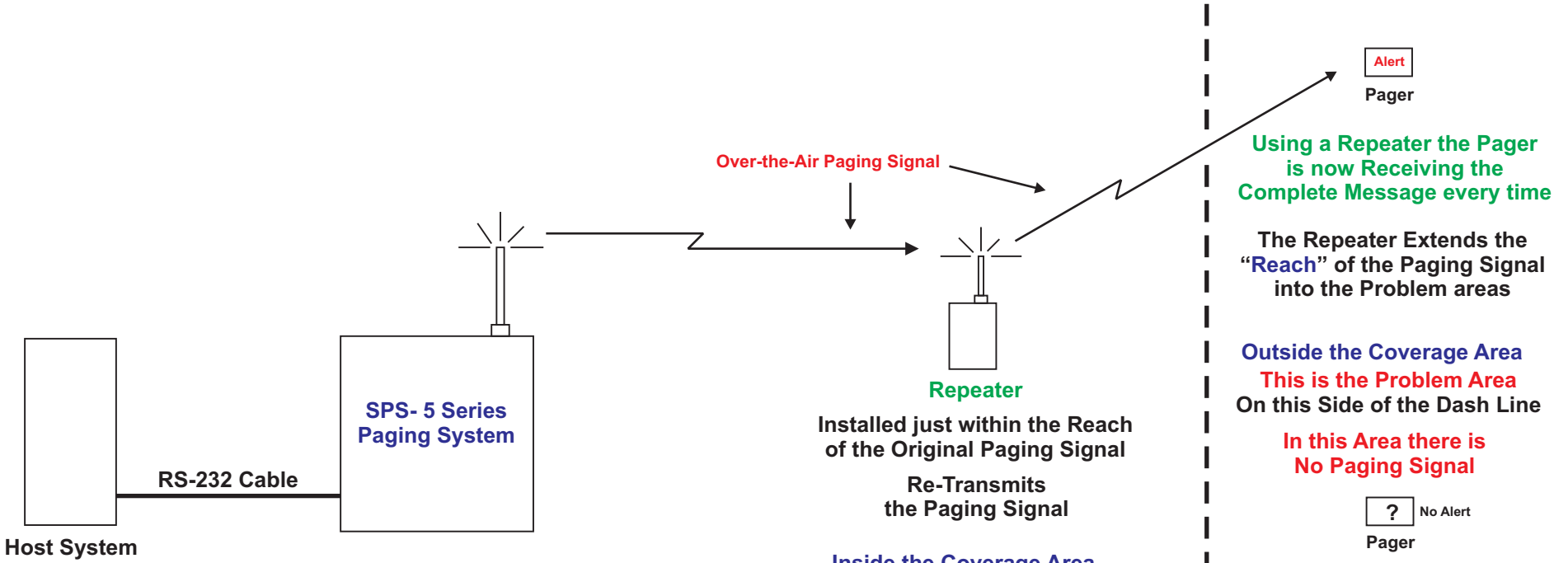
Diagram of How the Repeater works with a Paging System to Extend the Paging Signal into Trouble Areas - Page 1 of 2



