

Using WinLink to send NTS Messages for FD 2020 Bob Lanahan

22 Jun 2020 Version #1



W6TRW Amateur Radio Club

Home of the W6TRW ARC in Redondo Beach California

Winlink Overview & Demo

Bob

W6TRW General Meeting Tuesday, 9 July 2019 @ 5:30 pm Roundtable Pizza, 4330 Redondo Bch Blvd, Torrance CA





Outline – Winlink NTS Messaging FD 2020

- Your Setup Computer, Radio, Connector cables, Software
- How you create a message
- A few Examples Telnet (internet)
- Sending a radio message find a Remote Message Server (RMS)
- Example Field Day Messages



The A2 Shack Setup





Cables & Setup

- Ordered a RS-232 to Kenwood Comm cable \$50? one week
- Ordered a USB to RS-232 cable \$20 one week
- Plug the cable in to laptop, it will download drivers (be connected to the internet)
 - It will set up a Comm port (might need if for troubleshooting)
 - Find the comm port using the hardware detection comm port 5
 - Think each usb port has it's own comm port



Installing Winlink

- Go to website <u>https://www.winlink.org/</u>
- Download Winlink Express
- My big issue it needs Microsoft .Net 3.5 framework to operate (this is the software that does the port mapping, USB, and data control)
 - Took about 30 45 mins to install



Microsoft .NET	Framework 3.	.5 Service Pack 1	
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.Net and Devices

	×	
Windows Features	👘 Home	Bluetooth & other devices
An app on your PC needs the following Windows feature:	Tind a setting	P + Add Bluetooth or other device
NET Framework 3.5 (includes .NET 2.0 and 3.0)	Devices	Bluetooth
	Bluetooth & other devices	off
	Wir 🛱 Printers & scanners	Mouse, keyboard, & pen
Download and install this feature Windows will get the files that it needs from Windows Update and complete the installation.	O Mouse	
	E Touchpad	
→ Skip this installation Your apps might not work correctly without this feature.	Typing	Other devices
rous apparentgine new work connectory methods entaireationed	Pon & Windows Ink	Prolific USB-to-Serial Comm Port (COM5)
Tell me more about this feature		
	Cancel	



Install / Boot Up Winlink

	ign Password: •••••••		
Callsign suffix (optional)	(used for country code)	Name:	name
	Topes in commit const	Street address 1:	Street
Password recovery en di:	Email	Street address 2:	
(Non-Winlink e-mail address with	adjust a second a difference when requested)	City:	
Remove Callsign	Request password be sent to recovery e-mail	State/Province	CA
		Country	USA
xiliary Callsigns and Tactical Addre	11.01	Postal code	City
Calagris and Tacada Pour	Add Entry	Web Ste URL (optional)	
	Remove Entry	Phone number:	
	Edit Entry	Non-Winlink e-mail:	Name @ mail.com
DAADOTH		Additional information (optional):	
DM03TW	/		
M Grid Square: DM03	Lat/Log o Grid Square		
Winlink ocess registration key:		· · · · · · · · · · · · · · · · · · ·	×
ervice Codes		Recalculate HF path quality if SFI ch	anges more than: 30
PUBLIC		Keep logs for 52 🔃 weeks.	Keep deleted messages for 365 days
and the second se	Separate multiple service codes by spaces.)	Display list of pending incoming m	essages prior to download
If you change service codes, you		Warn about connections to statio	
			sent to the Winlink Development Team
		Automaticaly install field test (beta	I) versions of Winlink Express

- Install winlink
- Will take you right into Setup
- Create account and password
- call sign @ winlink.org
- Know your 6 letter Grid Square or know your Lat/ Long



Nag screen ...

You will get a nag screen when you open the application again. The Nag screen will make you wait a bit, before it lets you select "remind me later", but you don't have to buy the program or get a registration key.

