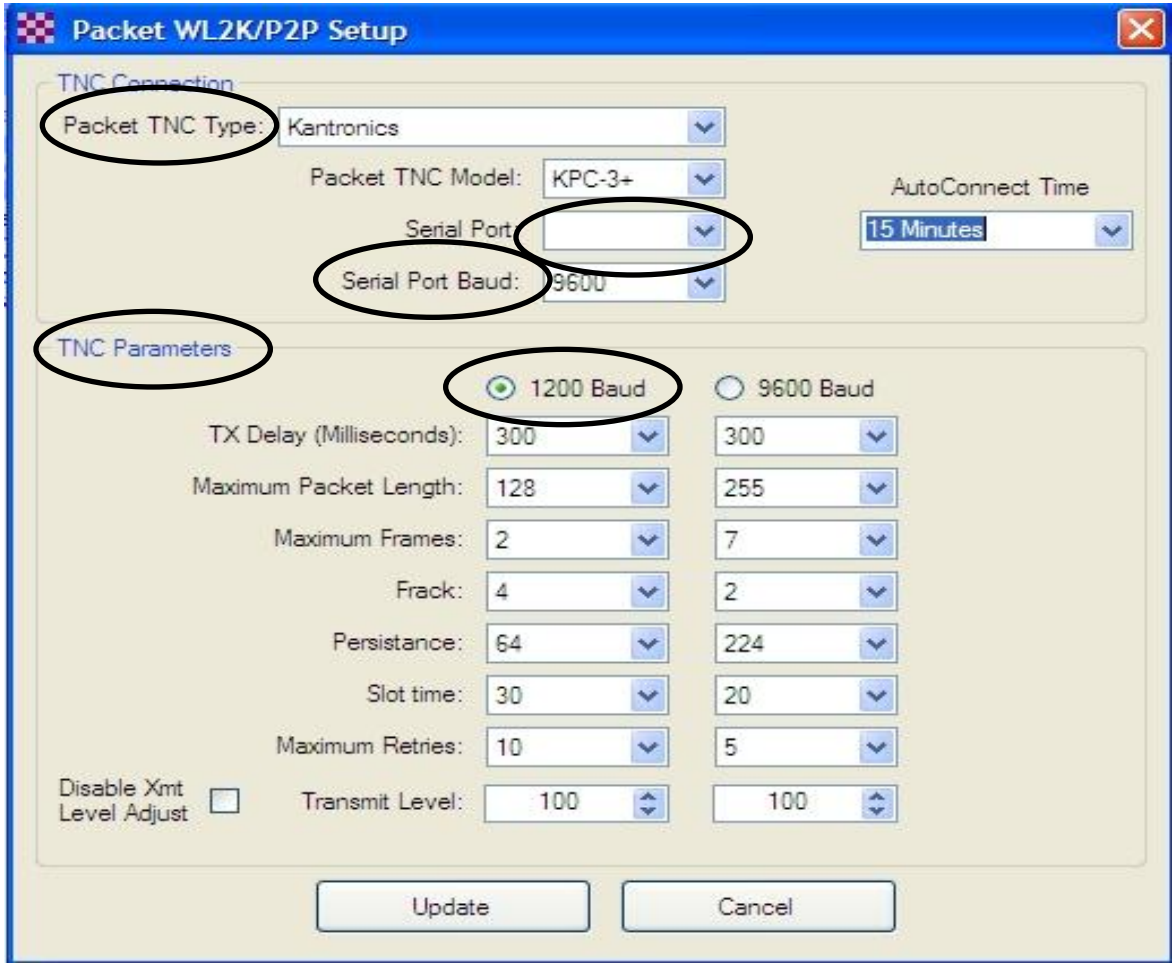

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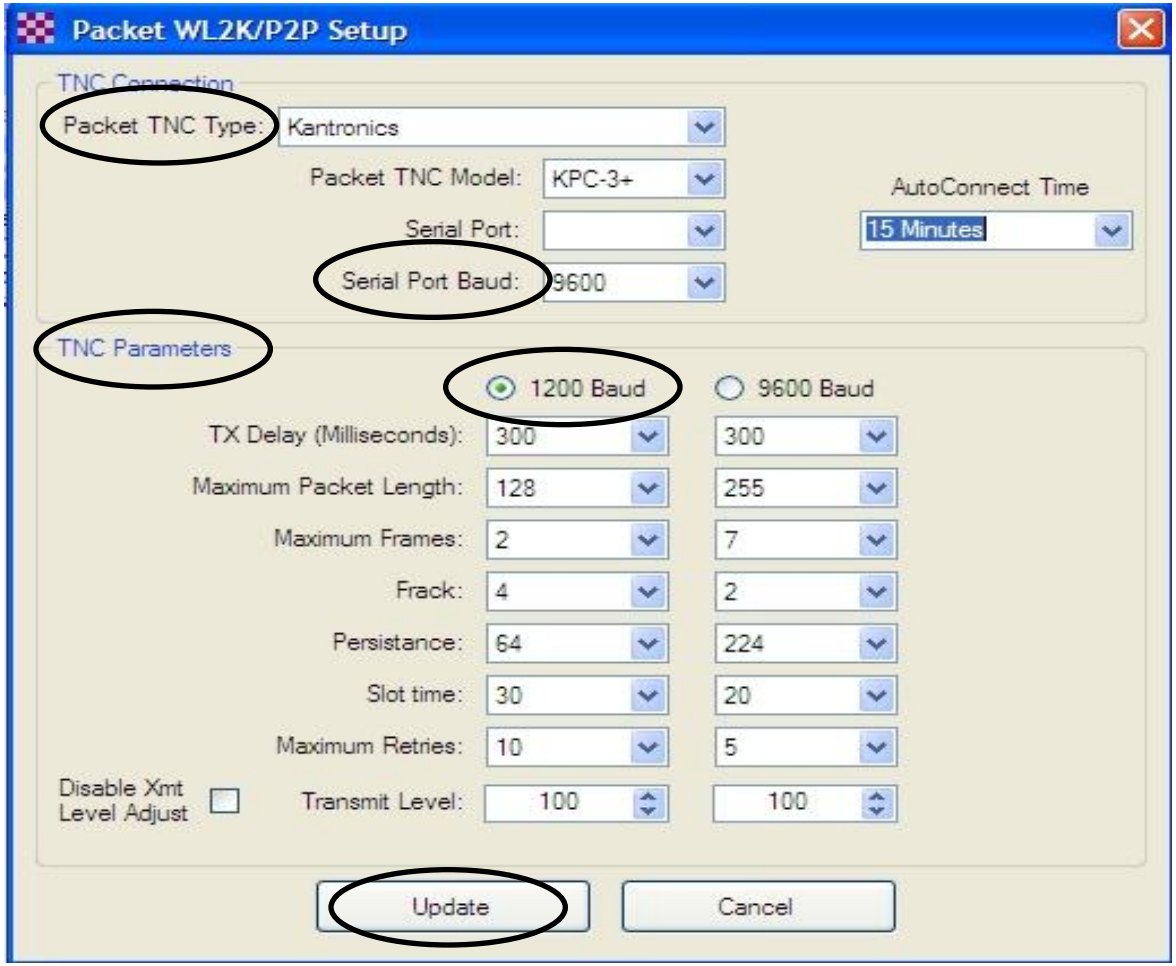

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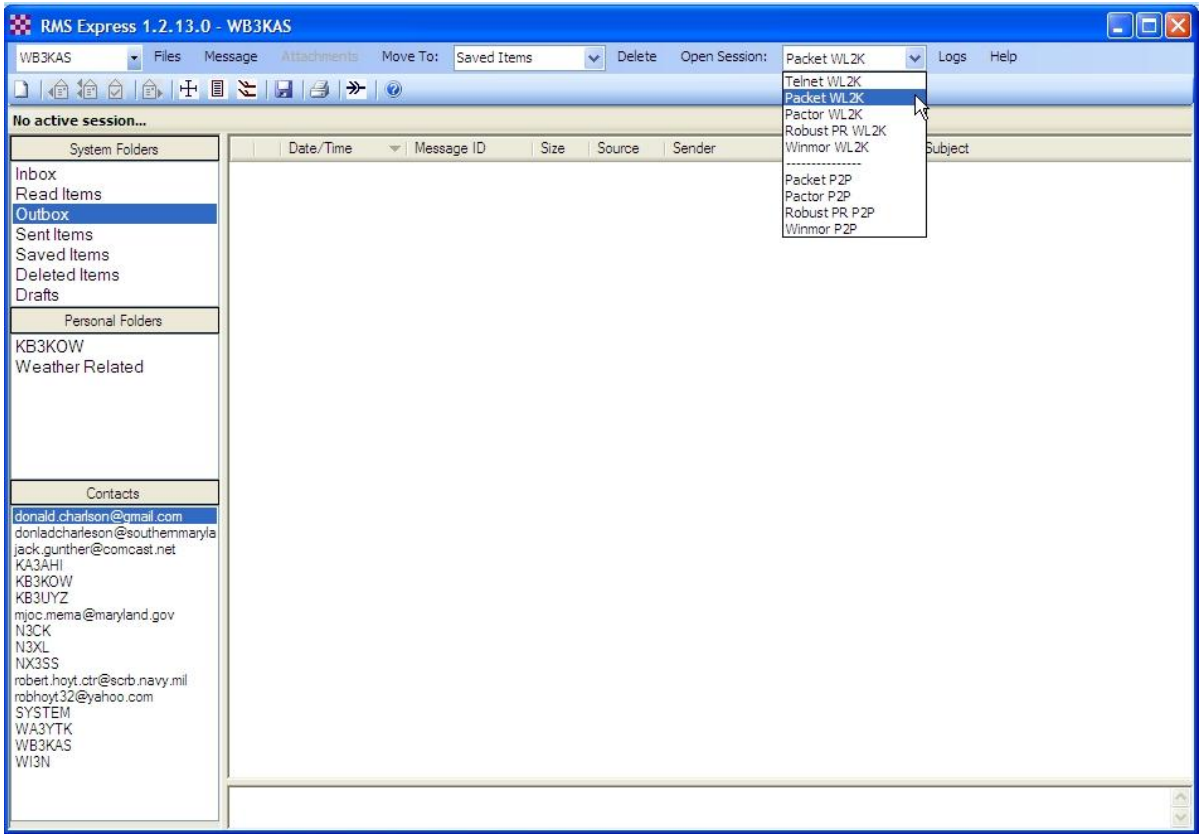

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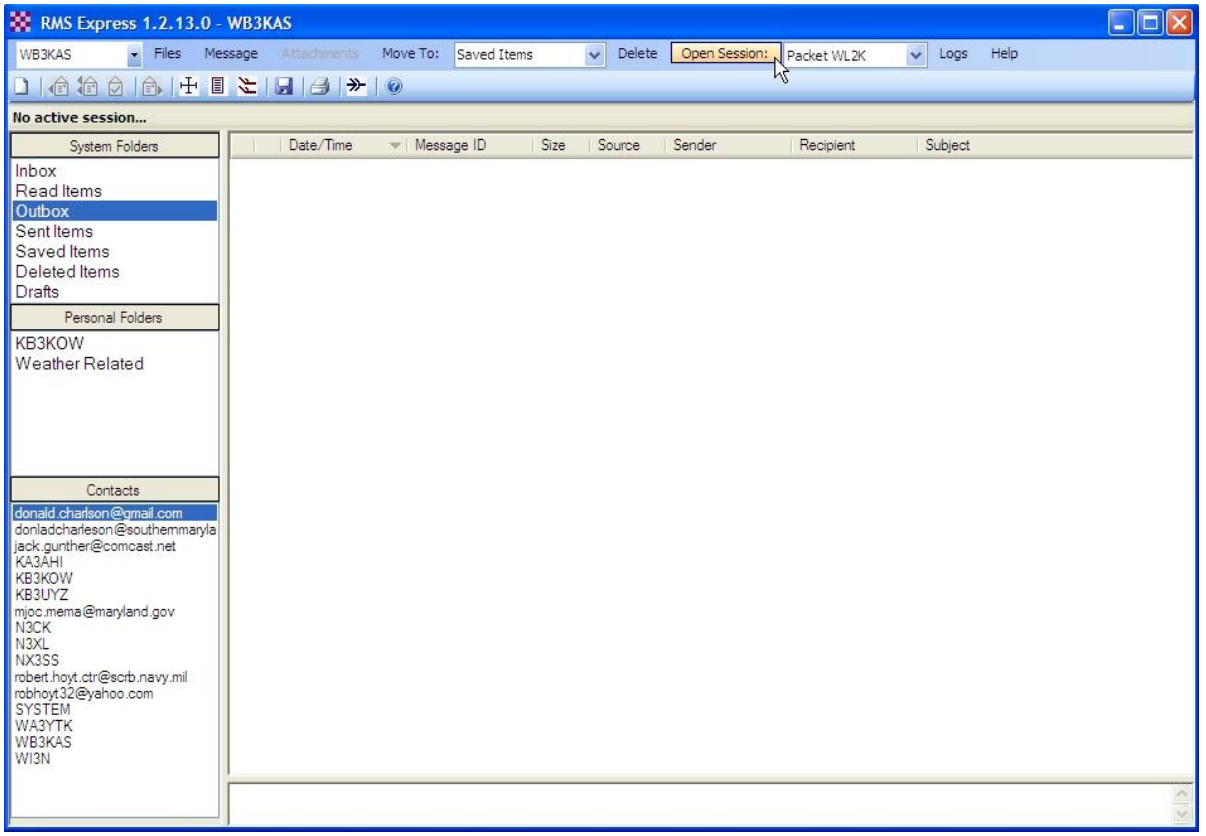
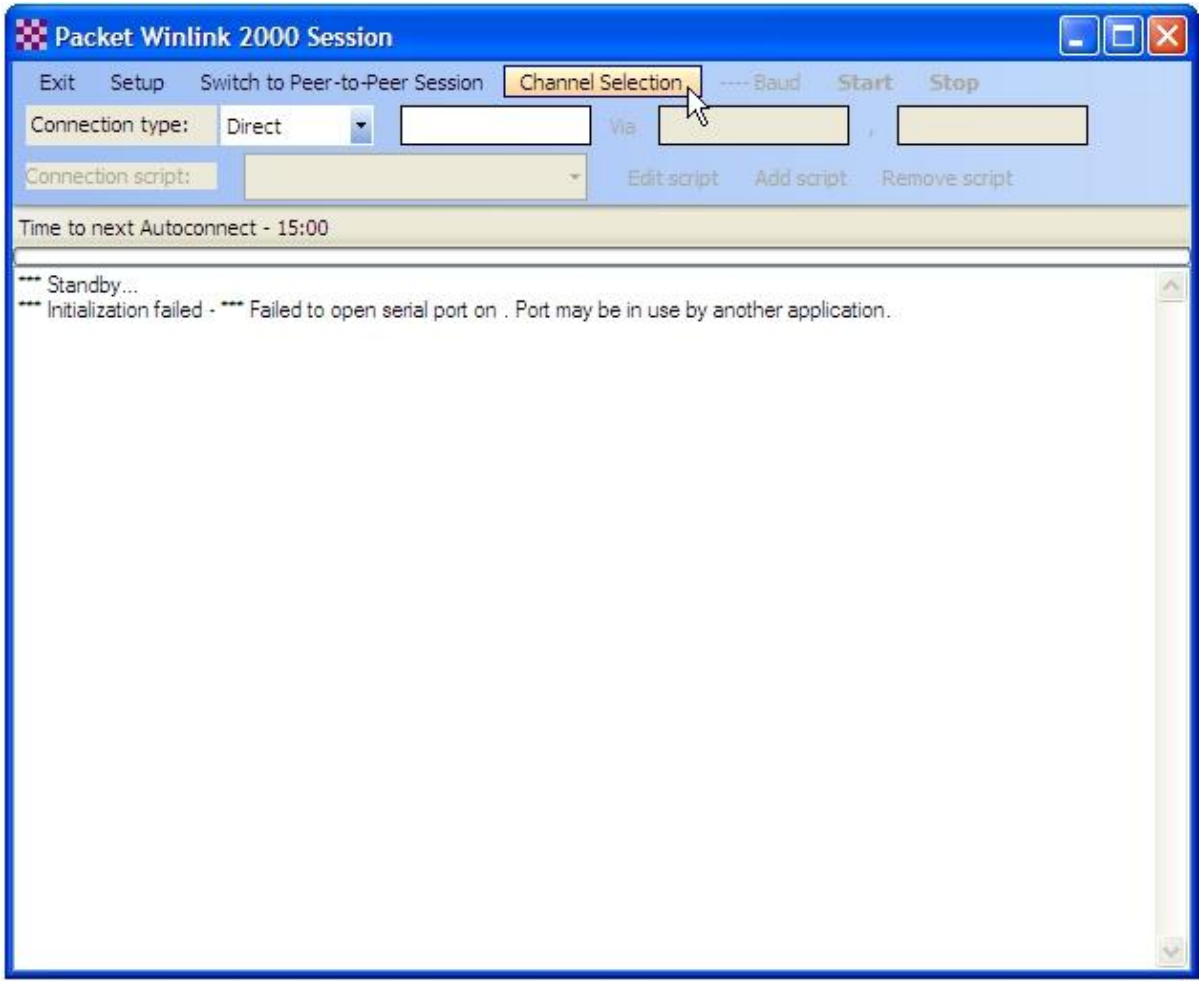
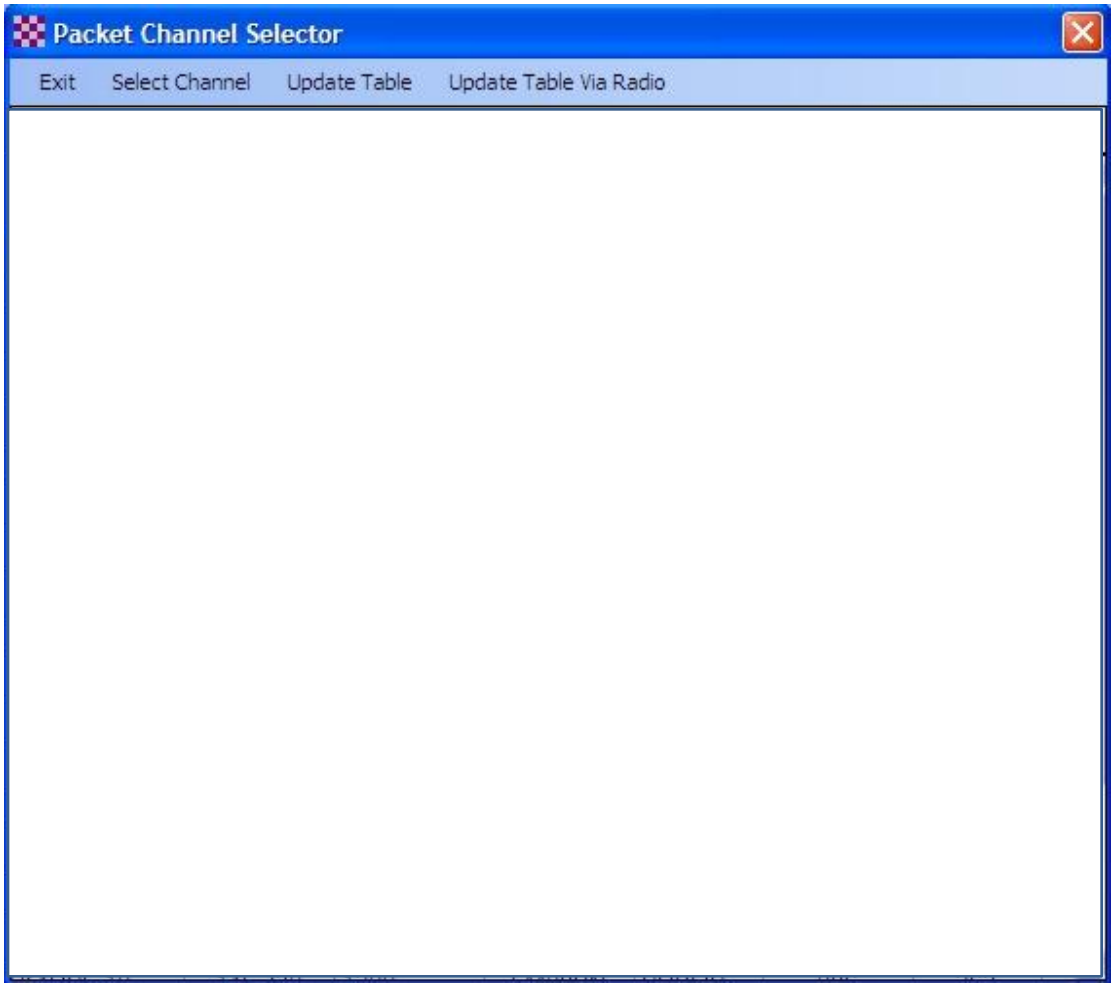


