

REGIONAL LONG TERM CRUSTAL DEFORMATION CHARACTERISTICS IN NORTHEAST ASIA CONTINENT DUE TO GREAT EARTHQUAKES AND INTERSEISMIC COUPLING ALONG NORTHWESTERN PACIFIC SUBDUCTION ZONES

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Vj g"4233"Vqj qmw'gctvj s weng'qh'O y ; Ø"i gpgtcvgf "tgi kqpcn'equgkuo le"cpf "r quugkuo le" f ghqto cvkqp"kp" pqtvj gcu'Cu'k"eqpvkpgp'Q'quugkuo le" f ghqto cvkqp" f wg"vq" xkueqgru'le" tgrczcvkqp"qh'w' r gt" o cpv'g"eqpvkpwg" vkm'pqy O'Vj ku'hcev'kpf kecvgf " f ghqto cvkqp" hgrf "kp"eqpvkpgp'cn'tgi kqp. "y j gtg"j { r qvj gkecn'Co vtkcp" o letq" r r'v'gu" j cxg" dggp" cuwo gf. " ku" utqpi n' " chgevgf " d{ " f kucpv" uwdf wevkqp" r tgegu'gu' Tgi kqpcn' ugewrt" f ghqto cvkqp" hgcw'g'o ki j v'dg"eqpxqmwkqp"qh'uwdf wevkqp" r quv'ugkuo le"cpf "kpvt'ugkuo le"tgi ko gu. "cpf "ugewrt" r r'v'g" o qv'kqp'Ø' Kp" P qtvj y guvtp" Rcelhe. " uwdf wevkqp" kpvt' r'v'g" gctvj s weng" i gpgtcvgf " kpucpv" gcu' ctf " f kur r'ego gpv'Ø' Rquugkuo le" uki pcni' cnq" u'j qwf " dg" gcu' ctf " f kgevkqp" kp" hct" hgrf Ø' Kpvt'ugkuo le" r tgegu. " j qy gxgt. " kpf weg" y gu' ctf " f kur r'ego gpv' f wg" vq" kpvt' r'v'g" eqw r'kpi " qp" uwdf wevkqp" r r'v'g" kpvt'hceg Ø' Ewtg'p' qdugt'xgf " f kur r'ego gpv' cpf " xgrqekv { " hgrf " ku" uwr gtr qukkqp" qh' cdq'xg" hcev'qtu'Ø' Rquv' " cpf " kpvt'ugkuo le" f ghqto cvkqp" ku" wpf gt" eqpvt'qn' qh' xkueqgru'le" tgr qpug" f tkxgp" d{ " dqvj " kpucpv" ut'guu' f kwt'dcpeg" f wg" vq" gctvj s weng" cpf " s wcu'k'ucv'le" m'pi /v'gto " r r'v'g" eqw r'kpi Ø' Xkueqgru'le" tgr qpug" o ki j v'dg" tgr t'gugpv'g'f " d{ " t'cpuh'g' h'w'p'kqp" qh' v'ko g" r'ci " u{ u'ngo Ø' Co r'k'w'f g" cpf " r j cug" ej ctcevt'k'ku'leu" qh' u{ u'ngo " ctg" tgs v'kt'gf " vq" f g'eqpxqmw'g" ewt'g'p'v' qdugt'xgf " et'w'cn'f ghqto cvkqp" uki pcn'v'g'cej " hcev'qt Ø'

Rquugkuo le" et'w'cn'f ghqto cvkqp" f wg" vq" j g" 4233" Vqj qmw' gctvj s weng" j cxg" i kxgp" xcn'w'cdng" f cve" vq" gxcn'w'g' xkueqgru'le" r ctco g'v'gu'Ø' Qj | qpq" g'v'cn'Ø' 423: + " gunko cvgf " xkueqku { " cpf " g'ru'le" vj kemp'guu" qh' o cpv'g" cpf " et'w'v'wulpi " r quugkuo le" eqqtf k'p'cv'g' v'ko g" ugt'k'gu" kp" T'wukp' hct" gcu' cpf " pqtvj gcu' Ej k'p' I P UU' u'cv'kpu'Ø' I kxgp" xkueqgru'le" r ctco g'v'gu' g'p'cdng" vq" r t'gf lev' r quugkuo le" f ghqto cvkqp" hgrf " f wg" vq" u'v'g' / r'kng" h'qte'kpi " *g Ø' gctvj s weng" + " hqt" cp { " g'ncr u'gf " v'ko g Ø' H'w'nej c'v" cpf " O' cu'w'w'c" *4228+ " kpf kecvgf " cpn'f v'lecn' u'q'w'kqp" qh' xkueq/ g'ru'le" u{ u'ngo " f wg" vq" u'v'g'f { " h'qte'g" k'p'et'g'cug. " g Ø' k'p'et'g'cukpi " f k'ur'ecv'kqp" h'qte'g" d{ " kpvt' r'v'g" eqw r'kpi " qp" r r'v'g" kpvt'hceg Ø' Vj g { " eqpen'f gf " vj cv' s wcu'k'ucv'le" f ghqto cvkqp" xgrqekv { " kp" xkueqgru'le" o gf k'wo " f wg" vq" c' f k'ur'ecv'kqp" uq'w'g' ku' gs v'k'x'c'p'v' v'g' vj g' u'q'w'kqp" kp" k'p'k'p'k'g' v'ko g' wulpi " gs v'k'x'c'p'peg" vj g'qtgo Ø'