Winlink Express is made po	esible through the Amoteur
Radio Safety Foundation Inc	c. Your registration of
Winlink Express and suppor Winlink system possible. Re	
also registers your callsign t	
Registration Site UF	RL (click):
http://www.arsfi.org/	express.aspx
Enter Registration Key	
Enter Registration Key Call Sign: xyz-123	
Call Sign: xyz-123	
Call Sign: xyz-123	Remind Me Later



Create an Email

KK vesettings Help 1 16 18 18 18 19 1	New Message	items ~	Delete Op	Session: Telnet Winlink Vogs Is Coge
bo active session System Folders box (0 univead) Read terms (0) Outbox (0) Sent terms (0) Saved items (0) Deleted items (0) Drafts (0) Personal Folders	Repsy to Ad Forward Forward without change Acknowledge receipt Save message as Edit Templates Template settings Set favorite templates	Do Ser	S Enter	a new message - X elect Template Attachments of st to Outbox Specific K Save in Drafts (K) Sen las: Winlink Message C Request read receipt Set De I address@aol.com
Global Folders	HTML Forms Generate ICS-309 Communication Log Export messages Import messages Archive messages		Attach: This is a te Bob	



Post Message to Outbox

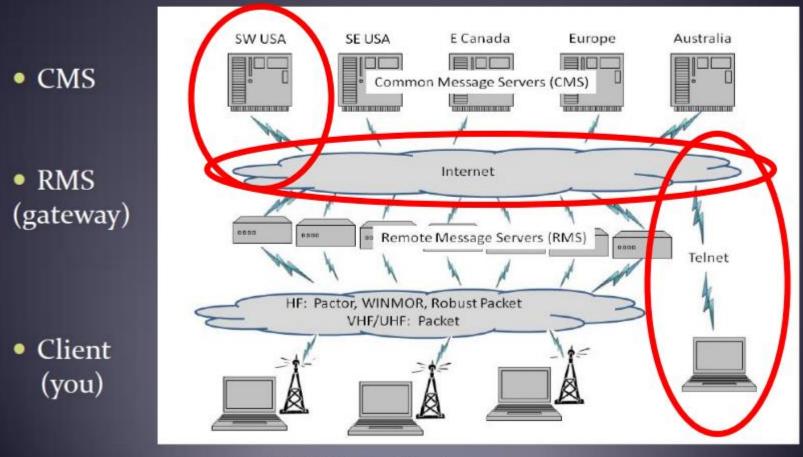
cycle Bin	File Home Share View
🗱 Winlink Express 1.5.18.0 - KK	- 🗆 🗙 👩
	Attachments Move To: Saved Items v Delete Open Session: Telnet Winlink v Logs
7 Help	5 e
- Help 	🛃 🐎 🤨 Open
No active session	Sea
System Folders Date/Time	Message ID Size Source Sender Recipient Subject
M Read Items (0) Outbox (0) Sent Items (0)	Enter a new message - X Close Select Template Attuchments Post to Outbox Spell Cherk Save in Drafts
Saved Items (0) Deleted Items (0) Drafts (0) Personal Folders	From: KK wind as: Winlink Message Request read receipt Set De Inst To: email@email.com vs.l quit
Vir Personal Folders	Cc: 040 Subject: test Attach:
Global Folders	This is a test.
	Bob Sen
Contacts	
	v .



Now - Try a Telnet Email

Uses internet – No point on FD, needs to go RF !!

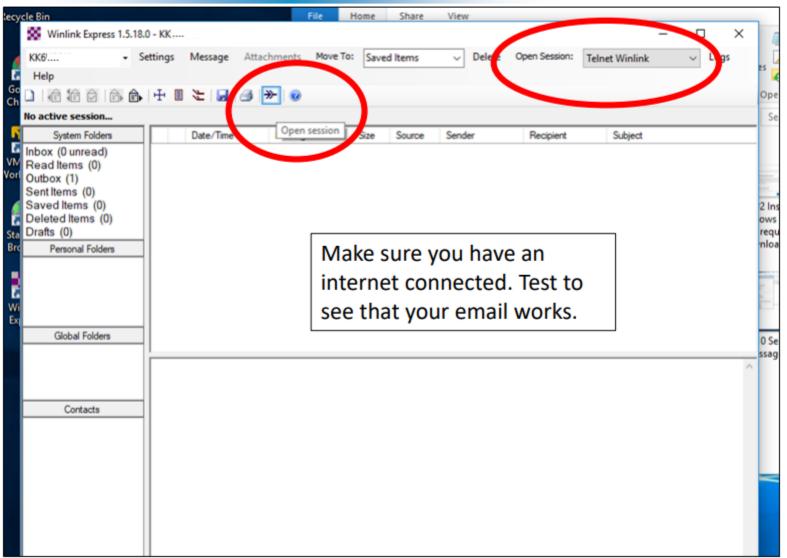
Winlink 2000 Architecture (Conventional Mode)



