

INTERNATIONAL UNION OF GEOLOGICAL SCIENCES IN TERNATIONAL COMMISSION ON STRATIGRAPHY

CHAIR

Prof. Stanley **FINNEY**, Dept. Geological Sciences, California State University at Long Beach, Long Beach, CA 90840, USA TEL: 1-562-985-8637 (office); FAX: 1-562-985-8638; E-mail: *scfinney@csulb.edu*

VICE-CHAIR

Prof. Shanchi **PENG**, Nanjing Inst. Geology & Palaeontology, Chinese Acad. Sci., 39 East Beijing St., Nanjing 210008, China TEL and FAX: 86-25-8328 2135; E-mail: *scpeng@nigpas.ac.cn*

SECRETARY-GENERAL

Prof. Paul R. **BOWN**, Dept. Geological Sciences, University College London, Gower Street, London WC1E 6BT, Great Britain TEL: 44-0-20-7504-2431 office; FAX 44-0-20-7388-7614; E-mail: *p.bown@ucl.ac.uk*

12 Nov, 2008

From: James Ogg Chair, Subcommision on Stratigraphic Information (Professor, Purdue University, Indiana, USA)

To: Prof. F.M. Gradstein, Manager NORLEX Project University of Oslo, Norway

Dear NORLEX Project,

On behalf of the International Commission on Stratigraphy (ICS), I have studied the guidelines, publications, manuscripts and web-based documents generated under the auspices of the NORLEX Project.

One of the main objectives of NORLEX is to clarify and revise the usage of formal lithostratigraphy for recognition, description and mapping (where applicable) of subsurface formations and members. For this program to be correctly executed and presented, it is important that the Norlex Project follows the guidelines laid out by the International Stratigraphic Guide (2nd edition, 1994).

In general, the lithostratigraphic unit descriptions in NORLEX are a superb model of how subsurface units should be documented, and the Internet-based presentation via the world-wide web is a superb choice for delivery of this information in the modern world. Indeed, I should urge that other regional stratigraphic commissions and geological surveys employ the same methods and user-interfaces as developed by NORLEX. The usage of hot-linked summary stratigraphic diagrams to access the definitions, a geographic-map interface, the on-line biostratigraphy and well reports, and regional transects make this a superior product to any that I have seen before. In our current work with the British Geological Survey to put their Lexicon on-line, I will urge that they consider this NORLEX model.

With increased knowledge of a region, especially for offshore ones, earlier stratigraphic frameworks are often found to be incomplete or even erroneous in their assumptions about

continuity and correlations of facies. Therefore, the International Stratigraphic Guide allows the revision or redefinition of a prior formal unit or its promotion or demoting in rank without changing its name. The NORLEX documentation strives to include the required statements of intent to revise the unit, and the reasons for doing so. The new units are provided with similar justification and documentation.

In our contacts with petroleum companies, including those in Norway, we frequently encounter usage of outdated geologic time scales, both in terms of stage-series usages and of numerical ages. Such practices can be more detrimental to communicating stratigraphy than using a wrong or outdated formation definition, and can lead to wrong inter-regional correlations and deficient basin modeling. ICS is pleased to see that NORLEX incorporates modern chronostratigraphy and geochronology. The Norwegian (petroleum) stratigraphic community should be pro-active in the usage of time scales.

I have two minor concerns or recommendations for the NORLEX suite. First, the biostratigraphy of some units in Triassic and Jurassic is lacking in detail (and, in some cases, lacking entirely). One of the special requirements for establishing subsurface units is that paleontologic logs of reference wells should accompany the lithologic logs with the boundaries of the new unit and its subdivisions. This is to help avoid mis-correlation with similar-looking facies in the same basin which are not actually a continuous and coeval extension of the type formation or member.

The second concern is that this excellent NORLEX stratigraphic framework is developed for only the Norwegian side of the common basin shared with Great Britain, Denmark and other nations. It is preferable that the definition, and ideally the nomenclature of major stratigraphic units be coordinated with the other groups to help avoid the annoying "national boundary" junction of geologic maps. This is a main goal of the new One-Geology-Europe program. Therefore, I urge that representatives from the other countries become educated and involved in this superior NORLEX framework, so that the major formations can be common throughout each basin.

The ICS is pleased with the NORLEX initiative and considers it a well-executed and wellpresented project that may serve as a good example to regional stratigraphy and lexicon-preparation and user-friendly documentation in other petroleum basins.

We wish NORLEX a good future.

James G. Ogg

Prof. J.G. Ogg

jogg@purdue.edu Office: 1-765-494-8681