

Change to SOP – Land SAR / Helicopter Communications

In accordance with UKSAR policy, the use of Channel 53a (158.650MHz) as the land SAR Ground-to-Air Channel will cease at midnight on 31 Dec 2005. Commencing on 1 Jan 2006 a new Standard Operations Procedure will come into effect.

Two new channels will be used; Channel 62a, the Emergency Calling Channel (ECC) and Channel 24a, Ground to Air Channel (G2A). The predominant channel will be the ECC, which must be monitored by participating SAR assets, Incident Control Points (ICP) and all deployed land SAR parties.

SAR-dedicated and Air Ambulance/Helimed helicopters and some Police ASU
The amended SOP, explained here from the Land SAR perspective, is as follows:

The amended procedure, explained here from the Land SAR perspective, is as follows:

1. Helicopters approaching the search area will broadcast an initial call in good time on the ECC, providing arrival details of callsign, position, altitude, heading and destination. This is to alert other aircraft and all other SAR assets, including deployed parties, of its presence and approximate intentions.
2. The initial call is not an invitation for every party to respond. If a party has a casualty or casualties in urgent need of helicopter evacuation, and is in contact with its Incident Control Point or base, it should normally organise helicopter evacuation through the ICP. However, if operationally and medically imperative a deployed party can make a direct call to the helicopter, requesting its attendance.
3. With one exception, all communications between Land SAR agencies and air assets should be conducted on the ECC. This increases awareness by air and ground assets of helicopter presence and intentions, thereby reducing the possibility of air-air collision and permitting ground parties to inform helicopters of safety hazards, such as the proximity of power lines, avalanche risk to ground parties, etc. Radio tasking of air assets should be conducted on the ECC so that all agencies are informed and aware.
4. The 'exception' to ECC use is when the helicopter is involved in winching the casualty or a ground party. The procedure to be adopted is:
 - a. The helicopter is to be vectored to the party using the ECC.
 - b. Upon arrival at the party's location, helicopter and ground party will synchronise the change to the G2A where exclusive communications can be expected and abbreviated procedure used.
 - c. As soon as the winching transaction is complete, helicopter and party will synchronise the switch back to ECC, ideally ending with an exit check on the ECC from the helicopter crew to ensure all are aware of route details.

Helicopters do not operate in the extreme mountain weather conditions that would preclude land SAR rescuers from changing a radio channel, and if there is no winching, no channel change is necessary. Previous problems with disruptive and potentially hazardous interference should virtually disappear.

The SOP has been ratified by the Communications Working Group and endorsed by the Operators Group of the UKSAR Committee; both incorporate representation from Land SAR agencies, including ALSAR, MRC and MRC of S.

Notes: From 1 Jan 2006, Channel 53a is no longer to be used as a G2A channel and its use should not be requested of the helicopter crews who will be monitoring the ECC.

Channel 53a will remain on 25kHz channel spacing until 2009, when it will revert to 12½kHz.

UK LAND SAR SOPs – Effective from 1st Jan 2006

ECC – Emergency Calling Channel – (Land-SAR equivalent of Channel 16, 121.5 or 243MHz). It is Channel 62a = 156.125MHz FM. Simplex, 25kHz bandwidth. Note - not a 'chat' channel or TWC.

G2A – Ground to Air Channel –. Channel 24a 157.200MHz, FM, Simplex, 25kHz bandwidth. Not a TWC.

Helo – Helicopter.

Hillsets – VHF Hand-portable radios carried on the mountains by Land-SAR parties during SAR operations and training exercises.

ICP – Incident Control Point

QSY – Abbreviation for Change frequency or Change of frequency.

TDC – Team Default Channel. A channel that has been allocated by UK Land-SAR CWG to be that team's normal working channel. It is not owned by them and can be allocated on major incidents to other teams. However, if a major incident takes place in a Land SAR team's area, that team, and the adjacent teams, should usually retain their TDC as the advantages of local team infrastructure and frequency separation will be maintained. TDC tables, regional and national, should be maintained and carried by SAR and relevant Emergency Services assets.

TWC – Team Working Channel. This will normally be the TDC, but during major incidents, Incident Control will allocate out-of-region teams joining the incident with other channels as appropriate.

T/L – Team Leader

MANAGEMENT OF UK LAND SAR CHANNELS DURING SAR INCIDENTS

Land SAR Party - Management of Radios and Land-SAR Channels

<u>Party Comms</u> Small, Single Team Incident	<u>Party Comms</u> Multiple, but Separate Incidents – (Several MRTs within radio contact with each other)	<u>Party Comms</u> Major Incident
1 radio on ECC, The other radios on TWC. If helo involved directly with your party, wait till overhead and change the ECC radio to G2A or change one of the TWC sets on to the G2A. As soon as helo departs, remind helo to change back to ECC and again monitor ECC	1 radio on ECC. Other radios on TWC. Helo will contact on ECC. If helo involved directly with your party, wait till overhead and change the ECC radio to G2A or change one of the TWC sets on to the G2A. As soon as helo departs, remind helo to change back to ECC and again monitor ECC.	1 radio on ECC, 1 radio on G2A. Other radios on TWC. If hill relay is used, Incident Control may choose to have individual MRTs use their TWC within their teams and have 1 nominated team member per team act as a link distribute messages to and from their own parties by using the relay to transfer messages to/from the ICP. The ICP, via the relay, can also be used to convey messages from team to team. Helicopters will use the ECC and then G2A when overhead the winched parties/casualties. If interference occurs on G2A, helo may exceptionally use 73 for winching. Revert ECC ASAP. The majority of radios should be on TWC.

