



4th Biennial Workshop on Subduction Processes emphasizing the Japan-Kurile-Kamchatka-Aleutian Arcs

Linkages among tectonics, seismicity, magma genesis, and eruption in volcanic arcs.

Institute of Volcanology and Seismology FED RAS and Kamchatkan Experimental Methodical
Seismological Department of Geophysical Service RAS
Petropavlovsk-Kamchatsky

August 21-27, 2004

3rd CIRCULAR

Steering committee:

Boris Ivanov and Evgenii Gordeev, Petropavlovsk-Kamchatsky, Russia
Minoru Kasahara and Mitsuhiro Nakagawa, Sapporo, Japan
Jon Dehn and John Eichelberger, Fairbanks, AK, USA

Local organizing committee:

Evgenii Gordeev (chairman), Boris Ivanov (vice-chairman), Alexander Vikulin, Olga Girina, Oxana Evdokimova, Ivan Melekestzev, Vladimir Leonov, Aelita Razina, and Victor Kazantsev, Institute of Volcanology and Seismology;
Victor Chebrov, Vadim Saltykov, and Yulia Kugaenko, Kamchatkan Experimental Methodical & Seismological Department of Geophysical Service RAS;
Yelena Vesna, Kamchatkan State Pedagogical University

Form of Workshop:

Invited speakers are asked to talk for 15 minutes. Overhead and multi-media projector are provided. Poster presentations are welcome, no more than two from a participant. Posters should be presented in A0 format on the first day of the workshop to be available throughout the dates of the workshop.

Meeting venue:

Institute of Volcanology and Seismology FED RAS (IVS) and Kamchatkan Experimental Methodical Seismological Department GS RAS (KEMSD), Petropavlovsk- Kamchatsky.

Registration

Registration of the participants starts at 9 a.m. – 6 p.m. on August 21 and continues on August 22 same hours at the Institute of Volcanology and Seismology, 9 Piip Blvd, Petropavlovsk-Kamchatsky. Workshop and excursion fee should be paid in roubles while registration. For non-Russian participants it is \$250 and \$50 for students. The workshop cost for the Russian participants is 800 roubles.

Excursions:

Costs of the excursions were provided in the registration form to the workshop:

Cabin lorry trip to Avachinsky, Mutnovsky and Gorely volcanoes makes up \$50. Helicopter trip to Karymsky volcano is \$150 for all participants. Because of possible bad weather conditions, excursion days could be replaced by scientific sessions and vice versa. Ground trips and hiking volcanoes will start assuming good weather

Meal:

On the days of scientific sessions we arrange a set meal for all participants of the workshop in the “Svarog” café. Meal cost is already included in the workshop fee.

Weather:

August in Petropavlovsk-Kamchatsky is one of the most favorable months and generally sunny with occasional rains and daytime temperatures averaging +18°C. However, there is always a possibility of heavy rain and cold. Daytime temperature can range from 10°C to 18°C.

Bring warm clothes, rain gear and good mountain boots that will provide you with much comfort on these days.

Paratunka Resort:

We plan the participants could be taken for one of the Paratunka resort after scientific session to bath and relax. Please bring swimsuits to bath in a thermal water pool.

Accommodation and airport pick-up:

There are two hotels available for the participants of the workshop named “Edelweiss” and “Russ”. The “Edelweiss” is the closest hotel with basic facilities and within an easy walking distance to the IVS and KEMSD location. A number of suites available for reservation at the Edelweiss are limited this summer. Breakfasts are included to the cost of the suite.

The “Russ” hotel lies northeast from the institute and needs transportation about 15 minutes that will be arranged for the participants. The ‘Russ’ is ideal place for those who value isolation and quiet. They suggest a restaurant, a conference room and sauna. Breakfasts are not included.

Hotel reservation and dates of arrival/departure:

Dr. Vadim A. Saltykov , e-mail: AJAKS-lives@emsd.iks.ru

Financial support:

The organizers anticipate support by Administration of Kamchatka Region, the Far East Division of Russian Academy of Science (FED RAS), Minnauka of Russian Federation, US Geological Survey (USGS), National Scientific Foundation (NSF), National Aeronautical and Space Administration (NASA), and the UAF Geophysical Institute (UAF/GI), and International Arctic Research Center (UAF/IARC).

On the questions regarding this meeting, please contact Oxana Evdokimova (evdokimova@kcs.iks.ru).

US participation is coordinated by UAF/GI through Jon Dehn (jdehn@gi.alaska.edu) and Pavel Izbekov (pavel@gi.alaska.edu).

Japan participation is coordinated through Hokkaido University by Minoru Kasahara (mkasa@eos.hokudai.ac.jp) and Mitsuhiro Nakagawa (nakagawa@ep.sci.hokudai.ac.jp).

