

August 17, 2007



Department of the Interior
Minerals Management Service
Attention: Regulations and Standards Branch (RSB)
381 Elden Street, MS-4024
Herndon, VA 20170-4817

Houston Office

Subject: **30CFR Part 251**
Geological and Geophysical Explorations of the Outer Continental Shelf -
Changing Proprietary Term of Certain Geophysical Information

Ladies and Gentlemen:

The International Association of Geophysical Contractors (IAGC) is pleased to comment to the Minerals Management Service (MMS) on the proposed rulemaking covering portions of 30 CFR Part 251 concerning geological and geophysical operations on the Outer Continental Shelf. IAGC is the international trade association representing the industry that provides geophysical services (geophysical data acquisition, geophysical data and information ownership and licensing, geophysical data processing and interpretation, and associated service and product providers) to the oil and gas industry. Accordingly, the IAGC and its members have a significant interest in this proposed rule.

IAGC member companies have and continue to invest vast amounts of capital in the acquisition, processing and reprocessing of non-exclusive geophysical data. Specifically, the annual aggregate of these investments by IAGC member companies in the Gulf of Mexico and other OCS areas are in the hundreds of millions of dollars. The value of the cumulative investment of data still owned and used today is measured in the billions of dollars, and represents a significant percentage of the current book value of some of the companies in the geophysical industry.

Seismic companies play an integral role in the successful exploration and development of offshore hydrocarbon resources through the acquisition and processing of non-exclusive data. Non-exclusive data has become an integral part of the exploration, development and production of hydrocarbon resources and is utilized in the preparation and decisions made by exploration and production companies, as well as the MMS relative to each lease sale. [For a more in-depth discussion of this topic, please refer to IAGC's comments dated September 16, 2002 on MMS' proposed rulemaking; Oil and Gas and Sulphur Operations in the Outer Continental Shelf; Geological and Geophysical (G&G) Explorations Of the Outer Continental Shelf – Proprietary Terms and Data Disclosure (67 CFR 46942 – July 17, 2002).]

IAGC greatly appreciates MMS' consideration of and actions to address our concerns surrounding the May 1, 2006 new rule. The language of the proposed rule appears to adequately address the unintended consequence of the May 1, 2006 new rule as it would apply to seismic data reprocessed from data acquired under a permit that was in year 22 or greater (an example presented in our April 11, 2006 letter to the MMS Director). However, we believe it does not address the overall impact the rule change had on all

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non-exclusive seismic data (2-D and 3-D) which was addressed in the letter and subsequently in a June 2006 workshop.

Overview

In March 2006 the MMS published a final rule (71 FR 16033, March 30, 2006) that significantly changed the way the confidentiality period for geophysical information is determined. Effective May 1, 2006, the 25 year confidentiality period would no longer be determined based upon the date the MMS retained geophysical information but would instead be based upon the issuance date of the geological and geophysical permit used to acquire the underlying seismic data. This change applied equally to both original or re-processed geophysical information and applied retroactively. IAGC sent a letter dated April 21, 2006 to the MMS Director illuminating our "initial thoughts" on how the new regulation had created what we graciously considered unintended consequences. Specifically, the rule as it was promulgated had significant potential to undermine the technical benefit to MMS and exploration and production companies and the financial incentive of geophysical contractors, to reprocess seismic data that had been acquired under a geological and geophysical permit. A specific example was given of a geophysical company's 2-D non-exclusive data that was acquired back in the early 80's, that was in the 22nd anniversary of its original permit date and where the company had begun reprocessing the data in anticipation of marketing it to prospective licensees. The concern the company had was that their decision and significant investment they made to reprocess this data would, because of the new rule, allow prospective licensees to wait for the geophysical information to be released to the public. In this example, the release would have occurred within a couple of years, and would cause the loss of a sale, thereby inhibiting the recovery of investment and opportunity to profit from taking the risk. IAGC used this example in its letter to the Director because it best illustrated what was considered an unintended consequence. It was also clearly noted in the letter that rule change would have an unintended consequence relative to non-exclusive seismic in general and, that IAGC expected to identify more such examples as we poll our member companies.