Amateur Radio Safety Foundation, Inc.



Open a Telnet session



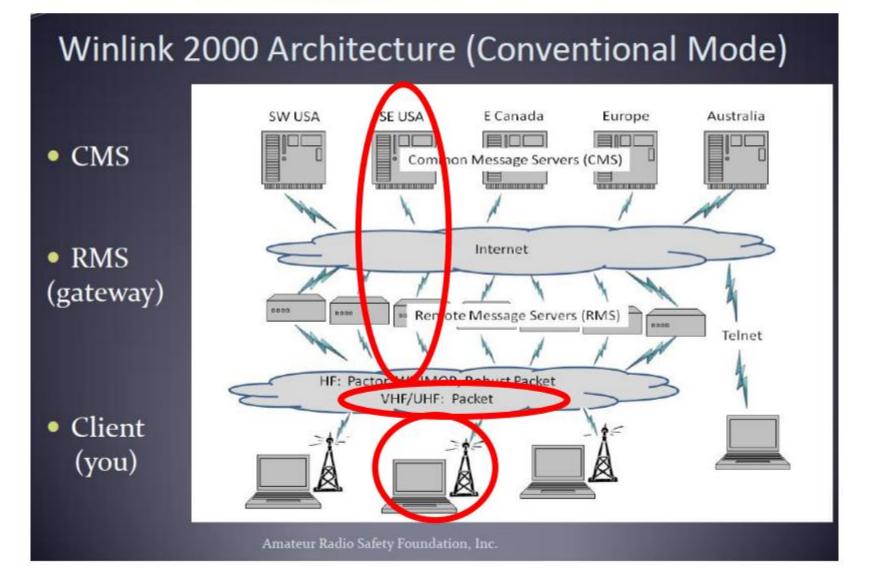


Telnet Session

Exit	Settings	Start	Stop	Time to next Autoconnect = Disabled	
*** Conn	ecting to a C	MS			
	ected to AW		/10/05 18	3:51:10	
	5.0-B2FWIHJ	MS]			
PQ: 20	902194				
CMS>					
	KK6				
	Express-1.5.1	12.0-B2FH	MSJ		
	0456386	(01402	ALTIN		
the second s	K DE KK 1 3V0D40HS/	and the second sec			
F>C8		ADEC 132	1/50		
FSY					
	ing 3V0D40H	ISADEC			
FF	ing or op tot	10/10 20.			
	oleted send o	fmessage	3V0D40	HSADEC	
				0:00, bytes/minute: 46532	
Seric					



