

VARIATIONS IN THE PARAMETERS OF BACKGROUND SEISMIC NOISE IN THE KAMCHATKA REGION, 2011-2017

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Vj g'tguwmu'qh'yj g'rnpj "423364239+lp'xgukl cvkqp'qh'dceml tqwpf "ugluo le"pqkug"DUP +lp"Mco ej cme" d{"y g"o gyj qf "uwi i guvgf "d{"F qev0'Uel0'Rj {u0'0 cvj 0'C0C0'N{ wdwuj kp'y kj "y g"wg'qh'yj g"fcv"htqo "y g" pgvy qtn'qh'dtqcf dcpf "ugluo le"ucv'kpu'qh'yj g'I gqrj {ulecn'Uwt'xg{"qh'yj g"Twukcp"Cecf go {"qh'Uelgpegu" *Hk 03+"ctg'r t'gugpvgf 0'

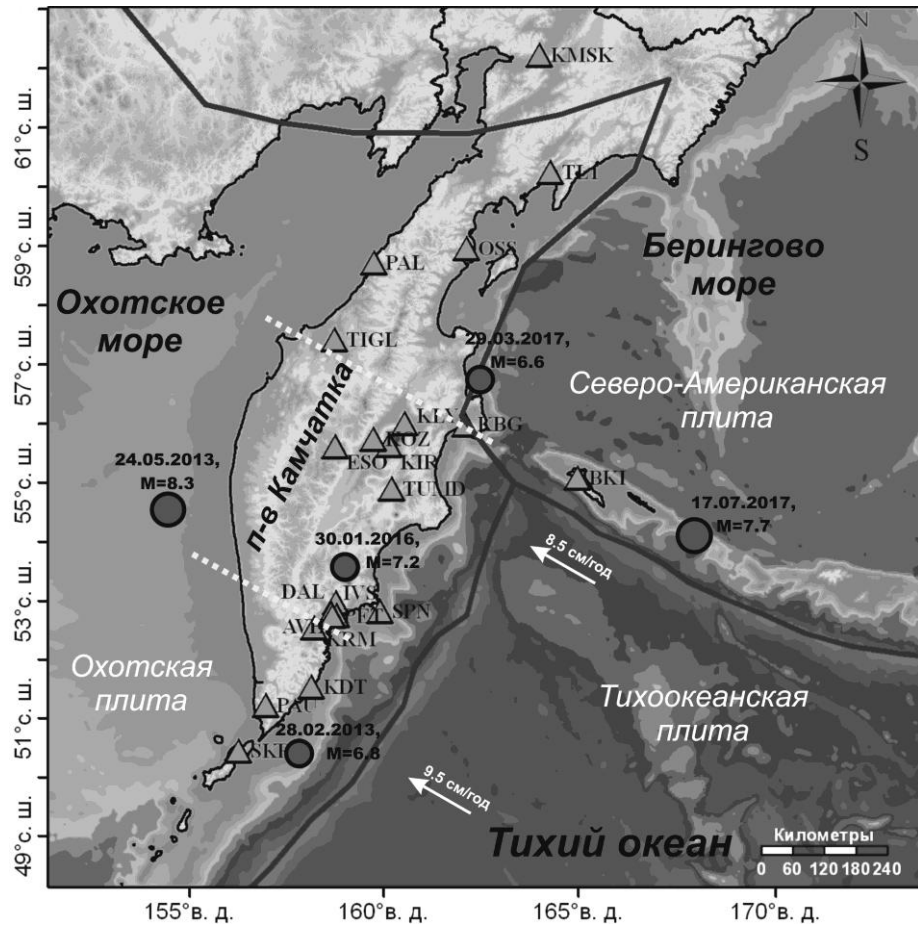


Fig. 1. Schematic layout of seismic stations operated by Kamchatka Branch of Geophysical Survey of Russian Academy of Sciences (triangles) and epicenters of strong earthquakes (circles).

