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# MINERAL RESOURCES, METALLOGENESIS, AND TECTONICS EASTERN AND SOUTHERN SIBERIA, MONGOLIA, NORTHEASTERN CHINA, AND JAPAN

Summary of a New Collaborative Project by Russian Academy of Sciences,  
Mongolian Academy of Sciences, Changchun University of Earth Sciences,  
the Geological Survey of Japan, and the U.S. Geological Survey

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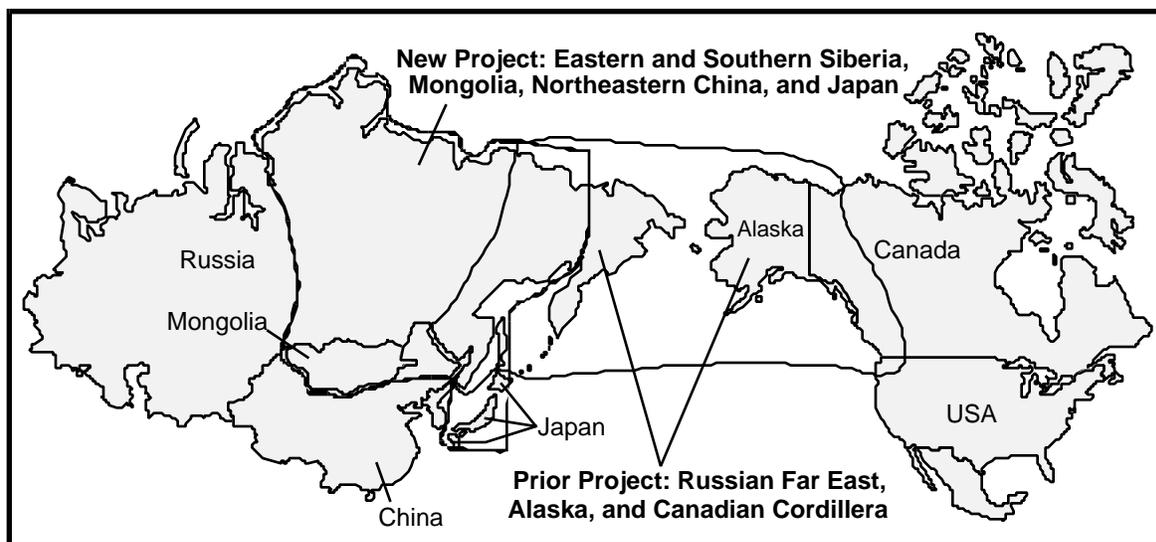
**ABSTRACT:** A new five-year project is being started by the U.S. Geological Survey and collaborating Northeast and Central Asia resource agencies to provide a critical data base and companion geologic information on the *Mineral Resources, Metallogensis, and Crustal Origin And Evolution of Mineralizing Systems for Eastern and Southern Siberia, Mongolia, Northeastern China, and Japan*. Data from the new project will benefit participants by: (1) providing a comprehensive international data base on the mineral resources of the region that will be the first, extensive knowledge available in English; (2) providing major new interpretations of the origin and crustal evolution of mineralizing systems and their host rocks, thereby enabling enhanced, broad-scale tectonic reconstructions and interpretations; and (3) promoting trade and scientific and technical exchanges between North America and Eastern Asia. The new project will extend and build on data and interpretations from a prior project on the *Major Mineral Deposits, Metallogensis, and Tectonics of the Russian Far East, Alaska, and the Canadian Cordillera* (Figure 1) that is being completed by the U.S.G.S., Russian Academy of Sciences, ROSKOM-NEDRA, the Alaska State Geological Survey, and the Geological Survey of Canada. The prior project has provided and the new project will provide vital data for a wide variety of customers for making sound economic

planning and investment decisions and for increasing their geologic knowledge of this region.

These customers include: (1) major mining, petroleum, construction, investment, and information companies, (2) federal and state government agencies in all countries; (3) professional organizations; (4) earth science departments at universities; (5) news media; and (6) a large number of mineral resource, petroleum, and information company consultants. A major international customer is the Commerce Working Group of the Gore-Chernomydrin Commission (GCC) chaired by Vice-President Gore (USA) and Premier Chernomydrin (Russia).

**COLLABORATING AGENCIES.** The collaborating agencies are the Russian Academy of Sciences, Mongolian Academy of Sciences, Mongolian Technical University, the Changchun University of Earth Sciences, China, Ministry of Geology of China, the Geological Survey of Japan, and the U.S. Geological Survey. Other U.S.A. project participants are the Colorado School of Mines, University of Alaska Fairbanks, Stanford University, and the University of Pittsburgh.

**SPONSORS.** Professional organizations sponsoring the project are the Northwest Mining Association, Spokane, and the Alaska Miners Association, Anchorage.



**STUDY AREA:** Eastern and Southern Siberia, Mongolia, Northeastern China, and Japan (above figure). This area is approximately bounded by 40° to 82° N. latitude and 80° to 146° E. longitude.

**PLANNED PRODUCTS:** The products will include: (a) detailed mineral resource tables and location maps with data on about 2,000 lode deposits and several hundred placer districts for the project area, based on original, cited references; (b) regional terrane and overlap-assembly maps and detailed explanations that will provide the geologic setting for mineral deposits and metallogenic belts; (c) metallogenic-belt, and resource- and environmental-concern maps and interpretations; and (d) metallogenic/tectonic interpretations, including a four-dimensional time-space model depicting the crustal origin and evolution of mineral deposits. Publication will be staged with rapid preliminary publication of the new and important tabular resource data and maps to customers. Publications will be released in both paper (USGS publications and scientific journals), digital (floppy disk, CD-ROM, GIS (ARC-View), and Internet/Web) formats. The various resource tables, maps, and interpretative materials will be authored by the international collaborators with the USGS project members serving as co-editors, and possibly as co-authors on some interpretative articles.

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**PROJECT WORKSHOPS:**

November 7-11, 1994: Institute of Geology and Geophysics, Novosibirsk,  
September 9-16, 1995: Geological Institute, Mongolian Academy of Sciences, Ulaanbaatar, Mongolia  
December 10-13 1996: Institute of Geochemistry, Russian Academy of Sciences, Irkutsk, Russia  
December 17-19, 1996, Geological Survey of Japan, Tsukuba Center, Japan  
July 1-3, 1997, Korean Institute of Geology, Minerals, and Materials, Taejon, Korea

**ABSTRACTS:**

Collaborative projects of the U.S. Geological Survey and participating agencies on metallogenesis and tectonics of Eastern Siberia, Mongolia, Northeast China, Russian Far East, Alaska, and the Canadian Cordillera by Nokleberg, W.J., Parfenov, L.M., Shpikerman, V.I., Khanchuk, A.I., and Ratkin, V.V., 1996: 1996 Northwest Mining Association Annual Meeting Program with Abstracts, p. 41.

**ARTICLES:**

Terranes and accretionary history of the Transbaikalian orogenic Belts, by Parfenov, L.M., Bulgatov, A.N., and Gordienko, I.V., 1995: International Geology Review, v. 37, p. 736-651.

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