As a follow-up to our letter to the Director, IAGC representatives and MMS personnel held a workshop in June 2006 with the IAGC providing the MMS with a more comprehensive understanding of the seismic business, including the principal business model used in the U.S. offshore, the evolution of computing capabilities which have facilitated to ongoing reprocessing of seismic data. The technical value and benefit to industry and the MMS of reprocessed data and the market interest in licensing reprocessed data. IAGC had hoped that the workshop would address and provide a greater understanding of the seismic business and correct many of the incorrect and ill informed assertions and conclusions MMS made in their response to IAGC. Furthermore, IAGC considered that the workshop and the workshop presentation material left with MMS to serve as the follow-up to our April 21, 2006 letter to the MMS Director, and fully expected them to be considered by the MMS should they draft a proposed rule to address the unintended consequences created by the May 1, 2006 rule; the rule to which we are now providing comments. A summary of the workshop presentation material is provided as an attachment to our comments.

Although it appears that MMS understood and adequately addressed the unintended consequence of the May 1, 2006 new rule as it would apply to seismic data reprocessed from data acquired under a permit that was in year 22 or greater, it did not address the overall impact such rule had on the reprocessed geophysical information business and

the intrinsic value and benefit reprocessed geophysical information has to the E&P industry and MMS. We respectfully submit the following comments and recommendations to further explain and support IAGC's and its member companies' concern with changes in the geophysical information proprietary term.

Executive Summary

1. IAGC appreciates the MMS' recognition that the existing rule covering the confidentiality term for geophysical information will discourage seismic companies reprocessing geophysical information that would be of benefit to the industry and MMS. Although IAGC is appreciative of MMS' proposal to provide an additional 5 years to the confidentiality period, we are disappointed that the proposal did not address all of the concerns we articulated in our letter to the MMS Director (April 21, 2006), as well as in the workshop held with the MMS in June 2006.
2. Specifically, it appears that MMS is only addressing 2-D reprocessed geophysical information associated with Alaska offshore, thus ignoring 3-D processed and/or reprocessed geophysical information in the Gulf of Mexico and the similar disincentive the May 1, 2006 rule is imposing on seismic companies and the investment decisions that will impact the continued robust activity in that area.
3. MMS' proposed rule making creates a new administrative and management burden on MMS of tracking these extensions and the geophysical data and geophysical information to which they apply. As this reverses and undermines the basic reason MMS gave for proposing the May 1, 2006 rule change in the first place, IAGC again urges MMS to consider and adopt our proposal made in our September 16, 2002 comments of providing two alternative for establishing the timetable for release of geophysical information retained by MMS, a proposal which provides the opportunity for a separate confidentiality period for each set of geophysical data and information while, we believe, addressing MMS' original stated reason for changing the rules governing the release of geophysical data and information. A copy of our original proposal is pasted into Attachment 2 for your convenience.
4. Additionally, we are concerned that MMS continues to demonstrate a misunderstanding of why and how often geophysical information is reprocessed, what is licensed to E&P companies and what is acquired and retained by the MMS - - especially 3-D reprocessed geophysical information in the Gulf of Mexico.
5. We request that the MMS not require a seismic company to apply for an extension and especially only after they have completed the reprocessing. We believe it is inconceivable that a seismic company would reprocess geophysical information that someone - - anyone - - at MMS would not consider reprocessed geophysical information and eligible for the 5 year extension to the confidentiality period. Furthermore a seismic company should not be expected to make an investment decision as to whether to reprocess geophysical information without knowing how many years the MMS will hold such in confidence. However, if MMS persists in requiring a seismic company to submit an application they should 1) allow the seismic company to submit the application as early as the 15th anniversary of the originating permit, and 2) the MMS should incorporate in the

rule the criteria the Regional Director will use in determining if the application for the additional 5 years is approved or denied.

