

# VOLCANIC ERUPTION TREMOR: COMPARISON WITH PLUME HEIGHTS AND APPLICATION OF A FLUVIAL SEISMOLOGY MODEL

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Cuj "r nwo gu"ctg"qpg"qh"vj g"o clp"xqrecple"j c| ctf u."cpf "vj g"fgvto kpcvkqp"qh"vj g"cuuqekcvgf"r nwo g" rctco gvgtu"uwej "cu"j gki j v"fgpukv"cpf lqt"o cuu"gtw vkp"tcvg"ctg"etvelcn'hqt"ghgevkxg"j c| ctf "cuuguo gpv" kphcuqwpf"cpf "ugkuo le"uki pcn'r tqxkf g"cp"qr r qtwpkv"vq"o qpkqt'tgo qvg"xqrecpqgu"kp"pgct/tgcn'vko g"fgv"vq" vj g"uki pcn'uqy "cwgpvckqp"cpf "vj g'tgrvckpuij kr "dgw ggp"vj g"gtw vkp"hnkf" f {pco leu"cpf "tguwncpv"gruue" y cxg'r tqrci cvkp0O cp {cwgro ru"j cxg'dggp"o cf g"vq"eqo r ctg"vj g"co r rkwf g"qh'ugkuo q/ceqwuke"uki pcn'y kj " r nwo g"rctco gvgtu'y kj "o kzf "uweegu"gd 0'Nco d'gv'cr0"4237=0 eP ww'cpf "P kuj ko vtc."422: =Tkr gr g'gv'cr0" 4235=Ugp {wnqx."4232=I co cf c'gv'cr0"4239+0Go r kkecn'uecn'pi "rctco gvgtu'xct { "hqt" f khtgtpvVj r gu'qh'gtw vkp" cpf"xqrecpqgu"Kj kj etc."4238+cpf "f q"pqvuggo "wpxgtucn"gur gekcm' hqt'rci g'uwnckpgf"gtw vkpu'y j lej "r qug" vj g"j ki j guv'j c| ctf 0"

Vj g"uqwtg"qh"vj g"ugkuo q/ceqwuke"uki pcn'go kvgf "f wtkpi "c"uwnckpgf"gtw vkp."vgo gf"gtw vkp"tgo qt." j cu'pqv" {gv'dggp"uweeguuhwn' "o qf gngf "gd 0O eP ww'cpf "P kuj ko vtc."422: +0'Vj g'kphcuqpk"uqwtg"ku"vj qwi j v' vq"dg'tgrvgf"vq"lgv'pqkug"gd 0O cvq| c'gv'cr0"422; + "cpf "uko krtkkgu"dgw ggp"ugkuo le"cpf "kphcuqwpf"uki pcn' f wtkpi "cuj "go kukapu"uwi i guu" c"nknkf "uqwtg'0'Vj g"tgegp'f lueqxt { "qh" c"ej cpi kpi "tgo qt/r nwo g"j gki j v' tgrvckpuij kr "f wtkpi "kpetgcupki "cpf "f getgcupki "cevxxk' "j {uvgtgu"r cvgt p+ "hqt"dqj "ugkuo le"cpf "kphcuqwpf" uki pcn'eqo rctgf "vq'r nwo g"j gki j vd { "Hgg'gv'cr0"4239+ku'utknpi n' "uko krt"vq"vj cvlt qo "ugkuo le'tkxgt'pqkug"cpf " y cvgt "f luej cti g'f wtkpi "j gcx { "tclp'lvqto u"gd 0Dw vkp"gv'cr0"422: =Detvq"gv'cr0"4232=Ej cq"gv'cr0"4239+0Cu" Dw vkp"gv'cr0"422: +uvcg."wtdwgpv'hqy "cmppg"ecppqv'gzr nckp'vj g"j {uvgtgu"cpf "dg"vj g'uqng"uqwtg"qh'ugkuo le" tkg't'pqkug0Gtqkqp"qh'vj g'tkxgt'dgf "cpf "vj g'eqttgur qpf kpi "dgf mcf"tcur qtvcv'vj g'dgi kppkpi "qh'vj g"j ki j "y cvgt" rpxgnr gtqf "tkngn' "r tqf vegu'eqo r ctvckxgn' "j ki j gt'lgxgn'qh'ugkuo lekv' "j cp'rcvt "f wtkpi "vj g'lvqto "y j gp'gtqkqp" f getgcugu0Uki pkhecpv'etcvt "gtqkqp"cv"xqrecpqgu"uwi i guu"gtqkqp'cn'r tgeguu"ctg"uko krtcn' "uki pkhecp'0'Vj g" gtqkqp"cpf "j {uvgtgu"qdugt xgf "hqt"dqj "tkxgtu"cpf "xqrecple"gtw vkpu'uwi i guu"uko krt"uqwtg'r tgeguu0Hqt" xqrecpqgu."xct {kpi "gtqkqp"cpf "r ctveng"ko r cev'cv'vj g"wr r gt"eqpf vkv'y cmu"o c { "etgcvg"vj g"ugkuo q/ceqwuke" uki pcn'cpf "vj g"co r rkwf g"qh'vj g'ugkuo le"cpf "kphcuqwpf"uki pcn'eqw' "vj g'ghqtg'dg'tgrvgf "vq"vj g'r ctveng"fgpukv' " cpf "i tclp'uk' g'f kntkdwkqp"qh'vj g'lgv'cpf "vj g'i cu'xgn'ekv'0"

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Pavlof - Seismic PS1A -- 2016-03-28 00:52:00 -- 2016-03-29 04:15:00