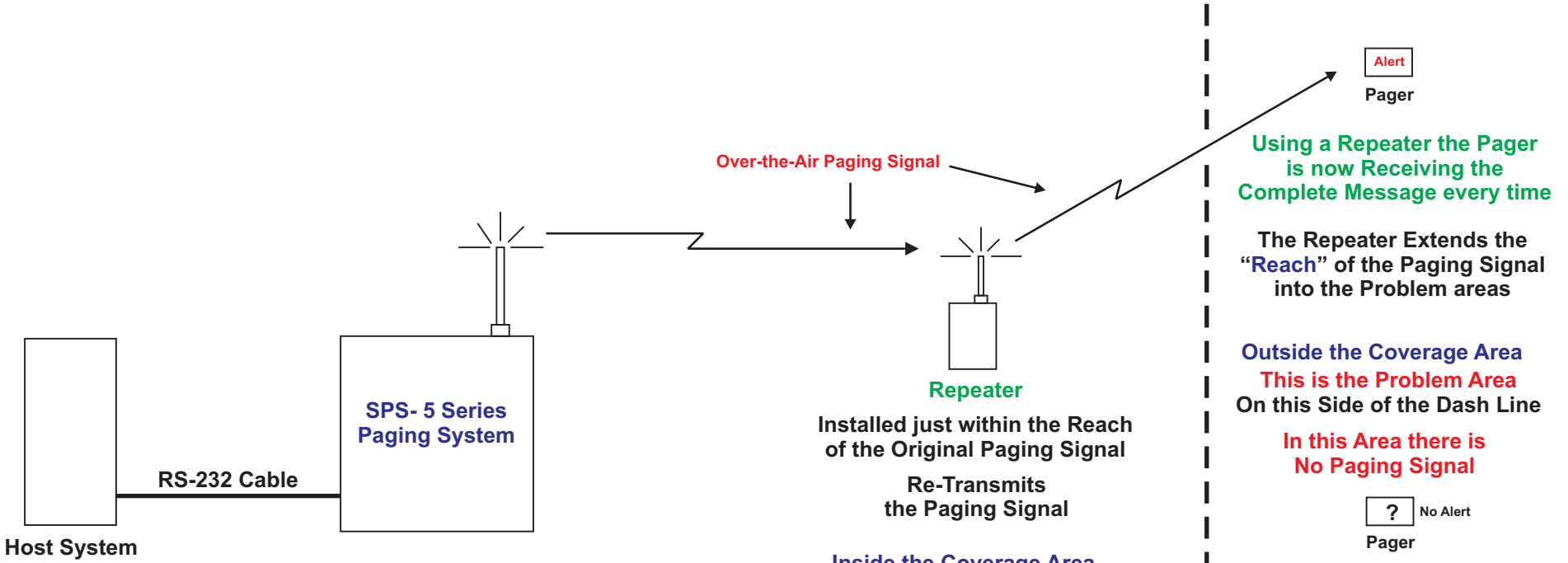
Both the SPS-5 and the Repeater are Considered "Transmitters".

The Repeater will "Listen" for the Paging Signal from the Paging Transmitter.
When it "Receives" a Paging Signal, it will then "Re-Send" or "Re-Transmit" (Repeat) the Paging Signal.
The Repeater should be Installed where it can Receive a "Good/Clean" Signal from the Paging Transmitter every time.
The Repeater will "Extend" the Paging Signal into Areas where the Original Paging Signal could Not Reach effectively and consistently.

See Page 2 for an Explaination of Overlap Signals caused by using two Transmitters and what can done to help this Problem.

MATERIAL	FINISH	DATE
	NONE	6.15.12
TITLE		DWN BY
Description of Transmitter used with a Repeater		Bob Clyburn
		APP.
WAVEWARE TECHNOLOGIES GARLAND, TEXAS 972-479-1702	DWG. NUMBER	REV. 1

Diagram of How the Repeater works with a Paging System to Extend the Paging Signal into Trouble Areas - Page 1 of 2



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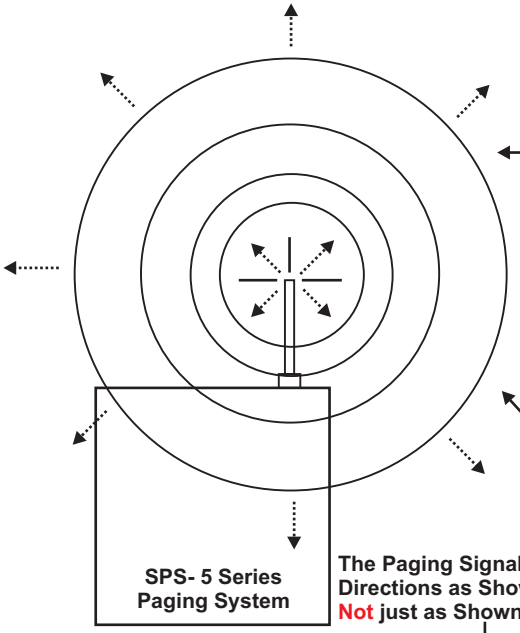
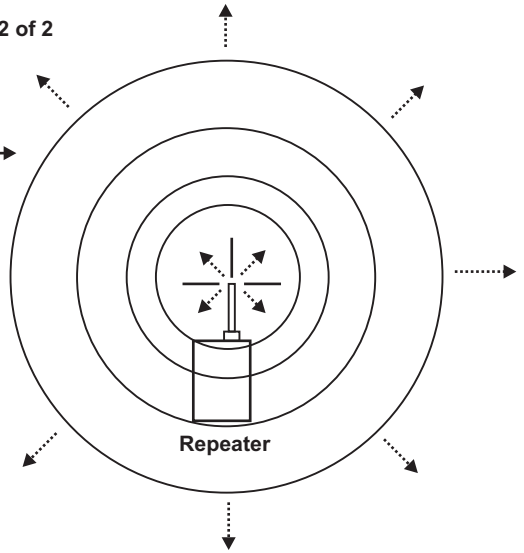
Description / Diagram of Standard Transmitter Signals - Page 2 of 2

