How the SitRepNet CommPlan and JS8Spotter Work
Scenario-based Examples

Scenario: You wake up in the morning, and nothing is working. No electrical power, no Internet, not even your battery-operated radio is picking up anything. Is it just your neighborhood, is it local – or something bigger? Is this a short-term outage, or something worse? What actually happened?

If you have backup power for your HF radio station, then JS8Spotter is a great tool to help you find out. It is also the tool to let others know about your situation. The SitRepNet CommPlan provides the framework for making the most of JS8Spotter in situations like this. It is all about exchanging information in an efficient manner.

Let's use this scenario to illustrate what to do next. If we can work with a worst-case scenario such as this, anything else is going to be easy. We'll cover how to set up for this on pages 4 and 5 of this paper. Be sure to download and read the JS8Spotter Manual for details on how to use the program, and there are some great instructional videos at https://kf7mix.com/js8spotter.html

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There are currently two "Primary" report forms in JS8Spotter that can point to other, more specific reports, depending on the scenario. Here's a quick summary of those report forms and how they point to more specific ones.

F!104 - @SITREP Basic Check-in: Designed as a *Top Level form* that points to any relevant current reports.
F!308 - Open Source Information Report: open source information for news bulletins.

F!104 - @SITREP Basic Check-in
The F!104 is used in different ways at different times.

- **During "routine" times** when all is well, it's a notice that says, "I'm here, and I'm OK", while also serving as a practice exercise of the system.
    - Go to `Tools > MCForms-Forms`, select F!104
    - Click `Load Posted Expect Form` to fill in previous info and make any changes needed, or complete the fields as needed. Be sure to include your state and Maidenhead Grid Square.
    - Click `Post Form to Expect`. This updates the Date/Time code to show that it is current.
    - **ACTIVE DISTRIBUTION:** Click `Tools > Expect System`, then right-click on F!104, confirm that you have @SITREP included in `Allowed Callsigns/Groups`, and click on `Send Now`.
    - If it is not already there, add @SITREP in the `Send To` field, and check the `Send as MSG` box. Click `Send`.

    - **PASSIVE DISTRIBUTION:** Other stations can request your F!104 by sending @SITREP E? F!104. If you have @SITREP included in `Allowed Callsigns/Groups,` then your station will reply by sending your F!104 report.
- **During emergency times**, F!104 is used as the primary form – the foundation that the full story is built upon.
    - Most of this is exactly the same as we did during "routine" times, and that's the whole point of using it for routine "I'm OK" reports.
    - Go to F!304 - Individual Situation Report, complete that report to describe your current situation, make sure that @SITREP is included in `Allowed Callsigns/Groups`, then click `Post Form to Expect.` F!304 is the SitRep detail, while F!104 is pointing to that and any other relevant Situation Reports.
    - Next, go to F!104. When you have F!104 up, we'll select the Situation Report field and change that to `Situation Report currently active - E? F!304 for details`. If there are other relevant reports (F!306 Power Stability Report, for example), enter those in `Other relevant current report(s)` after completing those reports and posting them to Expect. Click `Post Form to Expect.`
    - We now have the @SITREP Basic Check-in loaded and ready to go, along with any other reports to give a good picture of conditions where you are right now. Since we have included @SITREP in `Allowed Callsigns/Groups` anyone who is looking for that information need only send @SITREP E? F!104 to receive your current SitRep and a list of any associated reports.
    - You can also send your F!104 to @SITREP, and those stations will receive it, with JS8Spotter recording it. Click `Tools > Expect System`, then right-click on F!104, confirm that you have @SITREP included in `Allowed Callsigns/Groups`, and click on `Send Now`.

F!308 - Open Source Information Report
With cyber-attacks now routine, and a standard part of current military doctrine, it's very reasonable to expect that at some point. How would news and information be gathered, compiled, and distributed? There are already several news bulletins prepared and distributed on a weekly basis via amateur radio, but without the internet, where would they get their raw information? One solution is based on JS8Spotter and SitRepNet, and F!308 is the primary report for it.

There are several different reports that could be used here, so which one to request or to send? F!308 provides a subject, the location, the time-frame, source reliability, the basic category, and points to other MCForms related to the subject. Think of it as the Table of Contents rather than the book. The `Additional Information` field will probably contain a brief description as well as the supporting reports.

Alternative Methods
While using the MCForms for sharing local and open source information is generally the most efficient method, there are some cases where direct text entry is needed. There are two basic ways to handle this, depending on how the information collection and distribution system is set up. Each has its advantages and disadvantages, depending on your situation. Note that these are not using MCForms, so they are not displayed as reports in JS8Spotter – only as text in JS8Call.

⚑ JS8 is a very slow mode, so always try to keep the number of characters to a minimum.

