



Drone as First Responder

RPIC Reference Card - Flight Contingencies

Note: Always follow your organization's policy on safe use. Pilot Actions/Notes are recommendations only and the Remote Pilot in Command is responsible for the safe operational use of the flight system during all phases of operation. For more information visit: www.skydio.com/safety.

Warning: Operating the drone with a critical low battery may cause an in-flight power loss, leading to uncontrolled descent and serious bodily injury.

Scenario/Alert	What X10 Does	Pilot Action/Notes
Lost SL connection	Automatically switches to 5G via Connect Fusion (if available) and continues flight.	Monitor the FUS indicator / link health.
Lost 5G connection	Automatically switches to SL via Connect Fusion (if available) and continues flight.	Monitor the FUS indicator / link health.
Lost both SL and 5G	Hovers and waits for reconnection (up to 3 minutes). If no reconnection, initiates return or lands nearby (per configured behavior).	Plan for the hover timeout window and ensure Lost Connection settings are configured for the mission.
Lost GPS	Continues flying using VIO.	Maintain range of visual features. Closely monitor VIO. Prepare for emergency landing if VIO is lost.
Lost VIO	Continues flying using GPS.	Closely monitor GPS signal. Avoid tall structures, try to maintain clear view of the sky. Prepare for emergency landing if GPS is lost.
Lost both GPS and VIO	Emergency landing is initiated (immediate descent to land). The drone enters attitude mode and may drift during descent.	If piloting from Remote Flight Deck: does not allow the user to fly in attitude mode while the drone is emergency landing. If piloting using the Skydio Controller: allows user to fly in attitude mode while the drone is emergency landing.
GPS degraded	VIO becomes primary; warning highlights if backup is also unavailable.	Continue with caution. Closely monitor and maintain healthy VIO. Stay within range of visual features. Make sure the drone has a clear view to the sky if possible.
VIO degraded (1 bar)	GPS becomes primary; warning highlights if backup is also unavailable.	Continue with caution. Closely monitor and maintain strong GPS signal. Expect worse VIO performance in low light. Stay within range of visual features.
Low battery (Return battery capacity reached)	The system will notify the pilot in Remote Flight Deck when low battery capacity has been reached.	Initiate Return or land as soon as practical.
Critical battery	The drone will land in place and look for a flat place to land.	Prioritize a safe landing area. Nudging is still available in this state. Pilot can cancel landing however this greatly increases the risk of collision. Exercise extreme caution.
High wind detected	Issues a real-time alert.	Return and land is advised.
Icing detected	Issues a real-time alert.	Initiate return immediately and end the flight as soon as practical.