The updated information will be posted at www.avo.alaska.edu/kasp and at www.kcs.iks.ru/konf.html (in Russian)

*4th Biennial Workshop on Subduction Processes
emphasizing the Japan-Kurile-Kamchatkan-Aleutian Arcs*

*August 21st-27th, 2004
Petropavlovsk-Kamchatsky*

Saturday, August 21

09:00 – 18:00 Check-in and registration at the Institute of Volcanology and Seismology
19:00 – 21:00 Icebreaker

Sunday, August 22

09:00 – 18:00 Registration at the Institute of Volcanology and Seismology
09:00 – 10:30 **Introduction and welcome**
11:00 – 13:00 **Scientific session: Active Volcanism**
Lunch
14:30 – 18:00 **Scientific session: Active volcanism**
18:00 – 18:30 ***Film presentation on Kamchatkan volcanoes***

Monday, August 23

09:30-13:00 **Scientific session Geodynamics, tectonics, geochemistry, petrology
and magma formation**
Lunch
14:30 – 18:00 **Scientific session Geodynamics, tectonics, geochemistry, petrology
and magma formation**
18:00 – 22:00 Informal discussion in the Paratunka Resort followed by a dinner.

Tuesday, August 24

10:00 **Excursion:** Helicopter trip to Karymsky volcano.
08:00 **Excursion:** A day trip to Avachinsky volcano.

Wednesday, August 25

08:00 **Excursion:** A day trip to Mutnovsky volcano.
08:00 **Excursion:** A day trip to Gorely volcano.

Thursday, August 26.

09:00 – 13:00 **Scientific session: Far East and Eastern Siberia seismicity problems**
Lunch
14:30 – 18:00 **Scientific session: Far East and Eastern Siberia seismicity problems**
19:00-23:00 Farewell party

Friday, August 27

09:00–11:30 Discussion of new international collaborations and educational exchange.
11:30 – 12:30 Concluding remarks
Lunch
Free time and departure of participants.

***4rd Biennial Workshop on Subduction Processes
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Scientific Program

August 22, Sunday

August 22, Sunday

09:00 – 10:30 **INTRODUCTION**

10:30 – 11:00 *Coffee Break*

11:00 – 18:00 **SESSION: ACTIVE VOLCANISM**

Oral Session

Chairs: Boris V. Ivanov, Russia and Stephen R. McNutt, USA

11:00 – 11:15 **ORDER CLUSTERING IN THE SEQUENCES OF VOLCANIC
ERUPTIONS AND EARTHQUAKES OF THE WORLD**
Alexander A. Gusev

11:15 – 11:30 **ERUPTIONS THROUGH CALDERA LAKES IN ALASKA: SURGES,
TSUNAMIS, AND CATASTROPHIC FLOODS**
Beget, J. E., Almberg, L., Larsen, J., Stelling, P., and Wolfe, B.

11:30 – 11:45 **THE ERUPTION OF SHEVELUCH VOLCANO, KAMCHATKA, ON MAY
10, 2004**
Olga A. Girina, Sergey L. Senyukov, Yury V. Demyunchuk, Sergey A.
Khubunaya and Sergey A. Ushakov

11:45 – 12:00 **RECURRENT CALDERA-FORMING ERUPTIONS: KSUDACH CASE
STUDY**
Pavel Izbekov, James Gardner, Ivan Melekestsev and John Eichelberger

12:00 – 12:15 **DEEP STRUCTURE OF KAMCHATKA NORTHERN VOLCANIC
GROUP: SEISMICITY, 3D VELOCITY STRUCTURE AND MAGMA
SOURCES.**
Gontovaya L., Nizkous I., Kissling E., Senyukov S., Sanina I. and Khrenov A.

12:15 – 12:30 **DIRECT SAMPLING OF ERUPTIVE CLOUDS USING TETHERED
BALLOONS: RESULTS OF FIELD EXPERIMENT ON KARYMSKY
VOLCANO, KAMCHATKA, RUSSIA**
Alexander B. Belousov and Marina Belousova

12:30 – 12:45 **ERUPTION REGIME AND MAGMA SYSTEM PARAMETERS OF THE
VOLCANO SHIVELUCH**
Yury B. Slezin

- 13:00 – 14:30** *Lunch*
- Chairs: Christina A. Neal, David J. Schneider, USA
and Olga Girina, Russia*
- 14:30 – 14:45** **MINI-ULTRAVIOLET SPECTROMETER (MUSE) AND THERMAL INFRARED IMAGE OBSERVATIONS OF ALASKAN VOLCANOES: COMPARISONS TO ASTER SATELLITE DATA**
David Schneider, Yvonne Branan, Courtney Kearney and Rick Wessels
- 14:45 – 15:00** **DETECTING SMALL GEOTHERMAL FEATURES AT NORTHERN PACIFIC VOLCANOES USING TERRA SATELLITE ASTER THERMAL INFRARED DATA**
Rick Wessels, Sergey Senyukov, Anastasia Tranbenkova, and Dave Schneider
- 15:00 – 15:15** **THE POTENTIAL OF INSAR FOR VOLCANO DEFORMATION MONITORING: TEN YEARS OF ERS OBSERVATIONS AT MT. ETNA, ITALY**
Paul Lundgren, F. Casu, M. Manzo, A. Pepe, P. Berardino, E. Sansosti, and R. Lanari
- 15:15 – 15:30** **KAMCHATKAN VOLCANIC ERUPTION RESPONSE TEAM (KVERT) PROJECT IN 2002-2004**
Olga A. Girina, Sergey L. Senyukov, Christina A. Neal
- 15:30 – 15:45** **PROSPECTS OF VOLCANIC ACTIVITY MONITORING IN THE KURIL ISLANDS**
A.V. Rybin, Y.V. Karagusov, P. E. Izbekov, N.S. Terentyev, V.B. Guryanov and R.V. Zharkov,
- 15:45 – 16:00** **AVACHINSKY VOLCANO GEOTHERMAL RESERVOIR BASED ON FUMARoles ACTIVITY AND SEISMOLOGICAL NETWORK DATA**
V.A. Droznin, I.K. Dubrovskaya, A.V. Kiryukhin, E.V. Chernykh, S.L. Senyukov and G.O. Ivanysko
- 16:00 - 16:30** *Coffee Break*
- 16:30 - 16:45** **THERMAL UNREST AT KAMCHATKAN VOLCANOES: FIVE YEARS OF MODIS OBSERVATIONS**
Robert Wright
- 16:45 – 17:00** **RETROSPECTIVE INSIGHT ON TWINS VOLCANOES VRANGEL (ALASKA) AND USHKOVSKY (KAMCHATKA): THEIR RECENT ACTIVITY AND VOLCANO-GLACIAL INTERACTION.**
C. Benson, Ya. Muravyev
- 17:00 – 17:30** **Poster Session**

