

# FINDER - The Family INformation Database for Emergency Responders

## A Multiple-Connect, Packet Radio Database for Emergency Communications

W. E. Moemer, WN61, Sharon Moerner, N6MWD, and David Palmer, N6KL  
Santa Clara County Amateur Radio Emergency Service  
c/o 1003 Belder Drive  
San Jose, CA 95 120  
408-997-3 195

### Abstract

FINDER is a new packet radio database application utilizing multiple connect and a specific syntax to allow emergency response personnel to ascertain the status of their family members during a disaster. This paper describes the history, scope, operation, and design philosophy of the FINDER system.

### 1. Introduction

FINDER (the Family INformation Database for Emergency Responders) is a multiple-connect, packet radio database designed to allow emergency responders such as firefighters, policemen, or amateur radio operators to ascertain the status and whereabouts of their family members during a widespread disaster that overloads normal communications channels, thus allowing the emergency responders to more effectively perform their duties. Family members check-in with voice operators located at fire stations, who relay information to one of up to eight packet operators, all of whom are simultaneously connected to a central database station running the FINDER program. Emergency responders concerned about family members need only provide their home telephone number to a voice or packet operator to obtain a listing of the current information about all members of their family. FINDER can also be used in a "person tracking" mode to manage general information about victims of localized accidents such as train wrecks, plane crashes, or other multiple casualty incidents.

### 2. Purpose, Origins, and Scope

Part Five of the Amateur's Code reads: "The Amateur is Balanced...Radio is his hobby. He never allows it to interfere with any of the duties he owes to his home, his job, his school, or his community." Following a disaster, a ham's first concern is with his/her family, but the community also desperately needs his/her skills. FINDER is a way for the amateur radio operator to assist the community in such situations.

FINDER is an acronym for the Family INformation Database for Emergency Responders. It is a multiple-connect, packet radio database environment

which enables emergency responders to determine the status of their families in the event of a widespread disaster. It is designed to address one problem that has long plagued emergency response organizations: in a widespread emergency that overloads the telephone system, how can the organization keep the emergency responders focused on the job when they may be distracted by concern for the welfare of their own family? FINDER offers a partial solution to this problem by using the capabilities of amateur radio and digital communications. FINDER allows emergency responders to ascertain their family's welfare without leaving their duties, enabling them to more effectively concentrate on the disaster at hand. This can all occur in the absence of commercial utilities and without tying up critical tactical communication channels.

### 2a. History of FINDER

Although city and county officials have always been concerned about the possibility of delay in the response time of trained personnel to a disaster, it was not until the Fall of **1984** that serious consideration was given by Santa Clara Valley ARES to this problem. Specifically, Bud Enochs, **KE6DN**, presented a written proposal for an Amateur Radio Emergency Health and Welfare Distributed Data Network in October of 1984. Despite this comprehensive document, the idea stayed relatively dormant until November of 1985 when Dick Rawson, **N6CMJ**, submitted a similar proposal for a program called the Emergency Worker Locator System. After a great deal of study, **N6CMJ** concluded that such a plan would not be feasible for Santa Clara County insofar as he calculated that each operator would have to be capable of handling one message every 25 seconds (this was based on staffing 80 firestations with **10,000** emergency workers with 2.7 family members each for a total of 37,000 messages being entered and **10,000** messages delivered).

Despite these pessimistic worst-case projections, subsequent experience in tracking riders in the annual Primavera Bicycle Tour proved that a multiple-connect packet radio database could successfully manage large amounts of real-time data. The Primavera database

program was written by Frank Kibbish, WB6MRQ, and handled the progress of approximately 2100 cyclists passing through five packet-equipped checkpoints [I].

The DEC at the time--Bill Robinson, WB6OML--had been keeping the county and city Emergency Managers apprised of the progress of the concept. Needless to say, the civil authorities were quite enthusiastic since it was clear that utilization of the hams could allow civil personnel to determine the status of their families during a disaster.