6. We believe that MMS, by limiting the number of years for a seismic company to achieve a return on investment (the additional 5 years of confidentiality), will in some cases have the effect of forcing a price for reprocessed geophysical information on the seismic companies and the E&P industry that is disconnected from the market and inappropriate, resulting in a disincentive to pursue the reprocessing of geophysical information. For example, to justify its investment seismic companies may need to charge an unreasonably high license fee, which E&P companies may not be willing to pay.
7. Furthermore, we believe that this proposed rule poses some legal and policy issues that the MMS has not considered or adequately addressed. First, we believe the MMS has not fully considered the consequences of releasing geophysical information to the public. Specifically MMS is potentially breaching its obligation to hold geophysical data in confidence for 50 years should geophysical information is released to the public and is reversed-engineered to acquire the underlying geophysical data. Additionally, the MMS does not seem to have considered the use of that underlying geophysical data for the purpose of processing and licensing a marketable product (geophysical information) that would be free of any requirements of submission to the MMS since there is not a permit and attending regulations to support an MMS claim for such information.

Secondly, we believe that the MMS has not considered or adequately addressed, in this rulemaking, nor did it do so in the process leading to the May 1, 2006 rule, the implications of applying a new regulation retroactively to the confidentiality period for geophysical information. Almost all of the non-exclusive geophysical data submitted to and retained by MMS and still retaining significant value and use was acquired subsequent to the 1988 extension of the proprietary term. This 1988 extension resulted in a boom in the acquisition and availability of non-exclusive data in the Gulf of Mexico, and in MMS and the E&P companies enjoying all of the attendant benefits. But this data was acquired and information created based on a geological and geophysical permit issued to the seismic company that had both a CFR site as well as specific language stating in the permit how the confidentiality period would be determined by the MMS for both geological data and geophysical information. The language states that the 25 year confidentiality period for geophysical information would begin on the date that the geophysical information is submitted to and retained by the MMS. Accordingly, we question whether the MMS has the legal authority to enforce a proposed rule that changes a contractual agreement - - i.e. the geological and geophysical permit.

The following are IAGC comments and recommended changes to the specific language of the proposed rule.

1. MMS' proposed rule making creates a new administrative and management burden on MMS of tracking these extensions and the geophysical data and geophysical information to which they apply. As we have repeatedly stated, and continue to maintain, MMS' rule change, which shortens the confidentiality from the status quo existing prior to the May 1, 2006 rule change, will have a

chilling effect on nonexclusive data investment, and particularly that investment as it applies to reprocessing investments later in the life of a survey. This change also reverses and undermines the basic reason MMS gave for proposing the May 1, 2006 rule change in the first place. IAGC therefore again urges MMS to consider and adopt our proposal made in our September 16, 2002 comments of providing two alternative for establishing the timetable for release of geophysical information retained by MMS, a proposal which provides the opportunity for a separate confidentiality period for each set of geophysical data and information while, we believe, addressing MMS' original stated reason for changing the rules governing the release of geophysical data and information. A copy of our original proposal is pasted into Attachment 2 for your convenience.

2. If MMS chooses not to adopt IAGC's recommendation in Item No. 1, then we believe the 5 year extension should be guaranteed and provided for unconditionally for any reprocessed geophysical information that is completed beginning in the 20th anniversary of the originating permit. We believe an application process is an unnecessary step for the following reasons:
 - a. It adds unnecessary risk back into the investment decision - - risk we have been repeatedly trying to explain to MMS will have a chilling effect on this important investment. A seismic company should not be expected to make an investment decision as to whether to reprocess geophysical data or information without knowing how many years of confidentiality the reprocessed product (which is new geophysical information) will have. A decision of whether to make an investment of millions of dollars, will start to be considered, analyzed and evaluated several years in advance of beginning the reprocessing effort. Once the reprocessing effort begins, depending on the size of the survey being reprocessed and the complexity of the processing techniques to be applied, the reprocessing effort may take more than a year.
 - b. It wrongly implies that the seismic company may somehow be able to obfuscate the regulatory requirements of the original permit, submit geophysical information that is not in fact recently reprocessed geophysical information or submit geophysical information that is not reprocessed geophysical information.

