2019 Alaska SUESI/Vulcan towed system primary array arrangement

Spooled on blue
InterOcean winch 5/1/19
and updated 5/3/19, CA

0	meters	SUESI 1	SUESI 1 Kongsberg Altimeter Valeport Benthos Acoustics, LBL — transmit 11.5 kHz, receive 14.0 kHz Serial Communication and timing 2015 in ext. pressure case

70 ft lead-in rope used on 100m long antenna on winch

10.0	meters	end of 10 m x 2.25"near antenna (
17.6	meters	center of near antenna copper electrode (50ft/15.2m of 5/8" thick wall copper tube)
25.2	meters	end of near antenna copper electrode (50ft/15.2m of 5/8" thick wall copper tube)
164.1	**meters**	**DIPOLE CENTER of 293 meter dipole**
303.0	meters	end of 300 m 2.25" antenna on 3m strain relief (303m total length)
310.6	meters	center of long antenna copper electrode (50ft/15.2m of 5/8" thick wall copper tube)
318.2	meters	End of copper on long (260m) antenna

336	meters	ATET 2013 Antenna Tail End Telemetry (center of harness)	Optical isolation and serial communication 2012. Address=1, Termination required RS422 Serial communication 2013 Address=2 Paroscientific Depth Gauge to SDL 2013 Compass to SDL 2013

836.7	meters	Vulcan 1 Data Logger System (center of Y-axis dipole)	8 channel data logger — dipole ch.1 E-field, X, wing, horizontal — 1 meter ch.2 E-field, Y, stinger, horizontal — 2 meter ch.3 E-field, Y, fin, vertical — 1 meter ch.4 Accelerometer, X, wing, horizontal ch.5 Accelerometer, Y, stinger, horizontal ch.6 Accelerometer, Y, fin, vertical Serial communication and timing 2017 Address=3 Paroscientific Depth Gauge to SDL 2015 Compass to SDL 2015

844.5	meters	LBL CTET with deaton acoustics (center of LBL ducer) - 0.3 m fwd of frame	Acoustics, LBL Deaton acoustic unit SN DA-1120 transmit frequency = 12.5 kHz receive frequency = 8.0 kHz

VMG-4-FS

New red cable installed 5/1/19 post New Zealand damage to original.

1,000 feet Red 4-conductor RS-422 cable

Double taped with 2" scotchwrap

Tested 5/3/2019
pin 1 - 18.5 Ω
pin 2 - 18.6 Ω
pin 3 - 19.5 Ω
pin 4 - 18.3 Ω

SPLICE

33+ meters Falmat 4 conductor RS-422 cable

VMG-4-FS VMG-4-MP VMG-4-FS

chinese finger
15/32" ss quick link
3.5 m 1/4" Amsteel Blue Pair SN 1301
15/32" ss quick link
chinese finger

VMG-4-FS VMG-4-MP VMG-4-FS

500 meters Falmat 4 conductor RS-422 cable SN 500M-1302

Tested 5/3/2019:
pin1 - 24.5Ω
pin 2 - 25.7Ω
pin 3 - 25.9Ω
pin 4 - 25.6Ω

chinese finger
15/32" ss quick link
3.5 m 1/4" Amsteel Blue Pair SN 0834
15/32" ss quick link
5.1 m 1/4" Amsteel Blue
15/32" ss quick link
3.5 m 1/4" Amsteel pair SN 0831
15/32" ss quick link

VMG-4-MP
VMG-4-FS
VMG-4-MP
VMG-4-FS

6.4 m Amsteel line to 1/2 West Marine DROGUE