NSTX Availability Statistics

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The statistics are presented in the Excel workbook labeled NSTX Availability Stats. The data on the sheet labeled "Daily Statistics" is dumped directly from the 4D NSTX Operational Log Database. In general, this data would have limited interest for the reader.

Information on the other sheets of the workbook is given below.

Availabilities

This worksheet contains the availability for NSTX and each system.

For NSTX:

NSTX must always be in one of six states. They are:

Offline	NSTX is not running. Typically used for TFTR to record dinner time.
In testing (up state)	Test shots are being run
In plasma operations (up state)	Plasma shots are being run
In physics planning (up state)	Able to run. Waiting for further information from physics before continuing operations.
Down (down state)	At least one system is down and NSTX is not able to run.
Down - In CA (down state)	At least one system is down and in controlled access. NSTX is not able to run.

For any given time period, the availability of NSTX is the ratio of the amount of time that NSTX was in an up state to the amount of time NSTX was in either in an up state or down state. Offline time is not included in the availability calculation.

For the systems:

Each system must always be in one of five states. They are:

Offline	The system is offline and not being used by NSTX.

Up	The system is up and available to support NSTX.
Down	The system is down. NSTX cannot run until this system is again operational.
Down - in CA	The system is down and responsible for the current controlled access of NSTX
Down - Unavailable	The system is down but NSTX is still operational. NSTX would have used the system had it been available.

For any given time period, the availability of system is the ratio of the amount of time that the system was in an up state to the amount of time that the system was either in an up state or down state. System offline time is not included in this calculation, but down - unavailable time is included as down time.

Shot Statistics

This worksheet contains the shot statistics for NSTX. The following are given:

- The number of plasma attempts
- The number of these plasma attempts that completed
- The number of these plasma attempts that disrupted
- The number of these plasma attempts that fizzled
- The number of these plasma attempts that were aborted
- The number of these plasma attempts that were classified as "other" by the COE.

Each completed shot is classified according to its type. Shots may be ohmic, CHI, or both. In addition, each completed shot may have NB and/or HHFW auxiliary heating. The results in twelve different classifications for each shot. The worksheet lists the number of completed shots in each of these twelve classifications.

Information on Downtimes

Systems are declared down and correspondingly up by the COEs. This tab contains information about each occurrence. It is sorted by system, date, and time. The duration of the downtime (hh:mm:ss), the type of downtime (down, down in CA, down-unavailable), the comments on the record entered to declare the system down, and the comments on the record entered when the system is declared up are given.