Land SAR Vehicles - Radio and Channel Management

Small, Single Team Incident	Multiple Separate Incidents – (Several MRTs within radio contact)	Major Incident
1 radio on ECC. Another radio on TWC and / or Relay Channel	1 radio on ECC. Another radio on TWC and / or Relay Channel	1 radio on ECC. Another radio on TWC and / or Land SAR Relay Channel (Request communications support)
If there is only one radio in the vehicle, a hill-set should be used to monitor ECC. If no hill-set is available, vehicle set will have to scan all necessary channels – unsatisfactory		

MANAGEMENT OF UK LAND-SAR CHANNELS DURING SAR INCIDENTS - continued

Land SAR Incident Control Point (ICP) - Radio and Channel Management. This can be a Team HQ or Communications, Command and Control Vehicle

Base or ICP Small, Single Team Incident	Base or ICP Multiple Separate Incidents – (Several MRTs within radio contact)	Base or ICP Major Incident
<p>1 radio on ECC, 1 radio on TWC. If a Relay is used, another radio on the Relay feeder channel (uplink / downlink) Helo will contact Base/ICP and hill parties on ECC. Base/ICP to use only the ECC to the helo so that all parties aware of helo location, route and tasking.</p>	<p>1 radio on ECC. Other radios to cover TWCs in use. If a Relay is used, another radio on the Relay feeder channel (uplink / downlink) Helo will contact Base/ICP and hill parties on ECC. Base/ICP to use only the ECC to the helo so that all parties aware of helo location, route and tasking.</p>	<p>1 radio on ECC, 1 radio on G2A If a Relay is used, another radio on Relay feeder channel (uplink / downlink) 1 radio covering each TWC within range of the ICP. Hill-sets can be used with external antennae. Spare radios; either base, vehicle or hill sets can be used if necessary (with elevated, spaced aerials if possible), to monitor and work other team channels. Best to use a Relay on the local team TDC/TWC and limit users to avoid channel saturation. 1 or 2 nominated team members from each team filter and dispense information to/ from ICP to party and vice versa. Helicopters should use ECC for <u>all</u> communications with Base/ICP so that all parties aware Majority of radios on allocated TWCs to avoid inter-team interference.</p>

Helicopter Management of Airband and Land SAR Channels

Small, Single-Team Incident	Multiple Incidents - Several MRTs Within Radio Earshot	Major Incident
<p>Monitor 121.5 / 243 MHz as appropriate Monitor 123.1MHz (AM) for other helos./ aircraft Monitor and use ECC (Ch62a) to communicate with Land-SAR parties and helos/aircraft. At the threshold to area of incident, make an alerting call warning of approach - ECC and 123.1MHz - Position, heading, altitude, destination and approx intentions, if and as relevant. When overhead casualty/Land SAR party to be worked with, chop to G2A/Winching Channel, Revert to ECC ASAP after transaction complete</p>	<p>Monitor 121.5 / 243 MHz as appropriate Monitor 123.1MHz AM for other helos. / aircraft. At the threshold to area of incident, make an alerting call warning of approach - ECC and 123.1MHz - Position, heading, altitude, destination and approx intentions, as relevant. Use ECC for all comms with Land-SAR parties & other involved helos, except when overhead the casualty or Land SAR party you are winching – then chop to G2A until transaction is complete, then revert ASAP to ECC. If another helo conflicts on the G2A, the 2nd helo may exceptionally use Ch73 as a winching channel</p>	<p>Monitor 121.5 / 243 MHz as appropriate Monitor 123.1MHz AM for other helos. / aircraft Use ECC for all comms with Land-SAR parties & other involved helos, except when directly overhead the casualty or Land SAR party you are winching – then chop to G2A until transaction is complete, then revert ASAP to ECC. At the threshold to area of incident, make an alerting call warning of approach - ECC & 123.1MHz - Position, heading, altitude, destination & approx intentions. Use ECC for all comms with Land-SAR parties & other involved helos, except when directly overhead the casualty or Land SAR party you are winching – then chop to G2A until transaction is complete, then revert ASAP to ECC. If other helos conflict on G2A, helos may share G2A and Ch73.</p>

Channel Management of Land SAR 'Hill-Set' Radios – Dependant on how many radios in party

3 or more Radios	2 Radios	1 Radio
<p>1 radio on ECC or (better) 1 radio on ECC, another on G2A. The rest of the radios on TWC. If G2A is needed, use dedicated radio on that channel, then revert to ECC as soon as winching transaction is complete.</p>	<p>1 radio on ECC. Leave 1 radio on TWC. If G2A is needed, use the ECC radio on G2A, then revert as soon as winching transaction is complete.</p>	<p>Scan between TWC and ECC. Priority channel should be ECC. Received messages - deal with as received. If G2A channel is needed, stop scan and use G2A channel only, Return to scan ECC and TWC ASAP. Note – Scanning with one radio is an inefficient last resort. One person with two radios (one on ECC and the other on TWC) is much better. If on Scan, stop scanning to answer on correct channel. Restart Scan ASAP.</p>