The project--now known as the Locator Project--picked up again in October of 1986 when WB6OML held a meeting for hams interested in devising a way to make the previous ideas work. At that time, Sharon Moerner, N6MWD, became the project manager and Dave Palmer, N6KL, and Weo Moerner, WN6I, took primary responsibility in writing the software that would make the idea a reality. Other hams became active on the committee (e.g., Don DeGroot, KA6TGE; Randy Miltier, N6HMO; Dick Rawson, N6CMJ; Glenn Thomas, WB6W; Don Tsusaki, WW6Z) and the project was ultimately renamed FINDER. The first demonstration of the software occurred in December, 1986, and the first alpha test was held in January, 1987.

The first countywide test of FINDER occurred May 30, 1987. In a three hour time period, 24 of the county's 63 firestations were staffed by amateur radio operators; 154 people--hams and their families--checked into the system. Another county wide drill is scheduled as part of the Simulated Emergency Test on October 17, 1987 and it is planned to staff not only all the firestations but to also include the participation of city firefighters and their families.

## 2b. Current scope of FINDER

There has been considerable discussion concerning the type of traffic passed by FINDER since it could be viewed as either Health and Welfare traffic or as Priority traffic. The agencies hams serve determine the priority of the communications provided, and the information supplied by FINDER is considered to be of high priority by the Santa Clara County Fire Chiefs Association.

Obviously, there are clear possibilities for extending the coverage of FINDER, both geographically as well as demographically. At some time, FINDER may serve other civil and public agencies. Due to limitations of bandwidth and operator staffing, however, it is not feasible to allow general public access to FINDER. Even at this stage in the project, however, city and county officials are quite supportive and are working with the hams in training emergency responders and their families in utilization of the system.

In addition to FINDER's primary role following a large scale disaster, it may also prove useful during localized emergencies (e.g., plane crash, train wreck, toxic spill) which require tracking of victims and supplies. (For an example of the value of packet radio in disasters of this sort, see [2]) A special mode of operation of FINDER, called "health and welfare" mode, has been established especially for these situations. Activation of FINDER in a multiple casualty incident enables crucial information to be efficiently passed outside of the disaster zone to an area which has normal telephone service.

## 3. Overview of FINDER

The central element of the FINDER system is the FINDER software and database. Up to eight packet stations may be connected to the database simultaneously, and these packet stations serve as the input/output ports for entering information and status requests. Each packet operator also serves as the net control station for a group of voice operators located at fire stations. The voice operators interact directly with the emergency responders and their family members to receive current information and to deliver responses to their requests.

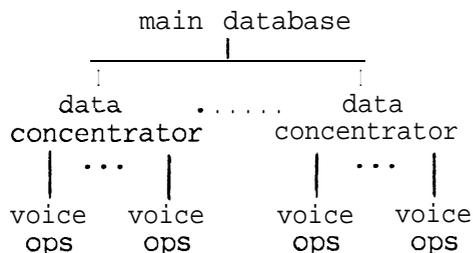
The FINDER software and database collects and organizes status information about emergency responders and their families. FINDER may be regarded as a specialized, multiple-connect BBS with a command set tailored to the handling of current information and status requests. Central to the concept is the fact that the various "concentrator" packet stations can connect to the database using any kind of AX.25 TNC and terminal that is convenient. In other words, all the specialized software (and hardware) that gives the FINDER system its personality is located at the main database station. This is in contrast to packet networks which require each user to have specialized hardware and/or software in order to participate in the network. Such systems--while powerful--are not likely to be available in a large disaster such as an earthquake, because the number of operators with the required equipment may become vanishingly small.

FINDER works in a relatively simple way:

1. A family member goes to a nearby firehouse
2. He/she fills out the FINDER data card containing the home phone number, the first name, status (ranging from "All is OK" to "Contact as soon as possible"), and intended location
3. He/she turns the card in to the amateur radio operator on duty
4. The ham reads the information (via voice) to his/her designated packet operator
5. The packet op transmits the information to the database.