MENDELEEV VOLCANO: HISTORY OF DEVELOPMENT AND RECENT STATE (KUNASHIR ISL., KURIL ISLANDS)

A.I. Abdurakhmanov, N.G Razzhigaeva, A.V. Rybin, V.B., Guryanov and R.V. Zharkov.

ANALYSIS OF COMPOSITION AND CHRONOLOGY OF DOME EMPLACEMENT AT BLACK PEAK, ALASKA UTILIZING ASTER REMOTE SENSING DATA AND FIELD-BASED STUDIES

J. N. Adleman, J. F. Larsen, M.S. Ramsey, R.G. McGimsey, C.A. Neal

PRODUCTS OF HYDROVOLCANISM IN OKMOK CALDERA, ALASKA, U.S. A.

Leslie D. Almberg, James E. Begét

ASSESSMENT OF VOLCANIC HAZARD FROM AVACHINSKY VOLCANO, KAMCHATKA, RUSSIA

Bazanova L.I., Braitseva O.A., Melekestsev I.V. and Puzankov M.Yu.

TEPHROCHRONOLOGY AS A TOOL FOR DATING FLANK ERUPTIONS ON KLIUCHEVSKOI VOLCANO, KAMCHATKA, RUSSIA

Braitseva O.A.; Ponomareva V.V.; Melekestsev I.V.

$^{40}\text{AR}/^{39}\text{AR}$ GEOCHRONOLOGY OF KHAPITSA PLATEAU AND STUDYONAYA RIVER BASALTS AND BASALTIC ANDESITES IN CENTRAL KAMCHATKA DEPRESSION, KAMCHATKA, RUSSIA

Julie A Calkins

VOLCANIC ACTIVITY AT SEDANKINSKY DOL LAVA FIELD, SREDINNY RIDGE DURING THE HOLOCENE (KAMCHATKA, RUSSIA)

Dirksen O.V., Bazanova L.I., Pletchov P.Yu., Portnyagin M.V. and Bychkov K.A.

PALEOENVIRONMENTAL EFFECT AND PLANTS RECOVERING AFTER 7600 BP CATASTROPHIC KURILE LAKE CALDERA-FORMING ERUPTION, KAMCHATKA.

Dirksen V.G., Dirksen O.V.

ERUPTION OF SHIVELUCH VOLCANO IN 2001-2004, KAMCHATKA.

S.A.Fedotov, N.A.Zharinov, V.N.Dvigalo, N.I.Seliverstov and S.A.Khubunaya.

THERMAL INFRARED SPACE-BASED SO₂ DETECTION: A NEW TECHNIQUE FOR THE ALASKA VOLCANO OBSERVATORY

Courtney Kearney, Jon Dehn and Ken Dean.

THE LAVA FLOWS OF BEZYMIANNY VOLCANO, KAMCHATKA.

Vladimir M. Ladygin, Olga A. Girina, Julia V. Frolova and Igor A. Kondrashov

LIFE ON THE EDGE: HOLOCENE HISTORY AND TEPHRA STRATIGRAPHY OF TANGINAK ANCHORAGE, SITKALIDAK ISLAND, KODIAK ARCHIPELAGO, ALASKA

Elizabeth Mahrt and Joanne Bourgeois.

**VOLCANIC TREMOR AND ITS USE IN ESTIMATING ERUPTION
PARAMETERS**

Stephen R. McNutt

**REMOTE SENSING IN APPLICATION TO GEOMORPHOLOGICAL
STUDY OF MUTNOVSKY VOLCANO**

Dmitry V. Melnikov.

**RECENT VOLCANIC ACTIVITY IN HOKKAIDO, JAPAN AND
MONITORING BY SAPPORO DMO, JMA**

Jun'ichi Miyamura

**1817 INTRACALDERA ERUPTION OF OKMOK VOLCANO, ALASKA:
TRANSITION FROM HYDROMAGMATIC TO STROMBOLIAN
ACTIVITY**

Christina Neal and Jim Beget

**GEOTHERMAL ACTIVITY OF TOKACHIDAKE VOLCANO,
CENTRAL HOKKAIDO, JAPAN**

Noritoshi Okazaki, Makoto Tamura, Satoshi Ishimaru

**PETROLOGICAL DETERMINATION OF THE
PRESSURE/TEMPERATURE REGIME OF THE BEZYMIANNY
VOLCANO, KAMCHATKA (1956-1997)**

Lara Owens, David Egglar and Barry Voight.

