MONITORING OF VOLCANIC ACTIVITY IN THE KURILE ISLANDS: SVERT GROUP - 15 YEARS

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Vj gtg"ctg"o qtg"vj cp"8: "s wcvgtpct {"xqrecple"gf khlegu"kp"vj g"Mwtkrg"Krrcpf u."co qpi "vj go "58"ctg"cevkxg" cpf "r qvgpvkcm{"f cpi gtqwu0'F wtkpi "vj g"j kuvqtlecn"r gtkqf "*o qtg"vj cp"522"{gctu"hqt"vj g"Mwtkrg"Krrcpf u+:"354" o cpkhguvcvkqpu"qh"xqrecple"cevkxkv{"*dgi kppkpi "y kj "xcr qt/i cu"go kuukqpu"cpf "gpf kpi "y kj "uvtqpi "gtwr vkqpu+" j cxg"dggp"f qewo gpvgf 0Kp"vj g"43uv'egpwt {."54"gr kuqf gu"qh'xqrecple"cevkxkv{ "y gtg"tgeqtf gf 0'

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Vj g'o ckp'f ktgevkqpu'qh'cevkxkkgu'qh'vj g''UXGTV''i tqwr ''ctg''eqppgevgf 'y ksj ''vj g''eqmgevkqp''cpf ''cpcn{uku'qh'' cm''cxckrcdrg''kphqto cvkqp''qp''vj g''cevkxg''xqrecpqgu''qh'vj g''Mwtkrg''Knrcpf u''cpf ''vj g''etgcvkqp''qp''vj ku''dcuku''qh'f ckn{" kphqto cvkqp''tgr qtw0' Hqt" qr gtcvkqpcn''o qpkxqtkpi ."UXGTV'' wugu'' ucvgrrksg'' ko ci gt { "qh'' CS WC" cpf "VGTTC" ucvgrrksgu''*O QF KU+"cpf ''uko krct''r tqf wewl'dcugf ''qp''P QCC''*CXJ TT"I'RQGU+"f cvc''uwr r rkgf ''d{ "vj g''Egpvgt''qh'' Tgi kqpcn''Ucvgrrksg''Gpxktqpo gpvcn''O qpkxqtkpi "qh''y g''HGD''TCU''cpf ''htqo "vj g''kphqto cvkqp''ugtxkeg''\$Tgo qvg'' O qpkxqtkpi ''qh''Mco ej cvnc''cpf ''Mwtkrg''Xqrecpqgu'i ''KU''XqrUcvXkgy '*I qtf ggx''gv'cn0'4238+0''

Fwtkpi ''y g''r cuv'37"{gctu."53"o cpkłguwckqpu'qh'xqrecple"cevkxk{"qeewttgf "qp"y g"Mwtkn'Kircpf uc'c"uxtqpi "gzr mqukzg/ghrwkzg"gtwr kqp"qh'y g"Uct {ej gx"Rgcm'xqrecpq"*O cwc"Kircpf +"kp"422; 0"Vj g''htuv'r tgewtuqtu'kp''y g"hto "qh''c"y gto cn'cpqo cn{"y gtg''tgeqtf gf "45"j qwtu'dghqtg''y g"gtwr kqp"y kyj "y g"j grr "qh''ucvgmksg''f cw0F wtkpi "y g"r gtkqf "qh'y g"gtwr kqp."o qtg"y cp"45"xqrecpke"gzr mqukqpu''qeewttgf ."gtwr kxg''emywf u''tqug''vq"c"j gki j v'wr "vq" :/38"mo 0"Vj g"xqrecpke"cuj "go kuukqp"uxtgej gf "vq"y g"y guv''cpf "pqtyj y guv''d{"30" "y qwucpf "mo ."vq"y g"gcuv''cpf" uqwj gcuv''o qtg''y cp"5"y qwucpf "mo 0"Hqt''y g"htuv''ko g"kp"y g"j kuvqtkecn''ko g"'y gtg'y cu''cuj "hcml'kp''y g"kgttkqt{"qh'' Kur0' Ucnj cnkp."cu" y gml'cu" kp" y g"pqtyj /gcuv''qh''y g" Mj cdctqxum' Vgttkqt{0'Vj g" gtwr kqp" f kf "pqv''r qug" c" uki pkhecpv'y tgcv'vq"y g"r qr wrckqp"f wg"vq"y g"eqpukf gtcdrg''tgo qvgpguu'qh''y g"ugwgo gpvu0'Vj g"i tgcvguv'f cpi gt" y cu"'tgr tgugpvgf "d{"cuj "emywf u."y j kej "eqo r necvgf" yi g"ukwckqp" hqt"y g"cknhpgu"r cuukpi "cmpi "yi g"Mwtknl' Kircpf u0'Gzr mqukxg"gtwr kqp"qp" Uct {ej gx"Rgcm' xqrecpq" hqt"ugxgtcn'f c{u" j co r gtgf" yi g" y qtm'qh" cktnhpgu0' J wpf tgf u"qh''kpvgtpckqpcn'lnki j w"y gtg"r quvr qpgf ."o cp{"Inki j w"y gtg"ecpegrgf 0'Vj g"kphqto ckqp"cdqw''y g" hqty eqo kpi "gtwr kqp"cpf"y g"f {pco keu'qh'y g"f kintkdwkqp"qh''cuj "emywf u'y cu'r tgugpvgf" d{"'y g"UXGTV"i tqwr" vq"cmlkpvgtguvgf" 'qti cpk| ckqpu0'