The information is retrieved when an emergency responder gives a voice operator his/her home phone number. The voice operator reads the status request to the packet operator. The packet operator keys in a simple search request to the database, and after a short delay, the database replies with the status of all persons sharing that home telephone number.

The following is a quick sketch of how amateur radio operators work with FINDER:



**MAIN DATABASE:** that packet station which serves to gather and store all the data which it receives from the data concentrators.

**DATA CONCENTRATORS:** packet operators simultaneously connected to the main database. Each concentrator will be typing in data received from his/her voice operators. Currently, there can be no more than eight data concentrators connected to the database at any one time.

**VOICE OPS:** voice operators located at fire stations throughout the county who utilize pre-designated simplex frequencies to communicate the information written on data cards to the data concentrator. The number of voice ops could range from two per data concentrator to as many as nine per data concentrator depending on the number of fire stations to be covered.

#### 4. FINDER - The Program

The FINDER program is written in Turbo Pascal, with assembler code where needed for control of the serial port to the TNC. It is designed to run on an IBM Personal Computer@ or compatible, preferably with a hard disk, and requires a TNC (1 or 2) containing the firmware written by Ronald Raikes, **WA8DED**, which provides a "host mode" capability.

##### 4a. Multiple-Connect

The multiple-connect feature is crucial to the efficient operation of FINDER. Multi-connect operation allows the available channel bandwidth to be used more efficiently, because at any given time many of the packet stations are involved with relatively slow keyboard input. This is in marked contrast to packet bulletin board systems (BBS's) in which only one station may be connected to the system at a time.

#### 4b. WASDED Host Mode

**WA8DED** host mode is utilized in the FINDER program to greatly simplify the parsing of the data streams from the various connected channels. Basically, the TNC does not speak to the PC until it is told to do so by a polling command, and then the TNC does not send bursts longer than 256 characters in length. This removes the difficulties associated with asynchronous data streams and leaves the problem of queuing transmitted and received packets to the TNC itself. As a consequence, the FINDER program can concentrate on polling the connected channels, handling the sysop keyboard and display, and managing the database.

#### 4c. The FINDER Database

FINDER uses the Turbo Database Toolbox ® [4] for all database entry, indexing, and maintenance functions. This useful package of Pascal functions and procedures implements a full B+ tree structure that generates a database file and associated index files on disk to aid in database searches [5]. FINDER implements two index files for the standard emergency responder mode of operation: a telephone number index and an origin index. This means that the database can be searched very quickly for all entries with a given phone number or with a given origination point. The database file can contain as many as 65,535 records, each 35 bytes in length.

#### 4d. Synopsis of FINDER command syntax

1. Single letter commands: The single character "h" followed by a carriage return implements the help function, and a brief reminder of the syntax is returned to the packet op. The single letter "b" (for bye) followed by a carriage return initiates a disconnect from the database machine.
2. General rules for data entry: The various fields are entered in order, with separators between them. Valid separators are the comma and the blank. Multiple consecutive separators are treated as a single separator. Case is ignored.
3. Syntax for CURRENT INFORMATION: (<cr> means carriage return)
 

```
phonenum,aname,sl,orig,time,date<cr>
```

See the FINDER DATA CARD (in the appendix) for an explanation of these fields. The first four fields are required, and the last two are optional.

- a. PHONENUM can have multiple embedded dashes; all dashes are ignored. Two general formats may be used: long form or short form. The long form uses the full ten digits for area code and phone number. The short form has only 8 digits, and uses a single leading digit as an abbreviation for the full area code. The allowed abbreviations are defined by the sysop in the configuration file. For example, "408" can be abbreviated "8", and "415" can be

abbreviated "5". The sysop may select no area code checking when the FINDER program is started. In this case, any ten digit phone number is accepted, but no 8-digit phone numbers.