**NEW DATA ON HOLOCENE MONOGENETIC VOLCANISM OF THE
NORTHERN KAMCHATKA: AGES AND SPACE DISTRIBUTION.**

Maria M. Pevzner

STROMBOLIAN CALDERA-FORMING ERUPTIONS IN KAMCHATKA

Oleg B. Selyangin

**RELATING THERMAL ANOMALIES OBSERVED IN SATELLITE
DATA TO THE GROWTH OF BEZYMIANNY VOLCANO'S LAVA
DOME DURING THE FALL 2000 ERUPTION.**

Andrea M. Steffke, Jonathan Dehn and Ken Dean

**THE MECHANISM OF GENERATION OF AUTO FLUCTUATIONS AT
VOLCANO KARYMSKY EXPLOSIONS**

Storcheus A.V., Ozerov A.Yu., Firstov P.P., Manevich A.

**EVOLUTION OF HISTORIC MAGMA SYSTEM OF HOKKAIDO-
KOMAGATAKE VOLCANO, JAPAN: IMPLICATIONS FOR
STRUCTURE AND ERUPTION PROCESSES OF MUSH CHAMBER**

Ryo Takahashi, Mitsuhiro Yoshimoto, Mitsuhiro Nakagawa

**GEOPHYSICAL OBSERVATIONS IN TARUMAI VOLCANO,
HOKKAIDO, JAPAN**

Makoto Tamura

CALIPSO BOREHOLE INSTRUMENTATION AT A BEZYMANNY-LIKE ANDESITE VOLCANO: CALIPSO PROJECT AT SOUFRIERE HILLS VOLCANO, MONTSERRAT

B Voight and CALIPSO team (GS Mattioli, SR Young, AT Linde, IS Sacks, PE Malin, E Shalev, D Hidayat, D Elsworth, C Widiwijayanti, V Miller, RSJ Sparks, J Neuberg, V Bass, P Dunkley, M Edmonds, R Herd, A Jolly, G Norton, T Syers, G Thompson, P Williams)

¹⁴C TIMING OF VOLCANIC AND PALEOSEISMIC EVENTS IN KAMCHATKA

N.E. Zaretskaya

17:30 – 18:00 *Open Discussion*

18:00 – 18:30 *Film about Kamchatkan volcanoes*

August 23, Monday

August 23, Monday

09:00 - 18:00 **SESSION: GEODYNAMICS, TECTONICS, GEOCHEMISTRY, PETROLOGY AND MAGMA-FORMATION**

Chairs: Evgenii I. Gordeev, Russia and Minoru Kasahara, Japan

Oral Session

09:00 – 09:15 **GEODYNAMICS OF VOLCANISM OF THE KAMCHATKA-ALEUTIAN JUNCTION**

Gennadii P. Avdeiko and Aida A. Palueva

09:15 – 09:30 **TECTONICS, VOLCANISM AND SEISMICITY: ISSUES OF PARAGENETIC RELATION**

Boris V. Ivanov and Vladimir A. Shirokov

09:30 – 09:45 **THE PLATE SUBDUCTION UNDER KAMCHATKA: "SEISMIC" SPEED, SLOW EVENTS, DEFORMATION VELOCITY**

E.I. Gordeev, V.M. Pavlov, V.E. Levin, V.F. Bakhtiarov

09:45 – 10:00 **ETUDES OF THE ROTATIONAL CONCEPTION OF WESTERN-PACIFIC TRANSITION ZONE DEVELOPMENT IN CENOZOIC**

Alexander V. Koloskov and Gennadiy I. Anosov.

10:00 – 10:15 **SUBDUCTION-ZONE BEHAVIOR BACKED OUT OF TSUNAMI DEPOSITS, KAMCHATKA, FAR EASTERN RUSSIA**

Joanne Bourgeois, Vasily Titov and Tanya Pinegina.