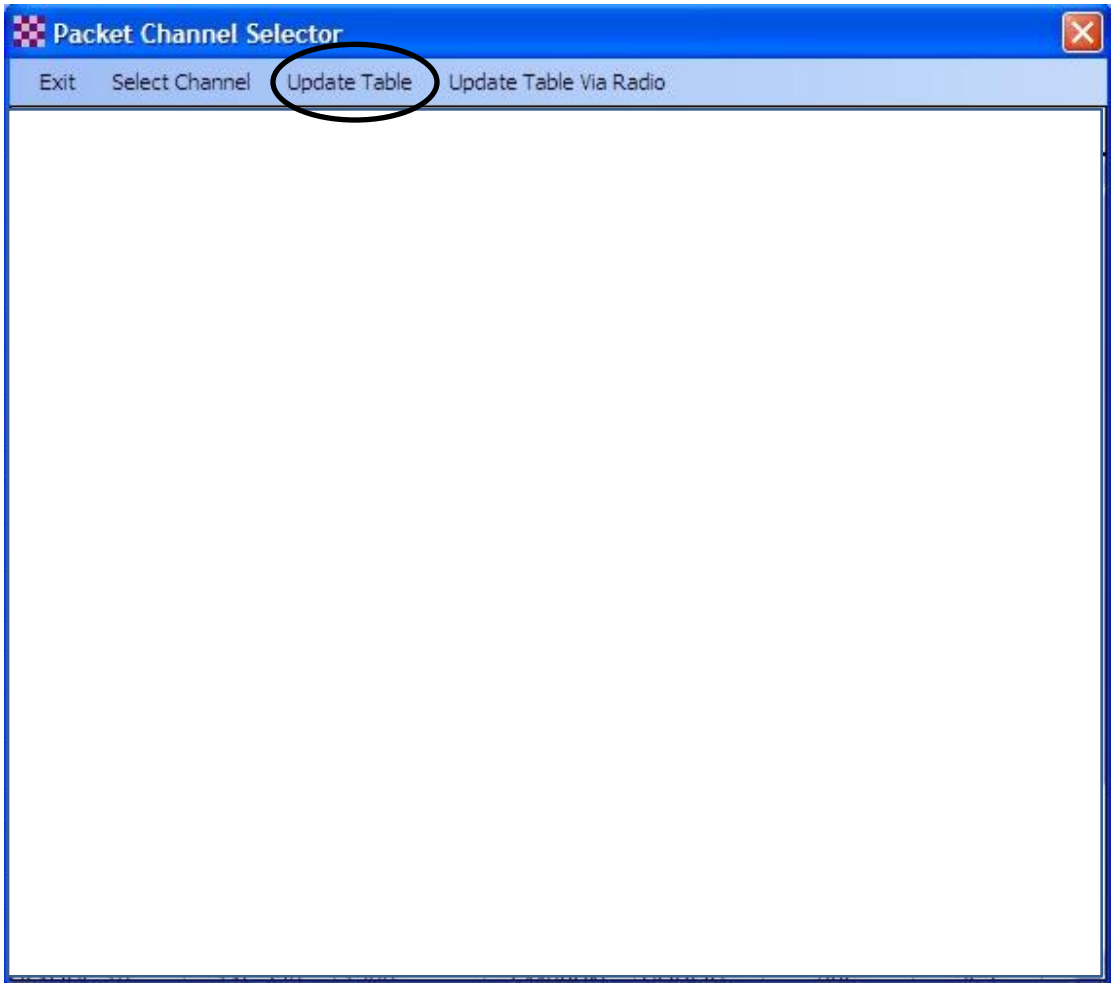
Packet WL2K Session



Packet WL2K Session



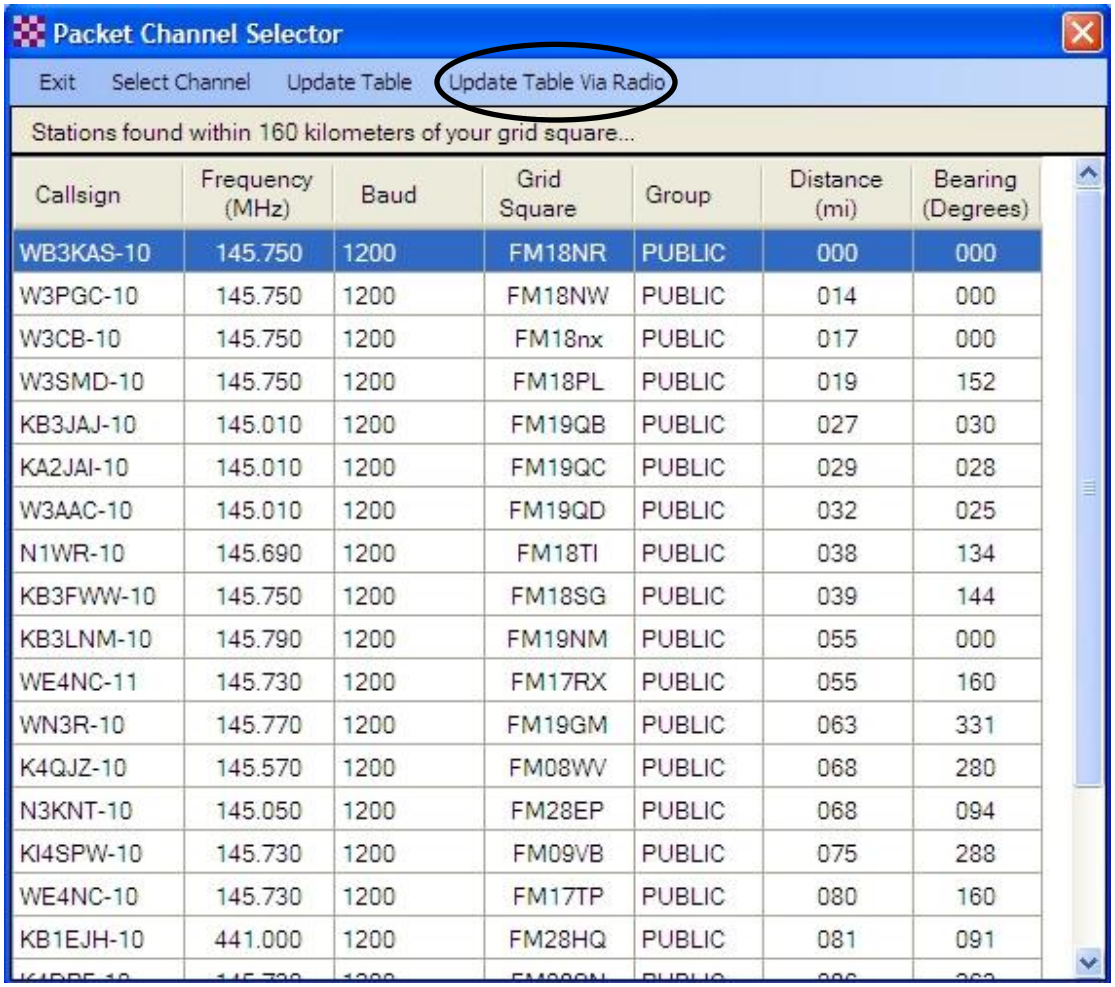
Packet WL2K Session



Packet WL2K Session

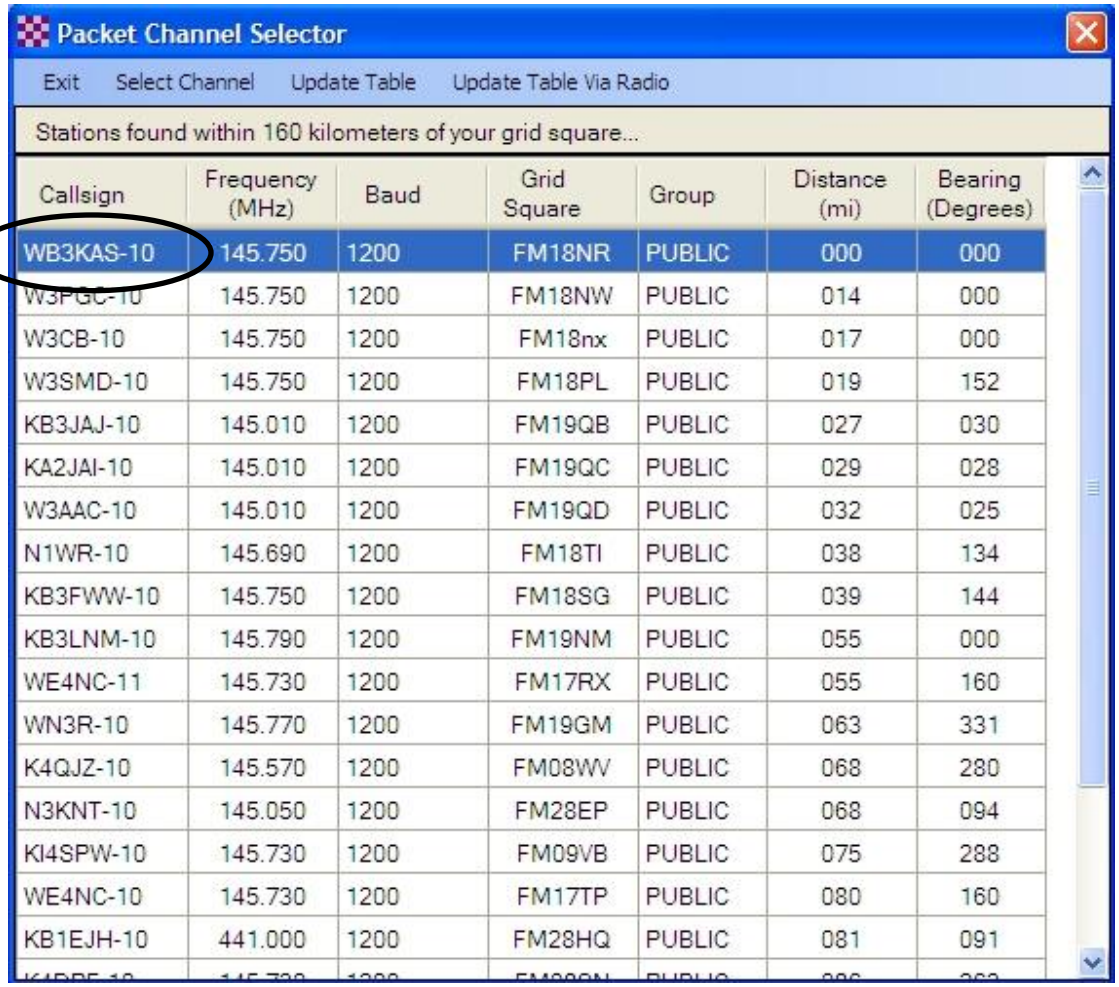
Callsign	Frequency (MHz)	Baud	Grid Square	Group	Distance (mi)	Bearing (Degrees)
WB3KAS-10	145.750	1200	FM18NR	PUBLIC	000	000
W3PGC-10	145.750	1200	FM18NW	PUBLIC	014	000
W3CB-10	145.750	1200	FM18nx	PUBLIC	017	000
W3SMD-10	145.750	1200	FM18PL	PUBLIC	019	152
KB3JAJ-10	145.010	1200	FM19QB	PUBLIC	027	030
KA2JAI-10	145.010	1200	FM19QC	PUBLIC	029	028
W3AAC-10	145.010	1200	FM19QD	PUBLIC	032	025
N1WR-10	145.690	1200	FM18TI	PUBLIC	038	134
KB3FWW-10	145.750	1200	FM18SG	PUBLIC	039	144
KB3LNM-10	145.790	1200	FM19NM	PUBLIC	055	000
WE4NC-11	145.730	1200	FM17RX	PUBLIC	055	160
WN3R-10	145.770	1200	FM19GM	PUBLIC	063	331
K4QJZ-10	145.570	1200	FM08WV	PUBLIC	068	280
N3KNT-10	145.050	1200	FM28EP	PUBLIC	068	094
KI4SPW-10	145.730	1200	FM09VB	PUBLIC	075	288
WE4NC-10	145.730	1200	FM17TP	PUBLIC	080	160
KB1EJH-10	441.000	1200	FM28HQ	PUBLIC	081	091

Packet WL2K Session



Callsign	Frequency (MHz)	Baud	Grid Square	Group	Distance (mi)	Bearing (Degrees)
WB3KAS-10	145.750	1200	FM18NR	PUBLIC	000	000
W3PGC-10	145.750	1200	FM18NW	PUBLIC	014	000
W3CB-10	145.750	1200	FM18nx	PUBLIC	017	000
W3SMD-10	145.750	1200	FM18PL	PUBLIC	019	152
KB3JAJ-10	145.010	1200	FM19QB	PUBLIC	027	030
KA2JAI-10	145.010	1200	FM19QC	PUBLIC	029	028
W3AAC-10	145.010	1200	FM19QD	PUBLIC	032	025
N1WR-10	145.690	1200	FM18TI	PUBLIC	038	134
KB3FWW-10	145.750	1200	FM18SG	PUBLIC	039	144
KB3LNM-10	145.790	1200	FM19NM	PUBLIC	055	000
WE4NC-11	145.730	1200	FM17RX	PUBLIC	055	160
WN3R-10	145.770	1200	FM19GM	PUBLIC	063	331
K4QJZ-10	145.570	1200	FM08WV	PUBLIC	068	280
N3KNT-10	145.050	1200	FM28EP	PUBLIC	068	094
KI4SPW-10	145.730	1200	FM09VB	PUBLIC	075	288
WE4NC-10	145.730	1200	FM17TP	PUBLIC	080	160
KB1EJH-10	441.000	1200	FM28HQ	PUBLIC	081	091

Packet WL2K Session



Callsign	Frequency (MHz)	Baud	Grid Square	Group	Distance (mi)	Bearing (Degrees)
WB3KAS-10	145.750	1200	FM18NR	PUBLIC	000	000
W3PGC-10	145.750	1200	FM18NW	PUBLIC	014	000
W3CB-10	145.750	1200	FM18nx	PUBLIC	017	000
W3SMD-10	145.750	1200	FM18PL	PUBLIC	019	152
KB3JAJ-10	145.010	1200	FM19QB	PUBLIC	027	030
KA2JAI-10	145.010	1200	FM19QC	PUBLIC	029	028
W3AAC-10	145.010	1200	FM19QD	PUBLIC	032	025
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KB3FWW-10	145.750	1200	FM18SG	PUBLIC	039	144
KB3LNM-10	145.790	1200	FM19NM	PUBLIC	055	000
WE4NC-11	145.730	1200	FM17RX	PUBLIC	055	160
WN3R-10	145.770	1200	FM19GM	PUBLIC	063	331
K4QJZ-10	145.570	1200	FM08WV	PUBLIC	068	280
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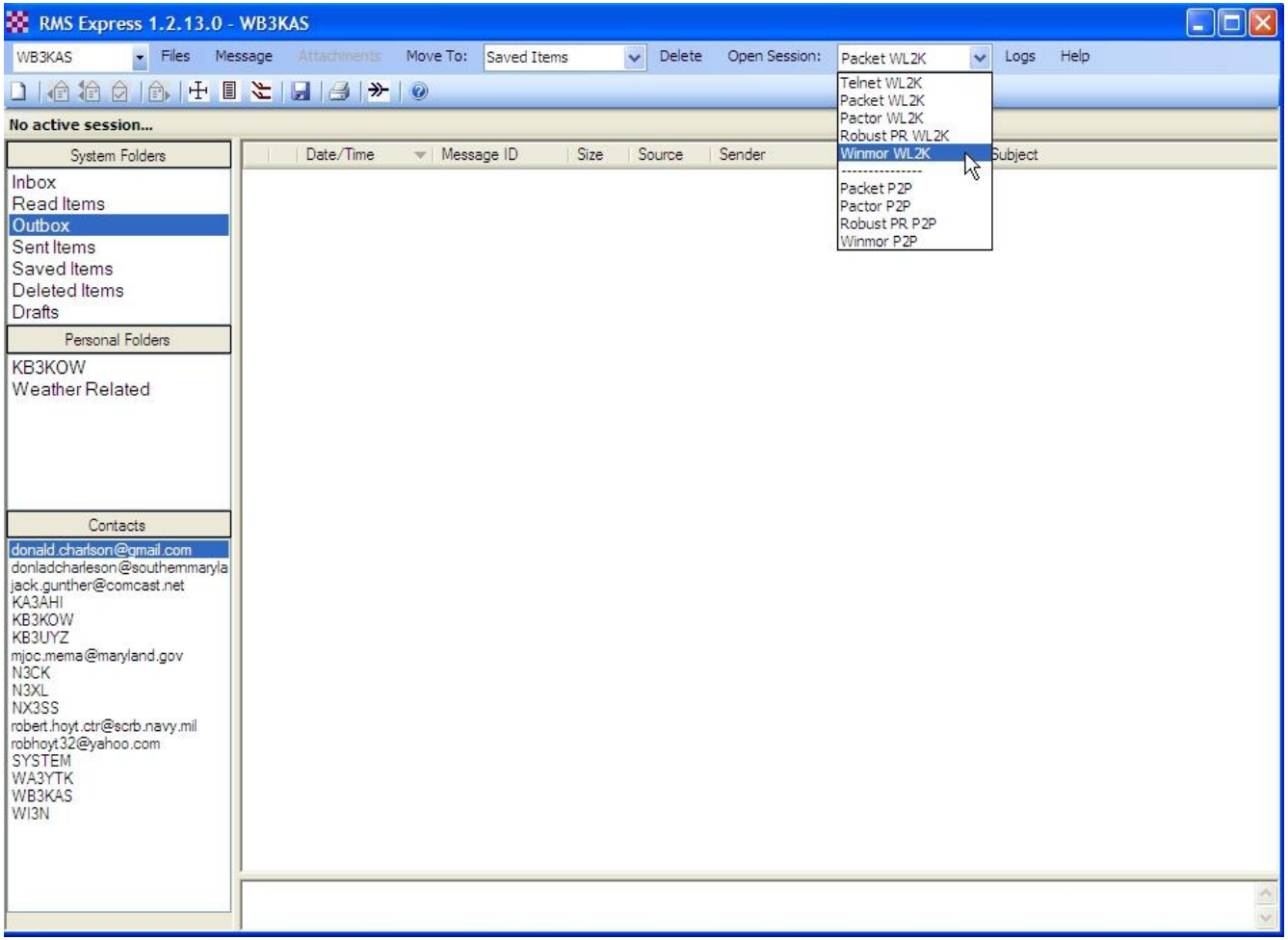
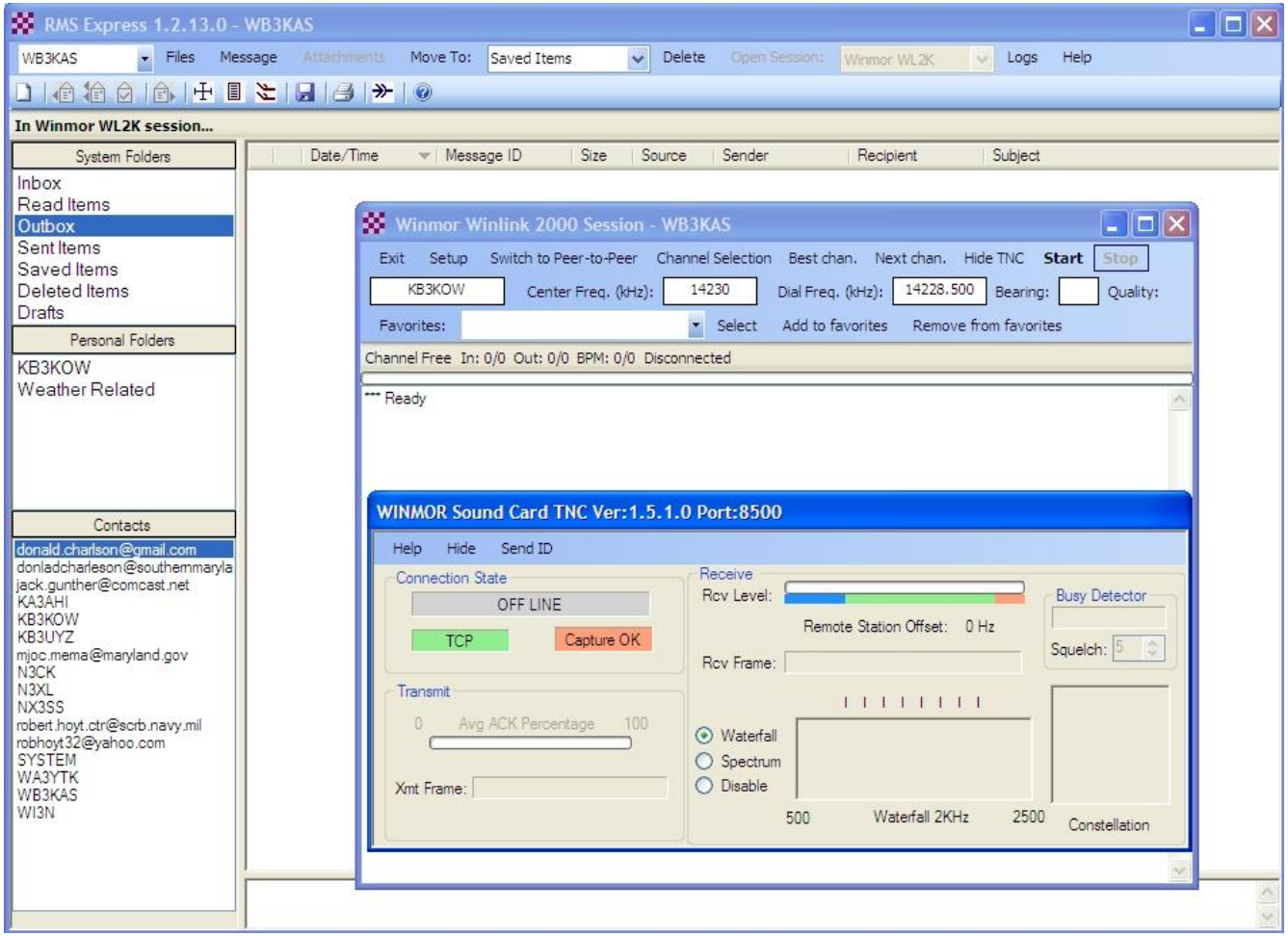
KI4SPW-10	145.730	1200	FM09VB	PUBLIC	075	288
WE4NC-10	145.730	1200	FM17TP	PUBLIC	080	160
KB1EJH-10	441.000	1200	FM28HQ	PUBLIC	081	091