Should MMS choose to retain the application process to obtain an extension of the confidentiality period of geophysical information, MMS should:

- a) in tracking the confidentiality period for geophysical information, at the completion of the reprocessing of the geophysical information, collect relevant information in the form of an affirmative statement;
- b) allow a seismic company to submit their application and receive the necessary approval (or denial) as early as the 15th anniversary of the originating permit.
- c) incorporate in the rule a comprehensive list of the criteria the Regional Director will use in making his/her determination. It is not clear from the reading of the proposed rule (including MMS' discussion of the proposed rule in the Federal Register notice) what criteria the Regional Director will use in his determination to approve or deny a seismic company's application for an extension of the confidentiality period. Without stated criteria, a seismic company will have added uncertainty/risk to account for in their analysis and determination of whether to make an investment in reprocessing geophysical information in the later years of an originating permit.

3. Notwithstanding our comments in item 1 above, it is not clear why MMS has included specific language in the proposed rule stating that separate applications must be filed for each extension. One possible explanation is that the language is addressing the eventuality of a permittee merging multiple surveys and MMS will use the information on the application to determine which permit date will be used when approving additional years of confidentiality. MMS addressed this possibility in the March 30, 2006 notice of Final Rule (FRN March 30, 2006 page 16036) in its response to comments, but failed to codify its response in the May 1, 2006 rule. This proposed rule seems to attempt to codify this by proposing to add the term "germane permit" to one portion of 251.14 (b) (1), but only refers to "permit" when specifying the date of release. IAGC recommends that term "germane permit" be consistently used.
4. MMS should expressly state as part of the regulation that the extension of the confidentiality period may be applied to other processed or reprocessed geophysical information derived from the same originating permit.
5. IAGC believes that proposing only an additional 5 years, while certainly appreciative, does not adequately address the concerns we articulated in our letter to the MMS Director and in the June 2006 workshop. We would recommend that an extension granted by the MMS should be no less than 7 years. Seven (7) years is a reasonable amount of time to ensure that a seismic company will achieve a return on their investment of the reprocessed geophysical information; create and maintain an incentive for the seismic companies to pursue and implement technological advances in processing that will certainly occur; which in turn will minimize the need for acquiring more costly new geophysical data that will be constrained by obstructions offshore and marine environmental concerns.
6. IAGC recommends MMS to add to the rule definitions for the following;
 - a. Germane permit
 - b. Date of completion of reprocessing
 - c. Processed geophysical information

The following are specific comments regarding the discussion MMS included in the Federal Register to explain the proposed rule as drafted.

1. In the Federal Register notice MMS states that they rarely select and retain "minimally processed" geophysical information, the type of reprocessed geophysical information that is of most interest and value to industry. IAGC is not clear as to what MMS believes is "minimally processed" geophysical information in terms of value to a licensee. Nonetheless, IAGC believes that it is not a relevant distinction to be included in the discussion of this proposed rule.

All processed or reprocessed geophysical information - - especially **reprocessed** geophysical information - - is of value to a licensee. Otherwise a seismic company would not make the significant investment in developing the product for market. And in regards to an operator (licensee of the geophysical information) applying their own processing techniques, it appears that MMS is failing to consider or fully appreciate that an operator must secure a license to geophysical information in

order for them to apply those additional processing techniques. The underlying value of the processed or reprocessed geophysical information is not diminished.

The instances of a licensee applying their own processing techniques should be considered the exception rather than the norm. In those instances where E&P companies perform their own processing or reprocessing of geophysical information they are licensing the raw data.

Furthermore, the majority of geophysical information licensed to E&P companies and submitted to and retained by the MMS is acquired, processed and reprocessed by seismic companies, and it utilizes/applies the same or similar (or even more) sophisticated processing techniques - in many cases advanced techniques that the E&P companies do not have. MMS states these sophisticated processing techniques are only performed by E&P companies, an assertion and premise which we categorically reject.

Lastly, IAGC understands from discussions with its member companies and with MMS Gulf of Mexico Region staff that many entire surveys, especially 3-D surveys acquired under permits beginning vintage 1995, have been acquired and retained by MMS.

