ELECTROMAGNETIC INTERFERENCE IN AVALANCHE TRANSCEIVERS

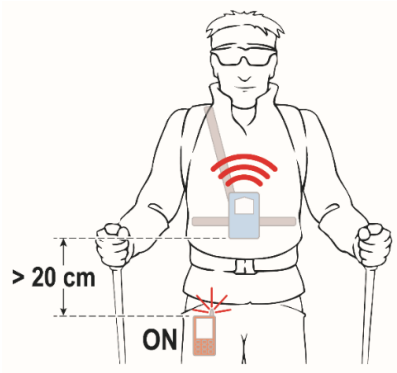
雪崩收发器的电磁干扰

SEND - Transmit mode - all devices may remain in use
发送- 发送模式 -所有正常使用中的设备均可在此模式

> 20cm from sources of interference:

干扰源距离> 20cm

- electronic devices
  电子设备
- metal parts
  金属部件
- metallic foils (e.g., to preserve heat)
  金属箔（例如，用于保温）
- magnets
  磁体
- heating elements
  加热元件



Keep your phone in a pocket (pants) opposite to the transceiver to avoid the devices coming to rest close to one another in the case of an avalanche, thus shielding the transmission signal.

请将手机放在与雪崩收发器相对的口袋（裤子）中，避免设备在雪崩时彼此靠近，从而屏蔽传输信号。

Do not carry a phone in your jacket pocket (nor an action camera at chest level) while wearing an avalanche transceiver in its cradle.

当怀里携带雪崩收发器时，不要把手机放在上衣口袋里（也不要在胸前放打开的摄像头）。

Talk about the topic in your group, make yourselves aware of the problem of interference sources once again.

在小组中讨论这个问题，再次让所有人意识到干扰源的问题。

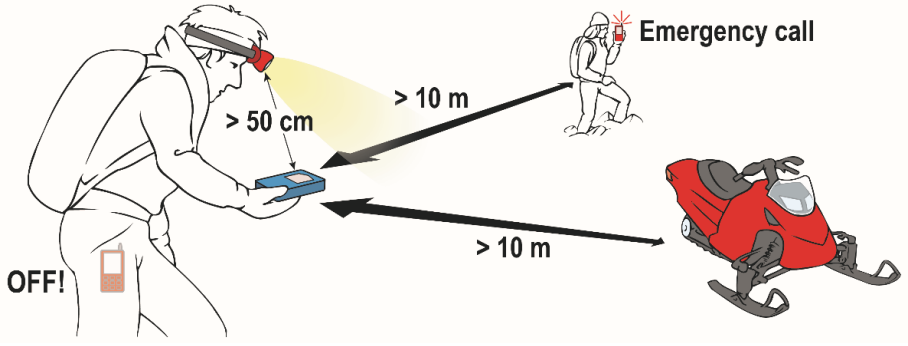
SEARCH – Receive mode - only absolutely necessary devices may stay on
搜索- 接收模式 - 只有在绝对必要的情况下，设备才可以保持在这个状态

Searching rescuer:
all devices OFF
take off heated gloves

正在搜索救助者：
关闭所有设备
脱下加热手套

Other persons in proximity:
>10m distance
all devices may remain in use

附近的其他人员：
>10m 距离
所有设备均可继续使用



- Take off heated gloves.
  取下加热手套
- Switch off communication and other electronic devices (completely OFF, no airplane mode)
  关掉通讯设备和其它电器设备（完全关闭，不是飞行模式）
- Switch off heated socks and boots.
  关掉加热袜子和靴子
- When using a watch with an electronic screen, or bracelet with electronics for activity or heartbeat monitoring, hold the transceiver in the opposite hand.
  当使用带有电子屏幕的手表或带有电子装置的手环监测活动或心跳时，需要用另一只手握住收发器。
- >50cm distance from devices *absolutely necessary* to conduct the search, for example a head lamp for a search at night.
  保持与进行搜索时必须的设备距离>50cm, 例如用于夜间搜索的头灯。
- >10m distance from a turned on mobile phone, radio or satellite communication device.
  保持与打开的移动电话、无线电或卫星通信设备的距离>10m
- >10m distance from a snowmobile with running engine
  保持与发动机运转的雪地车距离>10m
- Reduce the search strip width to max. 20m if interference cannot be contained by the distance rule.
  如果距离规则无法抑制干扰，那么将搜索带宽度减小到最大 20m。
- Some electric airbag systems may cause interference. When using an affected system, you may need to consider searching without your electric airbag.
  一些电动气囊系统可能会造成干扰。当使用受影响的系统时，您可能需要考虑在不使用电动气囊的情况下进行搜索。