Configuring WinMOR

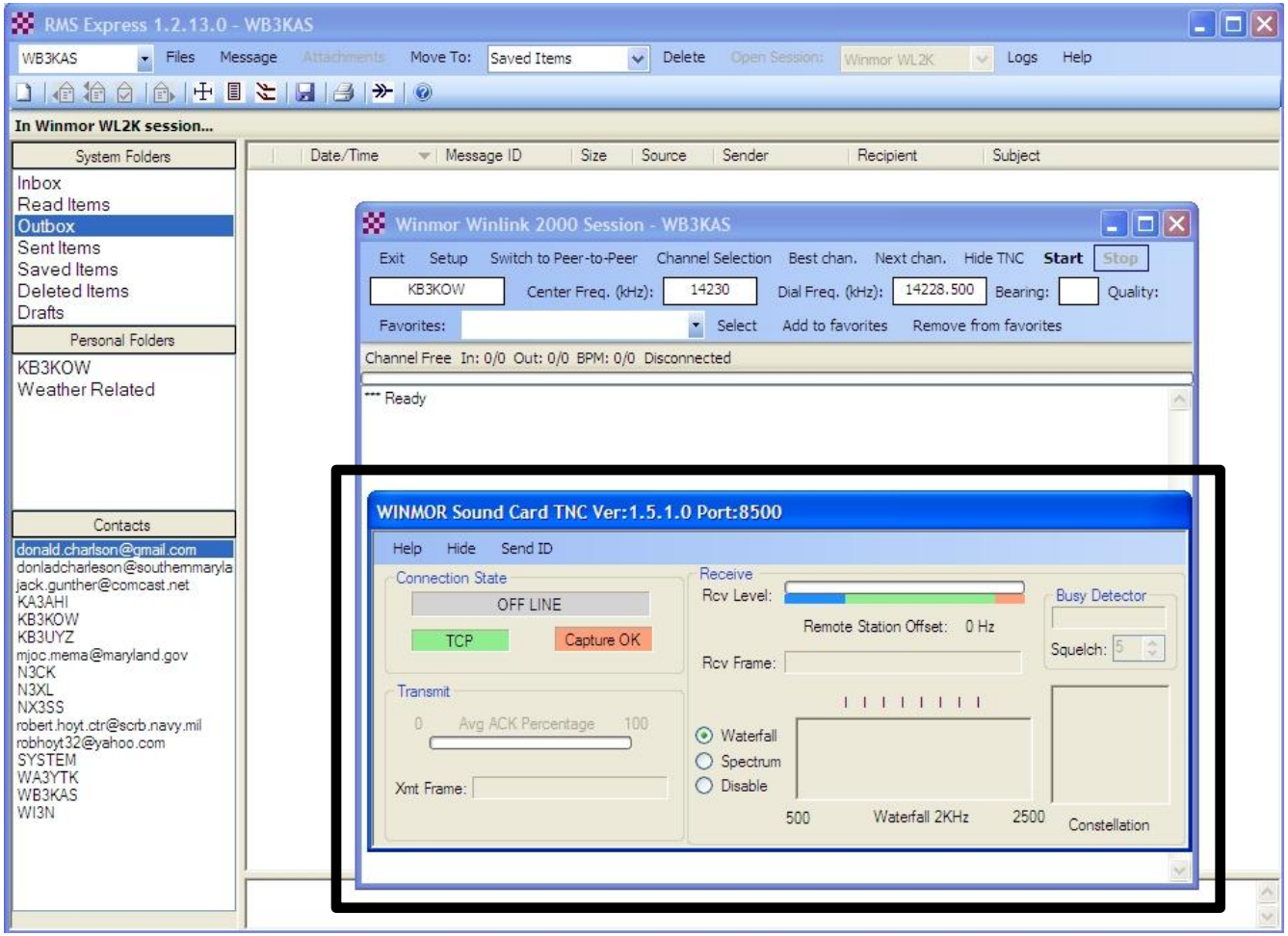
WinMOR WL2K Session



WinMOR WL2K Session

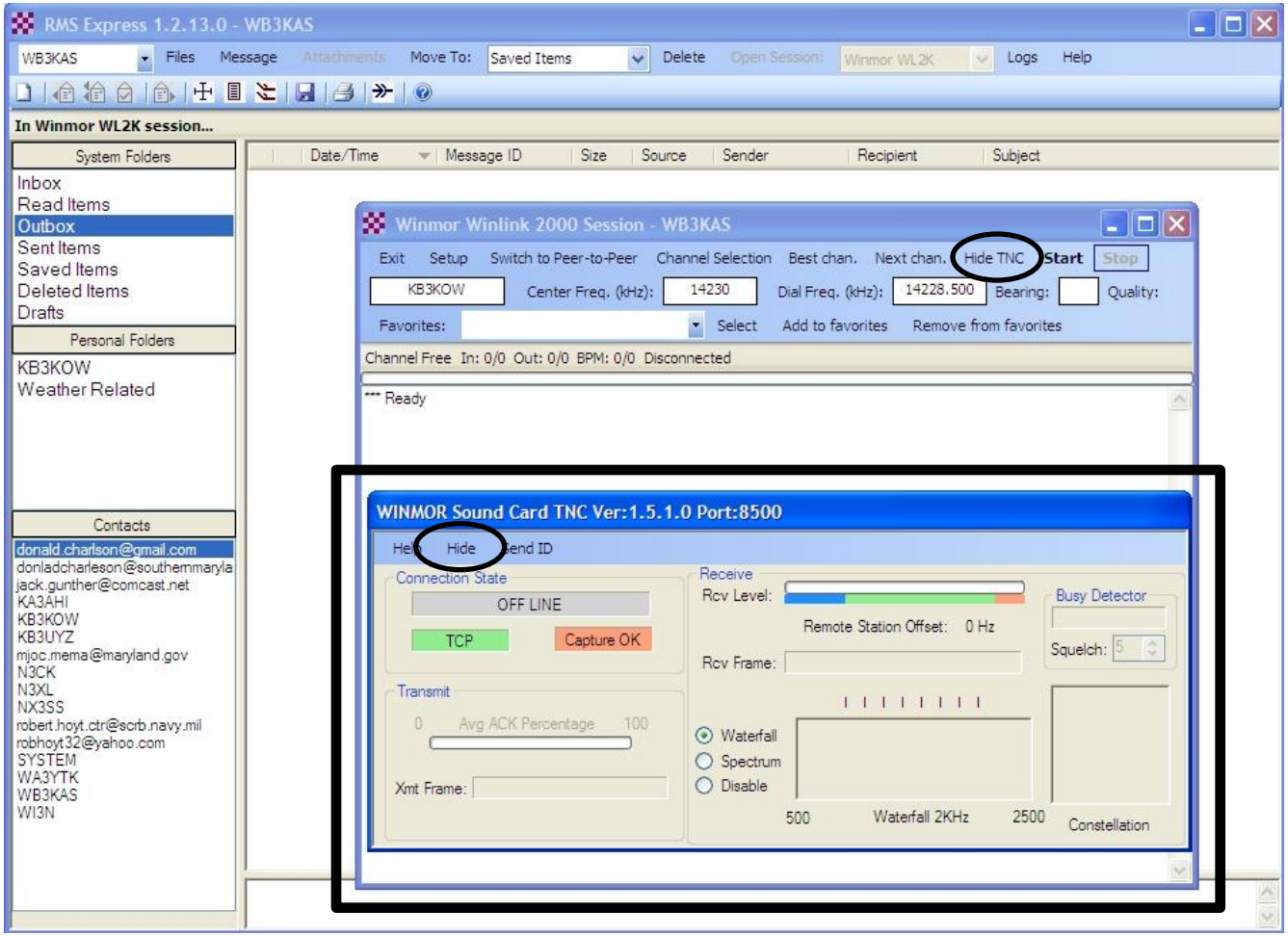


WinMOR WL2K Session



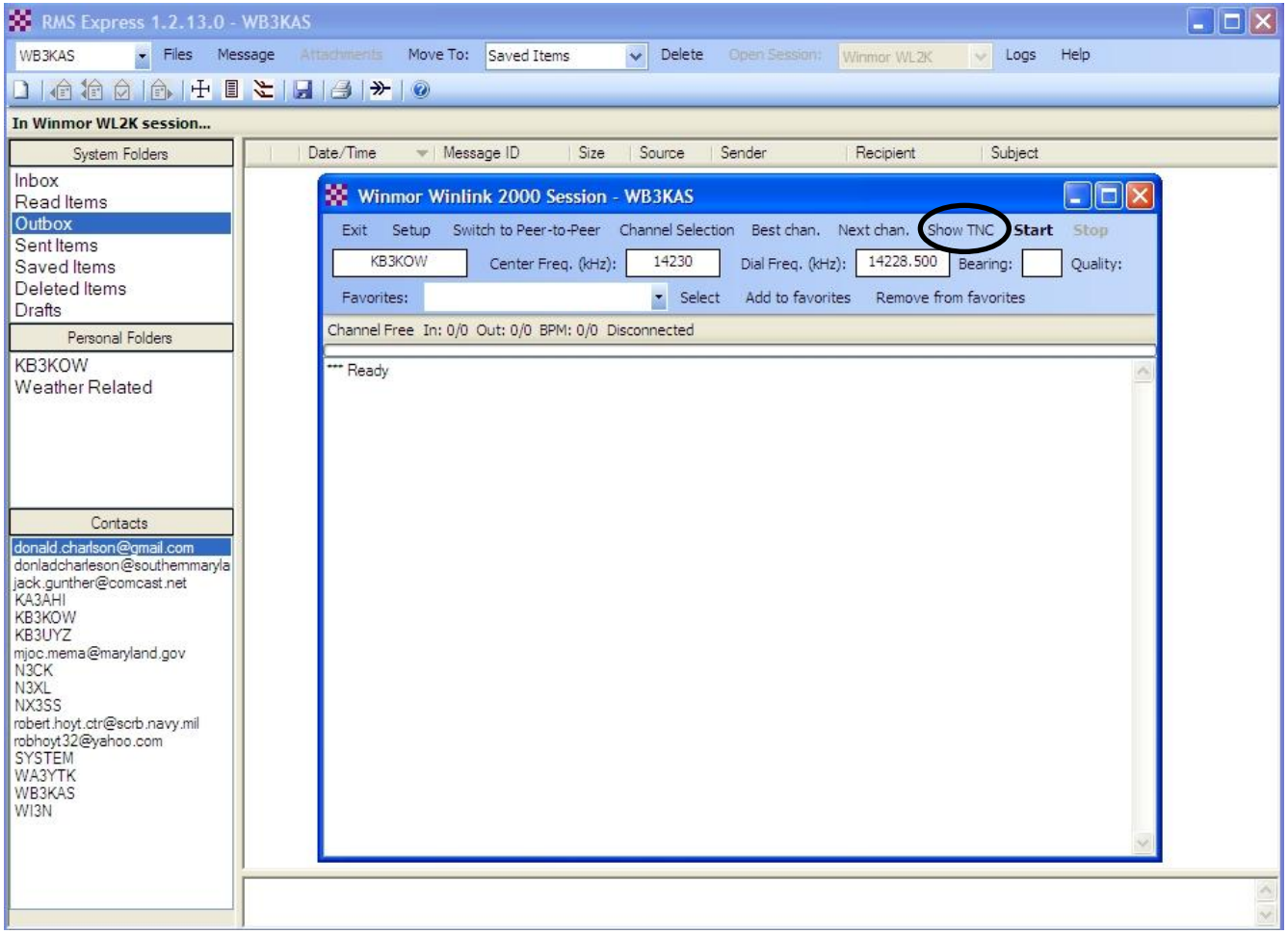
This is the Virtual Sound Card TNC

WinMOR WL2K Session

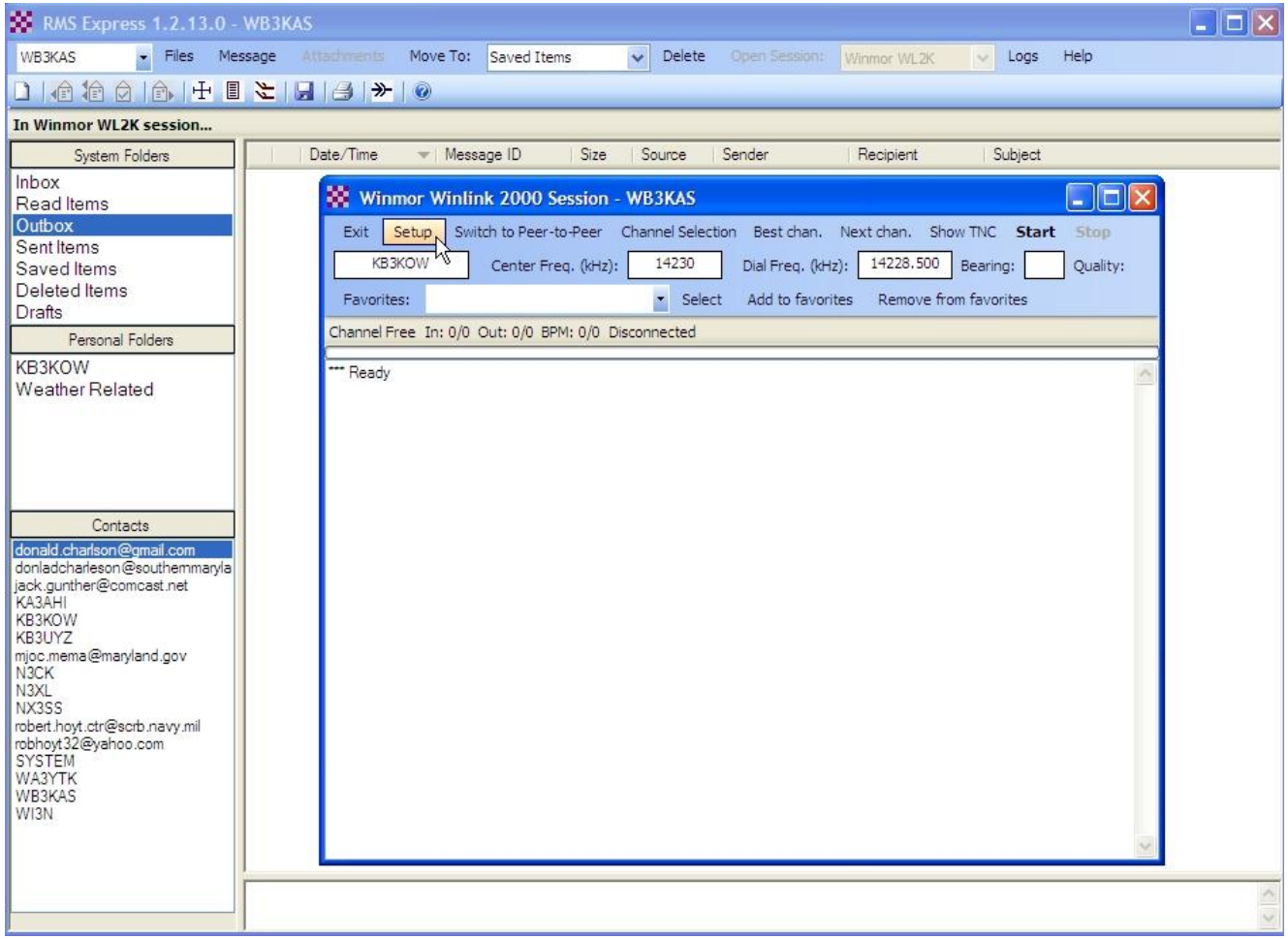


This is the Virtual Sound Card TNC

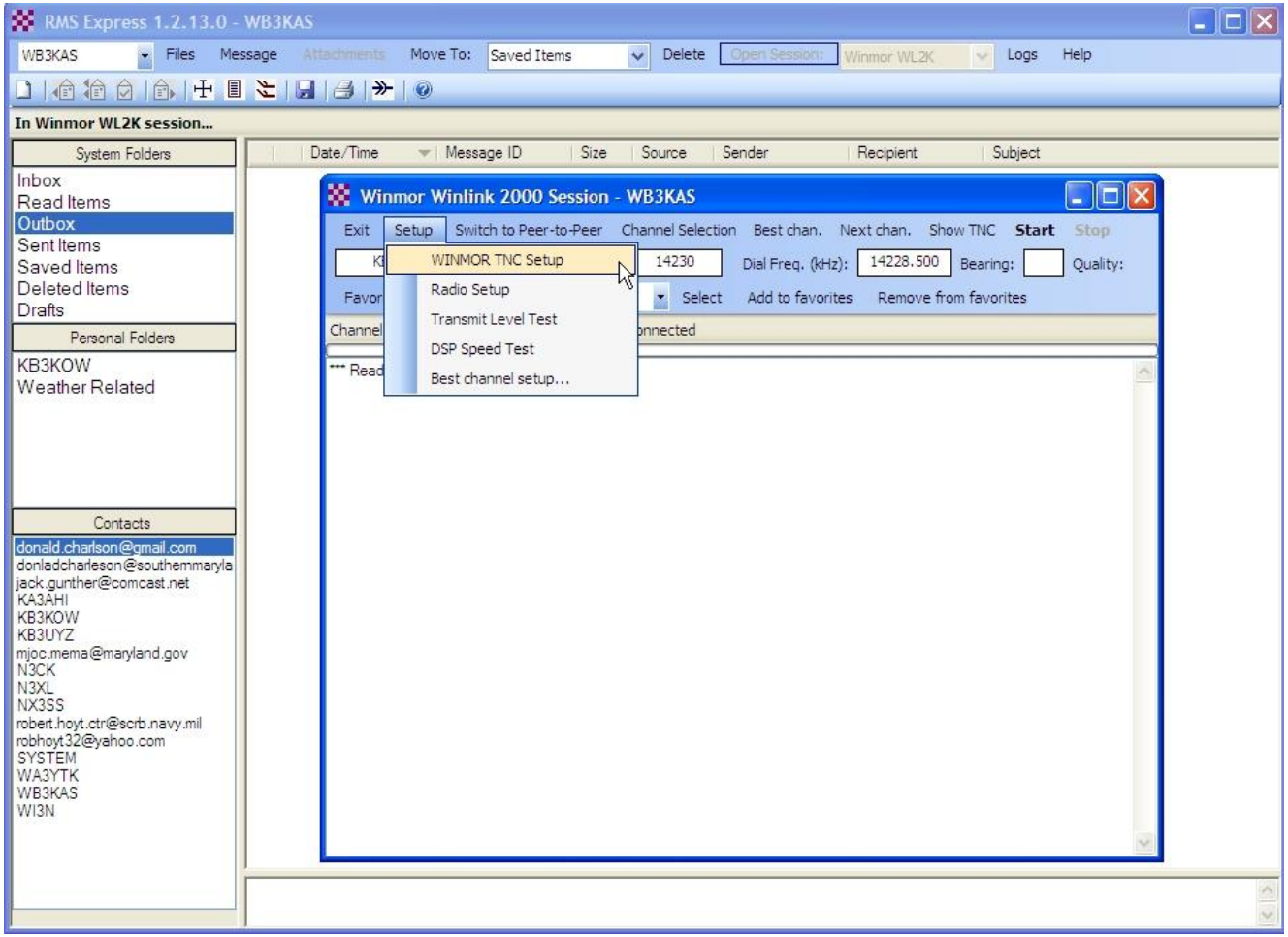
WinMOR WL2K Session



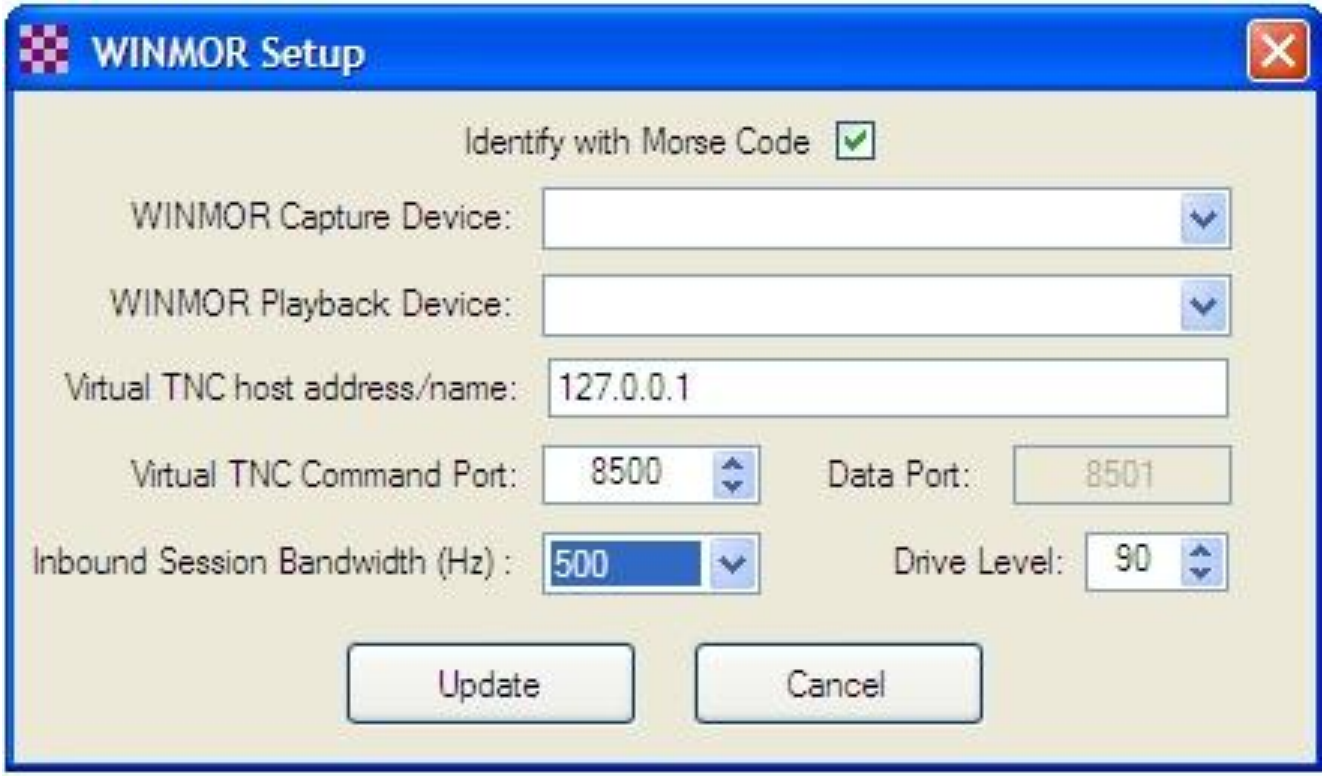
WinMOR WL2K Session



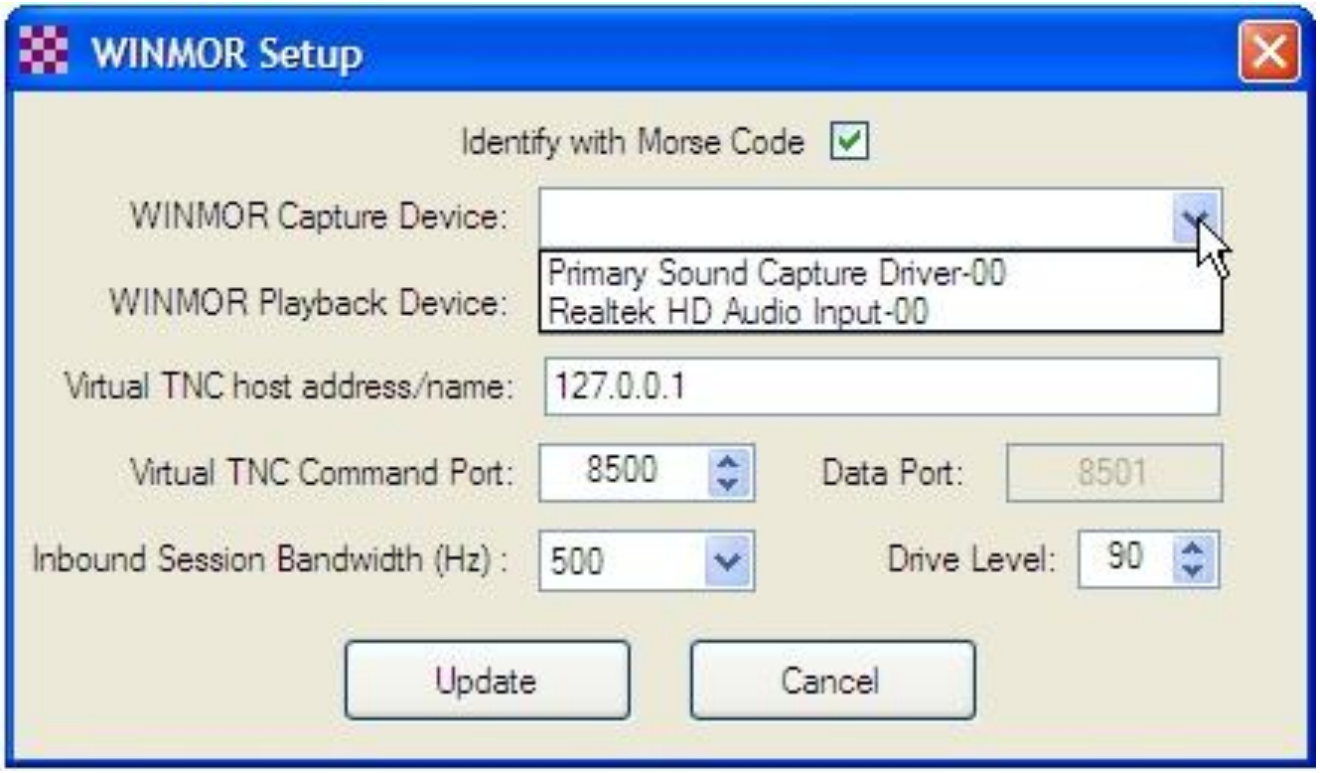
WinMOR WL2K Session



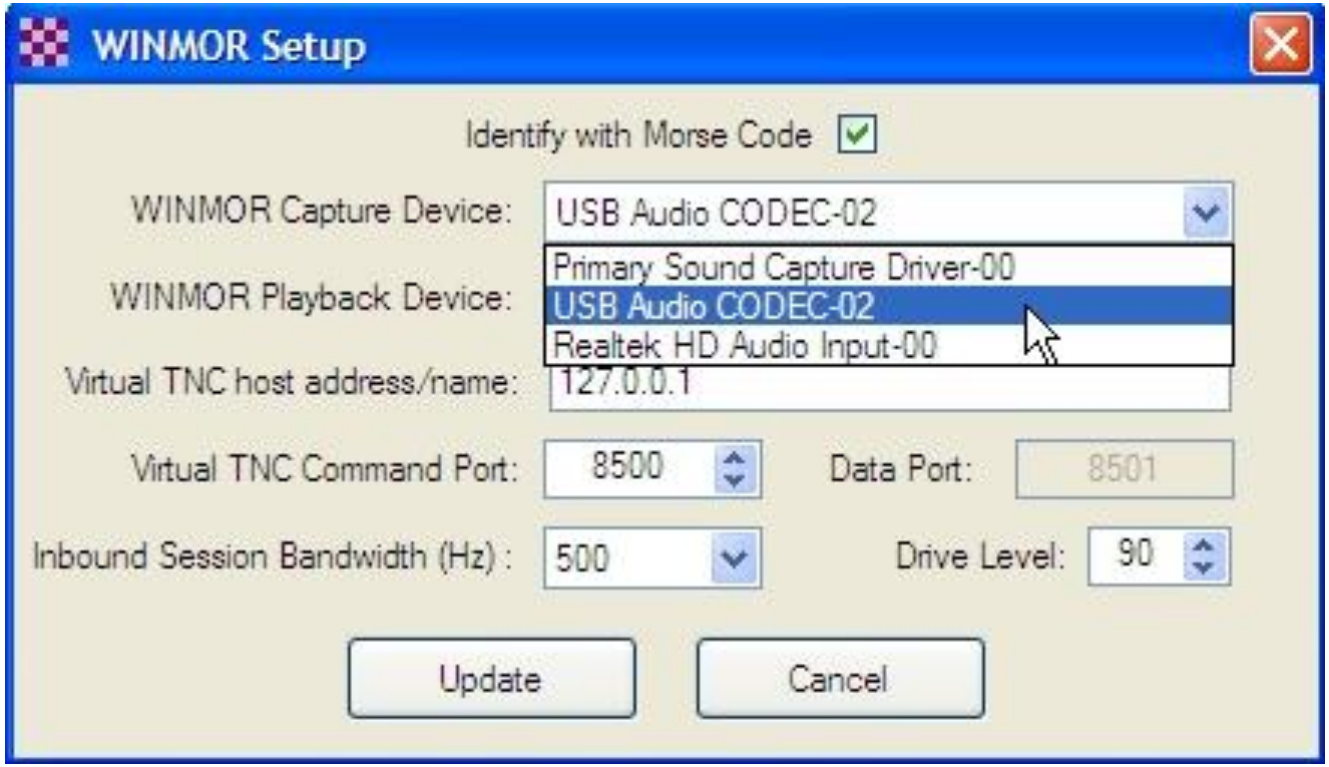
WinMOR WL2K Session



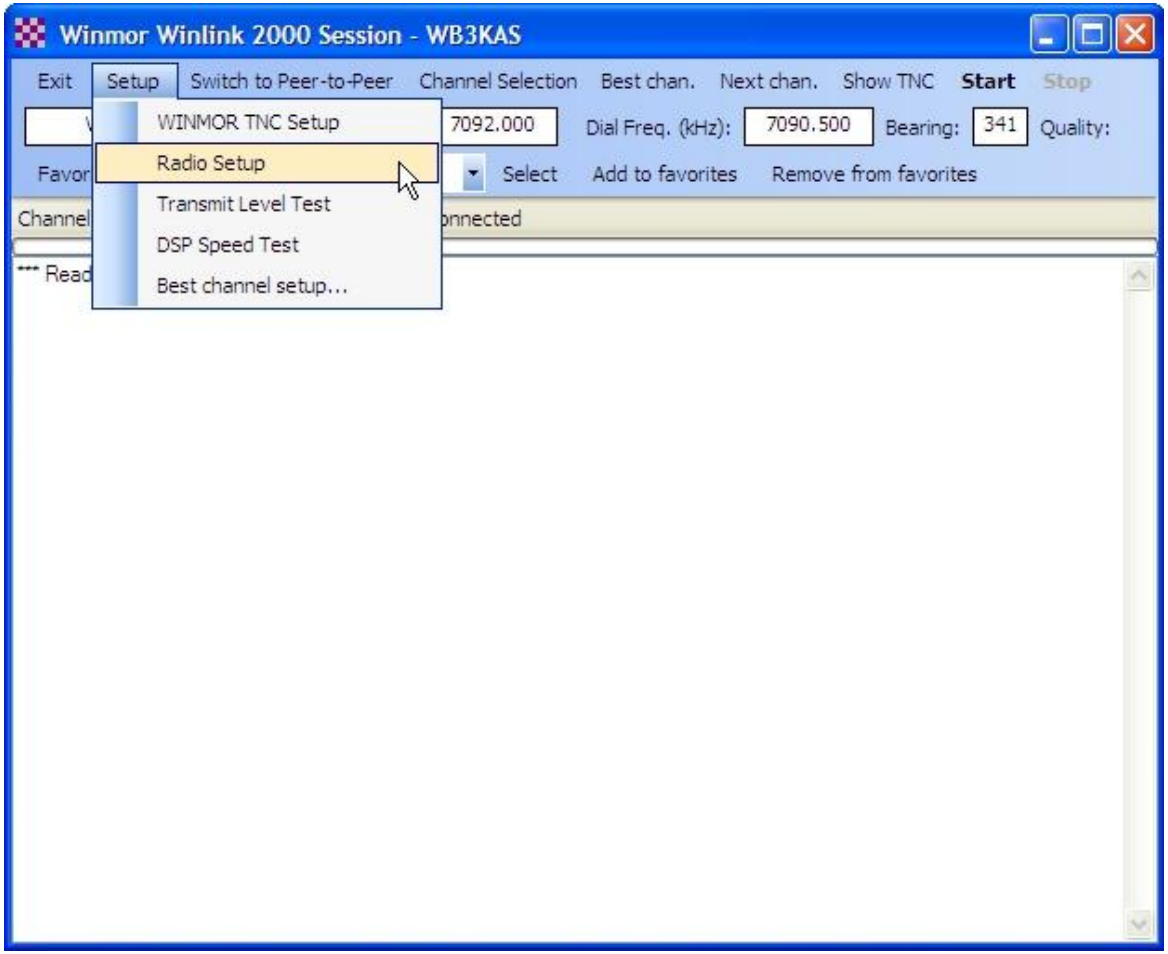
WinMOR WL2K Session



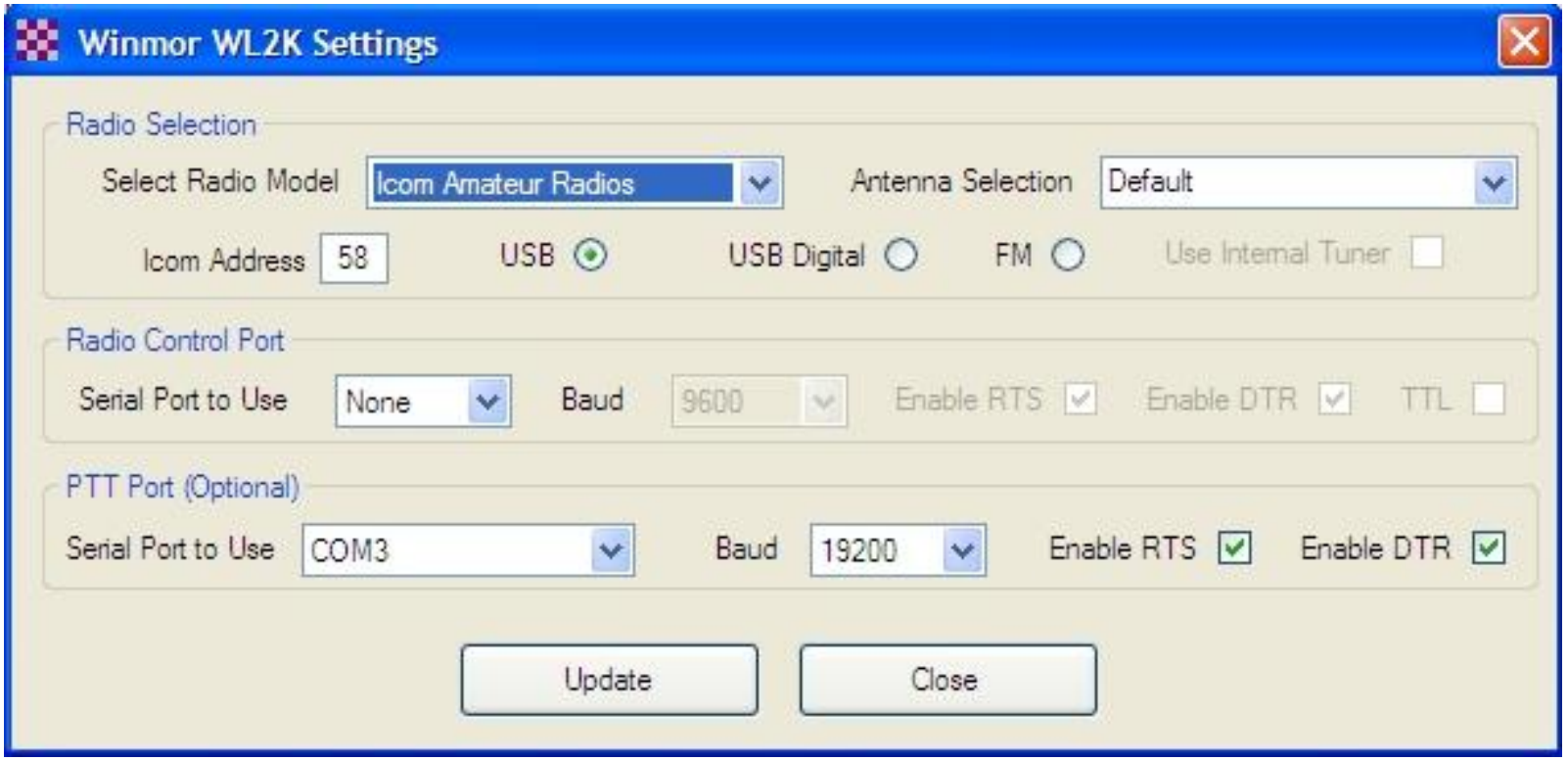
WinMOR WL2K Session



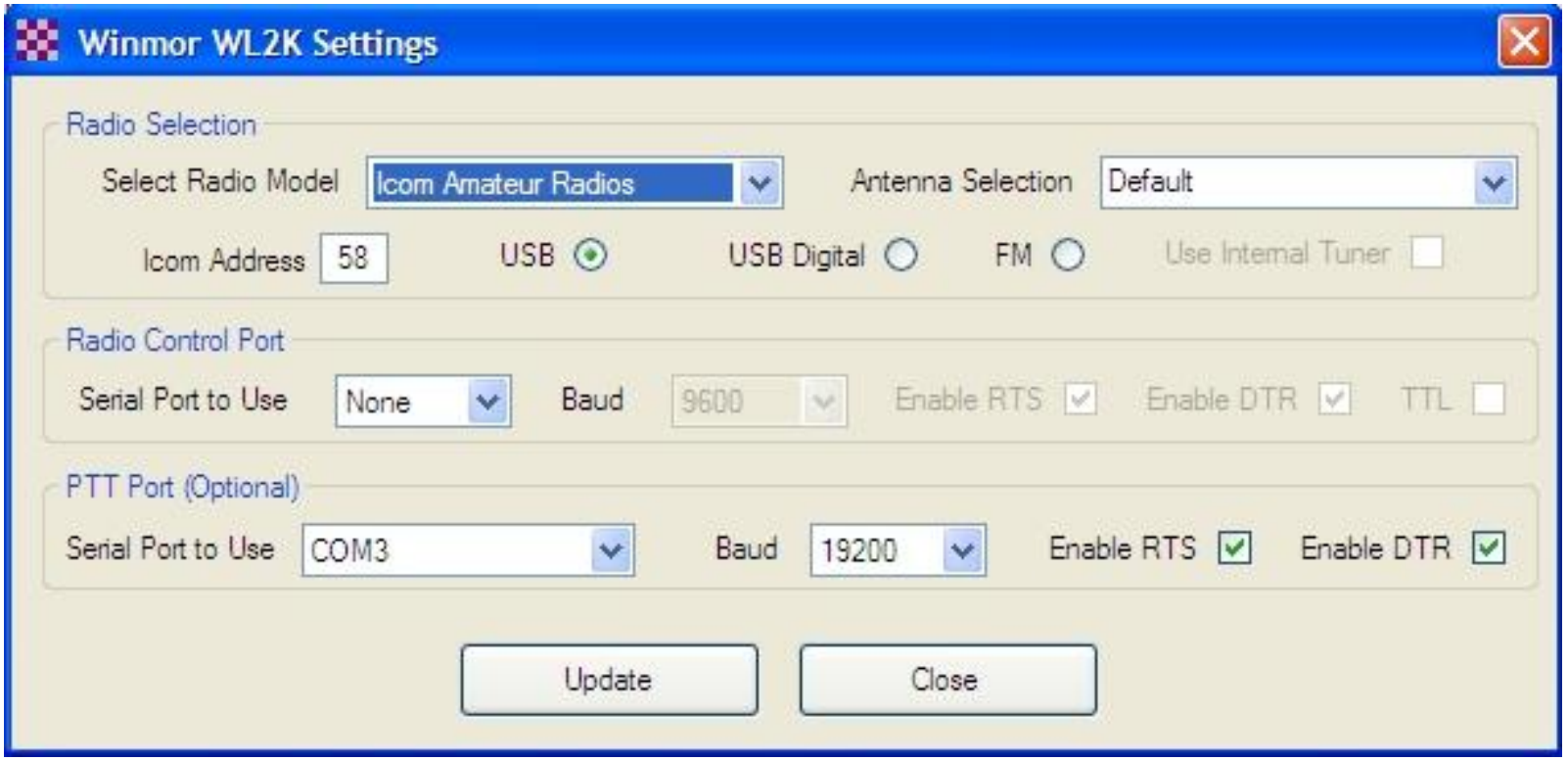
WinMOR WL2K Session



WinMOR WL2K Session

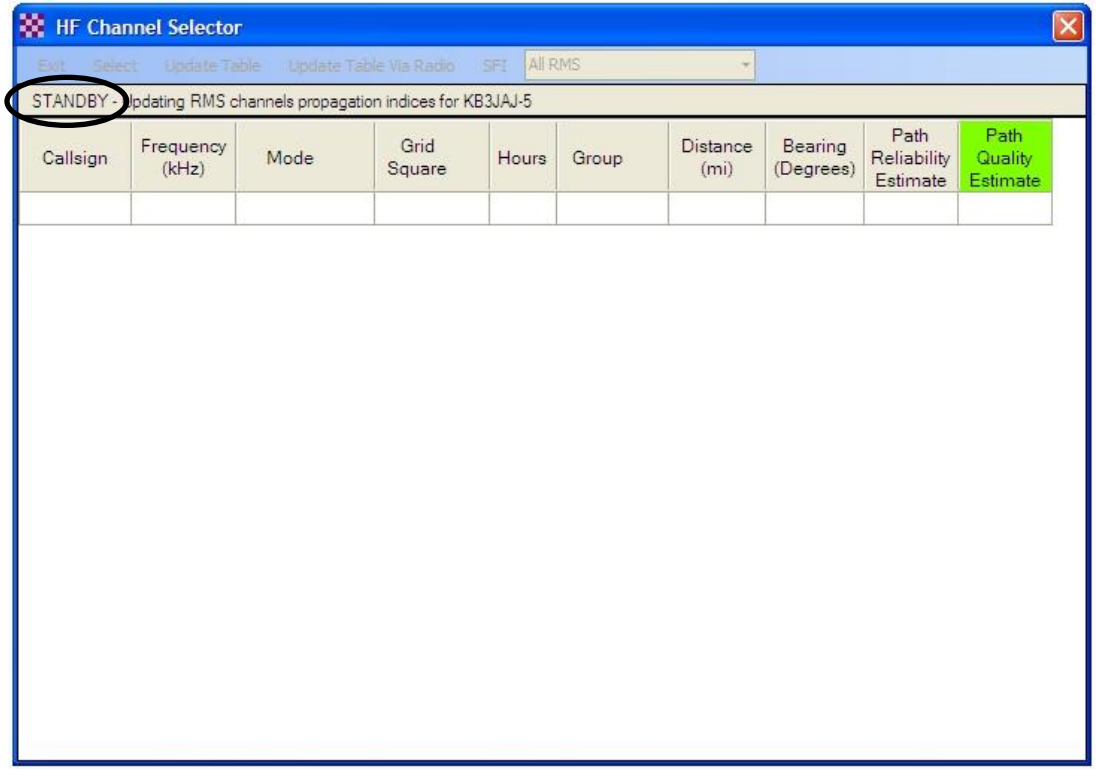


WinMOR WL2K Session

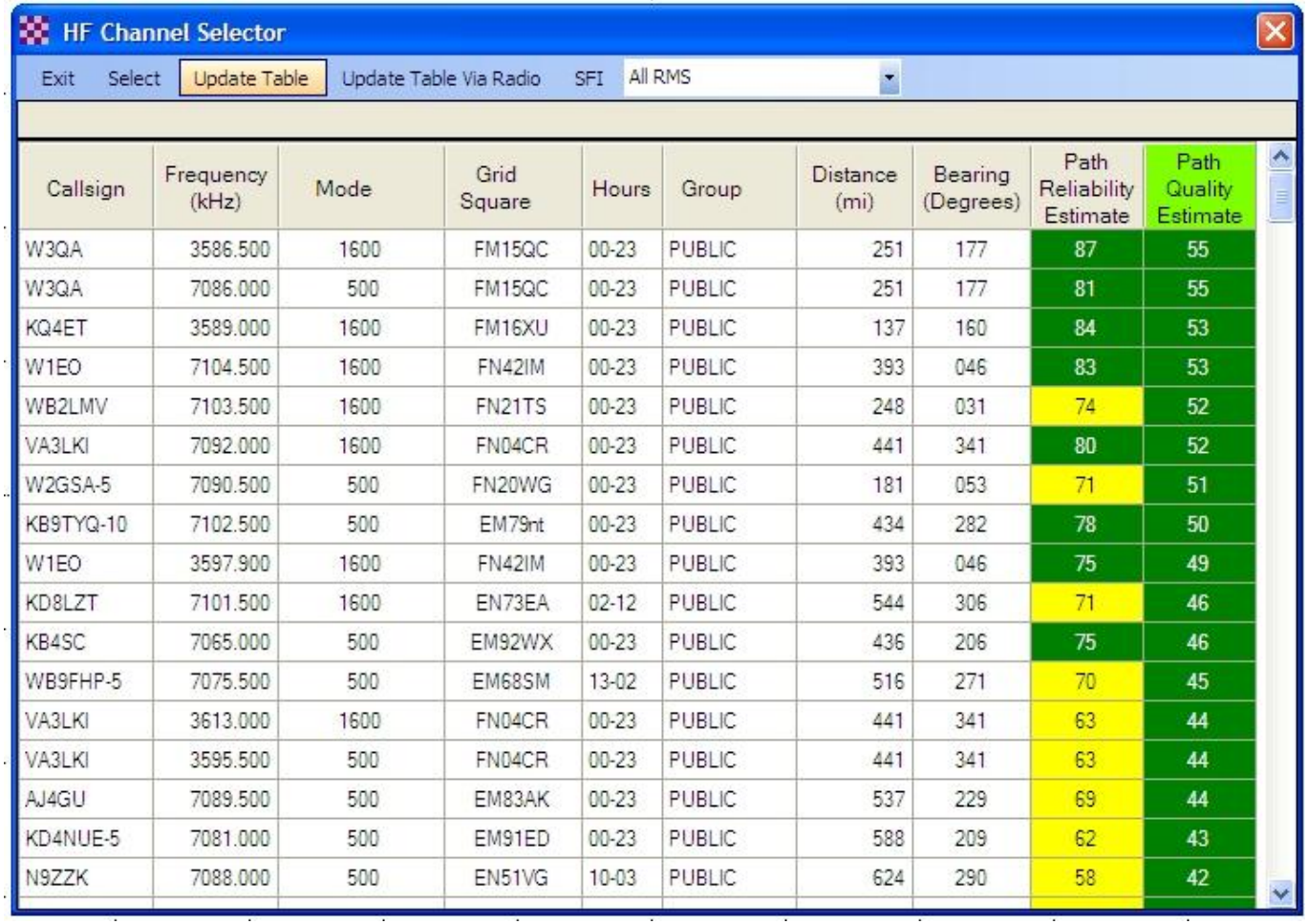


This is what works with an Icom 706 and a SignaLink USB Sound Card Interface

WinMOR WL2K Session

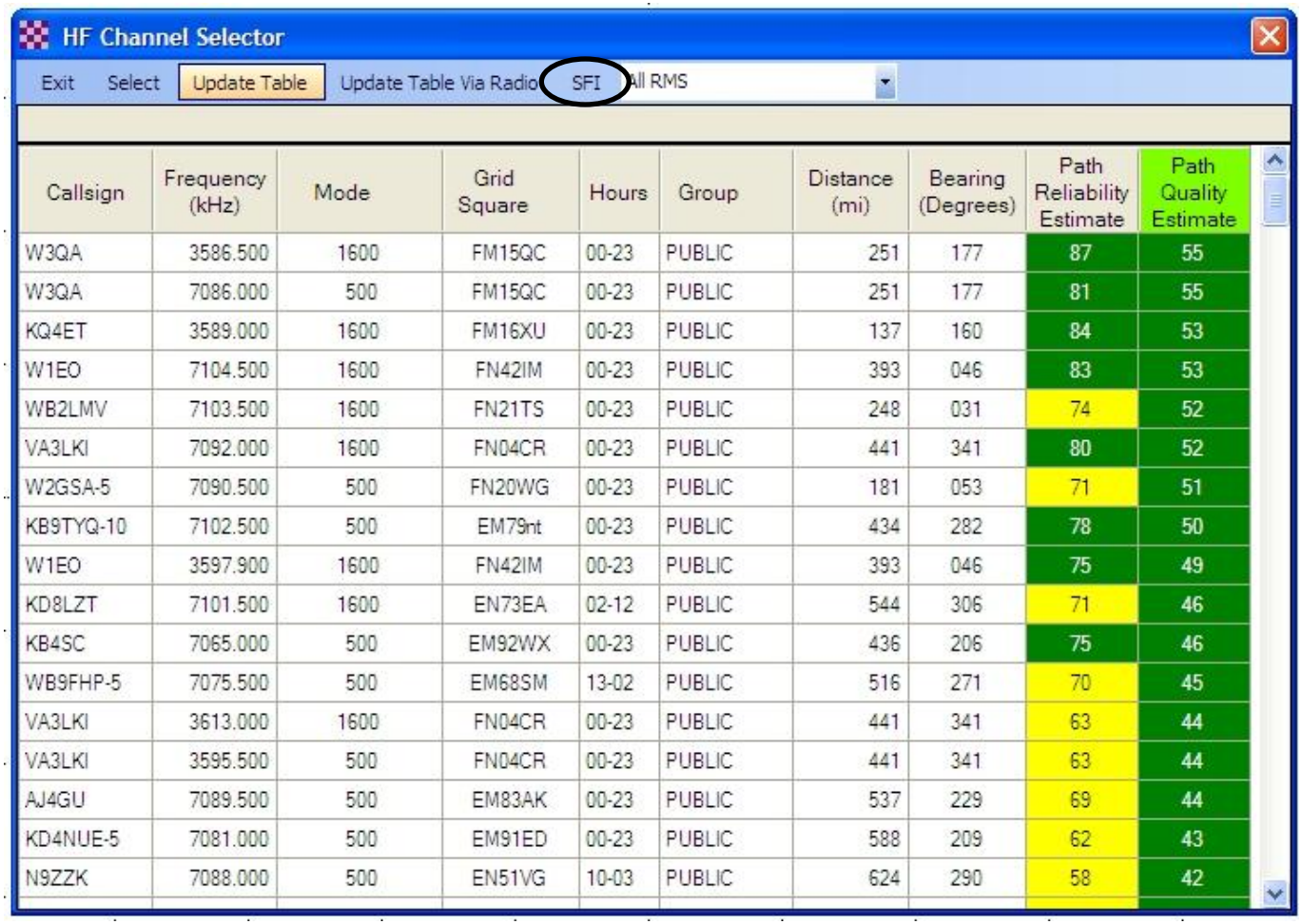


WinMOR WL2K Session



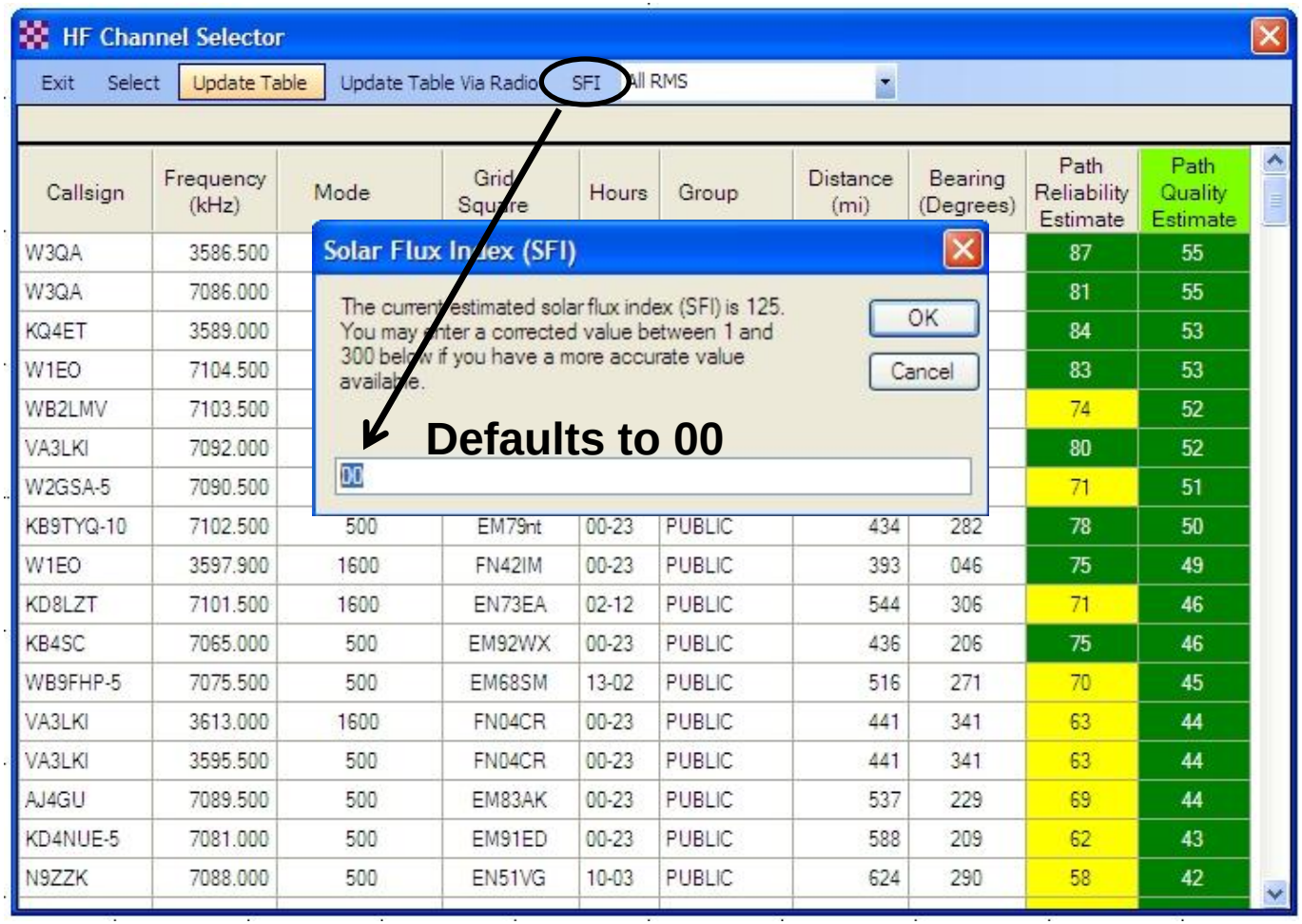
Callsign	Frequency (kHz)	Mode	Grid Square	Hours	Group	Distance (mi)	Bearing (Degrees)	Path Reliability Estimate	Path Quality Estimate
W3QA	3586.500	1600	FM15QC	00-23	PUBLIC	251	177	87	55
W3QA	7086.000	500	FM15QC	00-23	PUBLIC	251	177	81	55
KQ4ET	3589.000	1600	FM16XU	00-23	PUBLIC	137	160	84	53
W1EO	7104.500	1600	FN42IM	00-23	PUBLIC	393	046	83	53
WB2LMV	7103.500	1600	FN21TS	00-23	PUBLIC	248	031	74	52
VA3LKI	7092.000	1600	FN04CR	00-23	PUBLIC	441	341	80	52
W2GSA-5	7090.500	500	FN20WG	00-23	PUBLIC	181	053	71	51