2. MMS states that geophysical information submitted and retained by MMS was reprocessed to or near the final stages of the processing sequence and consequently "... it is basically not suitable for further processing and ... of little interest or value to industry ". IAGC disagrees entirely with this statement.

First, it is a routine occurrence that seismic companies are requested by and submit to the MMS geophysical information that the companies consider an intermediary product. To IAGC's members, an intermediary product is geophysical information that is provided to an E&P company under a valid data licensing agreement as it becomes available. These intermediary products are considered near term products that an E&P company often will use to perform their analysis and evaluation of prospects. Once the processing is complete, the seismic company will provide the final processed geophysical information to then he and key company, again under a valid data licensing agreement. The intermediary product has significant value and interest to the industry and to MMS.

In addition, most, if not all geophysical information that has been processed or reprocessed and submitted to MMS (or that will be processed or reprocessed and submitted in the future) includes data added as a convenience to the user that allows them to "work" the data on seismic data workstations. That additional data can be (and in our global experience has been) used by a third party to "reverse engineer" the processing, allowing them to effectively obtain the raw data at which point they can apply their own processing techniques and market products as their own. The ending result would be a total violation of a seismic company's intellectual property rights.

Furthermore, it would raise a question as to whether the MMS had any rights to that processed geophysical data and whether the MMS has breached it's

obligation to hold the raw seismic data in confidence for 50 years (refer to our earlier discussion on this point).

3. MMS states that most reprocessing by permittees (seismic companies) or third parties (presumably E&P companies) occurs in the first few years of the 25-year proprietary term and not near the end of the term when there is less time to sell, license or otherwise make use of the reprocessed information. IAGC disagrees entirely with this statement.

IAGC illustrated at the above mentioned workshop (attended by MMS headquarters, Gulf of Mexico and Alaska region staffs) that reprocessing of geophysical information can and does occur numerous times over a number of years. Reprocessing of geophysical information is driven by technological advances (computing technologies and new algorithms), greater understanding of the underlying geology that has been imaged, and the difficulties in executing data acquisition projects (obstructions and environmental). IAGC presented in the June 2006 workshop examples, which applies to all seismic companies, which clearly illustrate that both 2-D and 3-D seismic data acquired was reprocessed multiple times over as much as a 17 year period after the original permit date, thereby generating products of significant value to E&P companies and to MMS. Member companies also included examples in their September 2002 comments (e.g. TGS NOPEC). As computing capabilities continue to evolve allowing for more robust algorithms to be utilized by seismic companies, 3-D non-exclusive seismic surveys will continue to be reprocessed and those separate, derivative products separately licensed to E&P companies.

4. MMS consistently uses 1985 as a date in their example. Because 1985 is only relevant in instances of 2-D geophysical information, IAGC is concerned that MMS is not considering the implications of any rulemaking (past and present) on 3-D geophysical information. The recognition of 3-D geophysical information can not be overlooked.

2-D geophysical information submitted and retained by MMS was most likely in paper format, as opposed to 3-D geophysical information which was submitted in SEGY format. SEGY format became more widely used and preferred by the E&P companies for their use in workstations. The impacts on 3-D geophysical information by this and the May 1, 2006 rulemaking give seismic companies genuine and reasonable concern as to the protection of their intellectual property rights. Beginning in the 1990's most, if not all, of the Gulf of Mexico 3-D non-exclusive geophysical data acquired generating geophysical information (which covered virtually all of the Gulf of Mexico) has been submitted to and retained by the MMS year in its early form or in later reprocessed products (e.g. PSDM). And we believe any that might not already have been retained by MMS likely will be. Therefore, contrary to MMS' consistent assertion that much of our members' nonexclusive data will not be affected by the 2006 and proposed 2007 rule changes, much of it already is affected or ultimately will be.