- b. ANAME is a 5 character field with a leading letter, signifying the first 5 letters of the person's first name. This identifies the specific family member.
- c. SL is a 2-digit code, which is a combination of the "My current status is" and "I will be at" codes on the data card. The two digits should be entered one after the other, with no characters in between. Only the values shown on the data card are allowed.
- d. ORIG is the 4-character code signifying the point of origin of the current information, i.e., the "This form filled out at" field on the data card. For instance, the code could be the fire station number where the person filled out the form. ORIG must start with a letter.
- e. TIME is an optional field. If present, it must be a valid 24 hour time (with no colon). If this field is not present, the database program inserts the current time. TIME must be entered, however, if an entry for DATE follows.
- f. DATE is an optional field. If present, it must be a valid day of the month. If this field is not present, the database program inserts the current day of the month.
- g. Examples of data input:

```
85553195,joe,12,sj34<cr>
415-555-2368,mary,11,pa34,1235,3<cr>
```

These six pieces of information are stored in the database as a record of the status and location of the person at a particular time and date. Further CURRENT INFORMATION packets with the same PHONENUM and ANAME will supercede old information for that person.

#### 4. Syntax for STATUS REQUEST:

```
/phonenum,voiceopid<cr>
or
?phonenum,voiceopid<cr>
```

This command line instructs the database machine to look in the database for ALL persons with the same phonenum. A status report, listing all six of the pieces of information in 3. above is sent back to the packet station. At the end of the report, the line "FINDER report for <voiceopid> done at <time>" is sent, which signifies that no more names match the requested phone number.

- a. PHONENUM has the same restrictions as in 3.a. above.
- b. VOICEOPID is a free-form field of any length up to 255 characters with no embedded blanks or commas. It serves as a reminder to the packet

operator of which one of his/her voice ops transmitted the status request. It is not stored in the database. It may be the same as the origin codes in 3.d. above, or it may be the voiceop's callsign, or it may be any other convenient string of characters.

#### c. Examples of status request:

```
/8555-3195,wlaw<cr>
/408-5553456,w6xyz<cr>
/55558011,sj14<cr>
```

- 5. Search by origin code: In addition to the phone number search, FINDER also supports a search by origin code in the form

```
$orig,routereplyto
```

This produces a listing of all persons in the database whose current information originated at ORIG.

- 6. Users command: The users command in the form "users<cr>" returns a list of the callsigns of currently logged-on packet stations. The response is of the form:  
  
At WN6I-1: N6KL, W6BB-3, AJ6T, WB6MRQ-7.
- 7. Tell command: The Tell command 3110ws connected packet stations to use FINDER as a conference bridge. For example:

```
Tell <callsign1 >[,<callsign2>][...] <message>
```

The <message> is sent to the callsign(s) specified. The special callsign "\*" or "all" is used to send a message to all connected stations. The recipient stations receive the <message> prefaced with the time of day and the sending station's callsign, e.g.:

```
1630 N6KL> Has Resource Net moved to 146.94?
```

- 8. Message to sysop: Any other packet that does not start with a number, "/", "?", "tell." or "users" is treated as a message to the sysop. An acknowledgment message of the form  
"Msg sent to sysop at <time>"  
will be sent back to the packet operator. The sysop can also send messages to the packet operator.

#### 4e. Special sysop commands

The sysop keyboard accepts current information input and search requests like any connected channel. The sysop can also send commands directly to the TNC by typing <ESC> and the command as usual. Some commands (such as "l" for list) can reference a specific channel. To set the channel for these commands, first type "<ESC>sn", where n is the channel number. For example, to force a disconnect on channel 3, the sysop

types "<ESC>s3 <cr> <ESC>d <cr>" The sysop can also send messages to connected channels by typing "<ESC>nmessage" where n is the channel number. If the printer is enabled by pressing a PF key, the printer echoes all sysop screen output.