Now - Try a Radio Email





Find a station

	Massage ID	Cinc	Caura Can	dae	Desisiont	Cubicat			_
Packet Winlink	Session								
Exit Settings	Switch to Peer-t	o-Peer Se	sion Channe	Selection	Band St	tart Stop			
Connection type:	Direct •	K6CC	10 Via		/ · [
Connection script:				dit script A	Add script Ren	nove script			
ime to next Autoco	onnect = Di	Packet Cha	nnel Selector						×
" Starting WL2K pac	ket session			date Table V	ia Internet Up	date Table Via	Radio		
Initializing Kenwood Initialization failed	AND TO DO A ROAD				our grid square.				
		luons lound		officiers or y			Distance		^
		allsign	Frequency (MHz)	Baud	Grid Square	Group	Distance (mi)	(Degrees)	
	К6С	CR-10	145.050	1200	DM04TA	PUBLIC	006	000	
		C-10	145.050	1200	DM04TA	PUBLIC	006	000	
	AJ7	C-10	431.125	0000	DMOATA	DUDUO	000	000	
	W2	NP-10	145.050	1200	DM04UC	PUBLIC	012	025	
	KE	SWEZ-10	145.050	1200	DM04PG	PUBLIC	030	320	
	W6/	ACS-11	431.125	9600	DM13CW	PUBLIC	034	090	
	K6N	BR-10	431.475	9600	DM13BO	PUBLIC	037	129	
	K6N	BR-10	145.050	1200	DM13BO	PUBLIC	037	129	
	W6/	ACS-10	431.475	9600	DM13DS	PUBLIC	040	107	
	KKE	SMTQ-10	145.630	1200	DM04VM	PUBLIC	041	014	
	AGe	5MO-10	145.090	1200	DM14EC	PUBLIC	044	075	
	WB	6TT-10	144.970	1200	DM13FU	PUBLIC	048	097	
	W6/	ACS-12	431.075	9600	DM13EK	PUBLIC	055	128	
	KE	SNYT-10	145.050	1200	DM04LM	PUBLIC	055	317	
	WM	I6T-10	145.090	1200	DM14JG	PUBLIC	071	071	
	KG	6HSQ-10	145.050	1200	DM13JJ	PUBLIC	077	119	
	KDE	6ILO-10	145.050	1200	DM13IF	PUBLIC	080	128	
	Lun V		145.050	1000	DI IO III	DUDUO	000	440	×

- 1. Need internet
- 2. Pick a station,
- Close is good
- Notice Data Rate
 - -- 2 meter vs 70 cm

Need to find your station list before field day !!

Out in the field, you won't have internet!!



Find a Station

	teur Ra rations	· · · · · · · · · · · · · · · · · · ·	tor and will a	agree to su	oport CCAF	ES during	disaste	er	
Fre	quenc	ies							
	10000-202								
The	K6CCR	repeater is	s located nea	ar the Baldv	vin Hills Sce	enic Overl	ook and	l is on:	
			de 131.8, sta				ook and	l is on:	
445	6 MHz	CTCSS coo					ook and	l is on:	

Example of Connection to W6ACS-10, was my best option from Aerospace Bld

Packet Winlink Session	
Exit Settings Switch to Peer-to-Peer Session Channel Selection 9600 Ba	aud Start Stop
Connection type: Direct - W6ACS-10 Via	e
Connection script: Edit script Add script	t Remove script
Received: 120 Sent: 121 Time to next Autoconnect = Disabled	
 Starting to call W6ACS-10 Opening serial port COM5; 9600 baud; Kenwood TM-D710 B-Band Connecting to W6ACS-10 Connected to W6ACS-10 at 2019/01/24 02:33:12 WELCOME TO THE ORANGE COUNTY RACES LOMA RIDGE RMS SITE. 431.475 MHz [WL2K-5.0-B2FWIHJMS] ;PQ: 28058089 CMS via W6ACS > ;FW: KK [RMS Express-1.5.18.0-B2FHMS] ;PR: 31861625 ; W6ACS-10 DE KK (DM03TW) FC EM QFRN31N3DJH6 155 147 0 F> A9 	This isn't a P2P Session, it's a 431 Mhz attempt to Orange County Races – with squelch set wrong I don't think I have any screen prints of the P2P sessions (sigh)
*** Disconnected at 2019/01/24 02:34:26 *** Disconnect reported.	F



Set up – Connect to the radio

Data (Tran		C C	Cander	Destatest	Colstant	
🗱 Packet Winlink	Session					
Exit Settings	Switch to Peer-to-F	eer Session Cha	annel Selection	1200 Baud	Start Stop	
Connection type:	Direct -	K6CCR-10	Via			
Connection script:		-	Edit script	Add script	Remove script	
Time to next Autoc	onnect = Disabled					
*** Initializing Kenwoo *** Initialization comple *** Ready	d TM-D710 B-Band; po ete	rt COM5; 9600 baud				

- Radio and Band
- Port
- TNC parameters
- Important, listen to the channel, set your squelch properly.
- Your radio won't transmit if it hears a busy channel !!