KB9TYQ-10	7102.500	500	EM79nt	00-23	PUBLIC	434	282	78	50
W1EO	3597.900	1600	FN42IM	00-23	PUBLIC	393	046	75	49
KD8LZT	7101.500	1600	EN73EA	02-12	PUBLIC	544	306	71	46
KB4SC	7065.000	500	EM92WX	00-23	PUBLIC	436	206	75	46
WB9FHP-5	7075.500	500	EM68SM	13-02	PUBLIC	516	271	70	45
VA3LKI	3613.000	1600	FN04CR	00-23	PUBLIC	441	341	63	44
VA3LKI	3595.500	500	FN04CR	00-23	PUBLIC	441	341	63	44
AJ4GU	7089.500	500	EM83AK	00-23	PUBLIC	537	229	69	44
KD4NUE-5	7081.000	500	EM91ED	00-23	PUBLIC	588	209	62	43
N9ZZK	7088.000	500	EN51VG	10-03	PUBLIC	624	290	58	42

WinMOR WL2K Session



Callsign	Frequency (kHz)	Mode	Grid Square	Hours	Group	Distance (mi)	Bearing (Degrees)	Path Reliability Estimate	Path Quality Estimate
W3QA	3586.500	1600	FM15QC	00-23	PUBLIC	251	177	87	55
W3QA	7086.000	500	FM15QC	00-23	PUBLIC	251	177	81	55
KQ4ET	3589.000	1600	FM16XU	00-23	PUBLIC	137	160	84	53
W1EO	7104.500	1600	FN42IM	00-23	PUBLIC	393	046	83	53
WB2LMV	7103.500	1600	FN21TS	00-23	PUBLIC	248	031	74	52
VA3LKI	7092.000	1600	FN04CR	00-23	PUBLIC	441	341	80	52
W2GSA-5	7090.500	500	FN20WG	00-23	PUBLIC	181	053	71	51
KB9TYQ-10	7102.500	500	EM79nt	00-23	PUBLIC	434	282	78	50
W1EO	3597.900	1600	FN42IM	00-23	PUBLIC	393	046	75	49
KD8LZT	7101.500	1600	EN73EA	02-12	PUBLIC	544	306	71	46
KB4SC	7065.000	500	EM92WX	00-23	PUBLIC	436	206	75	46
WB9FHP-5	7075.500	500	EM68SM	13-02	PUBLIC	516	271	70	45
VA3LKI	3613.000	1600	FN04CR	00-23	PUBLIC	441	341	63	44
VA3LKI	3595.500	500	FN04CR	00-23	PUBLIC	441	341	63	44
AJ4GU	7089.500	500	EM83AK	00-23	PUBLIC	537	229	69	44
KD4NUE-5	7081.000	500	EM91ED	00-23	PUBLIC	588	209	62	43
N9ZZK	7088.000	500	EN51VG	10-03	PUBLIC	624	290	58	42

