Typhoon Warning Solution

Typhoons often cause significant losses to human life, property, and socio-economic development. Accurate and timely warning is crucial for preventing typhoon disasters and reducing losses. Traditional typhoon warnings rely heavily on meteorological satellites and station data. Although effective, in remote areas or complex terrains, there are problems such as insufficient warning coverage and delayed information transmission. The typhoon warning broadcasting system quickly spreads typhoon path, intensity and other warnings to coastal urban and rural areas, fishing villages, and ports through real-time reception of meteorological information, especially in remote areas with weak signals, and can cover complex

terrains such as mountains and islands. It uses Mandarin combined with dialects to reach the elderly, migrant workers and other groups, and dynamically updates defense guidelines throughout the entire process before, during and after disasters, which is a key guarantee for coastal response to typhoons.

Omnidirectional equipment, with its 360 degree signal coverage without blind spots, breaks through the limitations of complex terrain such as mountains and islands. The 70dB alarm

sound covers a radius of over 2000 meters, reducing blind spots by 70% compared to traditional equipment, ensuring 100% signal reach in remote areas such as coastal fishing villages and ports; Omnidirectional meteorological sensors can collect multi-dimensional meteorological data from all directions, providing support for accurate warning. Two point wireless bridge interconnection technology enables cross island signal relay, comprehensively solving the coverage blind spot problem of traditional directional equipment.

This plan establishes a multi-dimensional emergency support and efficient warning system that covers the entire process. The system is powered by both solar panels and batteries, ensuring a continuous power supply for up to 4 hours. Additionally, with the support of a backup interface connected to the power grid, it can maintain a 72-hour warning broadcast

in the event of a typhoon-related power outage. This is three times longer than the operational duration of traditional mains-powered equipment.

The system also features multi-language capabilities, which have increased the information reach rate to over 92%. Furthermore, its three-tier network architecture can automatically match broadcast strategies based on different warning levels. This not only enhances resource utilization by 40% but also comprehensively improves warning timeliness and resource allocation efficiency.