

28 CANALS, CUTOFFS, AND
THE VICKSBURG CAMPAIGN

34 MILITARY GEOTECHNICS
IN THE ANCIENT WORLD

40 CRACKING THE
NUCLEAR CODE

54 REMOTE
SENSING

GEOSTRATA

JANUARY // FEBRUARY 2016

Military GeoTechnics

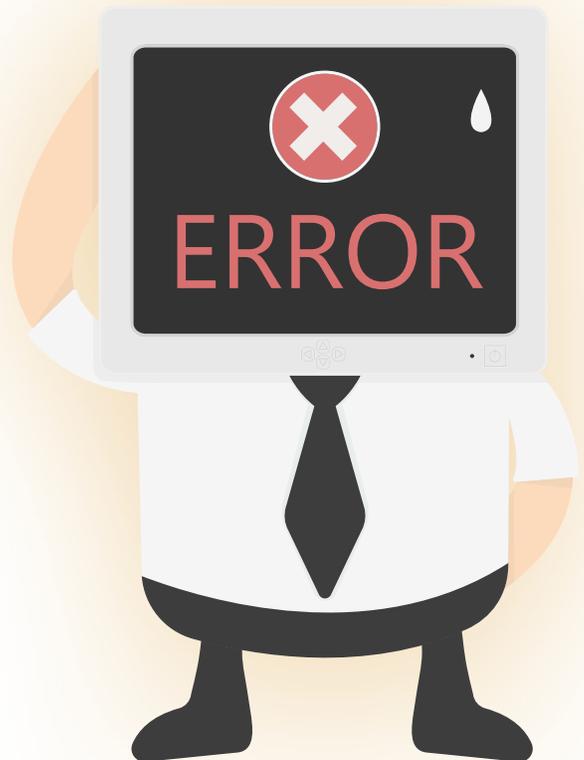




Don't Say That!

By John P. Bachner

People worldwide regard professionals as the best society has to offer: well-educated, experienced, learned, even-handed, calm, and, of course, able to communicate well, both orally and in writing. As you no doubt are (or most certainly should be) aware, the “write well” part may be the most important attribute of geoprofessionals, because – in geoprofessional practice – a failure to write well can result in a penalty far more severe than a tarnished image: A dispute. A claim. Subpoenas. Insurance issues. Research. Anxiety. Sleeplessness. Lawyers. Experts. Discovery. Unpleasant surprises. Frustration. Aggravation. More lawyers. And that’s long before the issue of settlement gets raised. Because, for geoprofessionals, instruments of professional service – starting with the proposal – are in writing. In fact, geoprofessionals write more than any other professionals do, and, thanks to the wonderful world of IT, just about every word you write – every proposal, every report, every e-mail, and every text – lingers forever, residing in servers in the cloud. And that makes for a truly scary scenario, because, for the most part, geoprofessionals are not particularly good writers (they usually start avoiding English composition around grade six or seven) and they don’t like writing enough to want to get better.



You are probably far more at ease focusing on all the technical stuff you love, which is why you read this magazine in the first place. But you need to know a lot more than the technical stuff if you want to keep loving the stuff you love to do.

I understand geoprofessionals' desire to avoid English composition. I don't condone it, of course, because geoprofessionals are more than just professionals, like lawyers, physicians, clergy, accountants, and such; in fact, geoprofessionals are the most important professionals on Earth, because they are our planet's custodians. Besides, not being among the world's best writers is hardly a sin or fatal flaw, but there are limits, soon reached should you use words or phrases that you should *never* in your professional capacity use, because they could trigger the onset of that severe penalty I mentioned above. And speaking of "never use," the following four words and phrases fit that bill precisely, for liability reasons in particular:

In general compliance with..., In general accordance with..., and phrases of that ilk. They mean... what? As near as I can tell, they mean, "We're aware of the standard way, and we probably didn't do everything, but we complied with most of it." Well, if that's "kinda' sorta'" what it means, don't you think you should make me – the client representative – aware of just which elements you're going to forgo and why, to ensure you have my buy-in and approval? I think so. That's why I recommend that you not use this expression, lest it becomes too comfortable — kind of like a security blanket that can get you into a whole lot of trouble.

A number of... "Well, we don't know how many rocks there are down there, but we know, if you could count 'em, you'd get a number." My "number of" is not your number of. Result: We instantly miscommunicate whenever we say "A number of..." Try using a real number or an approximate range. And if you don't know, say so; i.e., "We can only guess at the number of rocks at the ten-foot level, based on our experience in the geographic area. We strongly recommend that you not rely on guesswork and, instead, conduct the additional sampling required to develop more reliable data."