And Overlapping Signals when used with a Repeater



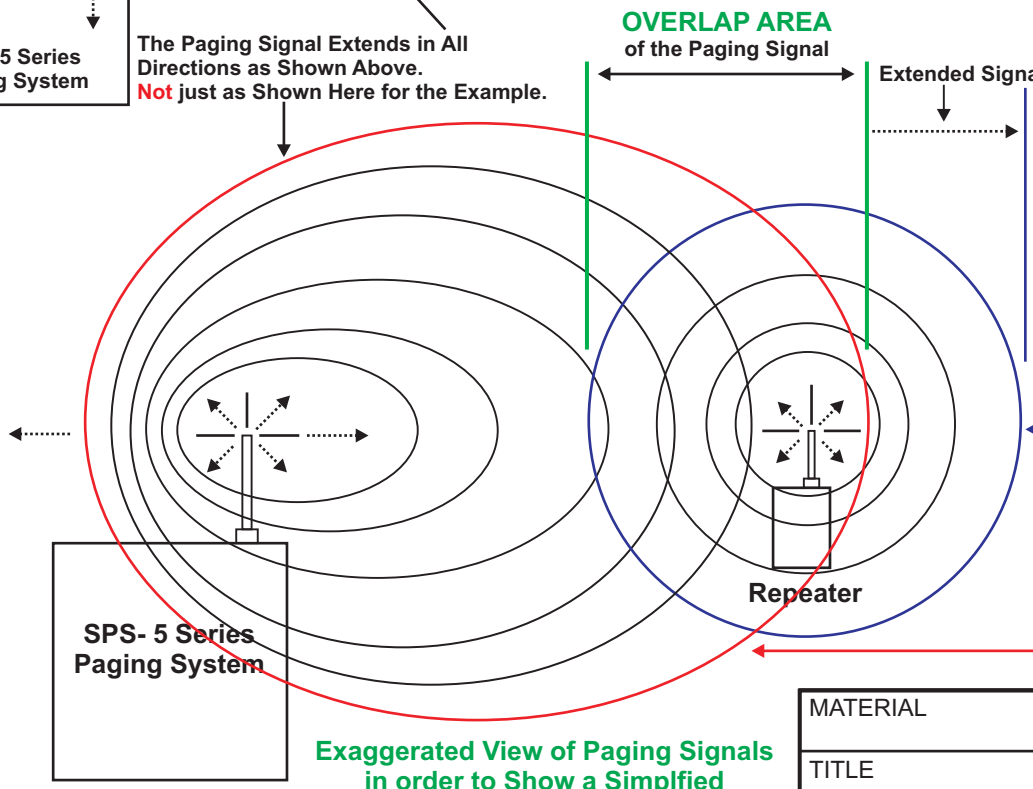
The Signals from most Transmitters are sent out in Waves.
Much like when you drop a Pebble into a still Pond.
The "Ripples" of Waves go out in all directions,
Mostly Horizontally, but Upwards as well as Down.
(This assumes that the Paging System is Installed Vertically on a Wall)



Below Describes where a Repeater Must be Installed and
Explains the Overlap of Paging Signals which can cause Double Pages.

Also Below Explains what can be Done to Help this Problem.

The Paging Signal Extends in All Directions as Shown Above.
Not just as Shown Here for the Example.



= Paging Signal

END of Repeater Coverage Area is Shown in BLUE.

Note:
Repeater is INSTALLED just INSIDE the Coverage Area.
Not Outside the Coverage area.
END of Paging System Coverage Area is Shown in RED.

Exaggerated View of Paging Signals
in order to Show a Simplfied
View of Signal Overlap.

Note:
The Area of Overlapping Paging Signals will Cause Any Pager in the Overlap Area to get a Second Page, one from Both the Paging Transmitter and from the Repeater.
If more than one Repeater is used, then any Pager within any of the Overlaping Signals will be Paged, so a Pager may get more than two Pages.
This Problem can be worked around by Re-Programming a Pager to Not Display any Duplicate Messages for 30 Seconds. This Change has to be Done using the Pager Software.

MATERIAL	FINISH NONE	DATE 6.15.12
TITLE Description of Transmitter Signal Overlap		DWN BY Bob Clyburn APP.
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