5. The basis for the rule change proposed in July 2002 was to provide relief in administering the public release of geophysical information. However, MMS in this proposed rulemaking discusses proprietary terms for geophysical information in other jurisdictions (e.g. United Kingdom, Australia, and Norway). If an underlying

reason for this rulemaking and the one finalized in 2006 was to bring U.S. marine geophysical information proprietary terms into conformity with other jurisdictions then that should have been stated. It is an irrelevant comment when one considers that investment decisions regarding non-exclusive geophysical information generated in other jurisdictions use different metrics. And none of the jurisdictions mentioned enjoy the significant level of nonexclusive investment the US Gulf of Mexico enjoys. In fact, Australia's data release terms were so onerous that by 2003 our industry, as we predicted to Australia's regulators, stop investing in nonexclusive data in Australia altogether. As a result, in late 2006 Australia amended their nonexclusive data confidentiality guidelines improving them substantially. Our members are again making not excluded it data investments in Australia as a result.

6. MMS has estimated that over the first 5 years after this rule becomes effective, revenue generated by licensing or selling geophysical information reprocessed 20 or more years after a germane MMS permit and for which MMS extended the proprietary term would be in a range from \$3 to \$25 million (assuming 15 surveys). Furthermore, that the range of values would depend on the number of lease sales in areas where eligible vintage geophysical information exists, mostly in Alaska OCS. There are a couple of points to be made here.
 - a. How did MMS calculate this number? Neither IAGC nor member companies were consulted by MMS regarding this estimate. MMS has assumed 15 surveys during the first 5 years will generate an average of approximately \$950,000 in revenues (per survey). IAGC members question these estimates.
 - b. Why did MMS only assume Alaska offshore? Geophysical data in other offshore regions is also impacted by this proposed rule. There is seismic data acquired in the GOM that is nearing the 25 year period from the date of the original permit. The concerns IAGC had with the rule effective May 1, 2006 and that were articulated in our letter to the MMS Director and discussed and illustrated in the June 2006 workshop with MMS did not only apply to Alaska offshore geophysical information. Including GOM 3-D geophysical information in the calculation will increase the impact of this rule significantly.
7. MMS states that the proposed rule would not raise novel legal or policy issues. IAGC respectfully disagrees with that statement in two areas.

First, we believe that the MMS has not considered the potential breach of MMS' obligation to hold geophysical data in confidence for 50 years (i.e. should geophysical information released to the public be able to be reversed-engineered, as we have experienced, this will allow someone to acquire the underlying geophysical data - see our earlier discussion on this point).

Additionally, when someone "reverse engineers" released geophysical information, reprocesses it and markets it to the E&P industry, we'll that geophysical information not be free of any requirements of submission to the MMS similarly required of the original permittee? MMS could assert they are entitled to the geophysical information, but there is not a permit nor attending regulations to support that claim. In the end, that individual would be treated differently than the original permittee, and arguably preferentially, and this situation clearly raises legal and policy issues.

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Once again, the IAGC appreciates MMS efforts to develop and propose the subject rule, as well as the opportunity to provide MMS with our comments and recommendations on it. If you have any questions, require clarification on what we have submitted or need additional information, please call Mr. Walt Rosenbusch at IAGC's Houston office, (713) 957-8080.

Sincerely,

A handwritten signature in black ink, appearing to read "gcgill". The signature is written in a cursive, somewhat stylized font.

G. C. Gill
President

Attachments

Cc: Mr. Walt Rosenbusch

Attachment 1
Summary of June 2006 Workshop Presentation

1. A brief historical overview of non-exclusive seismic data was presented. The purpose of this overview was to put the later material in context.
 - a. Prior to the 1980's, primary business was proprietary seismic
 - b. 2-D non-exclusive was occasionally acquired and generally acquired in frontier areas
 - c. 2-D non-exclusive was purely a secondary business
 - d. Early 1980's--a few seismic companies began acquiring, processing and licensing high-quality non-exclusive 2-D seismic in the US GOM and North Sea
 - e. Middle 1980's--significant quantities of modern non-exclusive 2-D was available at attractive prices, good design and high quality
 - f. More and more of the seismic business shifted from the proprietary business model to the non-exclusive model, particularly in the GOM.
 - g. By the end of the 1980's, the majority of all marine 2-D data in the world was being collected on a non-exclusive basis
 - h. Data quality was exceptionally high which meant better sales and longer shelf life
 - i. Acquisition technology and performance specifications on non-exclusive surveys were often superior to those on proprietary surveys
 - j. Throughout the 1980's, 3-D seismic technology and methodology was rapidly evolving
 - k. Initially acquired only under the proprietary business model - - later, as technology brought the volume cost down, several seismic companies began to acquire non-exclusive 3-D data
 - l. With the change in MMS proprietary rule in 1988 as well as the leasing regime in GOM, 3-D non-exclusive seismic business began
 - m. By the middle of the 1990's, the non-exclusive business model was dominating 3-D data acquisition in the GOM
 - n. By 1995, owners of 3-D non-exclusive data started applying new processing technology to the early data acquisitions to better image below the salt.
 - o. Also, by 1995, 3-D non-exclusive seismic data was being acquired for deepwater GOM
 - p. The majority of all 3-D seismic data acquired and licensed in the GOM is non-exclusive