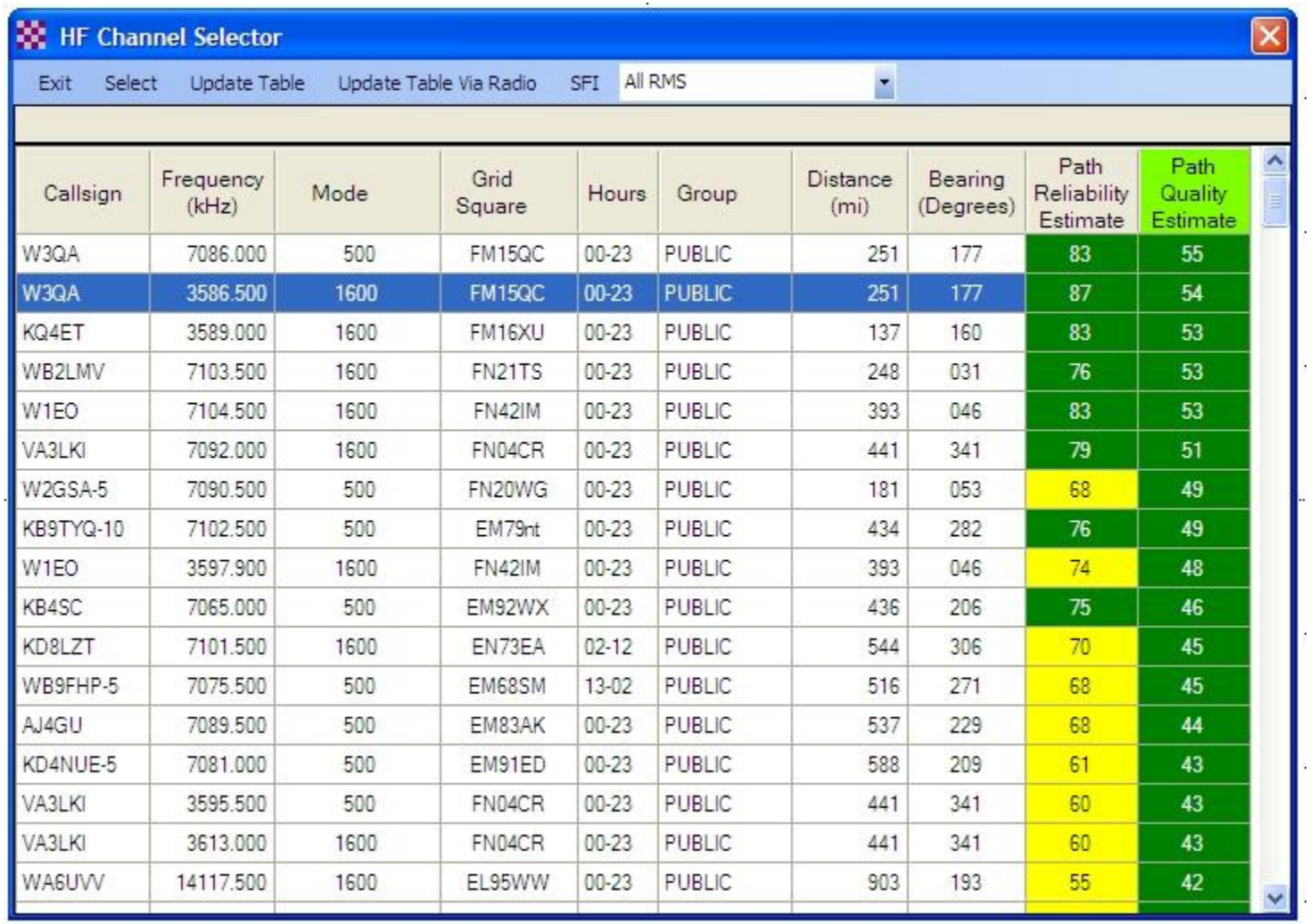
WinMOR WL2K Session



Callsign	Frequency (kHz)	Mode	Grid Square	Hours	Group	Distance (mi)	Bearing (Degrees)	Path Reliability Estimate	Path Quality Estimate
W3QA	3586.500							87	55
W3QA	7086.000							81	55
KQ4ET	3589.000							84	53
W1EO	7104.500							83	53
WB2LMV	7103.500							74	52
VA3LKI	7092.000							80	52
W2GSA-5	7090.500							71	51
KB9TYQ-10	7102.500	500	EM79nt	00-23	PUBLIC	434	282	78	50
W1EO	3597.900	1600	FN42IM	00-23	PUBLIC	393	046	75	49
KD8LZT	7101.500	1600	EN73EA	02-12	PUBLIC	544	306	71	46
KB4SC	7065.000	500	EM92WX	00-23	PUBLIC	436	206	75	46
WB9FHP-5	7075.500	500	EM68SM	13-02	PUBLIC	516	271	70	45
VA3LKI	3613.000	1600	FN04CR	00-23	PUBLIC	441	341	63	44
VA3LKI	3595.500	500	FN04CR	00-23	PUBLIC	441	341	63	44
AJ4GU	7089.500	500	EM83AK	00-23	PUBLIC	537	229	69	44
KD4NUE-5	7081.000	500	EM91ED	00-23	PUBLIC	588	209	62	43
N9ZZK	7088.000	500	EN51VG	10-03	PUBLIC	624	290	58	42

Go to QRZ.COM and obtain the current SFI

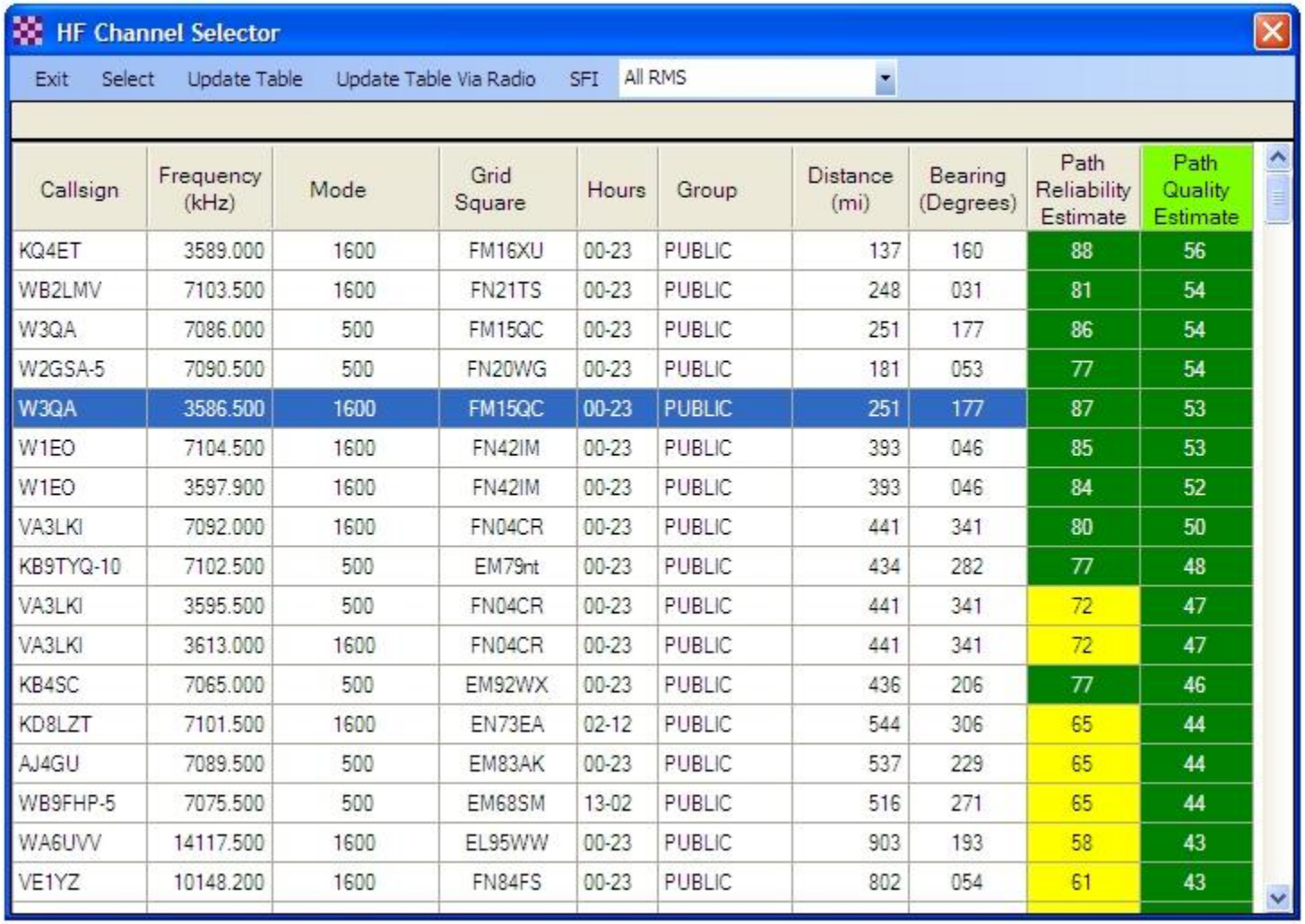
WinMOR WL2K Session



Callsign	Frequency (kHz)	Mode	Grid Square	Hours	Group	Distance (mi)	Bearing (Degrees)	Path Reliability Estimate	Path Quality Estimate
W3QA	7086.000	500	FM15QC	00-23	PUBLIC	251	177	83	55
W3QA	3586.500	1600	FM15QC	00-23	PUBLIC	251	177	87	54
KQ4ET	3589.000	1600	FM16XU	00-23	PUBLIC	137	160	83	53
WB2LMV	7103.500	1600	FN21TS	00-23	PUBLIC	248	031	76	53
W1EO	7104.500	1600	FN42IM	00-23	PUBLIC	393	046	83	53
VA3LKI	7092.000	1600	FN04CR	00-23	PUBLIC	441	341	79	51
W2GSA-5	7090.500	500	FN20WG	00-23	PUBLIC	181	053	68	49
KB9TYQ-10	7102.500	500	EM79nt	00-23	PUBLIC	434	282	76	49
W1EO	3597.900	1600	FN42IM	00-23	PUBLIC	393	046	74	48
KB4SC	7065.000	500	EM92WX	00-23	PUBLIC	436	206	75	46
KD8LZT	7101.500	1600	EN73EA	02-12	PUBLIC	544	306	70	45
WB9FHP-5	7075.500	500	EM68SM	13-02	PUBLIC	516	271	68	45
AJ4GU	7089.500	500	EM83AK	00-23	PUBLIC	537	229	68	44
KD4NUE-5	7081.000	500	EM91ED	00-23	PUBLIC	588	209	61	43
VA3LKI	3595.500	500	FN04CR	00-23	PUBLIC	441	341	60	43
VA3LKI	3613.000	1600	FN04CR	00-23	PUBLIC	441	341	60	43
WA6UVV	14117.500	1600	EL95WW	00-23	PUBLIC	903	193	55	42

SFI = 125 taken at 1845L

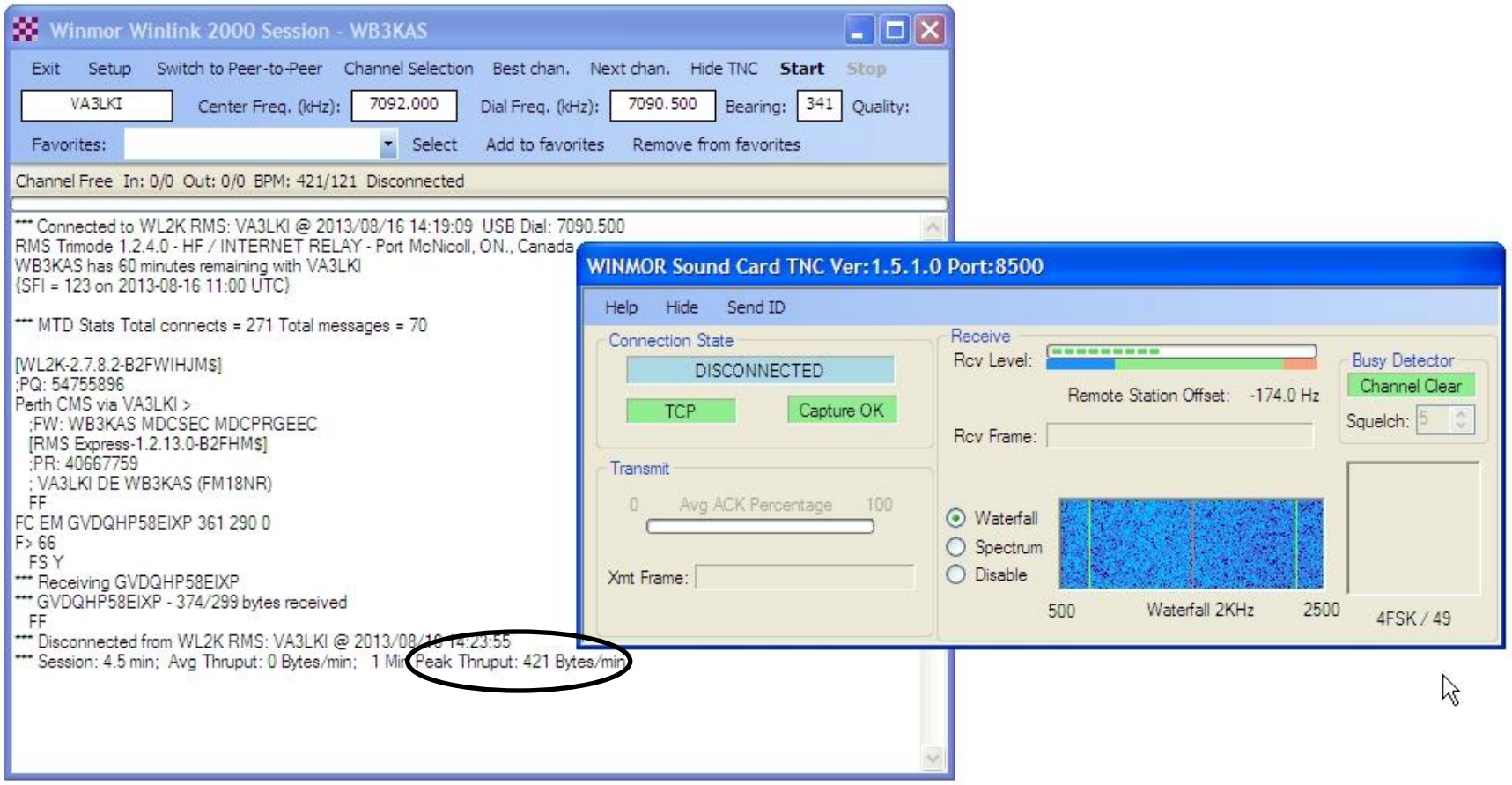
WinMOR WL2K Session



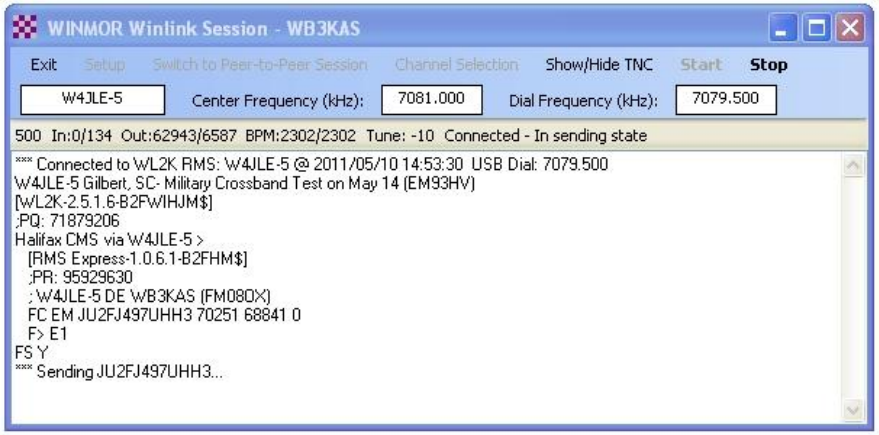
Callsign	Frequency (kHz)	Mode	Grid Square	Hours	Group	Distance (mi)	Bearing (Degrees)	Path Reliability Estimate	Path Quality Estimate
KQ4ET	3589.000	1600	FM16XU	00-23	PUBLIC	137	160	88	56
WB2LMV	7103.500	1600	FN21TS	00-23	PUBLIC	248	031	81	54
W3QA	7086.000	500	FM15QC	00-23	PUBLIC	251	177	86	54
W2GSA-5	7090.500	500	FN20WG	00-23	PUBLIC	181	053	77	54
W3QA	3586.500	1600	FM15QC	00-23	PUBLIC	251	177	87	53
W1EO	7104.500	1600	FN42IM	00-23	PUBLIC	393	046	85	53
W1EO	3597.900	1600	FN42IM	00-23	PUBLIC	393	046	84	52
VA3LKI	7092.000	1600	FN04CR	00-23	PUBLIC	441	341	80	50
KB9TYQ-10	7102.500	500	EM79nt	00-23	PUBLIC	434	282	77	48
VA3LKI	3595.500	500	FN04CR	00-23	PUBLIC	441	341	72	47
VA3LKI	3613.000	1600	FN04CR	00-23	PUBLIC	441	341	72	47
KB4SC	7065.000	500	EM92WX	00-23	PUBLIC	436	206	77	46
KD8LZT	7101.500	1600	EN73EA	02-12	PUBLIC	544	306	65	44
AJ4GU	7089.500	500	EM83AK	00-23	PUBLIC	537	229	65	44
WB9FHP-5	7075.500	500	EM68SM	13-02	PUBLIC	516	271	65	44
WA6UVV	14117.500	1600	EL95WW	00-23	PUBLIC	903	193	58	43
VE1YZ	10148.200	1600	FN84FS	00-23	PUBLIC	802	054	61	43

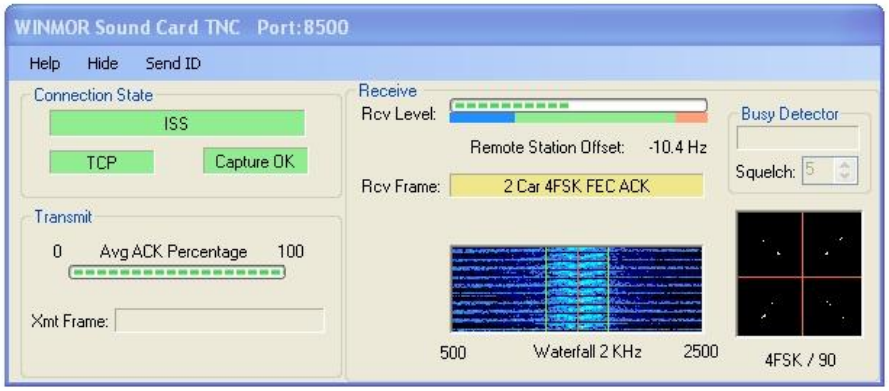
SFI = 125 but taken at 1901L

WinMOR WL2K Session

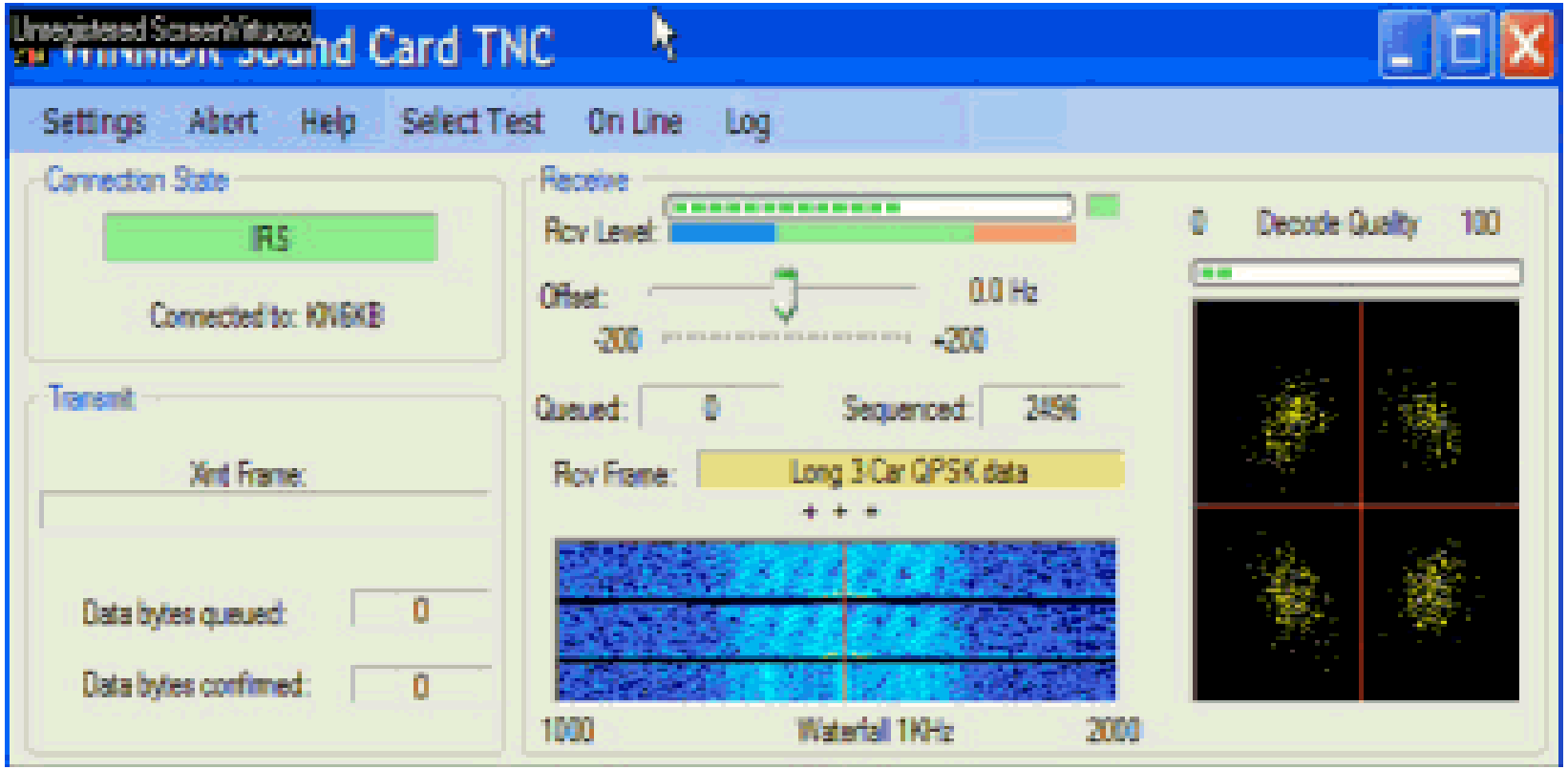


Running RMS Express

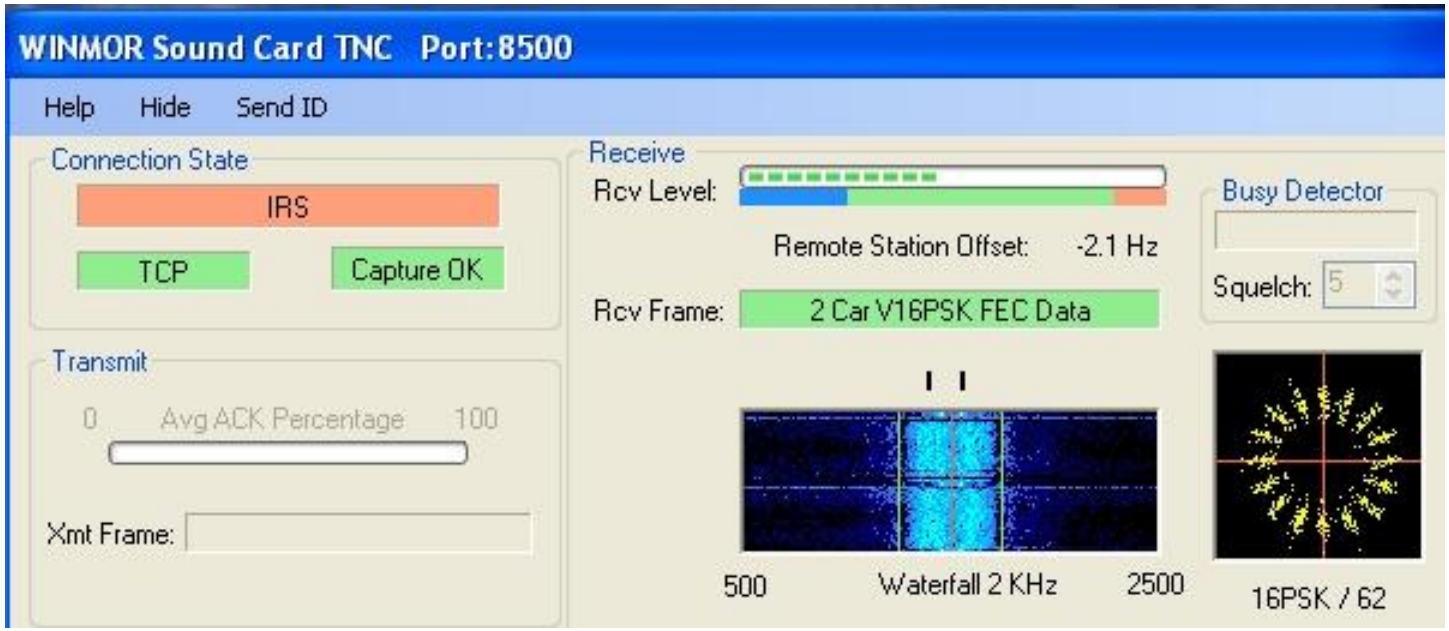




Running RMS Express



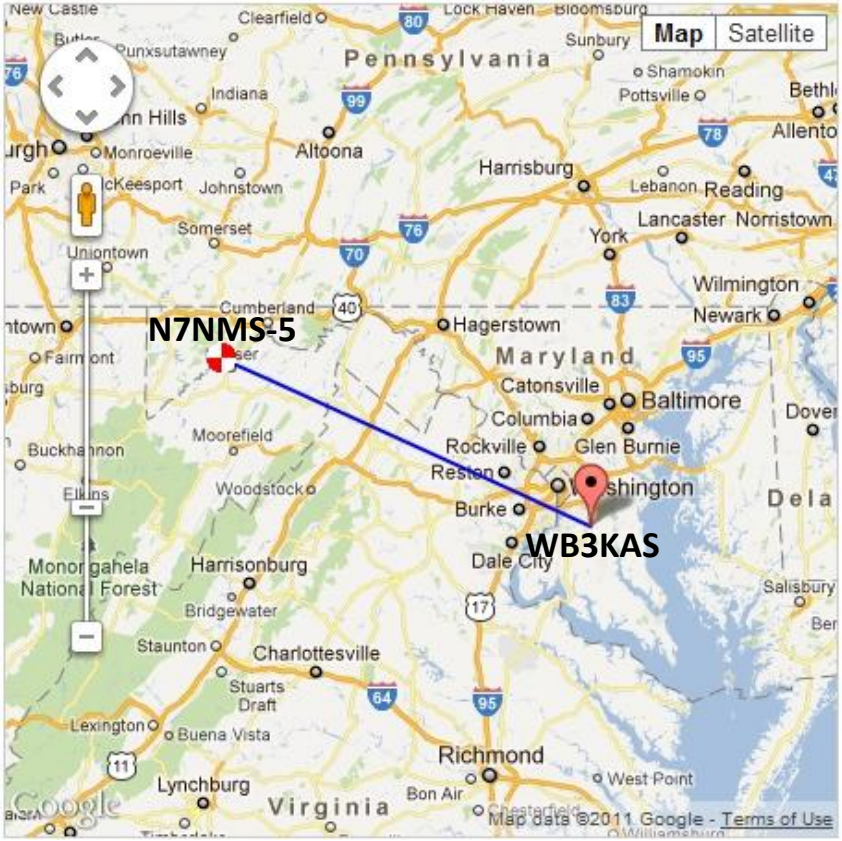
Running RMS Express



Testimonies

N7NMS-5
Westernport, MD

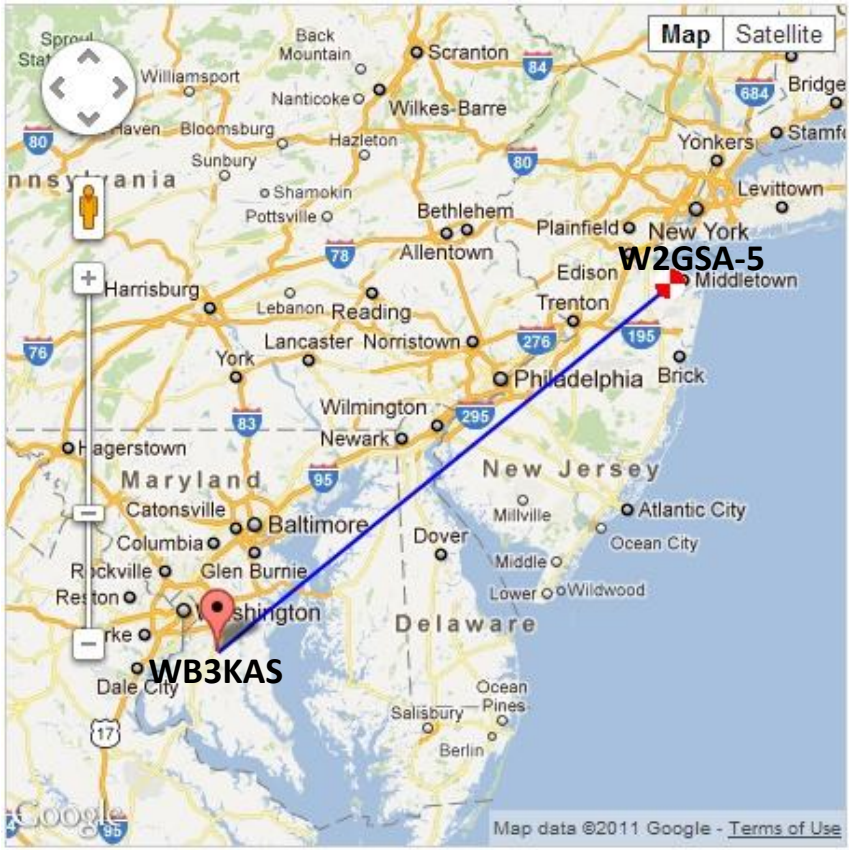
- Latitude 39.487678 (39° 29' 15'' N)
- Longitude -79.030426 (79° 1' 49'' W)
- Grid Square FM09ll
- US State Maryland US County Allegany
- Bearing 295.1° WNW (from WB3KAS)
- Distance **129.1 mi** (207.8 km)
- 3587.5KHz at 0455L