Hqt'ej ctcevgtk lpi "y g"DUP "hgrf"cpf "ku"xctkcdkkl". "eqp'kpwu'wo g"ugt'ku'qh'yj g"ucv'kuecn'r ctco gygtu" qh'yj g"o wnk'tcecn'ulpi wrtkl "ur gev'tc"cpf "y cxgrv'g'zr cpukp"ecre'w'v'gf "htqo "y g'tgeqt'f u'cv'gcej "ucv'kqp"ctg" wugf 0'Vj gug"r ctco gygtu"lpen'f g'yj g'i gpgtcrk' gf "J wuv'g'zr qp'gpv" *. "ukpi wrtkl "ur gev'two "uwr r qt'v'y kf yj " . " y cxgrv'ur gev'tcn'g'zr qp'gpv" . "o k'p'lo cn'p'qto crk' gf "gp'v'qr {"qh'yj cxgrv'eqgh'k'k'p'w"En. "cpf "ur gev'tcn'o gcw'tg'qh' yj gk't"eqj gt'gpv'dgj cxlqt 0'Vj g"r tqegf w'gu'hqt "tgxgc'rkpi "y g"r tgewtuqt {"gh'g'ew'lp"y g"xctk'cv'kpu'qh'yj g"DUP " r ctco gygtu'ctg'f guet'ldgf "lp"N{ wdwuj kp'gv'cn'0'4237="Mcuko qxc'gv'cn'0'423: +0

Vj g'r gew'ctk'k'gu"lp"y g"ur cv'k'vgo r qten'f k'utk'dw'k'p'qh'yj g"DUP "r ctco gygtu"cu"r tqcdedng'tgur qp'ug"vq" yj g'gct'v' s'w'cngu"y kj "My "? "80 6: 6"vj cv'qee'wt'gf "lp"Mco ej cme"lp"4235."4238"cpf "4239"ctg"eqp'uk'gt'gf " *Hk 04+0' K' ku' gu'cd'k'uj gf "yj cv' yj gug" u'guo le" gx'gpw"y gtg" r tgegf gf "d{" tgi wr't "xctk'cv'kpu" lp"y g"DUP " r ctco gygtu."y j lej "ru'vgf "hqt"e"hy "o qp'v' u'cpf "eqp'uk'v'gf "lp"y g'tgf w'ev'k'p'qh'yj g"o gf k'p'cpf "o gcp" , . " . " cpf " "xc'w'gu'gu'ko cv'gf "qxgt'cn'v' g'ucv'kpu'cpf "lp"y g'lp'et'g'cug'qh'yj g"En xc'w'gu"*Hk 04+a+0

Dcugf "qp"y g'lp'et'g'cug'lp"y g"ur gev'tcn'o gcw'tg'qh'yj g'eqj gt'gpv'dgj cxlqt'qh'yj g'hq'w'xctk'v'g'wo g'ugt'ku' qh'yj g"o gf k'p'cpf "o gcp"xc'w'gu'qh'yj g'eqp'uk'gt'gf "ucv'k'ueu."y j g'gh'g'ev'qh'yj g'gpj c'p'ego gp'v'qh'yj g'u'p'ej tq'p'kuo "

kp'yj g'lqkv*eqmgevkxg+dgj cxlqt"qh'yj gug'rctco gygtu'f wtkpi 'c'egtckp'r gtlkf 'r tlqt'v'yj g'o cpvg'gctvj s weng'kp' yj g'Ugc"qh'Qnj qum'O c{"46."4235."My"?": 6+ku'f kci pqugf "Hki 04"6+0'

