## This note provides a business driver behind M-OSRP sponsorship.

M-OSRP has provided the most capable, effective and now widely used methods, algorithms and codes for eliminating free surface multiples and for attenuating internal multiples.

The one single characteristic that separates those distinct M-OSRP algorithms from all other multiple attenuation methods developed from other consortia and service companies is that they require no subsurface information. And now all the major service companies provide those algorithms that came from M-OSRP as a standard service for on-shore and off-shore plays.

Although, that's good and positive news for the algorithm, and for our group, and for service companies like Schlumberger, PGS, CGG,... and their oil company clients, nevertheless that current top of the line capability, delivered by M-OSRP, has its own very serious and substantive issues and shortcomings.

Among issues are: in the presence of proximal or interfering events , and/or when there are numerous multiple generators the current delivery from M-OSRP can and will fail, and that failure can contribute to dry-hole drilling.

Those outstanding issues and drawbacks and deficiencies that the current internal multiple delivery possesses can and will adversely and negatively impact E&P effectiveness, and can impede and hinder successful exploration, appraisal and development drill placement.

M-OSRP is developing the next generation of internal multiple capability that will not suffer the problems and limitations of the current delivery. The 2015 Annual Technical Review June 4, 5<sup>th</sup>, 2015 described that plan and presented our progress.

Please keep in mind : the current top of the line internal multiple capability did not come from service companies or other consortia, and far more importantly, only M-OSRP has the potential, capability and chance (by its background and experience) to develop the urgently needed next generation of step change increased capability and effectiveness. Providing that next level of improved and more effective prediction, without subsurface information, will require returning to the inverse scattering series to locate the terms that provide the exact amplitude and phase of all orders of internal multiples, at all offsets.

Either M-OSRP will pioneer, develop and deliver it, or it won't happen. It's really that simple, and it's a key business driver behind M-OSRP sponsorship.

Equally important, sponsorship allows access to world-class, well-educated and highly capable students, for internships and employment.

I thought that this note might be relevant, useful and timely in these times of heightened scrutiny of budgets, expenditures and ROI. I thank you for your encouragement and your support.

Best regards, Art

Arthur B. Weglein

**Executive summary video**: the M-OSRP delivered added value and documented E&P impact, March 9, 2015

http://mosrp.uh.edu/news/mar-9-exec-summary-video