Companion rescue in a group:
小组协作抢救
To save time, or in case you are not familiar with turning your devices off, consider handing electronic devices to someone who is not actively searching.
为了节省时间，或者如果您不熟悉设备关闭流程，请考虑将电子设备交给无搜索任务的人。

SOURCES OF INTERFERENCE
干扰源

Passive Interference affecting SEND and SEARCH:
影响发送和搜索的被动干扰源
Metal parts, electronic devices with metal cases, foils and wire mesh; magnets
金属部件、带有金属外壳、箔和金属丝网的电子设备;磁体
➔ Keep >20cm distance from metal parts and magnets.
与金属部件和磁体保持距离>20cm

Active Interference affecting SEARCH:
影响搜索的主动干扰源
Every device consuming electrical energy:
每个耗电设备
➔ Follow the rules listed in SEARCH to avoid range reduction and "false positives"

遵循搜索模式中列出的规则，避免出现范围缩小和“误报”

INTERFERENCE POSSIBLE CONSEQUENCES
干扰可能产生的后果

➔ **Misleading distance and direction indications → "False Positives"**
误导距离和方向，“误报”

➔ **Range reduction**
范围缩小

DETECT INTERFERENCE
检测干扰

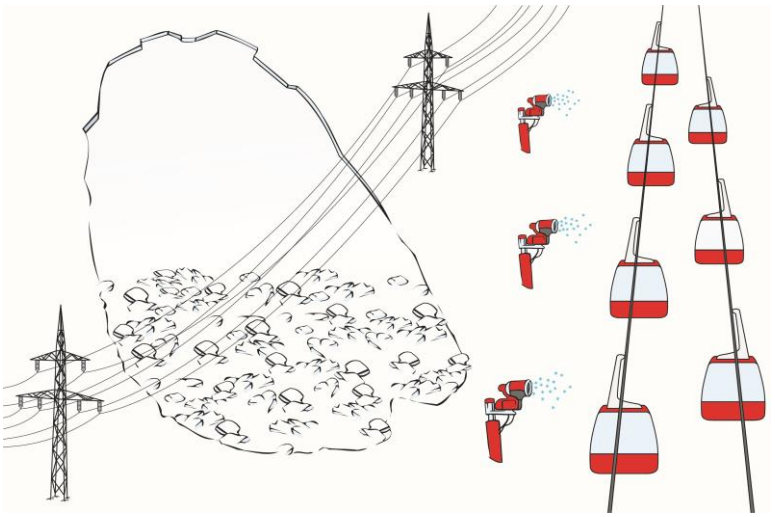
Differentiate "signal of a buried subject" from "false positives"
[based on analog sound]

（基于模拟声音）从“误报”中区分“被埋对象的信号”

➔ Authentic analog sound approx. every second + distance/direction indication
= Signal of a buried subject
大约每秒发出真实的模拟声音 + 距离/方向指示
= 被埋对象的信号

➔ Distance/direction indication, but no, or only infrequent analog sounds
= "False Positive"
距离/方向指示，但无模拟声音或仅偶尔发出模拟声音
=“误报”

SEARCHING IN HEAVILY DISTURBED AREAS
在严重被干扰地区进行搜索



➔ If the transceiver indicates a narrower search strip width, apply the instructions given by the device.
如果收发器显示了较窄搜索带宽，则采用设备给出的指示。

➔ Otherwise, cut search strip width in half,
否则，需将搜索带宽减半

➔ in extreme cases apply micro search strips and search based on analog sound.
在极端情况下，使用微型搜索带，并基于模拟声音进行搜索

Overwhelming and compelling preliminary data from recent research has been evaluated by the UIAA working group on avalanche transceivers. These recommendations have been reviewed and agreed

upon by multiple organizations, federations, leading experts, and all avalanche transceiver manufacturers. Further research is warranted in the field of electromagnetic interference. Keep up to date with your equipment and current research.

UIAA 雪崩收发机工作组已经对最近研究得出的压倒一切和令人信服的初步数据进行了评估。这些建议已经过多个组织、联合会、资深专家和所有雪崩收发器制造商的审查和同意。在电磁干扰领域有待进一步研究。随时掌握您的设备和最新研究。

https://www.theuiaa.org/safety/