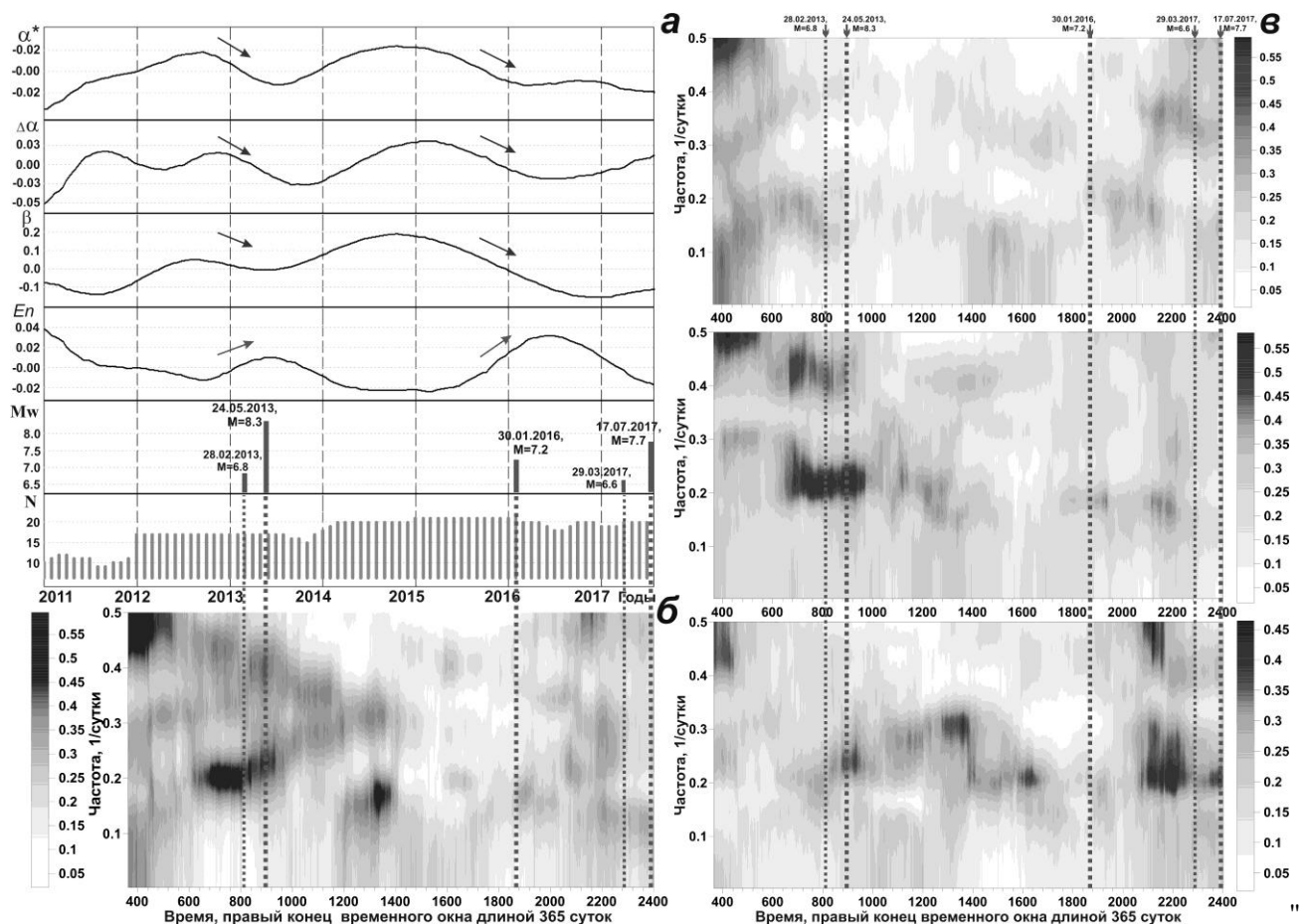


Fig. 2. Variations in median values of noise parameters averaged in moving 90-day time window with step of 1 day in correlation to earthquake and change of number of broadband seismic stations N (a); arrows show trends in variations of parameters before strong earthquakes; frequency-time diagram reflecting evolution of spectral coherence measure of four-variate time series of generalized median values of BSN parameters for all stations (b) and for northern (top diagram), central (middle) and southern (lower diagram) groups of stations (division into groups of stations is presented by white lines in the fig. 1) (c). Estimating in moving time window with length of 365 days and step 3 days; vertical dashed lines show time of earthquakes, observation period from January 1, 2011 to December 31, 2017.

Vj g'eqtgrckp"qh'yj g'f kci tco 'kp'Hki 04"v'yj g'vko kpi 'qh'yj g'utqpi 'gctvj s wengu'uj qy u'yj cv'yj g'cpqo cnf " qh'yj g'gpj cpegf"eqj gtgpe{"lp'yj g'dgj cxlqt"qh'yj g'hqwt/xctkvg'vko g'ugtkgu"qh'yj g'pqkug'rctco gygtu'uctvgf "vq" crr gct" crr tqzko cvgn{"7"o qpvy u" dghqtg"vj g' gctvj s weng'qh' Hgdtwct{"4: ."4236"cpf": "o qpvy u" dghqtg"vj g' gctvj s weng'kp'yj g'Ugc"qh'Qnj qum'qh'O c{"46."42350J gpeg."vj g'ghgevh'qh'yj g'gpj cpego gpv'qh'yj g'eqmgevkxg." u{pej tqpqwu"dgj cxlqt"qh'yj g'f kuewugf "ucvkuu"qh'ugkuo le"pqkug"ecp"dg"eqpukf gtgf "cu'yj g'o gf kwo /vgto " r tgewtuqt{"uki p'qh'ugkuo le"cevkxcvqp"qh'4235."y j lej 'lpenmf gf "vj g'utqpi guv'gctvj s weng'qh'O c{"46"kp'yj g'Ugc" qh'Qnj qum'My"?": 6+0'

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