Two-Step Method
In this method, there is one Expect System item that responds with either NTR (Nothing To Report), *or* with one or more Expect System items that contain the text to be sent. There will be one List item, and one or more Content items. For this example, we'll create an Expect System item named INTEL that will be the List item. You can use anything of 6 characters or less. You may want to name it with your bulletin name, such as "NIB" – whatever your group decides to use.

The List Item
Expect: INTEL
Response: EDSW, EFNG
Allowed Callsigns/Groups: (as appropriate for your situation)

The Content Items (then repeat for the second report, EFNG)
Expect: EDSW
Response: EDSW THIS IS THE TEXT YOU WANT TO SEND FOR ANALYSIS AND COMPILING.
EDSW is the Date/Time code that JS8Spotter creates (Tools>Datecode Tool), and is used as a serial number to identify this report. You could also use any other system to identify the individual reports.

In use:
❶ The Collecting Station will send @SITREP E? INTEL
❷ Your station will respond with the Date/Time codes of your reports (EDSW, EFNG for this example).
❸ The Collecting Station will send @SITREP E? EDSW
❹ Your station will respond by sending the EDSW Expect item.
❺ This will then be repeated for the other reports (EFNG).

One-Step Method
This uses the same basic technique as the Two-Step Method, except that instead of a List Item that points to other Expect System items, all information is contained in a single Expect System item.

Expect: INTEL
Response: THIS IS THE TEXT YOU WANT TO SEND FOR ANALYSIS AND COMPILING.

In use:
❶ The Collecting Station will send @SITREP E? INTEL
❷ Your station will respond by sending the contents of that Expect item.

Message Relays

Poor band conditions and station operating schedules can interfere with getting a message through. There are several options for indirectly getting a message through using JS8Call, and instructions for each is in the *JS8Call Quick Reference for SitRepNet*:

- Relaying – You select a station that both you and the receiving station, as well as a "middle station" can reach, then you send your message by way of the middle station. The message is immediately relayed, rather than being stored until requested.
- Remote Message Storage at Recipient – Think of this as storing your message in a mailbox on the recipient's station. It is being received and stored directly on the recipient's system.
- Message to Mailbox at 3rd Party – You store your message at a 3rd party station (the middle station), and it stays there until the recipient requests that message. The "mailbox" is on a 3rd Party station.
- Local Message Storage and Retrieval – Use this method if you want to save a message on your system until the receiving station requests it. In this case, the "mailbox" is on your system.

Instructions for retrieving those messages are also in the *JS8Call Quick Reference for SitRepNet*.

Time Synchronization without Internet or GPS

JS8Call requires that the Sending and Receiving stations have their time set to 2 seconds or less, with the goal of <300ms time delta. The closer you get to an exact match, the better the copy. Without the Internet or GPS, this will have to be done manually. The JS8Call Quick Reference for SitRepNet shows how to do this.

If time synchronization radio stations are available, they are going to be the most accurate method, and should be the first option.

Time Synchronization Resources

2.500	WWV (Fort Collins, Colorado)
5.000	WWV (Fort Collins, Colorado)
7.850	CHU (Ottawa, Canada)
10.000	WWV (Fort Collins, Colorado)
15.000	WWV (Fort Collins, Colorado)
15.000	WWVH (Hawaii)
20.000	WWV (Fort Collins, Colorado)

If Time Synchronization radio stations are not available

Getting time synchronized between two stations is one thing, but how do we get everyone using SitRepNet synchronized? We can't have everyone trying to match every other individual station, so we need a way to get everyone using one time standard without the Internet or GPS or Time Synchronization radio stations. Here's how SitRepNet handles that:

- Each day, starting with the Eastern Time Zone at 18:50 Local and moving westward, one station will send a time synchronization signal using this format:@SITREP TIME SYNC SIGNAL, and repeat this continually until 18:55 Local. It is vital that only ONE station is sending this signal.
    - Time is set to 18:50 to 18:55 to avoid potential interference with nets.
    - Time zones are being used as longitudinal divisions to limit the distance between stations.
- All stations should use the Time Synchronization instructions to set their system time to match this signal. Follow the "Fine Tuning the Time Delta" instructions to get an exact match; however, do NOT click on the "Reset Time Drift" – we want to keep that same time setting.
- As we move from one time zone to the next, the Time Synchronization station will have set the time using the previous (TZ east of you) Time Synchronization Signal. In this way, all stations across the continent should now have a near-exact time match.

Which stations will send the Time Synchronization Signal? That will need to be set up on-the-fly as the grid-down situation unfolds. A station having a Real Time Clock Module with independent power supply would be ideal. This will need to be coordinated among available stations as soon as the need arises.

What About Other Modes?