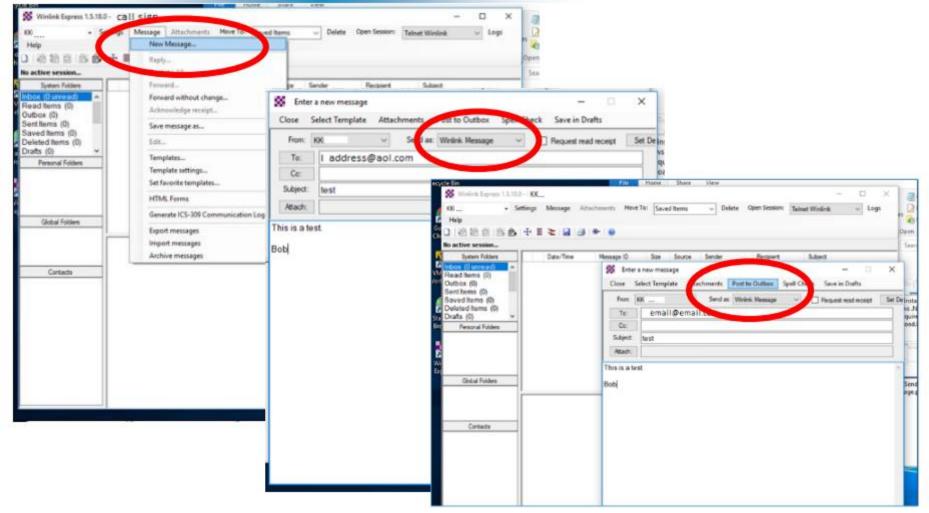
Set up

FNC Connection				
Packet TNC Type: Kenwood TM-D7	10 B-Band		~	
Packet	TNC Model:		×.	AutoConnect Time
<	Serial Port:	COM5	i V	Disabled
Ser	al Port Baud:	9600	~	
INC Parameters	1200 Ba	ud	○ 9600 B	aud
TX Delay (Milliseconds):	400	~	300	~
Maximum Packet Length:	128	~	255	~
Maximum Frames:	2	~	7	~
Frack:	2	~	2	~
Persistance:	160	~	224	~
Slot time:	30	~	20	~
Maximum Retries:	5	\sim	5	~
Disable Xmt 🔲 🛛 Transmit Level: Level Adjust	100		100	

- Radio and Band
- Port
- TNC parameters
- Important, listen to the channel, set your squelch properly.
- Your radio won't transmit if it hears a busy channel !!



Create an Email, Select Message Type and post to Outbox



A blank ARRL Radiogram Form

http://www.arrl.org/files/file/Public%20Service/RADIOGRAM-2011.pdf

	A₩ R⊠R ↓					n for Amateur Rad		A Y J R			
NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK		PLACE OF ORIGIN	TIME FILED	DATE			
то				+		THIS RADIO MESSAGE WAS	RECEIVED AT				
				AMATEUR	R STATION		PHONE				
				NAME							
				STREET							
PHONE NUM	BER				CITY, STATE, ZIP						
	ROM		DATE	TIME	то		DATE	TIME			
whose address	s is shown in the box a	t right a	a licensed Amateur Radio op bove. No compensation can b be filed with the "ham" deliver	be accepted	magazine.	is the national association for A One of its functions is promotio Radio operators. To that end, the	on of public service com	munication among			

HARC Field Day 2019

Msg #1

NUMBER PRECEDENCE	HX STATION OF ORIGIN	снеск		NDO BEACH CA	TIME FILED DATE	
TO DIANA FEINBERG ATGOF LAX SM PO BOX 4678				IS RADIO MESSAGE WAS RECEIN		
PD BOX 4678 PALOS VERDES 1	DENINSULA CO	AMATEU	0.000000000000000000000000000000000000		ONE	
LUPOS LEICDES 1	CHING OF TH	10000000	Constraint and the second	C-w	1.	
PHONE NUMBER E-MAIL AT 60F ATS/	IN ARRL DOT NET					
W6HA	At		NS	WILDERNESS	PARK	
HAD	02.3	MEN	ABERS	AND	003	
ARES	MEMBERS	ATT		<u>X</u>	73	
MIKE VAHEY	NGMDV					
FROM	DATE	TIME	TO	LINK KOCCF-10	THAL 23 1551	