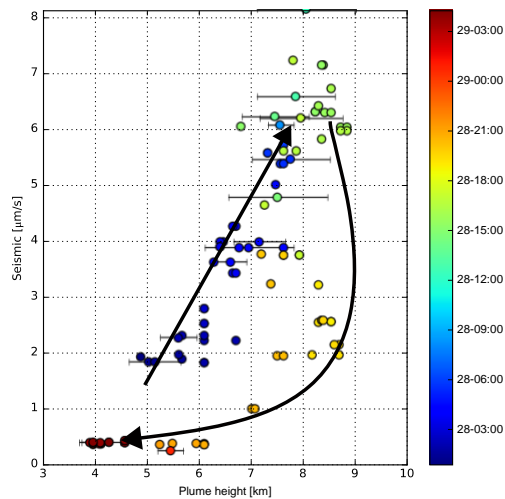


Fig. 1. Pavlof Volcano, 2016: hysteresis pattern for seismic envelope and plume height as function of time

Okmok - Seismic OKAK -- 2008-07-12 20:00:00 -- 2008-07-15 17:55:00

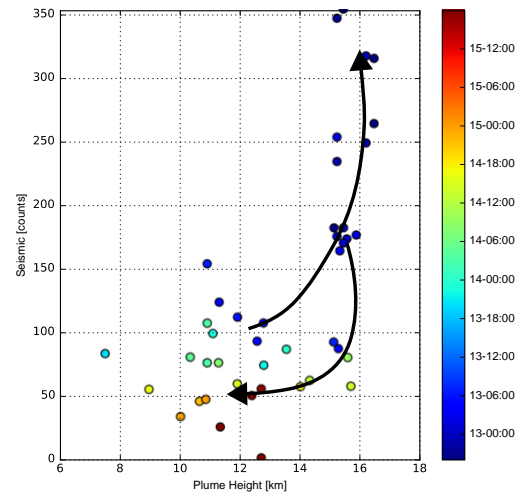


Fig. 2. Okmok Volcano, 2008: hysteresis pattern for seismic envelope and plume height as function of time

Tghgtgpegu"

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 Kpxguki cvkpu'Tgr qtv.'r ci gu'5: /730'  
 Dwtvp.'C0'Dqmki gt.'N0'Xgti pg.'l0'Ecvkp.'T0'cpf'P^d rgn'l0N0\*422: +0Ur gevten'cpn'uku'qhiugkuo le'pqkug'lpf wegf  
 " d{'tkxgtu<'C'pgy 'vqni'v'o qpkqt'ur cvkqgo r qten'ej cpi gu'lp'wtgco 'j {f tqf {pco leu'Lqwtpci'qhiI gqrj {ukecn'  
 " Tgugctej <'Uqrkf'Gctvj.'335\*7+3/360'  
 Ej cq.'Y 0C0'Y w.'l 0O 0'\ j cq.'N0'Vuck'X0E0'cpf'Ej gp.'E0J 0\*4239+0Ugkuo qmri kecm{'f gyeto lpgf'dgf nqcf'hwz"  
 " f wtkpi 'y g'v'r j qap'ugcuq0I gqrj {ukecn'Tgugctej 'Ngwgtu.'67\*4+3/: 0'  
 Hgg.'F0'J cpg{'.'O 0O 0'O cvqj c.'T0U0'Xcp'Gcvqp.'C0T0'Egtxgnk'R0'Uej pgkf gt.'F0L0'cpf'Kj | k'C0O 0\*4239+0'  
 " Xqrecple'tgo qt'cpf'r nwo g'j gli j v'j {uwtguki'ltqo 'Rcxmqh'Xqrecpq.'Crcumc'0Uekpeg.'577\*8542+67/6: 0'  
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 " Gctvj.'343\*32+9323/933: 0'  
 Nco d.'Q0F 0'F g'Cpi grku.'U0'cpf'Ncxen'g.'l 0\*4237+0Wukpi 'lphtcuqwpf'vq'eqpustclp'cuj 'r nwo g'tkug0Lqwtpci'qhiCr r rkgf "  
 " Xqrecpqmri {'.'6\*3+0'  
 O cvqj c.'T0U0'Hgg.'F0'I cte'2u.'O 0C0'Uglpgt.'l0O 0'Tco »p.'R0C0'cpf'J gf nkp.'O 0C0\*422: +0lphtcuqple'lgv'pqkug'ltqo "  
 " xqrecple'gtwr vkpu0I gqrj {ukecn'Tgugctej 'Ngwgtu.'58\*: +4/80'  
 O cvqj c.'T0U0'Hgg.'F0'P gkugp.'V0D0'I gg.'M0N0'cpf'Qi f gp.'F0G0\*4235+0Cgtqceqwukle'qhi'xqrecple'lgv'ceqwukle"  
 " r qy gt'guklo cvkqp'cpf'lgv'xgnqekv{'f gr gpf gpeg0Lqwtpci'qhiI gqrj {ukecn'Tgugctej <'Uqrkf'Gctvj.'33: \*34+848; /  
 " 84: 60'  
 O eP ww.'U0T0'cpf'P kuj lo wtc.'V0\*422: +0Xqrecple'tgo qt'f wtkpi 'gtwr vkpu<'Vgo r qten'ej ctcevgtukueu.'uecn'pi 'cpf"  
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 Tkr gr g.'O 0'Dqpcf qppc.'E0'Hqrej.'C0'F gmg'F qppg.'F0'Necppc.'I 0'O ctej gvk'G0'cpf'J 3/4mwf uuqp.'C0\*4235+0Cuj /  
 " r nwo g'f {pco leu'cpf'gtwr vkp'lwqteg'r ctco gvgtu'd {'lphtcuqwpf'cpf'y gto cri'lo ci gt {'<'Vj g'4232'G{lchcmcl34mwf'  
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