- 10:15 – 10:30** **SEISMOTECTONIC PATTERN, SOURCE REGION OF VOLCANISM AND ONSET OF A NEW SUBDUCTION CYCLE IN THE KURILE ISLANDS AND ALEUTIAN ISLANDS REGION**
Aleš Špičák, Václav Hanuš and Jiří Vaněk
- 10:30 – 11:00** *Coffee Break*
- 11:00 – 11:15** **THE 2003 TOKACHI-OKI EARTHQUAKE, OFF SOUTHEASTERN HOKKAIDO, JAPAN: SEISMIC ACTIVITIES FROM THE FORMER 1952 TOKACHI-OKI EARTHQUAKE, FORESHOCK, MAINSHOCK, AFTERSHOCKS, AND TRIGGERED EARTHQUAKES**
Minoru Kasahara, Hiroaki Takahashi
- 11:15 – 11:30** **NON-SUBDUCTION SEISMICITY IN KAMCHATKA: FIRST DATA ON PALEOSEISMOLOGY OF THE EAST KAMCHATKA FAULT ZONE**
Kozhurin A., Ponomareva V., Melekestsev I.V., Acocella V., Lagmay F.M., Rust D., Tibaldi A., Tunesi A., Corazzato C., Rovida A., Tengonciang A. and Uy H.
- 11:30 – 11:45** **STRUCTURE OF VELOCITY HETEROGENEITIES AND THEIR INTERCONNECTION WITH GEODYNAMICS OF TRANSITION ZONE (KAMCHATKA)**
Nizkous I., Kissling E., Gontovaya L. and Levina V.
- 11:45 – 12:00** **STUDIES OF DUCTILE DEFORMATION ZONE IN THE EARTH CRUST OF THE KARYMSKY VOLCANIC CENTER (EASTERN KAMCHATKA) ACCORDING TO SEISMOLOGICAL DATA**
V.V. Ivanov
- 12:00 – 12:15** **SILENT EARTHQUAKES AND THE POPOCATEPETL VOLCANO UNREST**
Vladimir Kostoglodov, Carlos M. Valdés González and Luis Quintanar
- 12:15 – 12:30** **COSEISMIC AND SHORT TERM AFTERSLIP OF THE 2003 TOKACHI OKI EARTHQUAKE INFERRED FROM KINEMATIC GPS ANALYSIS**
Meilano Irwan, Fumiaki Kimata, Naoyuki Fujii, Kazuro Hirahara, Takeshi Sagiya and Atsushi Yamigawa
- 12:30 – 12:45** **TIME DEPENDENT MODEL OF HUGE DIKE INTRUSION AT THE 2000 MIYAKE KOZU VOLCANIC EVENTS, BASED ON GROUND DEFORMATION BY GPS MEASUREMENTS**
Masayuki Murase and Fumiaki Kimata
- 12:45 – 13:00** **RECENT CRUST MOVEMENTS AND THEIR RELATION TO THE SEISMIC AND VOLCANIC ACTIVITIES ON THE KAMCHATKA PENINSULA.**
Levin V.Ye., Maguskin M.A., Bakhtiarov V.F., Pavlov V.M., Prilepin M.T. and Titkov N.N.
- 13:00 – 14:30** *Lunch*

Chairs: Alexander V. Koloskov, Russia and John Eichelberger, USA

- 14:30 – 14:45** **IONOSPHERIC PERTURBATION BY THE SURFACE WAVE OF THE 2003 TOKACHI-OKI EQS (MJMA=8.0) DETECTED USING A DENSE GPS ARRAY**
Kosuke Heki
- 14:45 – 15:00* **VOLCANISM AND STRUCTURE OF SOUTH-WESTERN KAMCHATKA**
Popruzhenko S.V. and Aprelkov S.E.
- 15:00 – 15:15* **BEHAVIOR OF STORED MAGMA IN ARC CRUST**
John Eichelberger, Pavel Izbekov, and Brandon Browne
- 15:15 – 15:30** **COMPOSITIONAL CHANGES IN FLUIDS ACROSS THE KAMCHATKA ARC**
T. Churikova, G. Wörner, N. Mironov, A. Kronz, P. Pletchov and M. Portnyagin
- 15:30 – 15:45** **RAPID AND TIME-VARIABLE INFLATION OF OKMOK VOLCANO, ALEUTIAN ARC**
Jeffrey T. Freymueller, Thomas Fournier, Yousuke Miyagi and Fumiaki Kimata
- 15:45 – 16:00** **ARC TO OCEANIC MAGMATISM TRANSITION ALONG THE CENTRAL KAMCHATKA DEPRESSION**
Maxim Portnyagin, Kaj Hoernle and Gennady Avdeiko
- 16:00 - 16:30** *Coffee Break*
- 16:30 – 16:45** **ORIGIN OF VARIOUS TYPES OF VOLCANIC KURILE ROCKS FROM A UNIFORM SOURCE.**
Olga A. Khleborodova
- 16:45 – 17:00** **HETEROGENEITY OF MANTLE SOURCE OF LATER PLEISTOCENE-HOLOCENE MONOGENETIC VOLCANISM IN SREDINNY RIDGE OF KAMCHATKA.**
Volynets A.O. and Churikova T.G.
- 17:00 – 17:30** **Poster Session**
- RADIONUCLIDS IN THERMAL DEPOSITS OF THE SUBMARINE PIIP VOLCANO (BERING SEA)**
V. I. Andreev, Yu. M. Puzankov, V. A. Bobrov, V. A. Rashidov and M. Yu. Puzankov
- MAGMA COMPOSITIONS AND PECULIARITY OF CRYSTALLISATION IN ANDESITES OF BEZMYANNY, SHIVELUCH, AVACHINSKII AND KARYMSKY VOLCANOES (KAMCHATKA) (ACCORDING TO THE DATA ON STUDY OF MELT INCLUSIONS)**
Bogoyavlenskaya G.E., Naumov V.B., Tolstykh M.L. and Khubunaya S.A.

KINEMATICS EVOLUTION OF FLANK AREA OF THE OCEAN-CONTINENT TRANSITIONAL ZONE DURING LATE MESOZOIC – LATE PLEISTOCENE.

O.N. Egorov

GEOLOGICAL STRUCTURE AND PETROCHEMICAL FEATURES OF MAGNESIAL BASALTS OF KHARCHINSKY VOLCANO, KAMCHATKA.

