



Non-Radio Ground-to-Air (GTA) Signals

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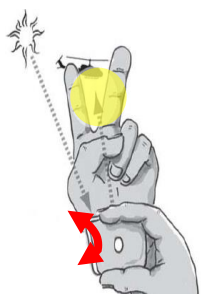

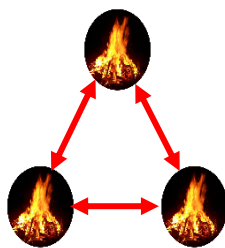
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Emergency preparedness for resilience and sustainability.

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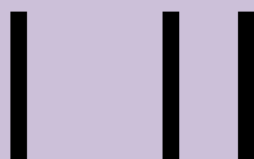
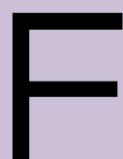




Aircraft are often used in disaster relief work. Helicopters can be the first outside help to arrive. But fixed wing aircraft can also be used. In any case, it is unlikely survivors on the ground will have access to radios capable of talking with aircraft. The use of no cost / low cost non-radio ground-to-air signals can be a viable solution.

Day Use		Night Use	
			
Smoke	Mirror flashes	Flashing Light	Three Fires


Distress Symbols: The most basic ground signal your can make is "S-O-S" marked on the ground. Use any materials you can find. Use material that strongly contrast with the background. Make the letters large (2m high); the bigger the better. You need to balance the work required to the food and water and people to do the work.





Panels can be used day or night. Panels are 1m x 6m and have strong color contrast to background. You need a minimum of 4 panels to make the signals below. (At night, put panels in well-lit area.)


													
Need doctor / Serious injuries		Need medical supplies		Need food / water		Going this direction		Yes		No		Don't Understand	


Use hand / body signals day or night. Make signals slow, exaggerated, and deliberate so aircrew can clearly see the signals. At night, hold a light or stand in a well-lit area. At night, be sure lights do not point at the helicopter. **Do Not Blind the Pilot.** [Note: Do not use other hand signals unless you have been trained for helicopter operations.]


All OK


Need Medical Attention Urgently


Yes (affirmative)



No (negative)


Land here (Point to LZ)

If the LZ is **not safe before** → landing operations begin, use the **"Do Not Land"** signal. If weather or LZ conditions become **unsafe during** flight operations, give the **"Do Not Land"** signal

CAUTION

Teach people **NOT** to wave a helicopter this way.




This is a specific signal telling the pilot **"Unsafe; Do Not Land"**

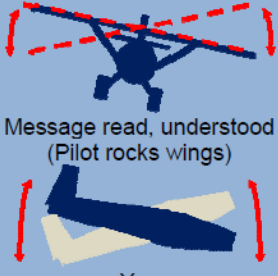
Possible Non-Radio Air-to-Ground Signals


Helicopter crews use hand signals. Watch the aircrew member in the door, not the pilot. The pilot uses both hands to fly. Keep eye contact with the aircrew when signaling. [Note: These hand signals are not "standard;" common people generally use and understand these gestures.]



If fixed wing aircraft are used, watch for these signals in response to your ground signal panels or hand / body signals. They may also drop a message to you. It often has a long colorful streamer on it to make it easier to see. When you get the message, prepare to reply using ground signal panels or hand / body signals (if you can).


Message read, not understood
(Plane circles to right)


Message read, understood
(Pilot rocks wings)
Yes
(Pilot dips plane up and down)


No
(Pilot skids plane left to right)

Wind Indicator

Rescue pilots and aircrews can judge wind conditions at the surface and aloft. They also appreciate any added information they can get, especially when flying in unfamiliar places.

Helicopters fly into the wind to land. A flag near the Landing Spot shows pilots the wind direction and wind speed. It should be as large as possible. Put it up slightly off to the side so the pilot has a clear view of it. Set it up about 150 m away from the Landing Spot. Remember, there should be no vertical obstructions at the Landing Pad.