Several useful database functions may also be performed by the sysop. A summary of the number of database entries for each ORIG or each CLOC can be produced by typing "s<cr>". A single record in the database can be listed if its record number is known by typing "1 nnn <cr>", where nnn is the record number. All database entries can be listed by typing "1 all<cr>". Finally, a single record may be deleted by typing "d nnn<cr>", where nnn is the record number. For obvious reasons, all these commands are restricted to the sysop only.

## 5. An Important Extension - FINDER Health and Welfare Mode

In certain emergency situations, a record format more flexible than what has already been described is useful. In a multiple casualty incident, one might like to record a telephone number, full first and last names, a current location, plus perhaps a long message that might describe other important information. For these situations, a second operating mode of the FINDER system has been implemented, called the "health and welfare" mode, although the "person tracking" mode might be more descriptive. If FINDER were used for patient tracking, for example, the traffic would be regarded as priority traffic, so the utility of this mode extends beyond simple health and welfare.

To prevent confusion, the mode of FINDER described before this section will be called the "emergency responder" (ER) mode, while the extended mode will be called the "Health and Welfare" (HW) mode. The operation of the HW mode is fully analogous to the ER mode operation, except that the data record format is changed and several additional searches are allowed. The HW mode is selected by running a different batch file, "FINDHW", at startup, and the database, index, configuration, and journal files are distinct and separate from those for the ER mode.

### 5a. HW Mode Data Input Format

The HW mode data input format is well-suited to health and welfare traffic and patient/victim tracking. Because fewer records would be expected under these conditions, the various fields are generally longer and more flexible. The HW data input format looks like:

phonenum,lastname,firstname,cloc,message

where

1. PHONENUM is an abbreviated 8-digit or a full 10-digit phone number with syntax identical to that

for the ER mode. It could be the victim's home phone number or the phone number of next-of-kin.

2. LASTNAME is the last name of the person, up to 10 characters long.
3. FIRSTNAME is the first name of the person, up to 10 characters long.
4. CLOC is a 4-character location code starting with a letter. It could be a hospital code or a shelter code defined in advance or in real time during the incident. This field is similar to the origin code field in the ER case, except that instead of stating the location where the FINDER data card was filled out, CLOC is more general.
5. MESSAGE is a free-form field up to 45 characters in length which may contain embedded blanks. It is intended for additional information about the person, such as name of nearest relative, injuries, etc. that is determined to be useful during the incident.
6. The current time and date are inserted automatically by the program.

### 5b. Searches Available in HW Mode

- 1 . /phonenum,routereplyto
  - produces a list of all entries with the same phonenum
- 2 . /lastname,routereplyto
  - searches by lastname, listing all with the same lastname
- 3 . \$cloc,routereplyto
  - searches by cloc. As an example, this could give a listing of all persons sent to the same shelter or hospital

## 6. Configuration file processing

A number of run-time parameters must be selected by the sysop to start FINDER. These are collected in an ASCII file called FINDER.CFG (or FINDHW.CFG), which needs to be edited only once to specify such-parameters as the journaling/backup drive, journal file name, prompted or automatic program startup, the backup interval, the RS232 comm port, TNC baud rate, area code checking, and area code abbreviations.

## 7. Backups, Journals, and Data Recovery

Once a transaction has been saved on disk or diskette, a number of safeguards against data loss are taken automatically. For each backup or journal entry, the relevant files are opened, updated, and then immediately closed. First, a journal file is used to record each valid transaction at the time it is entered. Second, FINDER automatically makes periodic backup copies of the entire -database and the index files. This backup is made after every "n" transactions, where the value of "n" is specified by the sysop in the configuration file.

This backup also occurs following any disruption in the computer--TNC link, or at any time the sysop presses "F1" on the keyboard.