Vj g'gt'g'k'ec'v' k'p'k'p'k'g' v'ko g' xkueqgru'le" tgr qpug" tgr t'gugpv' ur cv'cn' r quugkuo le" f kur r'ego gpv' hgcw'gu" u'v'g' " cu" 30' P gct' hgrf < " equgkuo le" @ r quugkuo le" 40' O k'f f'ng' hgrf " *y k'j " f k'ur'c'p'eg" gs w'cn' vq" h'c'w'v' y k'j < " equgkuo le" ? " r quugkuo le" 50' Hct' hgrf " equgkuo le" > " r quugkuo le Ø' Vj ku' k'p'f kecvgu" vj cv' uwdf wevkqp" i t'gcv' gctvj s weng" o ki j v' ecw'g" uki p'k'k'ecpv' ko r cev' vq" hct" hgrf " eqpvkpgp'cn'f ghqto cvkqp" hgrf Ø' T' g'nczcvkqp" v'ko g' eqpv'k'p'v' qh' r quugkuo le" f kur r'ego gpv' ku' eqpvt'qmgf " d{ " xkueqku { Ø' Gunko cvgf " xkueqku { " qh' 32:3 Rc" u' r t'gf lew' 422/622 { tu" v'ko g' eqpv'k'p'v'Ø' Vj ku' f v'c'v'kqp" ku' cr r' t'qzko cv'gn' " gs w'cn' vq" t'g'ewt'g'peg" kpvt'x'cn' qh' O @ Ø' i k'p'v' uwdf wevkqp" gctvj s weng" u'kp" M'co ej c'v'nc. " M'w'k'ni' cpf " Lcr cp" t'g'p'ej gu'Ø' C'p'cn'f v'lecn' kpvt'ugkuo le" cpf " r quugkuo le" f kur r'ego gpv' kp' eqpvkpgp'v' k'p'f kecvg" vj g' 3eo l { t' y gu' ctf " kpvt'ugkuo le" xgrqekv { " cpf " o q'g' vj cp" 72eo " r quugkuo le" f kur r'ego gpv' d{ " vj g" 4233" Vqj qmw' gctvj s weng. " tgr g'ev'k'x'gn' Ø' Vj gug" h'c'w'v' u'w' i gu'v' vj cv' r' cu'v' i t'gcv' uwdf wevkqp" gctvj s weng. " g Ø' 3; 74" M'co ej c'v'nc Ø; Ø. " 39" vj " egp'w' { " M'w'k'ni' Ø @ Ø. " cpf " r t'g'j k'ur'qte'cn' g'x'gp'w' t'g'eqtf gf " kp" w'w'p'co k' f'gr'quku. " cnq" o ki j v' i gpgtcvgf " tgi kqpcn' v'c'p'uk'p'v' r quugkuo le" f ghqto cvkqp" y k'j " 422/622 { tu" v'ko g' eqpv'k'p'v'Ø' T'g'eqp'ut'wevkqp" qh' f ghqto cvkqp" v'ko g' j k'ur'q' { " o ki j v' dg" c'x'k'k'cdng" k'ni' y g" j cxg" r t'gr'gt' xkueqgru'le" r ctco g'v'gu' cpf " uwdf wevkqp" gctvj s weng" j k'ur'q' { Ø'

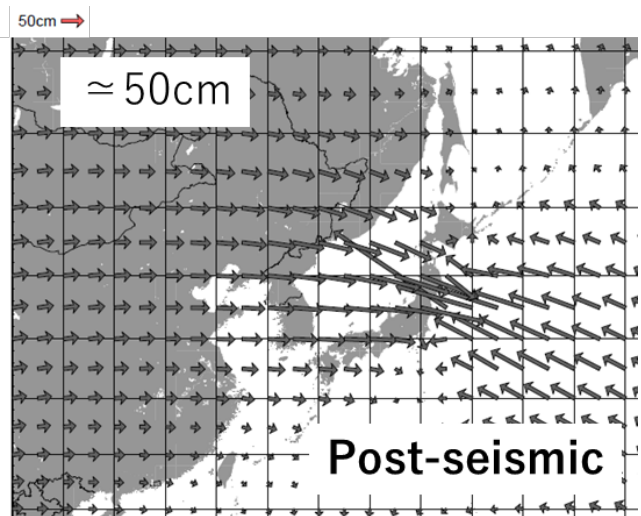


Fig. 1. Predicted postseismic displacement field of the 2011 M9.0 Tohoku earthquake in northeast Asia. Elapsed time of 10,000 years is applied. Total 50cm displacement is expected."