SitRepNet CommPlan covers the JS8Spotter "layer", but the JS8 is just not a good choice for some types of radio traffic. Here is a very brief outline of how different modes fit into the overall communications needs. There are, of course, other bands that will be used, but for simplicity, we're just looking at the 40m band. SitRepNet stations that are also proficient in CW would serve as gateways to other CW operators who are not using the SitRepNet system.

Content	**Mode**	**Example**	**40m Freq.**	**Notes**
Long-form text, general info	FLMSG	News bulletins, AIB	7.110	AmRRON, etc.
Event-driven, short-term net	FLDIGI	Impromptu net scheduled F!106	see F!106	SitRepNet See Note ❶
Long-form text, 100% accuracy	FLAMP	Request for medical items or info	7.110	BDN, AmRRON, etc.
Bulletins	FLAMP	Intel compiled via F!107	7.107	Bulletin Distribution Net
Status Reports	JS8Spotter/MCForms	F!104, STATUS, COND	7.078	SitRepNet
Situation Reports	JS8Spotter/MCForms	F!3xx and F!5xx series MCForms	7.078	SitRepNet
Brief text messages	JS8Spotter	Intel reports, active or passive TFC	7.078	SitRepNet
All (If digital unavailable)	Voice/SSB	Reports from SSB-only stations	7.238 LSB	AmRRON, Multi. Freqs.

❶ A complete set of SitRepNet NCS macros for FLDIGI can be downloaded from the SitRepNet.com Resources page. Download now and have it available when needed. File name is `SitRepNet-macros.mdf`

Expect System

This is the key to setting up an efficient JS8Spotter system so that others can request and retrieve information from your station automatically. This is what tells JS8Spotter what to Expect (what to be looking for), who is allowed to retrieve reports, what text to reply with, and how many times a report can be retrieved (enter 99 for unlimited). The asterisk (*) will reply to any individual station call-sign. The @Groups will reply to any requests addressed to that group. Each group or call-sign must be separated by a comma. For example, a station requesting the F!104 report from any @SITREP station on the air would send “@SITREP E? F!104”, and those stations would respond by sending that report if their Expect system is set up as shown below.

Expect	Reply	Who	Qty
F!104	(*Your report*)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!308	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
MCF	100 102 104 105 304 305 306 307 308 500 502	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!307	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!100	(*Your report*)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!103	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!106	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!300	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!301	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!304	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!305	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!306	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!500	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!505	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
NOTE	(Optional / NTR)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
WX	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!502	NTR	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
CMDS	RIG, MCF, URL, COND, STATUS, WX, NOTE, GRID	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
URL	(*see notes*)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
STATUS	(or NTR)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!105	(*Your report*)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
GRID	(*Your Grid Square*)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
F!102	(*Your report*)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
RIG	(*Your radio*)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
COND	G (or Y or R)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99
INTEL	(Optional / NTR)	*,@SITREP,@SEEN,@AMRRON,@MAGNET,@GHOSTNET	99

Notes:
❶ This is just a suggested setup – a *starting point* – so personalize it to YOUR situation.
❷ For (*Your report*), see instructions in the "Routine times" section under F!104.
❸ For URL, you could use your QRZ.com profile page, or SitRepNet.com, or any other page, or simply not use the URL item at all.
❹ Add any other reports that are currently active. Inactive reports should just respond with NTR.

Profiles

A Profile is a set of search terms that JS8Spotter is looking for and then notifying you when found. You can set up any number of Profiles by clicking on File>New Profile.

Profile: SitRepNet
This is the main Profile of search terms you will be watching for. You can use this as a starting point, but adapt it as needed to suit your needs. Be sure to check the Background Scan box.

@GHOSTNET	F!106	F!501
@SITREP	F!300	F!502
CMDS	F!301	F!505
F!107	F!302	F!701
F!100	F!303	F!702
F!101	F!304	MCF
F!102	F!305	NOTE
F!103	F!306	STATUS
F!104	F!307	INTEL
F!105	F!500	(*Your call-sign*)

Profile: Alert
These are generic search terms that may indicate alerts. You can use this as a starting point, but adapt it as needed to suit your needs and your location. Be sure to check the Background Scan box.

ALERT	FLASH	SKYWARN
EMCOMM	GNUSAFL	STORM
EMERG	GSTFLASH	TORNADO
F!	HELP	WARNING
F!305	HURRICANE	
FL *(your state)*	SITREP	

Other Profiles to consider adding
- Groups such as @AMRRON, @ARES, @RACES, @MAGNET, @PREPNET, @GHOSTNET, etc.
- SitRepNet Call-signs that reply when you send a MSG addressed to @SITREP
- Personal Call-signs of friends and special interest groups
- Hobby and special interest search terms