2. IAGC presented and discussed the two business models in use by seismic companies.
 - a. The Contract Model is almost exclusively used outside of U.S. offshore. A seismic company provides the vessel and crews to acquire the data for an E&P company. An E&P company pays full cost for the project and owns the data. Pricing is dependent on supply and demand of vessels and crews.
 - b. The Non-exclusive Model is the principally used in U.S. offshore. A seismic company develops, manages and conducts the projects and owns the seismic data. Seismic companies bear all costs and risk associated with the project. Financial risk is mitigated by obtaining pre-financing from future customers of the processed seismic data. E&P companies purchase

licenses to use the data at a fraction of the project cost. This model allows "value pricing" to licensees and resultant earnings to the seismic companies are much higher than the Contract Model.

3. Investment risks from a data owner's (Non-exclusive Model) perspective were presented and discussed.
 - a. Technical – new technology will render data obsolete
 - b. Geologic – trend plays out, prospectivity proves limited, etc.
 - c. Competitive – competitor will acquire competing survey
 - d. Regulatory
 - i. Access for E&P companies will be impaired or eliminated (e.g. EGOM, LNG sitings, wind farms, California OCS, etc.
 - ii. MMS will retroactively change rules again detrimentally
 - iii. MMS will shift approach to data to favor E&P companies (re-interpret all the little stuff that doesn't require rule change in E&P company favor--e.g. restrictions on data viewing).
 - e. Market risk – e.g. consolidation of customers
 - f. Commodity price risk – overall effect on customer spending
 - g. Violations of licensing terms and ownership rights
4. The uses of non-exclusive seismic data include exploring for and finding new reservoirs, developing new or existing fields and extracting more hydrocarbons from existing fields.
5. The value of 3-D non-exclusive seismic data
 - a. Lowers the economic barriers to exploring for and producing oil and gas in the offshore - - allowing for greater competition
 - b. Lowers the barriers to entry into riskier and often more expensive plays
 - c. Allows E&P companies to prospect on a trend wide or regional basis
 - d. Facilitates higher exploration and development drilling success rates
 - e. Improves the quality of decisions re: exploitation and development while also reducing the cost of poor decisions
 - f. Improves market value and allows conservation determinations for MMS to be made more easily and with greater confidence.
6. Discoveries using Non-exclusive Data
 - a. All deep water fields discovered in the last 10 years in GOM
 - i. Atlantic
 - ii. Mad Dog
 - iii. Thunder Horse
7. Seismic reprocessing initiated due to:
 - a. New processing & imaging technology becomes available
 - b. Existing data are insufficient to meet the needs
 - c. Higher resolution (appraisal drilling)
 - d. Increased amplitude fidelity (AVO & fluid properties)
 - e. Better structural positioning (subsalt imaging)
 - f. Emergence of new play concepts (deep gas)
 - g. Funding becomes available (non-exclusive projects)
 - h. Evolution of Deepwater Gulf Of Mexico Seismic Imaging