W2GSA
Holmdel, NJ

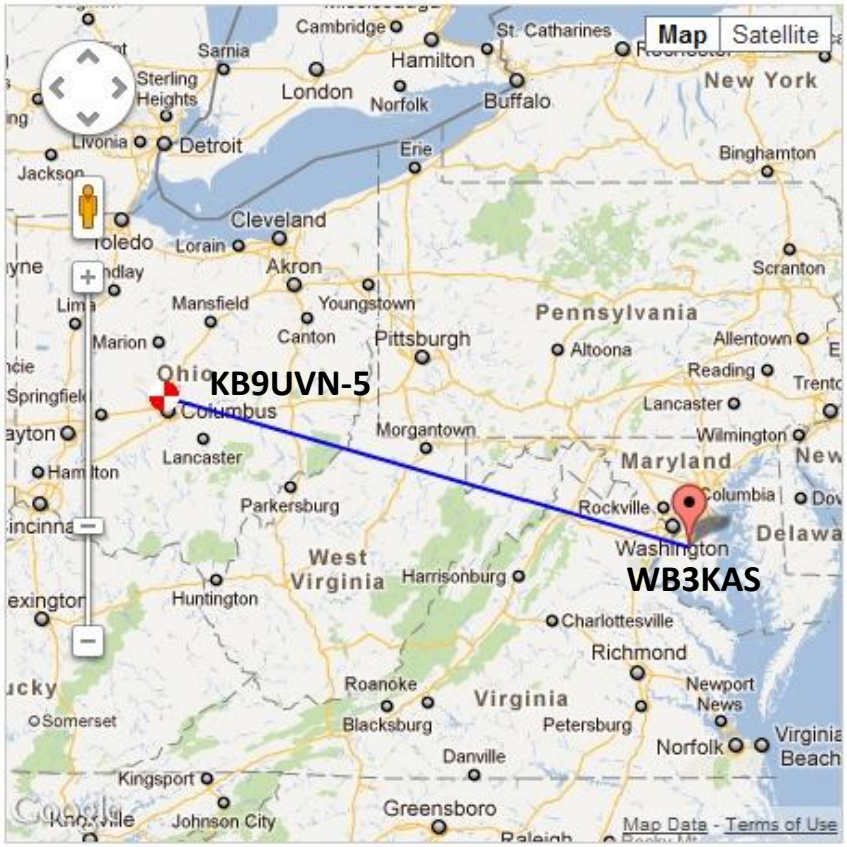
- Latitude 40.383890 (40° 23' 2'' N)
- Longitude -74.170569 (74° 10' 14'' W)
- Grid Square FN20vj
- US State New Jersey US County Monmouth
  Bearing 50.1° NE (from WB3KAS)
- Distance **183.0 mi** (294.5 km)
- 7095KHz at 0820L

- Garden State Amateur Radio Association Inc.



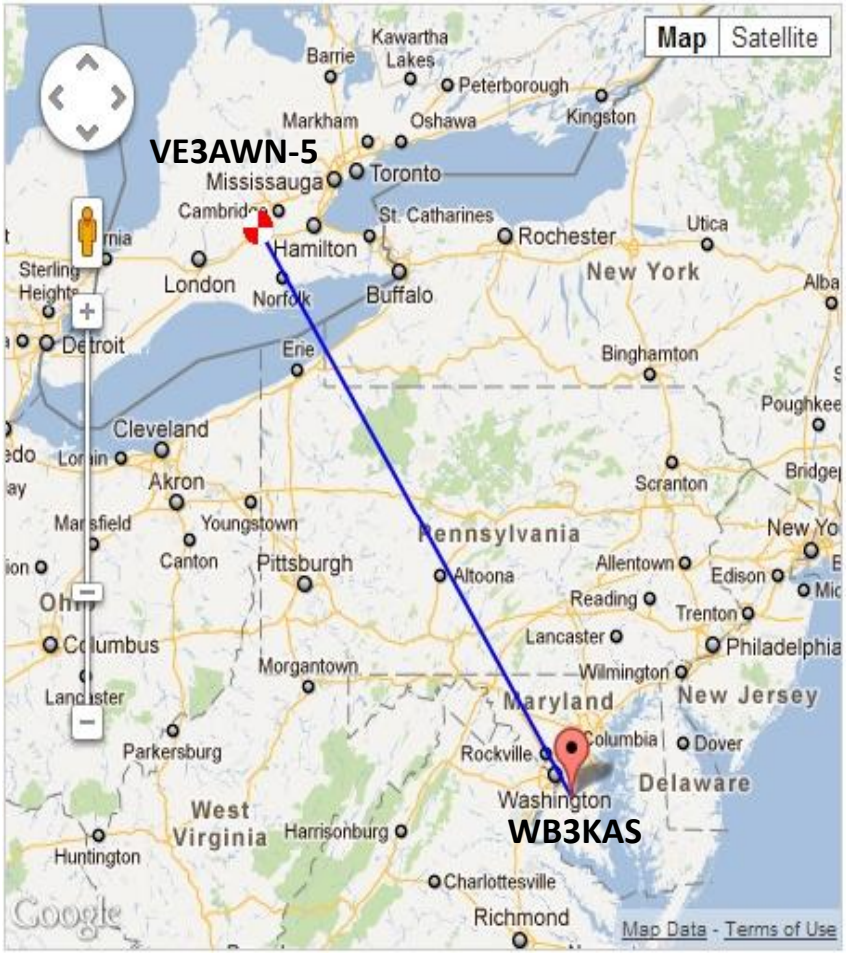
KB8UVN-5
Worthington, OH

- 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



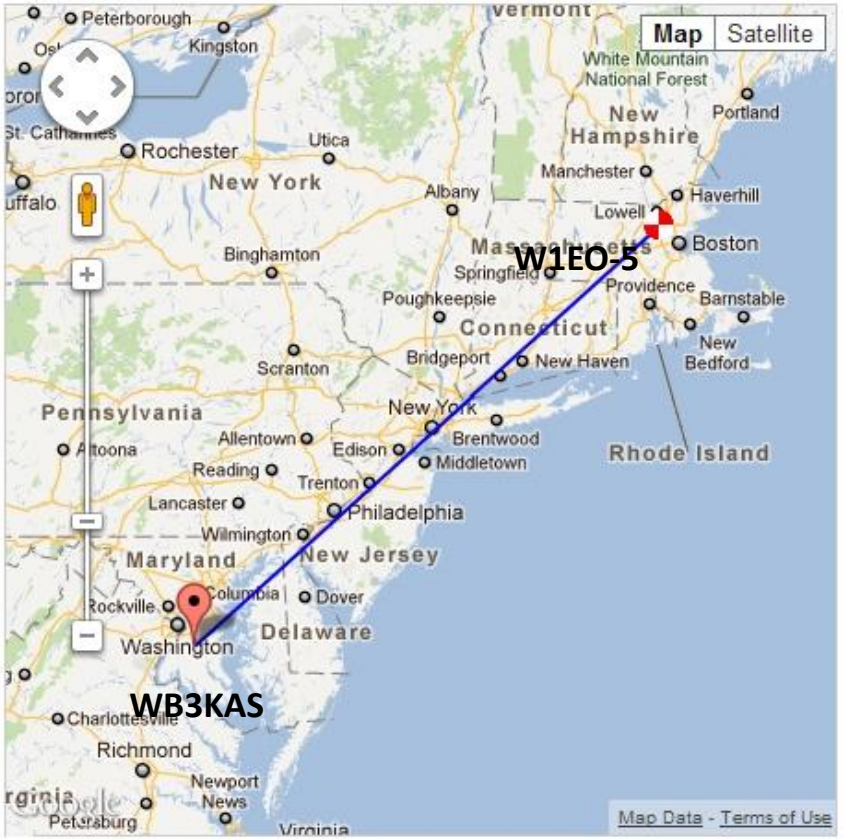
VE3AWN-5
Metcalf, Ontario

- 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



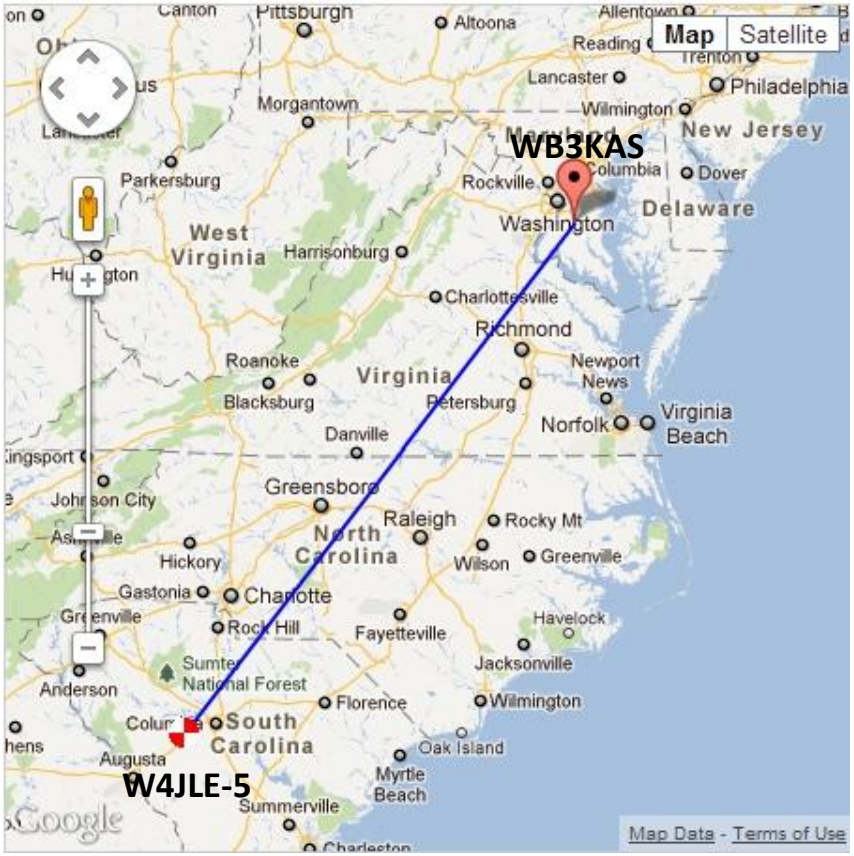
W1EO-5
Carlisle, MA

- 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



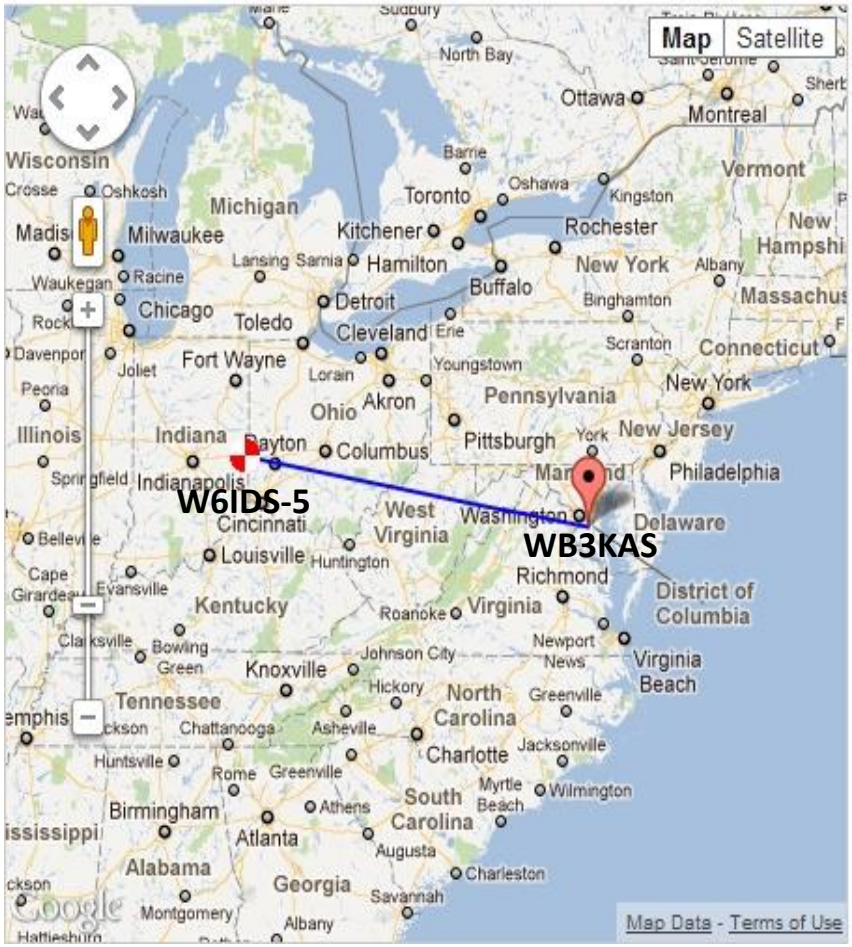
W4JLE-5
Gilbert, SC

- 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



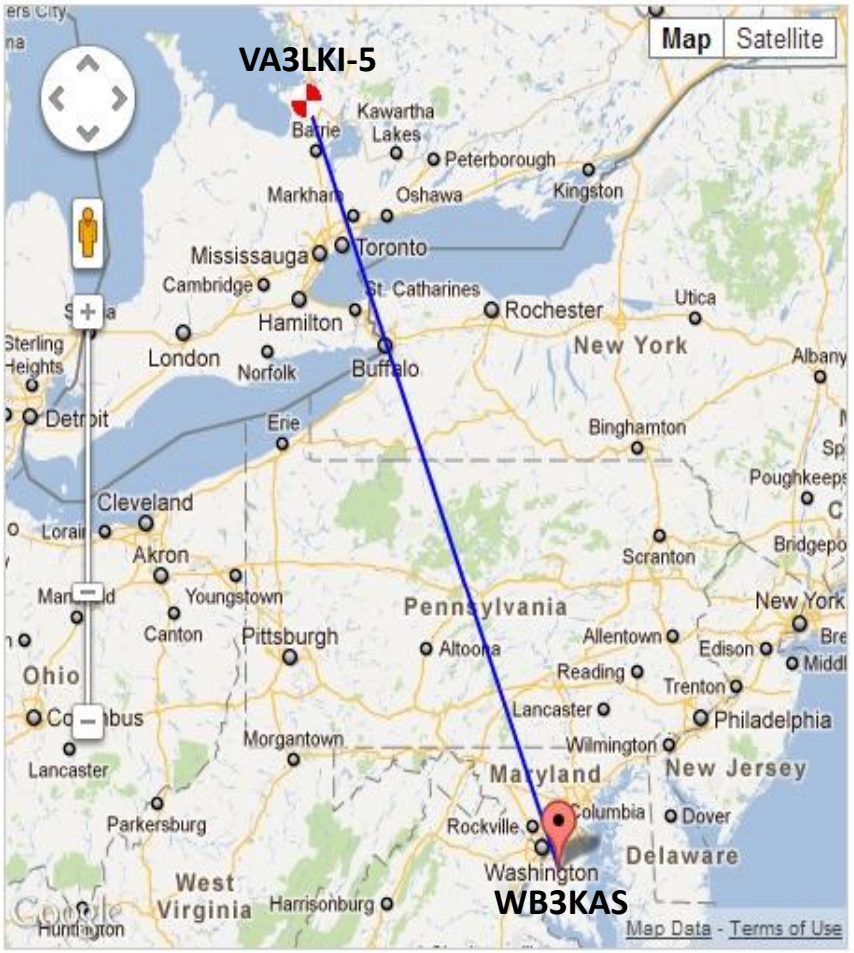
W6IDS-5
Richmond, IN

- 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

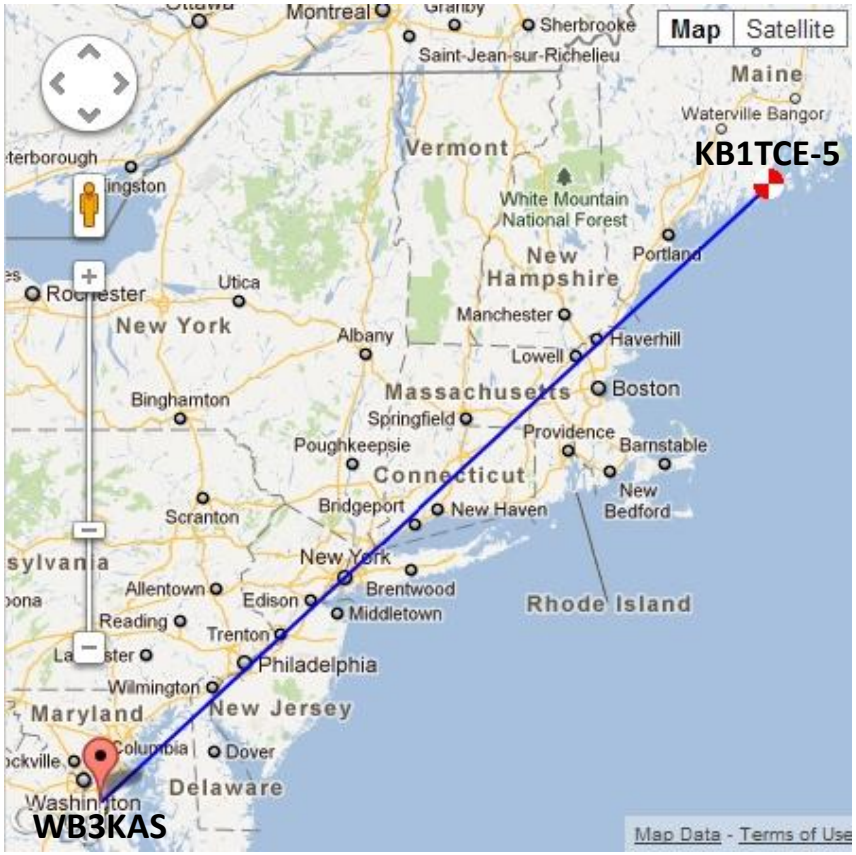


WB9FHP-5
Paoli, IN

- 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

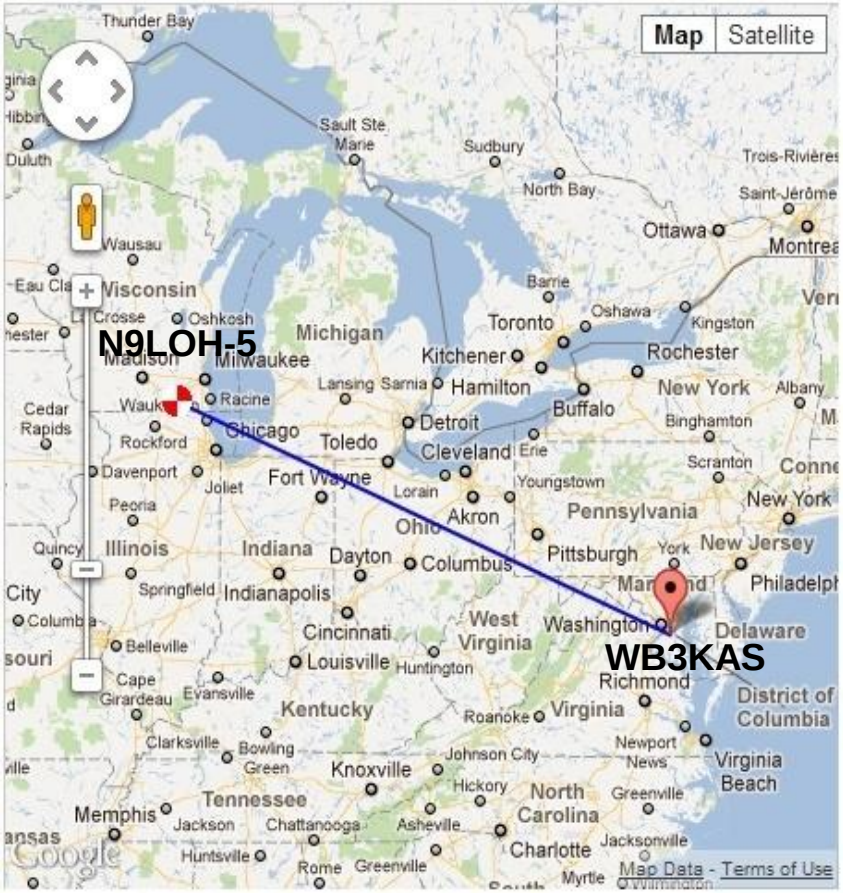
- Latitude 44.081327 (44° 4' 52'' N)
- Longitude -69.086543 (69° 5' 11'' W)
- Grid Square FN54kb
- US State Maine US County Knox
- Bearing 44.8° NE (from WB3KAS)
- Distance **546.3 mi** (879.2 km)
- 7088KHz at 1318L
- 3590KHz at 0625L