Gzr mukxg"htqo "uo cm' vq"o qf gtcvg"gtwr vkqpu" y gtg"qdugtxgf "qp" yi g"xqrecpqgu" Kxcp" I tq| p $\{$ "*4234." 4235+"cpf "Ej ktkpmqvp"*4235/4237."4238."4239+"y kyj "yi g"go knukqp"qh"cuj "o cvgtkcn"vq"c"j gki j v'wr "vq": "no "*T $\{$ dkp"gv'cr0"4232+0'

 $\label{thm:condition} $$ \c'' + \c'$

Kp"i gpgtcn"cu"yi g"r tcevkeg"qh"yi g"i tqwr "UXGTV"cevkxk{ "uj qy gf."ucvgmkg"o qpkqtkpi "ku"pqy "yi g"o quv" tgrkcdrg"cpf "kphqto cvkxg"o gyi qf "hqt"o qpkqtkpi "qh"yi g"cevkxg"xqrecpqgu"qh"yi g"Mvtkrg"Krrcpf u0"Vj g"kpetgcug"kp" yi g"pwo dgt"cpf "s wcrk{ "qh"yi g"qdvckpgf "ko ci gu"j cu"eqpukf gtcdn{ "gzr cpf gf "yi g"r quukdkrkkgu"hqt"f gvgevkpi "qh" yi gto cn'cpqo cnkgu"cu"hqtgtwppgtu"qh"xqrecpke"gtwr vkqpu"cpf "hqt"kf gpvkh{ kpi "qh"cuj "go knukqpu0'Qdvckpgf "xkuvcn" qdugtxcvkqpu"cmqy "wu"vq"o qtg"ceewtcvgn{ "kpvgtr tgv"ucvgmkg"f cvc0'Cv"r tgugpv."yi g"f gxgmr o gpv"qh"o gyi qf u"qh" ucvgmkg"tgo qvg"ugpukpi "ku"yi g"o quv"qr vko cn'cpf "geqpqo kecm{ "gzr gf kgpv"hqt"uqrxkpi "r tqdrgo u"qh"xqrecpke" j c| ctf "cpf "qr gtcvkqpcn'eqpvtqn'qh'j ctf/vq/tgcej "vgttkqtkgu"qh'yi g"Mvtkrg"Krrcpf u0'

Tghgtgpegu"

I qtf ggx"G00"I ktkpc"Q0C0"Nwr {cp"G0C0"gv"cn0"Kphqto cvkqpcn"U{uvgo "XQNUCVXKGY "hqt"Uqnxkpi "qh" vj g"Vcumu"qh"Xqnecpke "Cevkxkv{"O qpkvqtkpi "kp"Mco ej cvnc"cpf "Mvxtkrgu"II"Vulkanologiya i Seismologiya."42380' "80Rr 036380'

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