

THE WSMR TIMING SYSTEM: APPROACHING THE HORIZON

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Abstract

Over the past couple of years, WSMR has made significant strides in modernizing its Timing System. WSMR has purchased a new Master Timing Generation System (MTGS) to replace a thirty-five year old system. Specifications were written and requirements contracts were developed for Timing distribution equipment which includes Synchronized Time Code Generators (STGs), Versatile Timing Amplifiers (VTAs), and distribution units. This paper will explain why particular designs were chosen, the significance of the MTGS in the WSMR Timing System, and the difficulties associated with implementing a modernization plan.

Introduction

Significant modernization of the WSMR Timing System has not occurred for over twenty-five years. Yes, there have been improvements made, but most of them were from the modification of equipment and small purchases of hardware (mainly for programs with special needs). Over the last three years, however, Timing personnel have worked diligently to find ways to modernize. They developed and adopted a plan that clearly states the goals required for modernization and they established a mechanism to purchase new equipment when funds became available. In 1997, Timing reached one of their stated goals with the purchase and installation of a new Master Timing Generation System (MTGS). This new MTGS replaces a system that's been in service since 1962, which is only a few years older than some of the Synchronized Time Code Generators (STGs) used on the Range. Timing now has fifteen new STGs on hand and will need to purchase and install another three hundred and fifty before fulfilling the current needs.

Another activity that will improve the Timing System's effectiveness and reliability is the consolidation and reduction of Timing facilities. Timing has already started this process by installing the new MTGS at C-Station. C-Station is the current maintenance facility that will eventually house all of the clock, generation, and distribution equipment that resides at Uncle 2 (Present Master Timing Station). This will allow the Timing manager to more efficiently use the available personnel by drawing on the combined resources of both groups from one location. Additionally, Timing has closed several distribution stations and reduced the number of communication circuits required to carry Timing signals. These actions described above are all part of an ongoing process to try and improve the entire Timing System at WSMR. The following paragraphs will discuss in greater detail some of the changes that have occurred in the Timing System at WSMR, and how these changes have improved and provided the foundation for modernizing the Timing System.