MSG 1, Text File:

ai6df@arrl.org

(for FD Jun 2020, her email address is .org, was .net in 2019)

FIELD DAY RADIOGRAM FROM HUGHES AMATEUR RADIO CLUB

1 R W6HA 15 REDONDO BEACH CA JUN 22

DIANA FEINBERG AI6DF LAX SM

PO BOX 4678

PALOS VERDES PENINSULA CA 90274

AI6DF ATSIGN ARRL DOT ORG

ΒT

W6HA AT HOPKINS WILDERNESS PARK

HAD 000 MEMBERS AND 000

ARES MEMBERS ATTEND X 73

ΒT

MIKE VAHEY N6MDV

HARC Field Day 2019

Msg #1

🗱 Winlink Express 1.5.21.0 - KK6WV	w									- 0	×
KK6WYW - Settings I	Mess	age	Attachments	Move To: Outbox	c	↓ De	lete Open S	ession: Packet Winl	ink	✓ Logs Help	
	ff		∂								
No active session.											
System Folders			Date/Time ~	Message ID	Size	Source	Sender	Recipient		Subject	^
Inbox (0 unread)		P	2019/06/23 1	Q1BR0RB3R	429	KK6W	WEHA	r		//WL2K #6 RADIOGRAM SENT BY HAM RADIO ON FIELD DAY	
Read Items (0) Outbox (0)		2	2019/06/23 1	BI89GTUF0GIZ	418	KK6W	W6HA	•		//WL2K #8 RADIOGRAM SENT BY HAM RADIO ON FIELD DAY	
Sent Items (41)		9	2019/06/23 1	TU0M5TICJF06	422	KK6W	W6HA	n		//WL2K #9 RADIOGRAM SENT BY HAM RADIO ON FIELD DAY	
Saved Items (0)		9	2019/06/23 1	9Q5IUAS8FN2G	424	KK6W	W6HA	F		//WL2K #7 RADIOGRAM SENT BY HAM RADIO ON FIELD DAY	
Deleted Items (2) Drafts (0)		9	2019/06/23 1	P5ZNM9BS96	426	KK6W	W6HA	4		//WL2K #10 RADIOGRAM SENT BY HAM RADIO ON FIELD DAY	
Personal Folders	1E	P	2019/06/23 1	9Y70N651DM	429	KK6W	W6HA	j.		//WL2K #11 RADIOGRAM SENT BY HAM RADIO ON FIELD DAY	
		•	2019/06/23 1	GJD3YYJULX	440	KK6W	W6HA			//WL2K FIELD DAY TEST MESSAGE #2 FROM BOB	
		P	2019/06/23 1	FJ88ZNHJLU7B	441	KK6W	W6HA	E.		//WL2K FIELD DAY TEST MESSAGE #3 FROM BOB	
		P	2019/06/23 15:56	S4QZJB1KT23S	428	KK6WYW	W6HA	a		//WL2K FIELD DAY RADIOGRAM FROM HUGHES AMATEUR RADIO CLUB	
		۳	2019/06/23 13:59	LTM9WV4JYYDS	483	KK6WYW	W6HA	k		//WL2K #5 PREVIEW MESSAGE FROM BRIAN AFTER THE BIG ONE	
Global Folders		۳	2019/06/23 13:59	398BTT9P6571	469	KK6WYW	W6HA	L.		//WL2K #4 PREVIEW MESSAGE FROM PHIL AFTER THE BIG ONE	
			2019/06/23 13-42		287	KKEWYW	KKEWYW	n		//WI 2K test man #2	~
			ge ID: S4QZJ 2019/06/23								^
			W6HA	13.30							
Contacts			i6df@arrl.net	t							
BOB_LANAHAN			e: KK6WYW ct: //WL2K F	IELD DAY RADI	OGRAM	I FROM HU	GHES AMAT	EUR RADIO CLUE	3		
		-									
			6HA 15 REDONI FEINBERG AI		900 F	PDT JUN 2	3				
			X 4678	ODF LAX SH							
			VERDES PENI		74						
	BT		ATSIGN ARRL	DOT NET							
			AT HOPKINS W	ILDERNESS PAR	RK						
			23 MEMBERS AL								
	BT		MEMBERS ATTEN	ND X 73							
	MI	KE	VAHEY N6MDV								