N9LOH-5
Elkhorn, WI

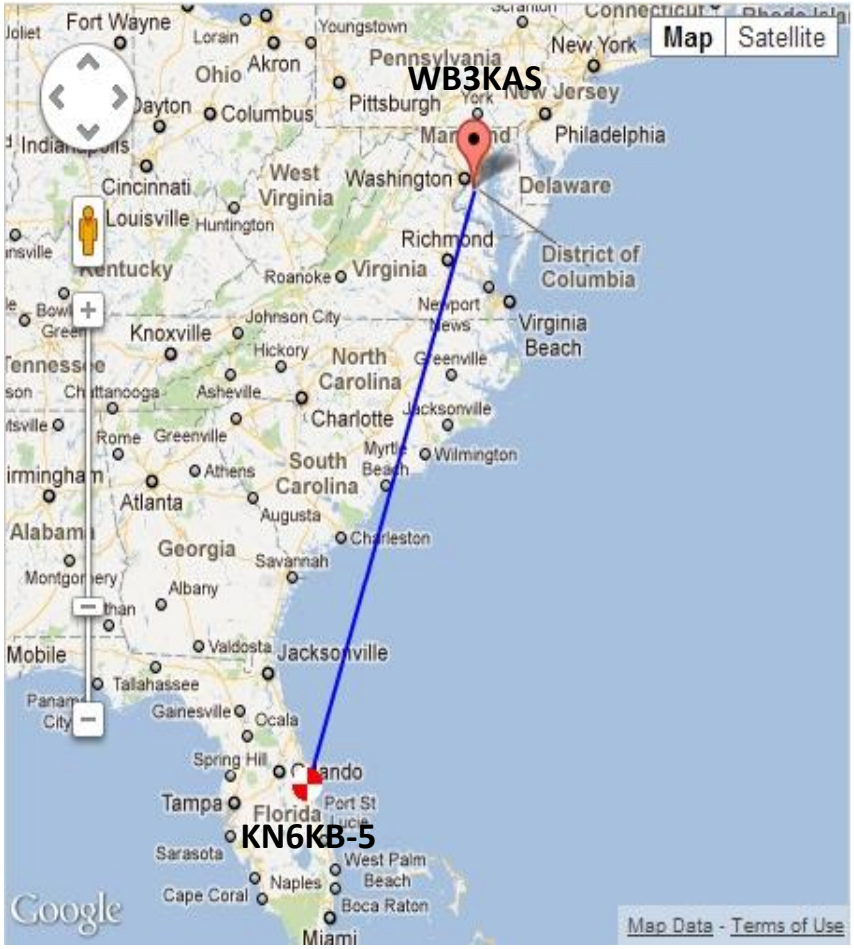
- Latitude 42.682649 (42° 40' 57'' N)
- Longitude -88.539027 (88° 32' 20'' W)
- Grid Square EN52rq
- US State Wisconsin US County Walworth
- Bearing 297.8° WNW (from WB3KAS)
- Distance **670.7 mi** (1079.5 km)
- 7095KHz at 0717L

- *** Connected to WL2K RMS: N9LOH-5 @ 2011/12/18 12:17:39 USB Dial: 7095.000 RMS WINMOR (EN52RS) 60 Minutes remaining [WL2K-2.7.0.7-B2FWIHJM$] ;PQ: 10979315 Perth CMS via N9LOH-5 > [RMS Express-1.1.1.3-B2FHM$] ;PR: 14875416 ; N9LOH-5 DE WB3KAS (FM18NR) FF FQ
- *** 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

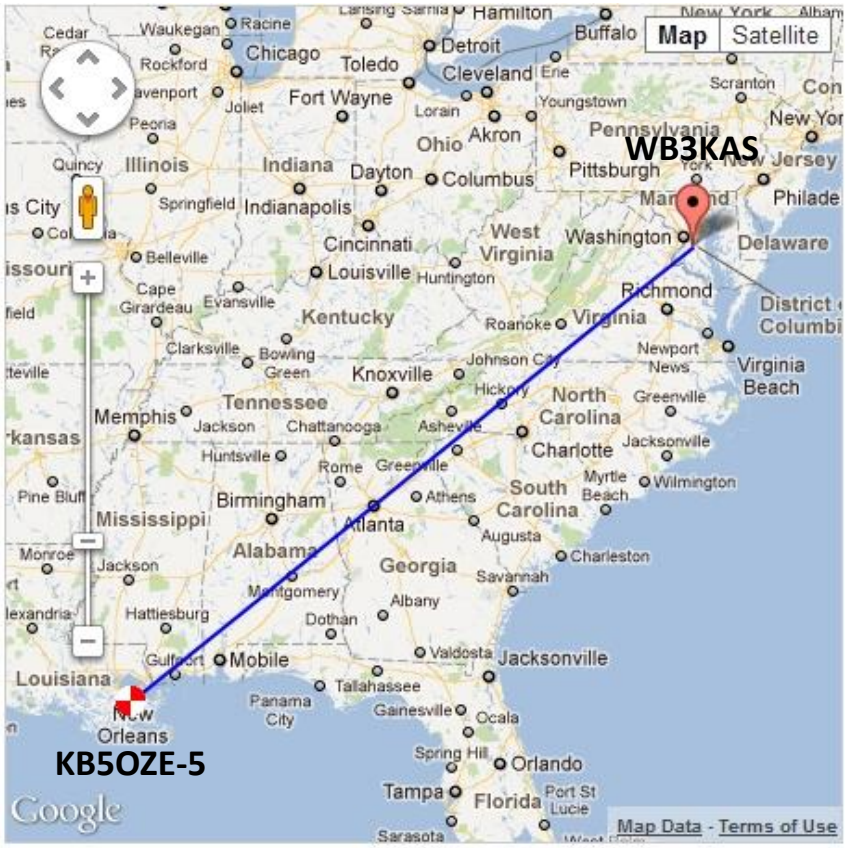
- Latitude 48.328700 (48° 19' 43'' N)
- Longitude -89.269999 (89° 16' 11'' W)
- Grid Square EN58ih
- Bearing 321.0° NW (from WB3KAS)
- Distance **908.4 mi** (1462.0 km)
- 7088KHz at 2044L

- *** 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-B2FWIHJM$] ;
- PQ: 44536975 SanDiego CMS via VE3ONN-5 > [RMS Express-1.1.1.3-B2FHM$] ;
- 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$] ;PQ: 17054328 Wien CMS via KB5OZE-5 > [RMS Express-1.1.1.3-B2FHM$] ;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

TXT File	Size	RF Speed	Method	Clocked

Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
US Dec of Indep	8.38K	1200	Node	1:25

Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
US Dec of Indep	8.38K	1200	Node	1:25
US Dec of Indep	8.38K	1200	P2P	1:11

Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
US Dec of Indep	8.38K	1200	Node	1:25
US Dec of Indep	8.38K	1200	P2P	1:11
US Dec of Indep	8.38K	9600	P2P	0:15

Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
US Dec of Indep	8.38K	1200	Node	1:25
US Dec of Indep	8.38K	1200	P2P	1:11
US Dec of Indep	8.38K	9600	P2P	0:15
US Constitution	29.7K	1200	Node	2:77

Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
US Dec of Indep	8.38K	1200	Node	1:25
US Dec of Indep	8.38K	1200	P2P	1:11
US Dec of Indep	8.38K	9600	P2P	0:15
US Constitution	29.7K	1200	Node	2:77
US Constitution	29.7K	1200	P2P	1:27

Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
US Dec of Indep	8.38K	1200	Node	1:25
US Dec of Indep	8.38K	1200	P2P	1:11
US Dec of Indep	8.38K	9600	P2P	0:15
US Constitution	29.7K	1200	Node	2:77
US Constitution	29.7K	1200	P2P	1:27
US Constitution	29.7K	9600	P2P	0:38

Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
US Dec of Indep	8.38K	1200	Node	1:25
US Dec of Indep	8.38K	1200	P2P	1:11
US Dec of Indep	8.38K	9600	P2P	0:15
US Constitution	29.7K	1200	Node	2:77
US Constitution	29.7K	1200	P2P	1:27
US Constitution	29.7K	9600	P2P	0:38
Catalog Listing	112.5K	1200	Node	3:48

Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
US Dec of Indep	8.38K	1200	Node	1:25
US Dec of Indep	8.38K	1200	P2P	1:11
US Dec of Indep	8.38K	9600	P2P	0:15
US Constitution	29.7K	1200	Node	2:77
US Constitution	29.7K	1200	P2P	1:27
US Constitution	29.7K	9600	P2P	0:38
Catalog Listing	112.5K	1200	Node	3:48
Catalog Listing	112.5K	1200	P2P	2:06

Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
US Dec of Indep	8.38K	1200	Node	1:25
US Dec of Indep	8.38K	1200	P2P	1:11
US Dec of Indep	8.38K	9600	P2P	0:15
US Constitution	29.7K	1200	Node	2:77
US Constitution	29.7K	1200	P2P	1:27
US Constitution	29.7K	9600	P2P	0:38
Catalog Listing	112.5K	1200	Node	3:48
Catalog Listing	112.5K	1200	P2P	2:06
Catalog Listing	112.5K	9600	P2P	0:46

Strategic National Stockpile Form

DESCRIPTION	Stock Number	Unit of Issue	Quantity Requested	Quantity Shipped
Acyclovir, 1000mg/20ml	55390-613-20	PKG of 10		
Aero Chamber Plus, w/large mask	58-80710	CS of 10		
Aero Chamber Plus, w/o mask	58-79710	CS of 10		
Aero Chamber Plus, w/small mask	58-88710	CS		
Albuterol Nebulizer Solution, 0.83mg/ml, 3ml	00172-6405-49	PKG of 1		
Alcohol pads, isopropyl, 70 1 1/4" x 2 1/2"	MDS090730	CS of 3000		
Amoxicillin 400mg/5ml oral suspension, powder, 100ml bottle	63304-970-04	CS of 96		
Amoxicillin 500mg oral Capsule unit of use #30 cap bottle	66336-511-30	CS of 40/80/480		
Amoxicillin 500mg oral capsules #500 cap bottle	0172-7414-70	CS of 36		
Amphotericin B IV 50mg vial	0013-1405-44	PKG of 5		
Aspirator, Laerdal, Battery, rechargeable	PN 884301	EA of 1		
Aspirator, Medline 601	MIN601	EA of 1		

SNS Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
SNS Form	164K	1200	Node	6:11

SNS Throughput Speeds

TXT File	Size	RF Speed	Method	Clocked
SNS Form	164K	1200	Node	6:11
SNS Form	164K	1200	P2P	6:47 !!

SNS Throughput Speeds

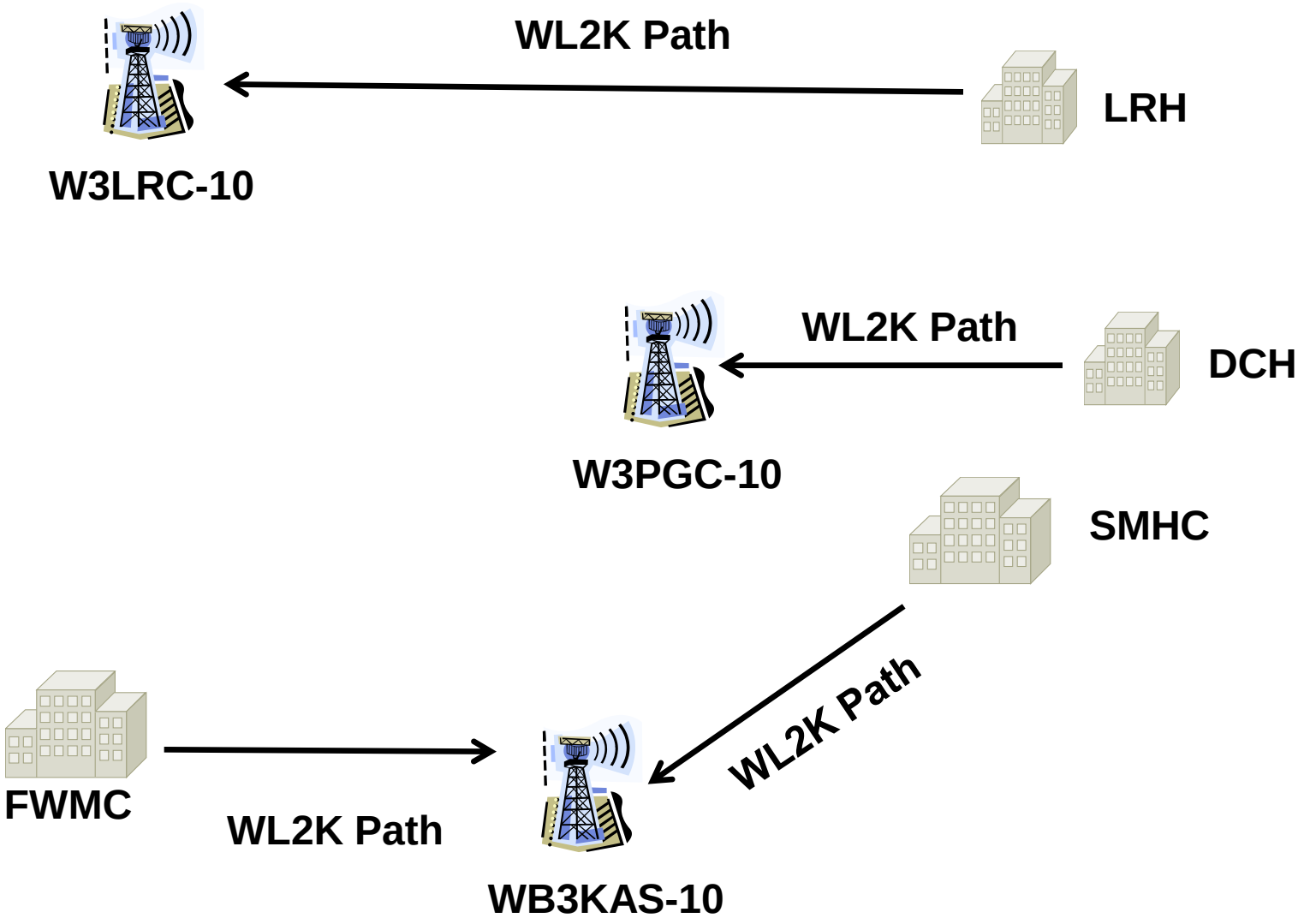
TXT File	Size	RF Speed	Method	Clocked
SNS Form	164K	1200	Node	6:11
SNS Form	164K	1200	P2P	6:47 !!
SNS Form	164K	9600	P2P	0:38

Tricks of the Trade
EmComm Status

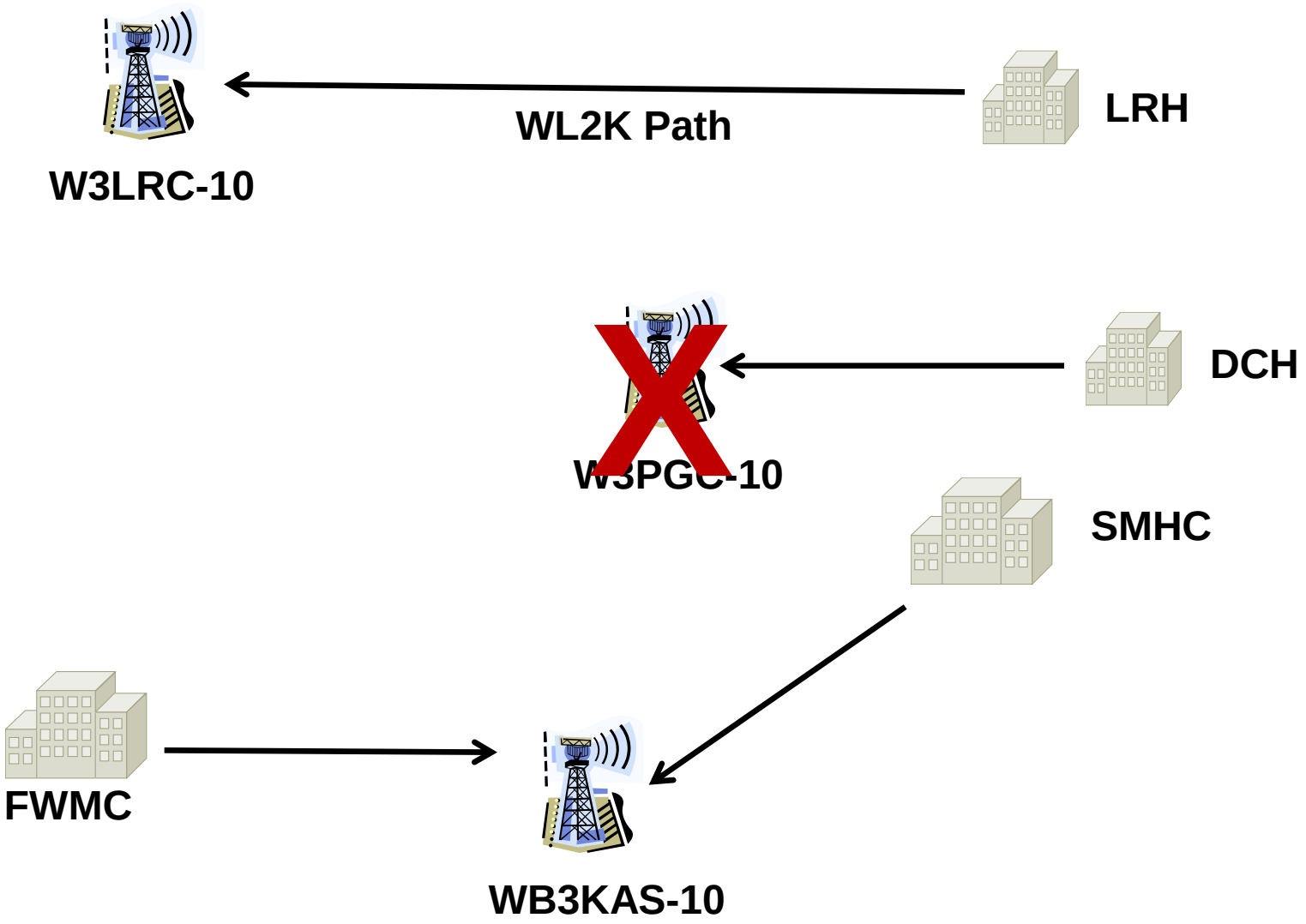
- Obtain VHF & HF Channel Updates:
  - BEFORE YOU DEPLOY
- If you decide to use the Auto Connect feature:
  - UNCHECK PREVIEW DOWNLOADS
  - KEEP IN MIND WHAT TRAFFIC YOU ARE EXPECTING
- Windoze likes to control your Audio
  - CHECK AUDIO SLIDERS OFTEN – KEEP THEM MAX
- Inbox traffic folder: ALWAYS KEEP IT EMPTY
  - Move traffic to appropriate folder
- Keep Outbox window active when sending traffic