Several: That falls into the same category as *a number of*. I don't know how others interpret the word, but I usually assume it's less than *a dozen or so* but more than two. Again, give a range.

Maximize, Minimize: People commonly use these words to mean make larger or smaller. They actually mean make as large or as small as possible. If that's not the thought you intend to convey, use different, more accurate words, like *enlarge* or *increase* and *reduce* or *shrink*.

The next six entries exemplify improper professional terminology, i.e., you're a professional; communicate like one!

Work: Professionals do not provide, do, or perform work. Work is something constructors do. Professionals *perform a service*.

Product: A geoprofessional report or a set of plans and specs is not a product. Either is an *instrument of professional service*, a vehicle through which professionals make their service manifest and usable. Either could also be termed a deliverable, which is a far less satisfying, far more general term, as applicable to a geoprofessional report as it is to a package from Amazon. ***Important:*** Note that professionals are subject to the negligence-liability doctrine. If a trier of fact – a judge or jury – finds that a professional failed to meet the standard of care and, as a consequence, someone was injured or damaged, the professional would be judged negligent and be liable for it. If a trier of fact finds that an instrument of professional service is, by virtue of the professional's nomenclature, a product, then product liability (a.k.a., strict liability) would apply. In that case, the professional would be found at fault simply because the "product" did not work as it should have. Professional liability does not cover strict liability, unless the liable ruling was reversed on appeal, which would be

likely. (But who wants to go that far?)

Job: Professionals do not do jobs, despite those plastic surgeons who cannot help but refer to their interventions in such terms, as in nose job, neck job, and eye job. Geoprosessionals *accept* or *perform commissions* or *projects*.

Customer: I realize that “customer relations” is a valid term (marginally so in the case of professional-practice environments) to describe a collection of procedures and attitudes one should adopt to make client representatives feel appreciated and respected. However, professionals do not have customers; they have *clients*.

Client: A client is the entity that commissions and pays for your services. Seldom is it a single person. The person whom you take to lunch is therefore not a client, but rather a *client representative*.

Hire: Clients do not hire geoprosessionals; they *retain* them.

Be advised that you can get help with this and many other practice issues from the Geoprosessional Business Association. True: You are probably far more at ease focusing on all the technical stuff you love, which is why you read this magazine in the first place. But you need to know a lot more than the technical stuff if you want to keep loving the stuff you love to do. 

▶ **JOHN P. BACHNER** served as the executive vice president of the Geoprosessional Business Association (GBA) from 1973 through 2015. GBA is a not-for-profit association that develops programs, services, and materials to help its member firms and their clients confront risk and optimize performance. GBA-Member Firms provide geotechnical, geologic, environmental, construction-materials engineering and testing (CoMET), and related professional services (en.wikipedia.org/wiki/Geoprosessions). GBA invites geoprosessional constructors, educators, and government officials to become involved. Contact GBA at info@geoprosessional.org. Contact John at john@bachner.com.

EMPLOYMENT

EOE M/F/D/V

Senior Technical Manager (Civil Engineer)

One of the nation’s largest and most dynamic nonprofit organizations is currently searching for a civil engineer to provide technical and product support within our Geo-Institute. Do you like working with others who are passionate about their work? We are looking for the right person to join our team of professionals providing geotechnical engineers with the resources they need to advance their careers.

The American Society of Civil Engineers (ASCE) is a nonprofit professional membership association dedicated to the advancement of civil engineering in order to serve the public good. For consideration, submissions of interest must contain a resume and cover letter with salary history and requirements.

Responsibilities include:

- ▶ Serving as liaison to technical, board, and editorial board committees
- ▶ Working with regional and allied groups on collaborative technical activities
- ▶ Facilitating the development of manuals of practice, technical briefs, short courses, workshops, webinars and seminars
- ▶ Managing, developing, and enhancing geotechnical guidance documents and standards
- ▶ Managing the production, and developing sections of our bi-monthly *GEOSTRATA* magazine

The ideal candidate will have:

- ▶ A BS in Civil Engineering (Master’s preferred)
- ▶ Five to eight years’ experience (association experience a plus)
- ▶ PE license preferred (or ability to obtain within 1 year)
- ▶ Experience (or an interest) in geotechnical engineering

To apply, go to: <https://asce.applicantpro.com/jobs/318125.html>