N.V.Gorbach and S.A.Khubunaya

THE GEOLOGICAL-PETROLOGICAL MODEL OF THE KARYMSKY VOLCANIC CENTER

B.V. Ivanov

SEISMOTECTONICS AND EVOLUTION OF SOLDATSKAYA BAY (KAMCHATKA) DURING THE HOLOCENE

E. A. Kravchynovskaya, T.K. Pinegina, Joanne Bourgeois and Kevin Pedoja

PRINCIPLE OF THE EARTH'S GRAVITATIONAL ENERGY MINIMIZATION AND THE MECHANISMS OF ITS EMBODIMENT

Kuznetsov V.V.

POLOVINKA-ODNOBOKAYA-ACADEMII NAUK CALDERA COMPLEX, KAMCHATKA: STRUCTURAL POSITION AND MAGMATIC EVOLUTION

Vladimir L. Leonov and Yelena N. Grib

TEHUANTEPEC RIDGE FORMATION AND CHIAPAS VOLCANIC GAP

M. Manea, V.C. Manea, V. Kostoglodov and L. Ferrari

THE THERMAL STRUCTURE BENEATH SOUTHERN KAMCHATKA INFERRED FROM NUMERICAL MODELS

V.C. Manea, M. Manea, V. Kostoglodov and G. Sewell

EFFUSIVE ERUPTIONS OF SILICIC MAGMAS AND MECHANISM OF THE DEEP DEGASSING OF AQUEOUS MAGMAS.

Alexander P. Maximov.

GRAVITY AND GEODYNAMIC MODELING OF THE LITHOSPHERE IN THE TRANSITION AREA BETWEEN AREA OF THE PHILIPPINE PLATE AND THE ASIAN CONTINENT

Maslov L.A. , Gil'manova G.Z.

THE PLATE BOUNDARY OBSERVATORY IN ALASKA AND THE ALEUTIAN ARC.

Dave Mencin, Ben Pauk, Tom Murray, John Power, Mike Jackson

RAPID INFLATION OF OKMOK CALDERA, ALASKA, DETECTED BY GPS CAMPAIGNS 2000-2003

Yousuke Miyagi, Jeffrey T. Freymueller, Fumiaki Kimata, Toshiya Sato and Doerte Mann.

**NEOTECTONICS NEAR THE NW CORNER OF THE PACIFIC PLATE:
MARINE TERRACES ON OZERNOI AND KAMCHATSKIY
PENINSULAS, KAMCHATKA, RUSSIA**

Kevin Pedoja, Joanne Bourgeois and Tatiana Pinegina

**HOLOCENE VERTICAL MOVEMENTS OF THE KAMCHATKA
PACIFIC COAST: GEOMORPHOLOGIC RECONSTRUCTION AND
RELATION TO SEISMOTECTONIC PROCESSES**

Tatiana Pinegina and Joanne Bourgeois

**THE INITIAL PLINIAN BASIC ANDESITE ERUPTIONS OF THE
YOUNG CONE, AVACHINSKY VOLCANO (KAMCHATKA)**

M.Yu. Puzankov, L.I. Bazanova, A.P. Maximov and S.V. Moskalyova

**RADIOACTIVE ELEMENTS IN HYDROTHERMAL SYSTEMS OF
KAMCHATKA**

Puzankov Yu.M., Bobrov V.A., Rashidov V.A., Puzankov M.Yu. and Andreev V.I.

**RADIOACTIVE ELEMENTS AS INDICATORS OF CRUSTAL TYPES
FORMING ON THE BASE AND IN THE FRAME OF ACTIVE
CONTINENTAL MARGIN**

Puzankov Yu.M. and Stefanov Yu.M.

**ON PROBABLE GAS-HYDROTHERMAL ACTIVITY OF THE
SUBMARINE VOLCANO KRILATKA (KURILE ISLAND ARC)** Rashidov
V.A. and Bondarenko V.I.

**AFTERSHOCKS OF DEEP EARTHQUAKES IN THE KAMCHATKA-
ALEUTIAN JUNCTION ZONE**

Vadim A. Saltykov

**QUATERNARY THRUSTS IN THE KAMCHATKA-ALEUTIAN
JUNCTION ZONE**

Dmitry Saveliev

**THE SHOWES OF ALKALINE MAGMATISM IN ENVIRONS OF
AVACHINSKAJA BAY**

V.S. Sheimovich, Yu.M. Puzankov, M.Yu. Puzankov, D.I. Golovin, V.A. Bobrov and S.V. Moskaleva

INITIAL RESULTS OF GPS MEASUREMENT IN PRIMORSKI KRAI

Shestakov N.V., Gerasimenko M. D., Kolomiets A.G., Gerasimov G. N., Gavrilov A. A., Kasahara M. and Kato T.

**RAPID NEURONET INVERSION OF 2D MAGNETOTELLURIC DATA
FOR MONITORING OF COMPLEX GEOELECTRICAL SECTIONS**

M.I. Shimelevich, E.A. Osborne, S. Gavryushov

**TESTING PREDICTIONS OF THE DEGREE OF PLATE COUPLING IN
THE KURIL SUBDUCTION ZONE**

Mark Simons, Jeff Freymueller and Mikhail G. Kogan

**POSTSEISMIC CRUSTAL DEFORMATION ASSOCIATED WITH THE
2003 TOKACHI-OKI EARTHQUAKE (MJMA8.0), OFF
SOUTHEASTERN HOKKAIDO, JAPAN**

Hiroaki Takahashi, Shigeru Nakao, Noritoshi Okazaki, Takeshi Sagiya,
Manabu Hashimoto, Teruyuki Kato, Takeshi Matsushima and Minoru Kasahara.

