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C-A OPERATIONS PROCEDURES MANUAL

5.23 Pre-Beam RF Systems Checkout

Text Pages 2 through 4

Attachments

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: \_\_\_\_\_ *Signature on File* \_\_\_\_\_  
Collider-Accelerator Department Chairman Date

P. Sampson

## 5.23 Pre-Beam RF Systems Checkout

### 1. Purpose

The purpose of this procedure is to provide the Main Control Room (MCR) operators with instructions for checking out the RF systems for the C-A complex.

### 2. Responsibilities

- 2.1 The MCR operators are responsible for executing this procedure when instructed to do so.
- 2.2 The Operations Coordinator (OC) is responsible for insuring the accurate execution of this procedure.
- 2.3 The OC shall initiate corrective actions to problems encountered during execution. These include:
  - 2.3.1 informing the appropriate systems specialist of problems,
  - 2.3.2 logging problems in the OC Log,
  - 2.3.3 editing the attachments of this procedure, when necessary, to reflect any special situations or modifications, and
  - 2.3.4 signing each attachment of this procedure when completed.
- 2.4 The MCR Group Leader (GL), or Deputy GL, may authorize the omission of sections of this procedure by marking them N/A on the [C-A-OPM-ATT 5.23.a.](#)

### 3. Prerequisites

Systems specialists have handed all relevant systems over to the MCR as operational.

### 4. Precautions

MCR Operations will follow all applicable operational safety precautions while completing this procedure.

## 5. Procedure

**Note:**

The Booster, AGS and VHF RF systems must be signed off by a systems specialist prior to checkout by MCR staff.

- 5.1 Booster RF Checkout. For each of the following steps, check the appropriate section of [C-A-OPM-ATT 5.23.b](#).
  - 5.1.1 Start the application `BoosterRFBeamControl' and all of the functions listed in [C-A-OPM-ATT 5.32.b](#).
  - 5.1.2 Get the `LIVE' functions and insure they are identical to the loaded functions.
  - 5.1.3 Check that mux signals for the R.F. are as expected.
    - 5.1.3.1 In order to determine if an observed signal is correct, check the STORE manual.
    - 5.1.3.2 If functions other than STORE have been loaded, a system specialist will provide the MCR with the expected waveforms.
- 5.2 AGS, RF and VHF CHECKOUT. Check the appropriate entry in [C-A-OPM-ATT 5.23.a](#) after each of the following steps are completed:
  - 5.2.1 Start the application `AGSRFBeamControl'. And load all functions listed on [C-A-OPM-ATT 5.23.a](#).
  - 5.2.2 Repeat steps 5.1.2 and 5.1.3.
  - 5.2.3 VHF CHECKOUT
    - 5.2.3.1 Using the applications code `VHFControl', load the STORE for desired function.
    - 5.2.3.2 Connect the mux signals listed in the VHF section of [C-A-OPM-ATT 5.23.a](#) to a scope and observe them.
      - 5.2.3.2.1 Use the STORE document to determine whether all of the signals are as expected.

5.2.3.3 Complete the appropriate section of [C-A-OPM-ATT 5.23.a](#).

5.2.3.4 Comment on unexpected observations in the area provided.

**6. Documentation**

6.1 The attachments for this procedure will be held in a binder in the MCR and contains all of the completed work as well as a list of problems encountered.

6.2 The OC will report progress made for each shift to the next shift by documentation in the OC Log.

**7. References**

7.1 C-A-OPM, Chapters 6 and 8.

**8. Attachments**

8.1 [C-A-OPM-ATT 5.23.a, "AGS RF and VHF Checkout"](#).

8.2 [C-A-OPM-ATT 5.23.b, "Booster RF Checkout"](#).