When A is orthogonal as we have

$$AA^T = I$$

=> The inverse computation of A becomes trivial. It is simply the transpose of A.

Because of this solving equations involving orthogonal matrices is fairly easy.

$$x = A^T b$$

=> Secondly, orthogonal matrices exhibit a condition number = 1.

This is the best possible condition number.

Hence, for small perturbations in b we can be assured that the sol^n x wont change by a large amount. Thus, we have stable solutions when dealing with orthogonal matrices.