Closure to "Discussion of 'New First-Order Shear Deformation Plate Theories'" (2008, ASME J. Appl. Mech., 75, p. 045503)

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The authors are grateful to Professor Simmonds for giving his observations on the paper under discussion. They would like to present their comments on his observations.

1. The authors' comments on the first paragraph (which starts with "This paper joins a host of others,…") of observations by Professor Simmonds:
   (a) The observations in the just mentioned paragraph are not specifically directed toward the paper under discussion, but are directed, in general, toward host of papers (beginning with the seminal papers of Reissner) wherein boundary edge effects are not specifically taken into account.
   (b) The observations imply that as Reissner does not address the boundary edge effects, refinement brought in by his work is illusory. However, at the same time, the papers of Reissner are referred to as "seminal papers." The authors detect contradiction in the observations.
   (c) The authors do feel that the works of Reissner and host of others (including the work of Mindlin) have positively contributed to the research in the area of theory of plates. All these theories, in general, have their own importance and are useful in practice.
2. The authors' comments on the second paragraph (which starts with "Often, authors of "improved" plate theories compare solutions…") of observations by Professor Simmonds:
   (a) The observations in the just mentioned paragraph are also not specifically directed toward the paper under discussion, but are directed, in general, toward "all authors of 'improved' plate theories who compare solutions of their equations under simple support either to other theories or to exact three-dimensional elasticity solutions."
   (b) The observations, in the mentioned paragraph, do not deny that exact three-dimensional elasticity solution for a simply supported plate does exist.
   It is well known that, in the domain of linear theory of elasticity, there cannot be a more accurate solution for a given problem than the solution given by exact three-dimensional elasticity.
   It is just a sheer coincidence, and it is also just incidental, that the exact three-dimensional elasticity solution for a simply supported plate also happens to be the solution for an infinite plate under periodic surface loads. As a result, authors of various theories cannot be faulted for comparing their results with the exact results, wherever available, for validating their theories.

The authors would like to stress that they have named their theories as "New First-Order Shear Deformation Plate Theories," and as such they would like the theories presented to be viewed only as simple alternatives to Reissner's theory and to Mindlin's theory. The advantages of the new theories presented have been clearly brought out in the paper under discussion.

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