

SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)  
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THE NAVIGATION SATELLITE ATTITUDE CONTROL METHODS INTRODUCTION AND THE  
EFFECT ON THE ANTENNA PHASE CENTER

**Abstract**

There are several yaw attitude control strategies for different navigation satellites. When navigation satellites change yaw attitude control strategies, the orbit determination accuracy will decline. There are many factors affecting orbit determination accuracy, including solar radiation pressure model error, orbit determination model error and antenna phase center bias. This paper just analyzes the effect on antenna phase center caused by attitude control strategies. At begin, we introduce two attitude control strategies, and compare them. Then we analyze the effect on antenna phase center caused by different attitude control strategy through pseudo-range difference, and get some simple conclusions at last.