Recovery steps may be required in the event that the power is removed during a disk write operation. In this case, the main database file (or its entry in the DOS directory) may become damaged, and some combination of the journal or backup database files may be needed to reconstruct the data. A utility program called "Rebuild" is supplied and provides a number of recovery options. Rebuild can append the contents of the journal to the previously saved version of the database, can rebuild the index files from a working database file, can construct a set of database and index files from a journal file, and can generate a printed copy of the database.

## 8. Computers and Packet Radio in Disaster Environments

Computers and packet radio networks can be somewhat fragile. They can be confusing to operate, they contain multiple sources of error (due to hardware, software, and users), and they do break. Because FINDER is designed to work under the worst possible circumstances, a number of precautions are built-in to insure that data will not be permanently lost, and that when failures do occur, the data can be reconstructed easily.

For each transaction entered by a connected packet station, the FINDER program responds with some kind of time-stamped acknowledgement [ 6]. Once a packet operator receives this acknowledgement, he/she knows that the transaction has been safely written to disk or diskette. The syntax of the commands described above is thoroughly checked so that many typing mistakes can be caught automatically. In case of entry errors, a brief message is sent that identifies the problem. The packet operator can check on the health of the FINDER program by sending a single carriage return <cr>. If FINDER is running correctly and actively polling for incoming data, it will respond with a single <cr>.

If the database is up and running, it is best for operators to transmit data as it arrives and avoid buffering large numbers of transactions in their terminals. This is because operators may miss any error messages that would be sent during the upload process if any of the transactions contain errors. In addition, if the packet link becomes severed in the middle of an upload, AX.25 does not make clear how many transactions may have been lost. (However, there is no penalty for re-entering duplicate data other than the time wasted).

Picking the correct set of TNC link parameters is an important art. For the same reasons that buffering is usually not helpful, it is best for user TNCs to send only one outstanding, un-acknowledged packet at a time (e.g. set MAXFRAME to 1). This keeps a packet station with a marginal path from saturating the channel with

subsequent packets and retries that are likely to be discarded. Also, the nature of the user interaction in this application is such that MAXFRAME=1 is a natural setting [7].

The TNC's FRACK parameter controls the amount of time the TNC waits for a frame acknowledge. FRACK should be set high enough to guard against the "hidden transmitter" problem. In one drill a user's TNC continued to retry packets about once every second because it could not hear other stations. Since the database TNC heard most users directly, it sensed the channel was busy and was held off while his and other user's packets collided repeatedly. A FRACK value of 10 seconds or higher is probably about right. In any event, local implementers should determine a set of parameters that work best for their environment, and then encourage all packet stations to use the same set.

While the FINDER database can be configured to start automatically and run without intervention, the sysop plays an important role in keeping the system working well in the presence of marginal paths. The sysop display screen is updated continuously with the results of the TNC's link status for each channel. The display provides the number of:

- Receive frames not yet processed
- Frames sent to the TNC but not yet transmitted
- Frames transmitted but not yet acknowledged
- Retries on the current operation
- Link status messages not yet displayed
- The AX.25 link state.

By keeping close watch of the number of retries and the AX.25 link state, the sysop can spot which packet stations on the network may be suffering from marginal paths. In these cases, the sysop can recommend (either via voice or by packet message) that the packet operator make changes in his/her antennas, TNC parameters, or radios. The sysop can also force the logoff of any user and then allow reconnect via an alternate digipeater path. In the event that the (database computer has been down for a while and packet stations have been forced to buffer their data locally, the sysop may ask that stations take turns uploading data, especially in areas where the terrain would make the "hidden transmitter" phenomenon a problem.

When FINDER is activated, selecting which available packet stations will serve as packet concentrators is an important decision. The packet stations must have a good path to the database, and must also have good signals to their voice operators. As has been observed numerous times, if both the database packet frequency and the voice simplex frequencies are in the same amateur band, steps must be taken to minimize desense between the packet operator's

voice and data radios, For this reason, moving the database to, say, 220 MHz, is ideal if enough 220 MHz-equipped stations are available when the disaster strikes.