8. Supercomputer Peak Performance and its contribution to the processing and reprocessing capabilities were discussed utilizing a slide that illustrated the exponential growth in computing speed.
9. The evolution of seismic processing and reprocessing was illustrated showing the various processing techniques that have been, currently are and will be applied to seismic data. This substantiated IAGC's point that the same seismic data acquired can and has been reprocessed numerous times to generate market driven products.
10. Several slides of reprocessed seismic data were shown and discussed to illustrate the value of reprocessed seismic data.
11. Two slides were presented and discussed that clearly illustrated that 2-D and 3-D non-exclusive seismic data acquired under a permit from the MMS have been reprocessed numerous times - - each reprocessing effort enabled because of improved computing capabilities and driven by market demand (i.e. what the E&P companies were asking for and needed).
12. The unintended consequences of MMS' modification of 30 CFR 250 and 251 – Data Disclosure Rules.
 - a. Prior to March 30, 2006
 - i. Geophysical Information was kept confidential by MMS for 25 years from the time MMS received the data
 - ii. By default, each reprocessed data set had a 25 year confidentiality period due to the fact that the data could not be received by MMS until it was completed
 - b. Post March 30, 2006
 - i. Geophysical Information kept confidential by MMS for 25 years from date of permit. Ruling is retroactive
 - ii. This rule greatly hinders the reprocessing of seismic data sets by significantly reducing the period of time that the reprocessed data will be kept confidential
 - iii. Not just late-in-life reprocessing. Effect is magnified as you go through timeline.
13. Summary – Seismic Reprocessing in GOM
 - a. Processing and imaging technology continues to advance
 - b. Increasing reprocessing demands for subsalt imaging
 - c. Majority of reprocessing are using non-exclusive data
 - d. Processing & imaging R&D has shifted to seismic companies (data owners)
 - e. Advances in computing technology further speed up the pace of reprocessing
 - f. Co-existence of products from different effort levels
14. Summary
 - a. Most all of the original processed data and re-processed data are requested and retained by MMS
 - b. The spirit of the previous and new data disclosure rules allow for 25 years confidentiality for geophysical information-with the change, that changes

- c. Past and current investments in new processing technology have been based on previous rule.
 - i. Future investments – it will be 25 years from permit, regardless of status of MMS request and retention.
 - ii. Value of reprocessing investment starts eroding well before the 25 year release point

Attachment 2

In the comments IAGC submitted on September 16, 2002 in regards to the July 17, 2002 proposed rule published in the Federal Register (67 FR 46942) also concerning the proprietary term of geophysical information, we proposed two alternatives to resolving the complicated and burdensome process of determining and accounting for the confidentiality period for geophysical information. Those two alternatives are again proposed to MMS:

- The first alternative was the same as in the proposed rule.
- The second alternative entitled the geophysical information owner/creator to a 25 year confidentiality period commencing with the date of completion of processing or reprocessing of the data with respect to that product only (doesn't affect any previously established confidentiality periods such as those which might already be established for the underlying geophysical data which is reprocessed). The geophysical information owner/creator must meet the following conditions to be entitled to the 25 year confidentiality period. The conditions which must be met are as follows:
 - Product must meet the definition of geophysical information
 - The geophysical information owner/creator must make successful application to MMS – an Application For 25 Year Confidentiality Period – which includes the following information:
 - Identification of the geophysical information – area, product name;
 - Identification of the original permit date – if there are more than one, the geophysical information owner/creator may request to use any one to apply and MMS will, in the absence of compelling reason to the contrary, grant such request;
 - Identification of the date of completion of processing or reprocessing geophysical information;
 - Certification as to the accuracy of information contained on the application.
 - MMS would be encouraged to develop a form and method of transmittal (internet based data entry) which will allow geophysical information owners/creators to make application electronically and allow MMS to easily receive such information and easily transfer such application information in database so as to enable MMS to quickly build a data store of information contained on these applications.
 - An application may be made within one year of adoption of MMS' new rule that includes multiple sets of geophysical information on one application. Thereafter, applications will only be for confidentiality periods for single sets of geophysical information.
 - Lastly, there would be a grace period of 1 year from the date the rule became final of one year from the date of completion of processing/reprocessing, whichever is later, for geophysical information owners/creators to submit Applications For 25 Year Confidentiality Period. After that time they will be prescribed from making applications and will be governed by the confidentiality period created under the first alternative.