Tactical Considerations

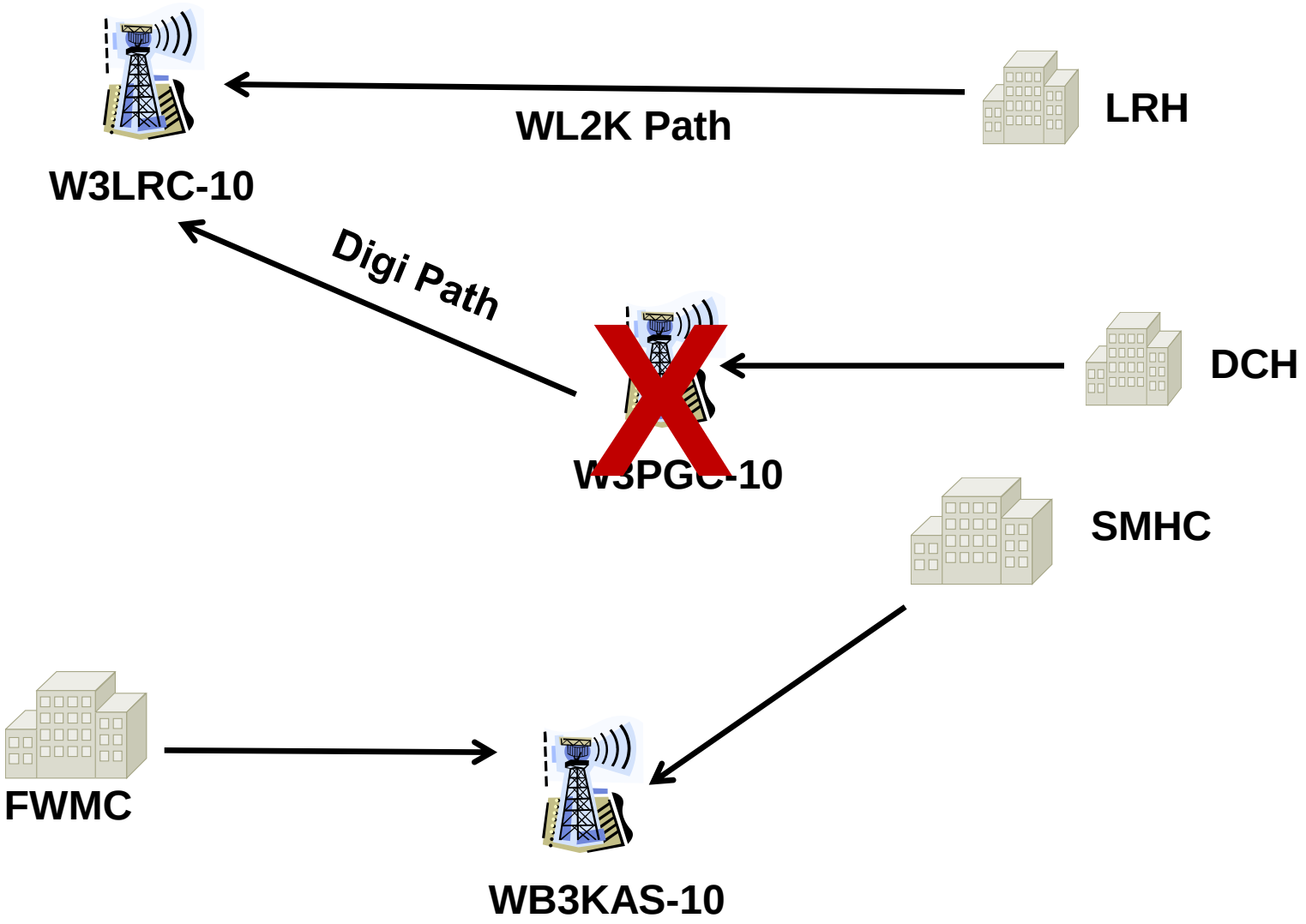
Tactical Considerations



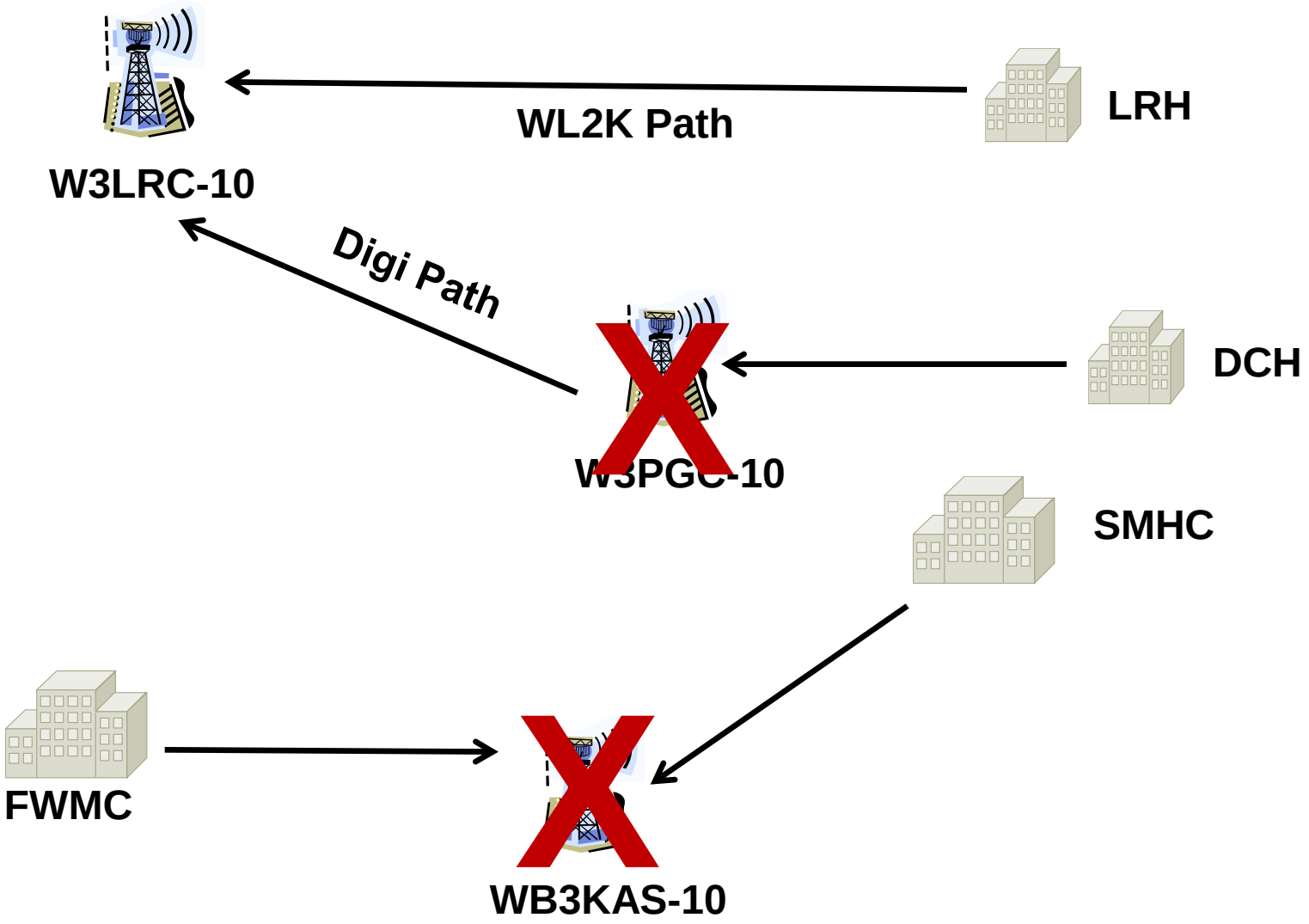
Tactical Considerations



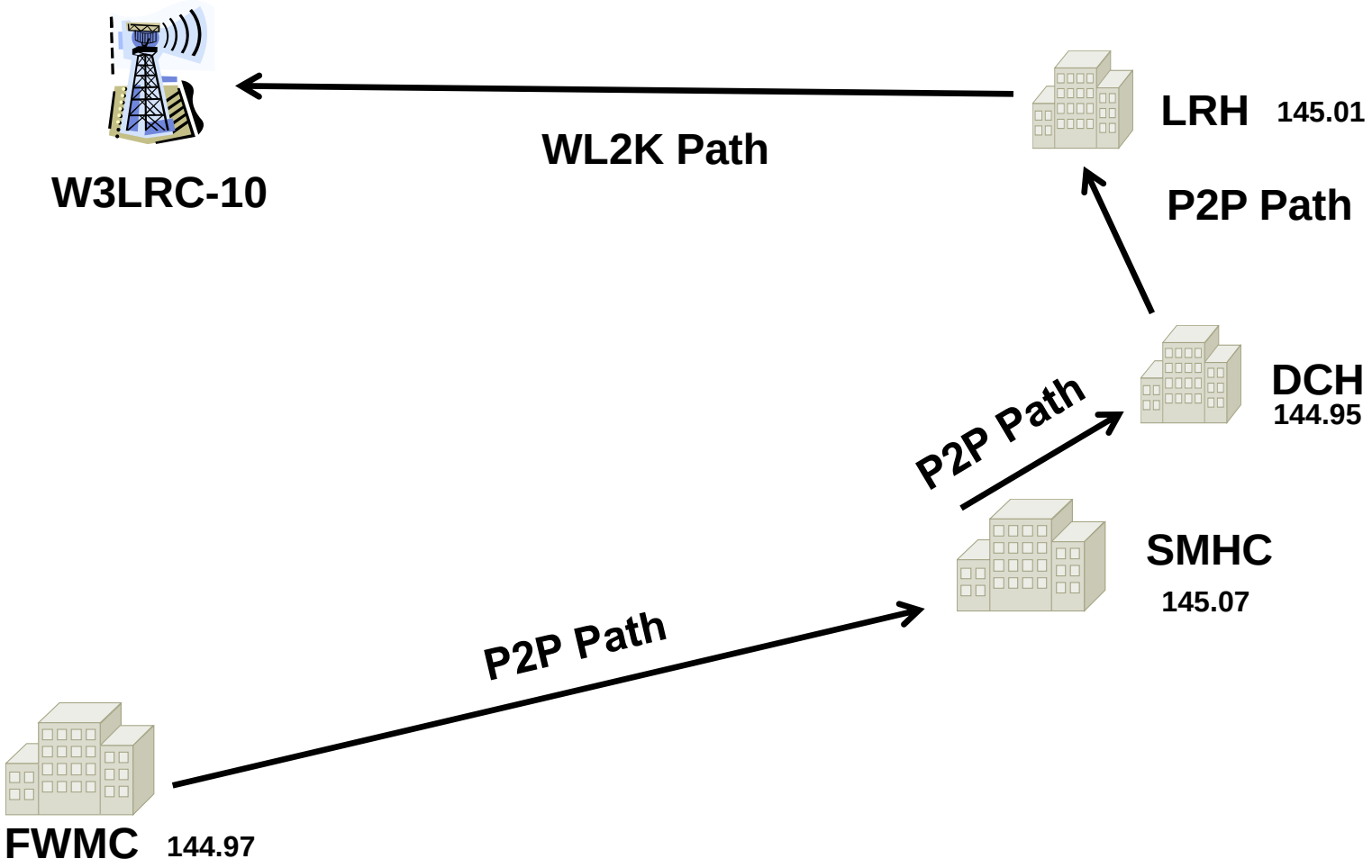
Tactical Considerations Solution 1



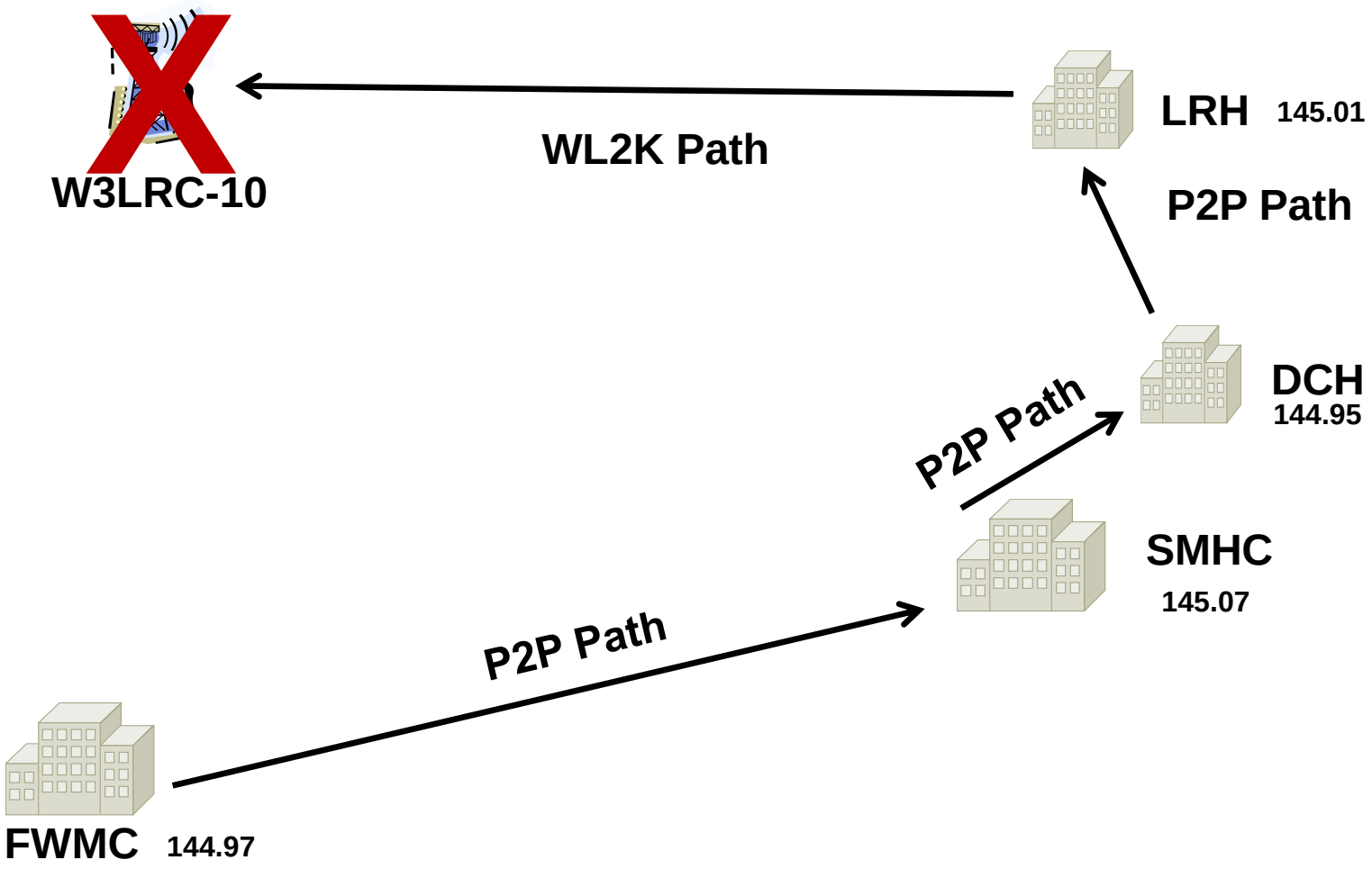
Tactical Considerations Solution 1



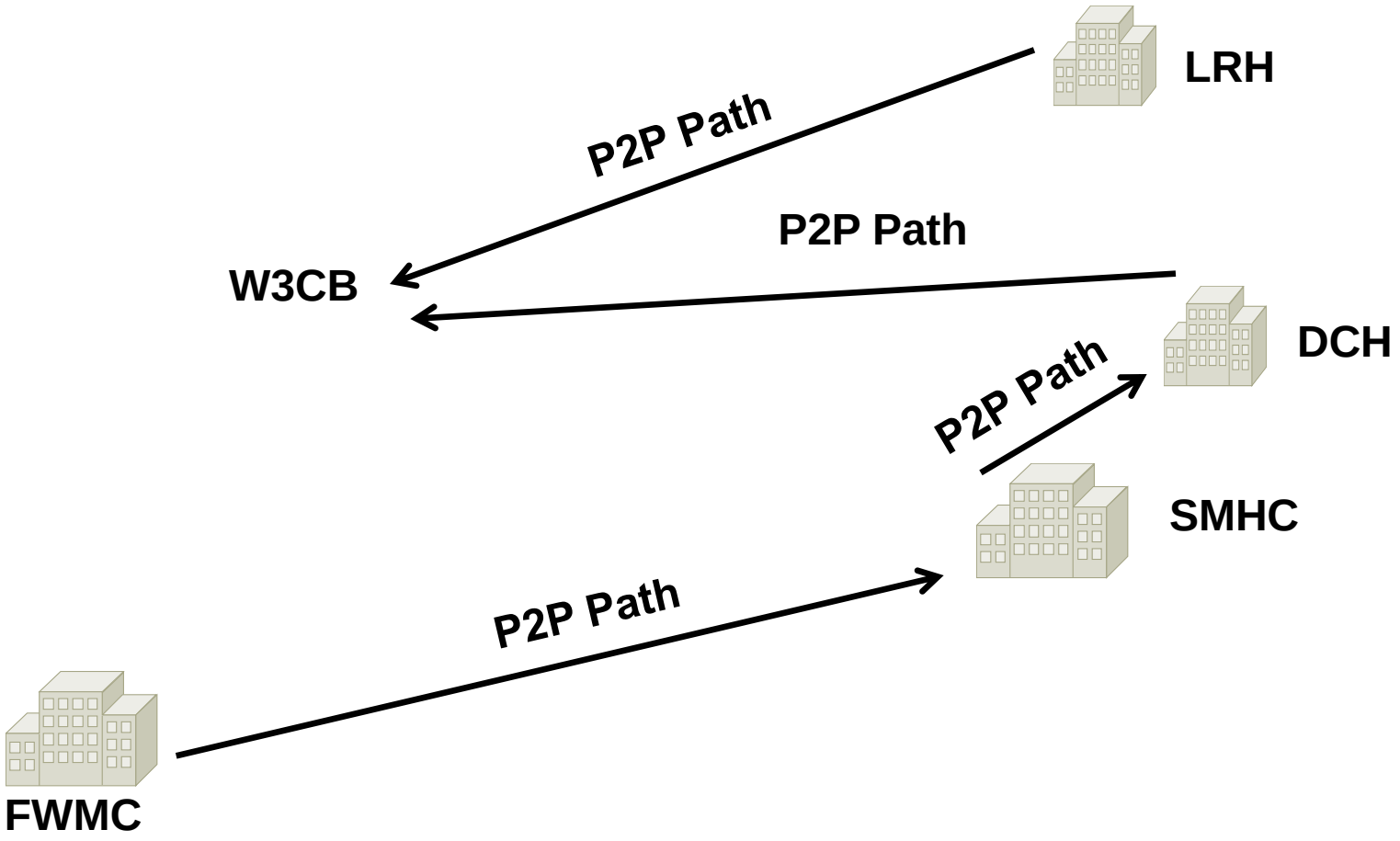
Tactical Considerations Solution 2



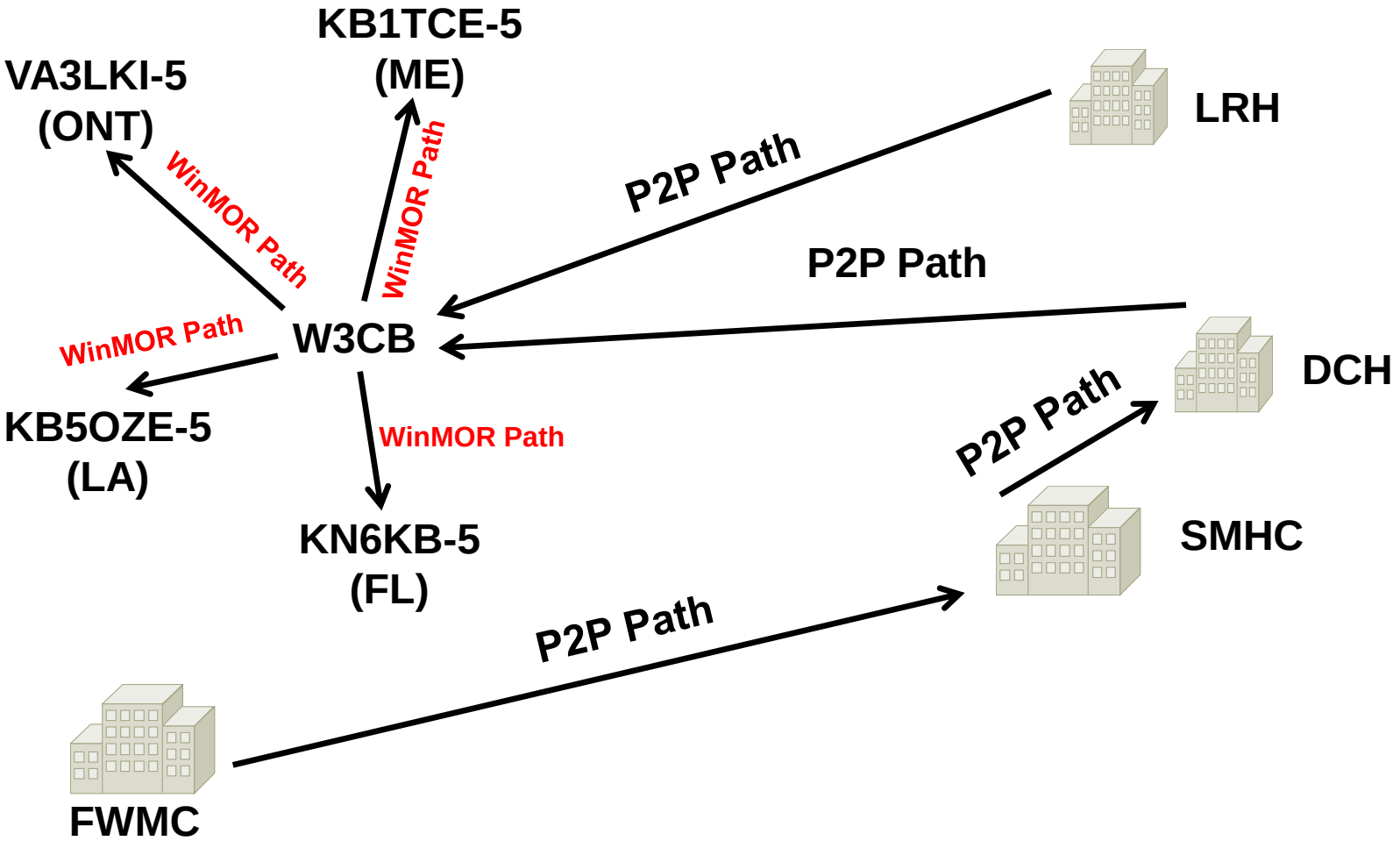
Tactical Considerations Solution 2



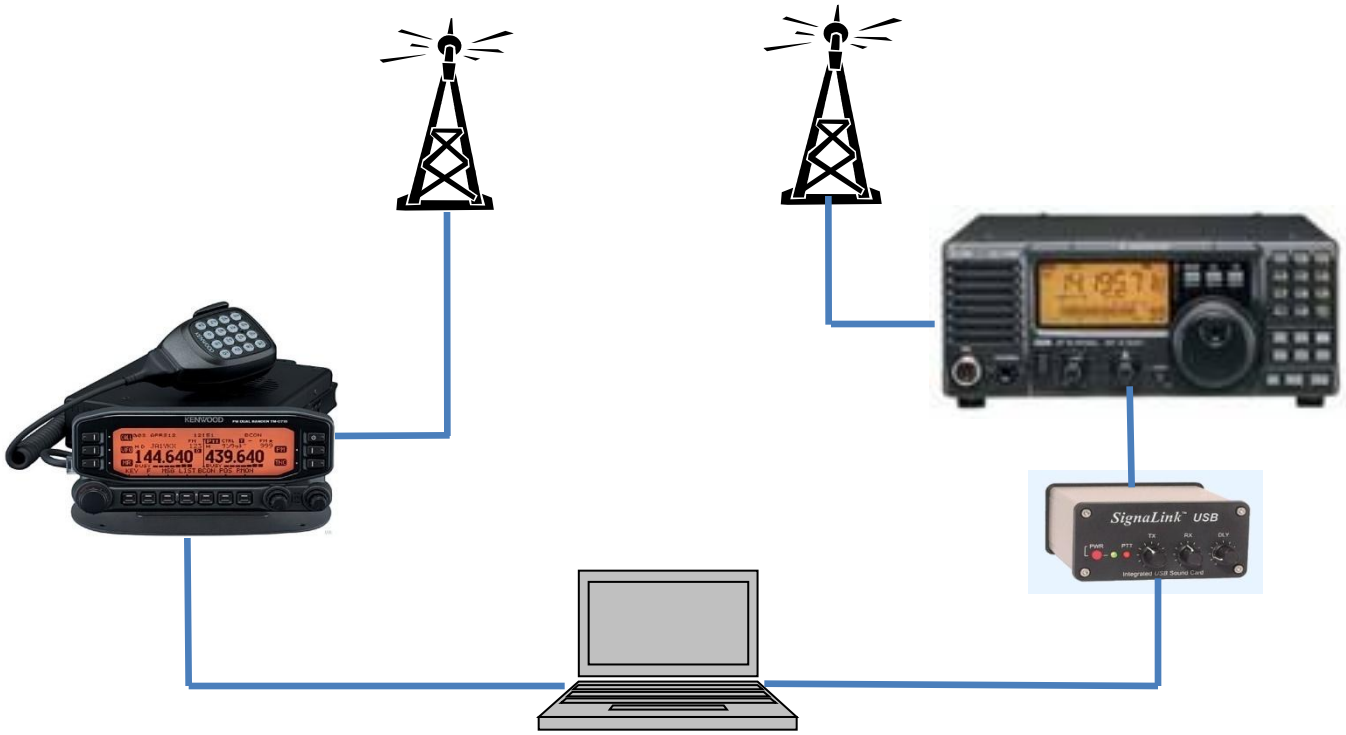
Tactical Considerations Solution 3



Tactical Considerations Solution 3

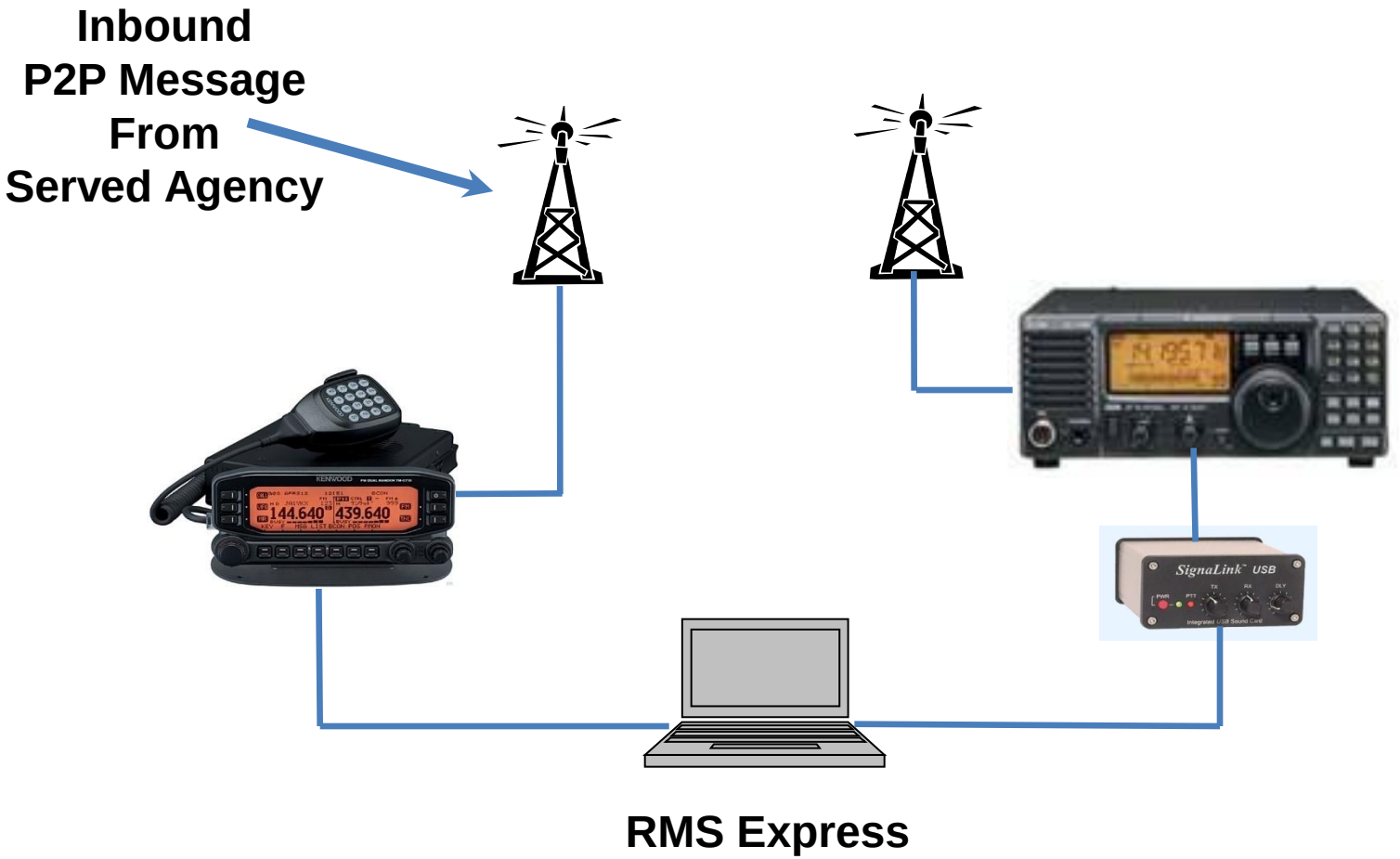


The Ideal EmComm Station

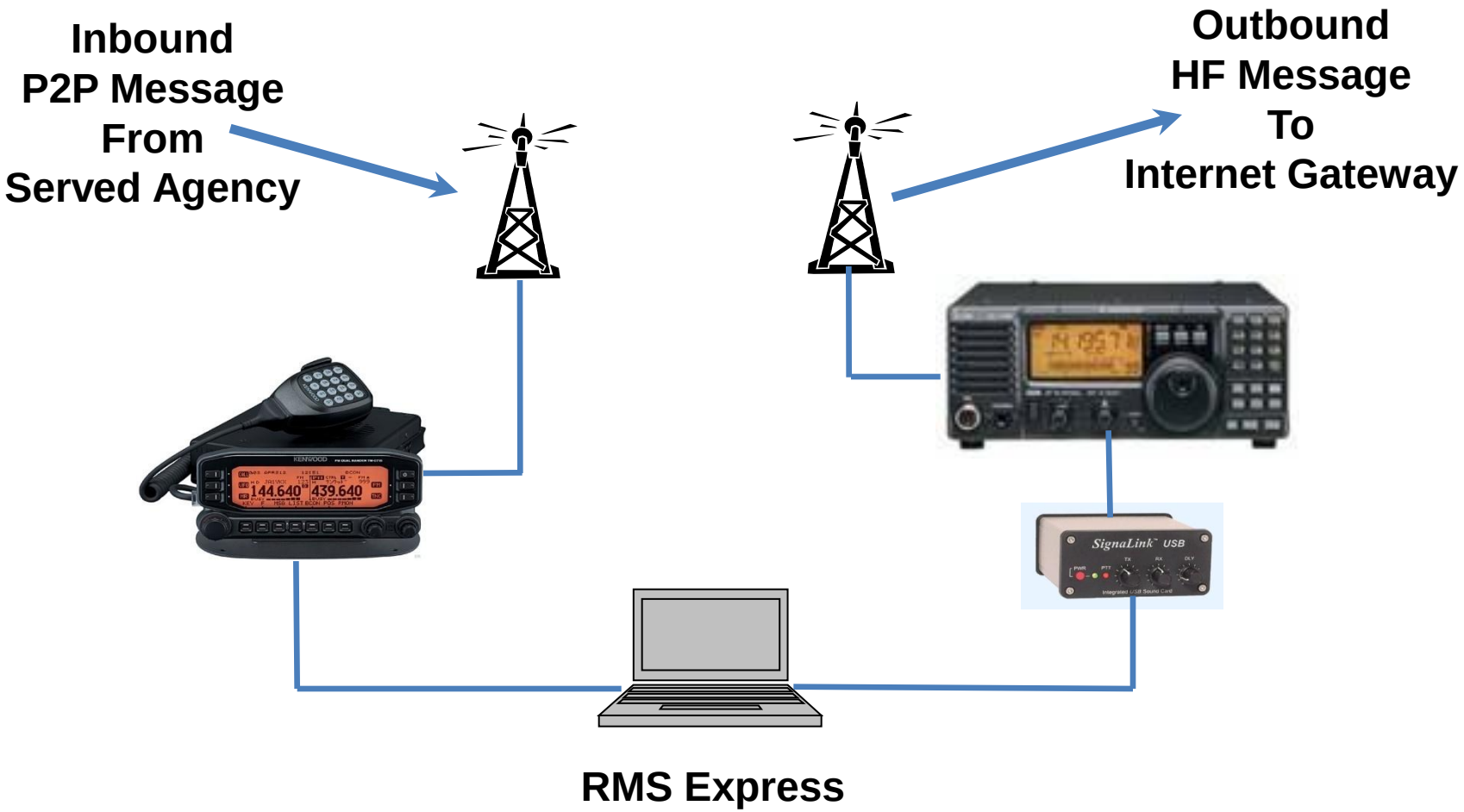


RMS Express

The Ideal EmComm Station



The Ideal EmComm Station




Email via Radio !
WINLINK 2000
Global Radio Email System
ON AIR
I'm ready,
are you?


Send an email from here? No problem.
Can your radio do that?
http://www.winlink.org