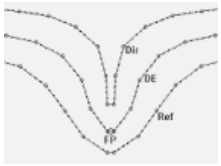
The Radio Hotel Antennas You've Never Heard Of (probably) Part II

by Rick Hiller -- W5RH

The Radio Hotel column of December 2016 https://bvarc.org/rh/rh_1612.pdf talked about a few seldom referenced antennas. This is part 2 – the antennas I didn't have room to write about. So what did we miss? The Hentenna, the Landstorfer, the Sommer, the Owl, LFA and OP-DES. All are certainly valid, but are rare, or were rare at that time, operational antennas even in the Ham Radio antenna space. All have unique capabilities and are intriguing to learn about, model and build. I encourage you to not only follow the provided links, but to Google the names and do a bit of investigation on your own.

The Hentenna originated in Japan. It is a wire rectangle that is vertically oriented and fed as a slot antenna is -- parallel across the element, not in series, as a normal feed point. Called the "Hen" tenna because it is interesting or unusual. JA hams used it widely on 6 meters because of its' slight gain and wide bandwidth. QST Feb 1982 "Let's Make the Hentenna" described the sky hook. More recently John Portune, W6NBC, modified the design to make it easier to implement. Reference QST August 2022 "The Inverted Hen-Delta 6 Meter Antenna".



The Landstorfer – not really a specific antenna per se, but an implementation of a theoretical curved element structure conceived in 1976 by Prof. F. M. Landstorfer. It has the characteristic of additional gain. I ran into it in Ham Radio magazine April 1986 "A New Class of Directive Antennas", as a 3 element parasitic implementation with significantly more gain than a linear 3 element Yagi-Uda.

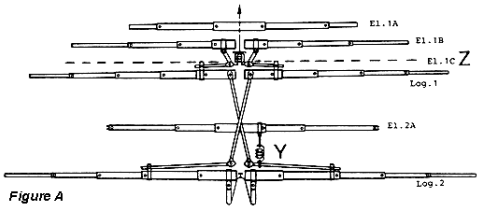


Figure A

The Sommer is currently a multi-band parasitic array based on the DJ2UT design – read about the background theory at **www.sommerantennas.com** . Similar to Butternut verticals, which use the full element length for most bands, the Sommer Beam uses most of the elements for most of the bands…10 thru 40.

The OWL, LFA and Op-DES are antennas designed by Jason Johnson, G0KSC, of **INNOV Antennas** company. Reference the November 2017 Radio Hotel "Recent Trends in Yagi-Uda Designs" https://bvarc.org/rh/rh_1711.pdf all about his low noise, multi-band, wide bandwidth type of parasitic antennas. He even has convenient design guidance for the DIY ham on his web site. **OWL** is **O**ptimised **W**ide-band **L**ow Z; **LFA** is **L**oop **F**ed **A**rray and **OP-DES** is **O**pposing **P**hase-**D**riven **E**lement System. They all use their name sake techniques for wide bandwidth, lower noise (high front to back ratio designs).

Again, I have run out of room, so I encourage you to dive into the world of esoteric antennas by having fun with your favorite search engine. Enjoy your hobby. GL ES 73 DE W5RH