

Communications for Traveling

Radio, Internet, and Cellular

for traveling and caravanning, with or without *Ham Radio*.

Everyone read: White background is for all readers, including groups with Hams.
Ham operators read: For Ham operator only groups. For Ham operators in any group.

Needs:

Meeting - Coordination with travelers that you will join.
Caravanning - Coordination with those that travel with you.
Reporting - Informing others how your trip is going.

Methods:

Radio - Best for traveling together.
E-mail - Messages will wait for you.
Cellular - Poor for traveling together.

Radio:



Two-way radio is the most useful tool for travelers, especially for groups. Using only cell phones has serious drawbacks.

Ham Radio - Use for **Meeting**, **Caravanning** or **Reporting**. ONLY between licensed Hams.

HF Radio:

HF radio is quite useful for distant **Meeting** and **Reporting** situations.

Scheduled Contacts - "Skeds" can be useful because they can be set for the best time. The disadvantage is that band conditions or interference may not allow a contact at that time.

Nets - On a daily net, stations need not hear each other or even be on at the same time. Messages may be relayed through others on the net. The disadvantage is that the time of the net may not be best, or frequent enough. Some nets are only on weekdays.

VHF/UHF FM:

Simplex - Simplex FM is obvious for **Caravanning** and **Meeting** (talk-in).

Repeaters - Previously picked repeaters can be used for **Meeting**, **Caravanning**, and **Reporting** if everyone is within range of the repeater. Don't use a repeater if everyone is always in simplex range.

Linked Repeater Systems - Use instead of HF radio for **Meeting** and **Reporting** ONLY IF everyone is in range of a linked repeater, and everyone is a member, or the system is open. You can more easily monitor for unscheduled calls than on HF.

Internet Linking (IRLP) - IRLP can aid **Meeting** and **Reporting**. Distant nodes are dialed up for a voice connection. IRLP nodes may be connected to a simplex transceiver, a VHF or UHF repeater, or a network of linked repeaters. See <http://www.irlp.net/>.

FRS - Use for **Meeting**, or **Caravanning**. Recommended when starting new.

FRS, the Family Radio Service, with low power and antennas permanently mounted on the units, does not require a license and is very popular. Unlike CB, FRS signals easily pass through vehicle windows. A complete unit has 14 channels and 38 privacy tones. Newer 22 channel GMRS/FRS units are below under GMRS. Some brands of FRS and GMRS are far better than others.

GMRS* - Use for **Meeting**, or **Caravanning**. Recommended when everyone is licensed and equipped.

GMRS, the General Mobile Radio Service, requires an expensive license, one per family (see note). There are 22 channel GMRS/FRS units, some with 1-4 watts on GMRS channels. GMRS and FRS users may talk to each other on shared channels 1-7. Channels 8-14 are FRS only. Channels 15-22 are GMRS only, can have repeaters requiring other GMRS radios, not 22 ch models.

CB Radio - Use for **Meeting**, or **Caravanning**. Recommended ONLY when majority already have equipment.

CB, Citizens Band, on 27 MHz. does not require licenses but is not the choice for new purchases. It works over short range for **Caravanning**, but interference can make **Meeting** hard. Walkie-talkies don't radiate well from inside a car, some are not even CB.

MURS - Use for **Meeting**, or **Caravanning**. Recommended ONLY when majority already have equipment.

The Multi-User Radio Service, MURS, has 5 VHF channels, and does not require a license. It is not being mass-marketed.

E-Mail:

E-mail messages can be sent at your convenience to be read at the addressee's convenience. This obviously can be used for **Reporting**, but can also be used for updates for **Meeting** if everyone checks their mail frequently.

PocketMail* - PocketMail is the size of a pocket organizer with a built-in acoustic coupler. Send and receive mail at pay phones or motel phones with a free number. Only some cell phones can be used. It is becoming less common because of more Wi-Fi.

Wireless - Wireless devices to receive and send e-mail include digital phones, pagers, and cellular PDAs which may receive mail any time they are on. Disadvantages include cellular mail not working in an analog or unserved area, and short message lengths.

Wi-Fi - Wi-Fi hot spots are used for public wireless Internet access for laptops and PDAs. Coffee shops, fast-food, copy shops, hotels, campgrounds, and public areas have Wi-Fi for subscribers and one-time users. Some are free, others expensive.

Conventional E-Mail* - This uses a PC or e-mail device. Both need modular jack access to a phone line or Ethernet. Many campgrounds are "modem friendly". If a public Internet terminal or WebTV is available, browser e-mail can be processed.

Ham E-Mail - Winlink is an Amateur HF Pactor system to exchange e-mail with the Internet. Messages can be handled far from telephone connections. Specific TNCs and an HF rig are needed. However, Telpac is a Winlink node using VHF packet.

Ham APRS - APRS can send a short Internet e-mail if the packets make it to an Internet gateway, but can't receive from the Internet. Short messages can be sent and received with other APRS stations in digipeater range.

Ham Packet - Few Hams have mobile packet. The packet network can be spotty, but if it is useful to you, use it. See my [Using a PDA with the TM-D700 or TH-D7 / Using the D700 Packet Mailbox](#). Also see Telpac under Ham E-mail above.

Mailing Lists - AKA, discussion groups, reflectors, and message boards help **Meeting** and **Reporting** if you use e-mail on a trip.

The [Mobileer](#) Ham discussion group is used to exchange ideas, announcements, and travel plans starting from Northern California.



Cellular:

Calling home is obvious, but cellular is a last resort between nearby travelers. It can be useful if you need to call when time, distance, or equipment prevents radio contact, usually for updates for **Meeting**. Have each other's numbers, and your phones turned on!

Push-to-Talk or Walkie-Talkie - Same advantages and disadvantages as basic cellular, but limited in who can be called.

Prepay - Using cellular but not all have it? Look at prepay. Buy a phone for typical \$50 with \$10 worth of calls included. Renew with \$20 or more before 90 days with unused amount rolled over. Cheaper than regular plans with light use. Lots of brands, and costs vary.

Disadvantages - Cellular signals are not available in many rural areas. Travelers can be within sight of each other, but not able to talk. With more vehicles, more calls must be made. Calls are free to some, but very expensive for others.

Conclusions:

General - Have options. E-mail or cellular can notify people about changes during a trip or reestablish lost contacts.

Group Trips - Everyone should have a list of all frequencies and tones, e-mail addresses, and cell phone numbers.

Part-Ham Groups - Hams **Caravanning** with others need to understand and match FRS, GMRS, CB, or MURS radios used.

GMRS/FRS NOTES:

1. GMRS license covers spouse, children, parents, brothers, sisters, grandparents, aunts, uncles, nephews, nieces, in-laws.
2. For 22 ch. units on FRS without a GMRS license, use only ch. 8-14, or ch. 1-14 with 1/2 watt units, never use ch 15-22.
3. Some radios miss the first words on lowest privacy tones or mixed brands. Privacy isn't a private channel, it blocks hearing other signals. Never use when not needed. Set privacy to ch 0 to turn it off. With radios without privacy, other radios **MUST** have it off.

Update*: Nov. 16, 2008. First Version: Aug. 31, 2001. Les Cobb, W6TEE.

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