## 9. Getting Your Copy of FINDER

The FINDER program is in the public domain; permission is granted for non-profit, non-commercial use only. The FINDER program is available from **WN6I** or **N6KL** by sending a blank, formatted 5 1/4" or 3 1/2" diskette with SASE for return to you. If you wish to run FINDER without changing the code, the cost to you is the cost of the diskette and return postage. Note that a configuration file facility is included so that you can tailor certain parameters to your system without changing the code itself. If you want small changes in the code, attempts will be made to try to accommodate you. In any event, your comments and suggestions are welcome.

## 10. Conclusions

The FINDER system is ready to be utilized to enhance the response of emergency service personnel during a widespread disaster. The FINDER system is what it is today as a result of the many hours of work donated by the FINDER committee and by the hams who have participated in the operational tests. In addition, the support of the Santa Clara Valley ARES has been invaluable as has been the response shown by city and county officials familiar with FINDER.

7. See also the paper by Phil Kam, **KA9Q**, and Brian Lloyd, **WB6RQN**, "Link Layer Protocols Revisited," 5th ARRL Computer Networking Conference Proceedings, Orlando, Florida, March 9, 1986, p. 5-25.

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1. Patty Winter, **N6BIS**, "Packet Radio in Emergency Communications," *QST*, Vol. 70, No. 9, Sept. 1986, p. 53.
  2. Bob Bruninga, **WB4APR**, "Packet Radio at the Wreck of the Colonial," *Packet Radio Magazine*, Vol. 2, Nos. 1 and 2, Jan.-Feb. 1987, p. 13.
  3. Paul T. Williamson, **KB5MU**, "WA8DED Host Mode User's Guide," 23 May 1986.
  4. Turbo Pascal Database Toolbox, V. 1.2, Borland International, 1985.
  5. The Turbo Database Toolbox does not provide user I/O interface functions such as screen and keyboard handling, so these functions had to be added to deal with the special nature of the packet radio environment.
  6. This is in addition to the underlying AX.25 protocol acknowledgements that also occur, although typically we observe that the user acknowledgement message is immediately packaged as an AX.25 I-frame which--since it includes the send and receive sequence numbers--does not require that an additional Receive Ready ("ACK") packet be sent, thus the overhead for this additional safeguard is low.

APPENDIX

FINDER Data Card

ARES FINDER - Family Information Database for Emergency Responders  
(Complete one or both sides, as appropriate)

Fill out this side if requesting information about your family.

Fill out this side if entering information about yourself.

STATUS REQUEST

CURRENT INFORMATION

408  
Home Phone: \_\_\_\_\_  
415

408  
Home Phone: \_\_\_\_\_  
415

First Name .....|\_|\_|-I\_|

MY CURRENT STATUS (circle only one):

- All is OK . . .\*..... 1
- OK--contact when convenient ..... 2
- Contact me as soon as possible . . 3

I WILL BE (circle only one):

- At home ..... 1
- At work ..... 2
- At relative . . . . . 3
- At neighbor . . . . . 4
- At hospital . . . . . 5
- At school . . . . . 6
- At shelter . . . . . 7
- At previously agreed upon place.. 8
- On assignment . . . . . 9
- Other . . . . . 0

FOR RADIO OPERATOR USE ONLY:

FOR RADIO OPERATOR USE ONLY:

Route reply to: \_\_\_\_\_

This form filled out at: \_\_\_\_\_  
(Origination Point)

Time (optional): \_\_\_\_\_ (24 hour)

Today's Date (optional): \_\_\_\_\_  
(Day only)

(reverse side)

FINDER Data Card

ARES FINDER - Family Information Database for Emergency Responders

STATUS REPORT

Time Received	Telephone	Name	Status	Originate Point	Time	Date

Provided as a Public Service by Amateur Radio