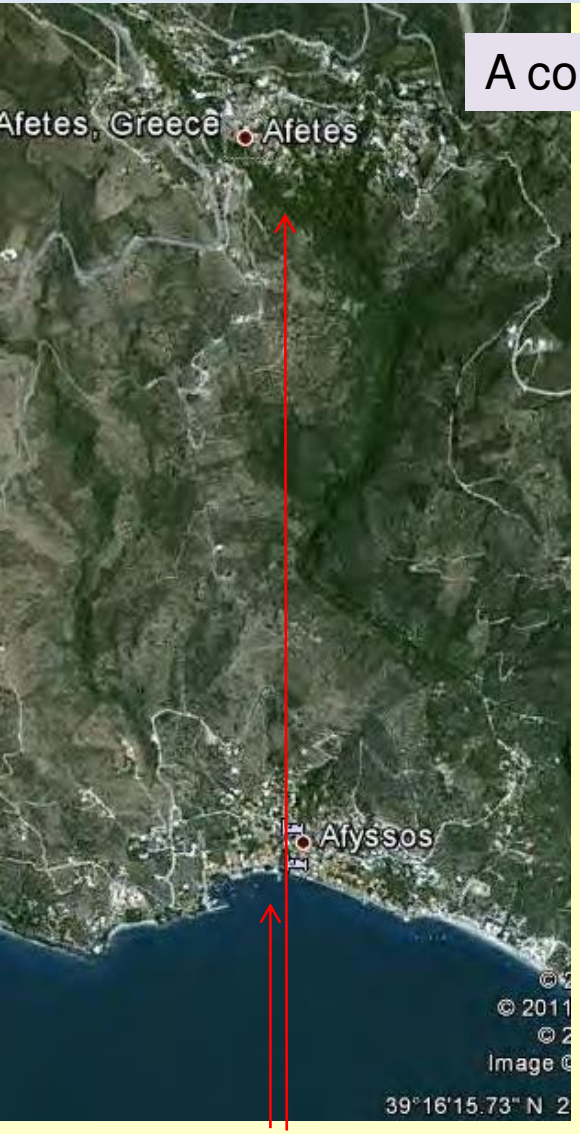
COMARCOM
Special Antenna Solutions

VEGA Applications in Greece

Covering Two Remote Mountain Villages by Distant BTS



A comparison of **VEGA CP12** to another 19.5 dBi 33deg Panel

CHALLENGE

Provide service to TWO distant villages over a 28 km distance by a single antenna.

Antenna Type	Parabolic	Panel
Cell #	2	1
Cell azimuth	54°	50°
Cell mechanical downtilt	2°	-2°
Cell electrical downtilt	0°	2°
Cell height	20m	30m
Distance to center point of coverage	28.85Km	
Antenna Type	VEGA CP12	Kathrein 739927
Antenna Frequency	1770 – 2170 MHz	1770 – 1880 MHz
Antenna Gain	28.5 dBi	19.5 dBi
Antenna horizontal beamwidth (-3dB)	5.5°	33°
Antenna vertical beamwidth (-3dB)	5.5°	9°

BTS is 28km from villages

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Solution: Replace High Gain panel antenna with high gain narrow beam VEGA antenna

Measured results in dBm:
Red: High Gain panel Antenna
Green: VEGA CP12 antenna

Conclusion:
VEGA CP12 antenna gives 6-10dB higher signal at 28km remote village

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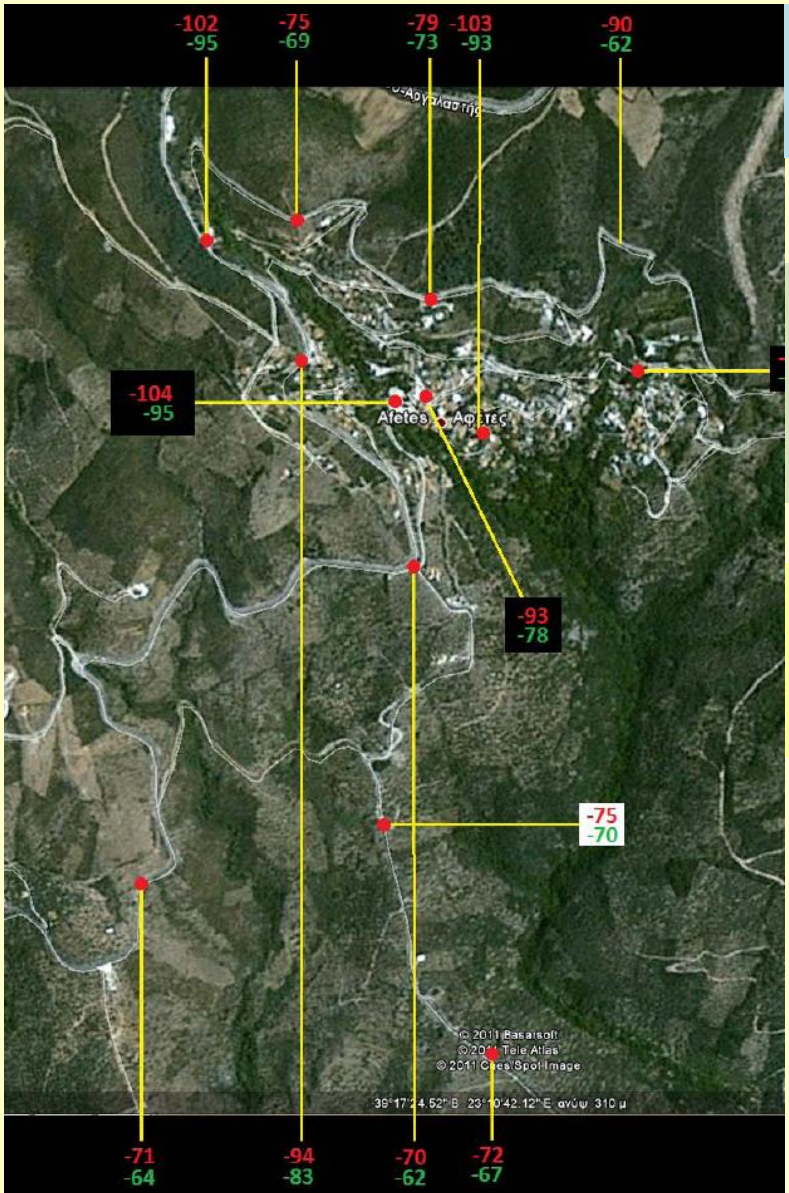

Solution: Replace High Gain panel antenna with high gain narrow beam VEGA antenna

Similar results were measured at the 2nd village

Conclusion:
VEGA CP12 antenna gives 6-10dB higher signal at the 2nd 28km remote village

Measured results in dBm:
Red: High Gain panel Antenna
Green: VEGA CP12 antenna