HARC Field Day 2019

Msg #2



ARRL — the national association for Amateur Radio[™]

RADIOGRAM

NUMBER PRECEDE	NCE HX STATION OF ORIGIN	24	RED	PLACE OF ORIGIN	TIME FILED	JUN2	
TO MIKE 101 PR CARY PHONE NUMBER	10	AMATEUR NAME STREET M CITY, STAT	STATION		EIVED AT PHONE		
I	MIGHT	CONT	FACT	YOU	E	BY	
HAM	RADIO	MESS	AGE	AFTER	Tt	THE	
BIG	ONE	1 F		COMMERCIA	L LAN	LANDLINE	
AND	CELLULAR	AN	A	EMAIL	INFRAS	INFRASTRUCTURE	
ARE	DAMAGED	OR		OVERWHEIMED			
BOB LANAHI	AN KKGWYW						
FROM REC'D	DATE	TIME	SENT WI	NLINK KECCR-1	JUNZ3		

This message was handled at no charge by a licensed Amateur Radio operator, whose address is shown in the box at right above. No compensation can be accepted by a "ham" operator. A return message may be filed with the "ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225 Main Street, Newington, CT 06111 or www.arrl.org. The ARRL is the national association for Arnateur Radio and the publisher of QST magazine. One of its functions is promotion of public service communication among Amateur Radio operators. To that end, the ARRL has organized the National Traffic System for daily nationwide message handling.

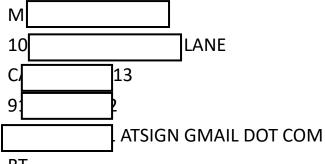
1320 2/11

MSG 2, Text File:

@gmail.com

PREVIEW MESSAGE FROM BOB AFTER THE BIG ONE

2 R W6HA 24 REDONDO BEACH CA JUN 22



ΒT

I MIGHT CONTACT YOU BY

HAM RADIO MESSAGE AFTER THE

BIG ONE IF COMMERCIAL LANDLINE

AND CELLULAR AND EMAIL INFRASTRUCTURE

ARE DAMAGED OR OVERWHELMED

ΒT

łw BOB



A successful connection !!

Exit	Settings		reer-to-	Peer Session	Channel Selection	1200 Baud	Start	Stop
Conne	ection type:	Direct	•	K6CCR-10	Via	,		
Conne	ction script:				 Edit script 	Add script	Remove s	cript
eceive	d: 468 Sent:	304 Time	to next A	utoconnect =	Disabled			
Ulver Ci WL2K-5 Q: 314 MS via :FWLK [RMST :PR: 3 ; K6CC FC EM F> 84 PM_KK S Y	0-82FWIHJI 156252 K - cont Express-1.5.1 5389784 R-10 DE[KK. 0QD2RXB31	S Packet G M\$] 8.0-B2FHM BFV7 168 1 196B3YZ80	ateway 14 \$] 03TW) 55 0	5.05 DM04ta Data remo	in Boxes oved om Re: //WL2K test			
C EM B " Comp " Sent > B6 FS Y " Rece " BZ2U " Bytes FF Q " En	iving BZ2U96 J96B3YZ80 - : 255, Time: d of session a	80 271 231 message O Bytes: 175, 6B3YZ80 286/243 by 00:01, byte t 2019/01/ Total bytes	QD2RXB3 Time: 00:0 tes receive s/minute: 23 02:31:5 sent: 175	6, bytes/minute d 14278 5 , Time: 00:47, 1	bytes/minute: 220	bytes/minute: 3		

Hit Start ...



Questions?