**PHYSICO-CHEMICAL PARAMETERS OF THE MAGMA CHAMBER
UNDER KIZIMEN VOLCANO (KAMCHATKA)**

Sergey V. Trusov and Pavel Yu. Pletchov

**FEATURES OF A STRUCTURE AND DEVELOPMENT NORTHWEST
MARGIN OF THE PACIFIC OCEAN MOBILE BELT
AS A GLOBAL ZONE OF SHEAR DEFORMATIONS**

T.Ju. Tveritinova

SURFACE DEFORMATIONS IN SAKHALIN FROM GPS DATA

N.F. Vasilenko, A.I. Ivaschenko, A.S. Prytkov, G.M. Steblov, D.I. Frolov, M.G.
Kogan, M. Kasahara, and H. Takahashi

**STRESS TRANSFER BEFORE AND DURING THE 1996 KARYMSKY-
AKADEMIA NAUK ERUPTION**

T. R. Walter and F. Amelung

17:30 – 18:00 *Open Discussion*

18:00 – 18:30 *Film about Kamchatkan volcanoes*

Thursday, August 26

Thursday, August 26

Session: FAR EAST AND EASTERN SIBERIA SEISMICITY PROBLEMS

Oral Session

Chairs: V.N.Chebrov and A.A. Gusev, Russia

09:00 – 09:15 **LONG-TERM EARTHQUAKE PREDICTION FOR THE KURIL-
KAMCHATKA ARC FOR 2004-2008 AND RETROSPECTIVE
PREDICTION FOR SEPTEMBER 25, 2003 HOKKAIDO
EARTHQUAKE, M = 8.1**

Fedotov S.A., Solomatin A.V., Chernyshev S.D.

09:15 – 09:30 **ACTIVE GEOLOGICAL PROCESSES CONTROLLING SEISMISITY IN
NORTHEAST RUSSIA**

V.S.Imaev, L.P.Imaeva, B.M.Kozmin

- 09:30 – 09: 45** **SEISMIC FOCAL ZONE AS A SYSTEM OF DEEP FAULTS AT THE BOUNDARY OF CONTINENTAL AND OCEANIC STRUCTURES**
R.Z. Tarakanov
- 09:45 – 10:00 **SPATIO-TEMPORAL AND ENERGY CHARACTERISTICS OF THE SYSTEMS OF SEISMOGENERATING CRUSTAL FAULTS AND MANTLE IN THE JUNCTURE AREA OF THE PACIFIC AND CENTRAL-ASIAN MOBILE BELTS**
V. A. Bormotov
- 10:00 - 10:15** **STICK-SLIP IN THE CRUSTAL FAULTS AS A SELF-EXCITING WAVE PROCESS**
V.G. Bykov
- 10:15 – 10:30** **VORTEX-RELATED AND EARTHQUEKES**
A.V. Vikulin
- 10:30 – 11:00** *Coffee Break*
- 11:00 – 11:15** **GEOMECHANICS OF EARTHQUAKES**
S.V. Goldin
- 11:15 – 11:30** **A NEW TECHNIQUE FOR SEISMOGRAM CALCULATION IN A LAYERED HALF-SPACE, AS APPLIED TO SEISMIC MOMENT TENSOR INVERSIONS**
V.M. Pavlov
- 11:30 – 11:45** **ANISOTROPY AND TEMPORAL VARIATION OF FAST S-WAVE POLARIZATION AZIMUTHS BENEATH SOUTH KAMCHATKA**
Margarita Luneva, Jung Mo Lee
- 11:45 – 12:00** **NON DOUBLE COUPLE SEISMIC SOURCES**
Yunga S., Lutikov A.
- 12:00 – 12:15** **SEISMICITY INDICES OF ACTIV FAULTS OF THE LITHOSPHERE AND THE PROBLEM OF EARTHQUAKE PREDICTION**
S.I.Sherman, V.A.Savitsky
- 12:15 – 12:30** **HF SEISMIC ATTENUATION IN KINKI REGION, JAPAN (PHILIPPINE SEA SUBDUCTION ZONE)**
A. Petukhin, T. Kagawa
- 12:30 – 12:45** **VIBROSEISMIC MONITORING ON SOUTH BAIKAL RESEARCH POLIGON**
Tatkov G.I., Tubanov T.A., Bazarov A.D.
- 12:45 – 13:00** **ON THE WAVE NATURE OF SEISMODISLOCATIONS: RESONANCE MODEL (AS EXEMPLIFIED FROM EAST ASIA)**

A.A. Kokovkin

13:00 – 14:30 *Lunch*

Chairs: V.G. Bykov and B.V. Levin

14:30 – 14:45 **EFFICIENCY OF KAMCHATKAN REGIONAL SEISMIC NETWORK**

V.N.Chebrov

14:45 – 15:00 **SEISMIC MONITORING OF STRONG EARTHQUAKES SOURCE AREAS**

Lutikov A .I.

15:00 – 15:15 **MONITORING OF SEISMICITY PARAMETERS IN KAMCHATKA**

Saltykov V., Kravchenko N.

15:15 – 15:30 **CHARACTERISTICS OF THE COOPERATION OF GEOPHYSICAL PROCESSES ON STAGES OF THE PREPARATION OF STRONG EARTHQUAKES**

Kopylova G.N.

15:30 – 15:45 **VARIATIONS OF GEOACOUSTIC EMISSION LEVEL IN THE DEEP WELL AND THEIR CONNECTION WITH SEISMIC ACTIVITY IN THE SOUTH PART OF KAMCHATKA**

V.A. Gavrilov, Yu.V. Morozova and A.V. Storcheus

15:45 – 16:00 **NECESSITY OF LOCAL SEISMIC MONITORING IN THE AREA OF MUTNOVSKY GEOPOWER PLANTS**

Yu. Kugaenko, V. Chebrov

16:00 – 16:30 *Coffee Break*

16:30 – 17:00 **Poster session**

ENGINEERING-SEISMOMETRIC SERVICE IN PRIBAIKALYE

Chernykh E.N., Pavlenov V.A.

DETERMINATION OF LOCATION OF VIBRATION SOURCES BY THE AMPLITUDE METHOD

Chernykh E.N., Tabulevich V.N.

GEOTHERMAL POTENCIAL IN SOUTHERN PART OF EAST SIBERIA

R.P.Dorofeeva, S.V.Lysak

ABOUT KAMCHATKAN BRANCH OF FEDERAL CENTER OF EQ PREDICTION

Gordeev Ye.I., Saltykov V.A., Serafimova Yu.K.

ON THE POSSIBILITY OF RELIABLE FORECAST FOR LARGE EARTHQUAKES

V.M.Ivshin, E.V. Ivshina

**SEISMOTECTONIC MANIFESTATIONS IN THE SOUTHEASTERN
CHERSKY RANGE ZONE AND ITS CONTINUATION ON TO
KAMCHATKA (NORTHEAST YAKUTIA AND NORTHERN
PRIOKHOTYE)**

Koz'min B.M., Petrov A.F., Shibaev S.V., Timirshin K.V.

**PLEISTOCENE-HOLOCENE DISLOCATIONS AND ACTIVITY OF
THE CONTINENTAL CRUST IN MID-LOWER PRIAMURYE.**

A.A. Kokovkin

**APPLICATION OF ONE-WAY VARIANCE ANALYSIS FOR
DETECTING SEISMIC WAVES REFLECTED FROM FREE SURFACE**

A.V. Konovalov, A.I. Ivashchenko

**THE ENERGETIC CLASS OF KURIL AND SAKHALIN
EARTHQUAKES DEPENDING ON THE NEAR-SURFACE
GEOLOGICAL AND SOIL CONDITIONS BENEATH SEISMIC
STATIONS**

L.S. Oskorbin

**ESTIMATION OF Q -VALUE IN KINKI REGION, JAPAN, BY
ELIMINATION OF ELASTIC ATTENUATION EFFECT USING RAY
THEORY APPROXIMATION IN 3-D VELOCITY MODEL**

A. Petukhin, K. Irikura, T.Kagawa, Sh. Ohmi

**UNDERGROUND WATER RESPONSE TO SEISMIC ACTIVITY IN
CASE OF PINACHEVO SPRINGS, KAMCHATKA.**

Ryabinin G.V., Khatkevich Yu.M.

**IN SITU EVALUATION OF VISCOELASTIC MODEL IN THE
NEFTEGORSK EARTHQUAKE OF 1995 EPICENTER**

Saprygin S.M., Senachin V.N.

THE MECHANISM OF SEISMIC EVENTS

V.M.Sharafutdinov, S.V.Mishin, L.V.Sharafutdinova

STANDARD SEISMIC ESTIMATES

V.M.Sharafutdinov, S.V.Mishin, L.V.Sharafutdinova

GEOMAGNETIC VARIATIONS CAUSED BY TIDAL ACTION.

Sheremetyeva O.V., Krolevets A.N.

**VELOCITY MODELS AND HODOGRAPHS OF P AND S-P-SWAVES
FOR THE FAR EAST REGION**

R.Z. Tarakanov

**ON THE UPPER MANTLE DISCONTINUITIES (410 KM AND 660 KM)
RELATED TO POLYMORPHIC TRANSFORMATIONS**

R.Z. Tarakanov

THE SEISMICITY OF MIDDLE BAIKAL ACCORDING TO LOCAL

NETWORK OF GEOPHYSICAL MONITORING

Tatkov G.I., Tubanov T.A., Urban N.A.

**PREDICTION OF SEISMICALLY HAZARDOUS PERIODS IN THE
REGIONS OF KAMCHATKA AND SOUTH KURILE ISLANDS ON THE
BASIS OF PERIODICITIES OF LARGE SHALLOW-FOCUS
EARTHQUAKE OCCURRENCES**

Tikhonov I.N.

**A METHOD OF LARGE SHALLOW-FOCUS EARTHQUAKE
PERIODICITIES REVEALING AND OF PREDICTION
SEISMICALLY HAZARDOUS TIME INTERVALS**

Tikhonov I.N.

17:00 – 17:30 *Open discussion*