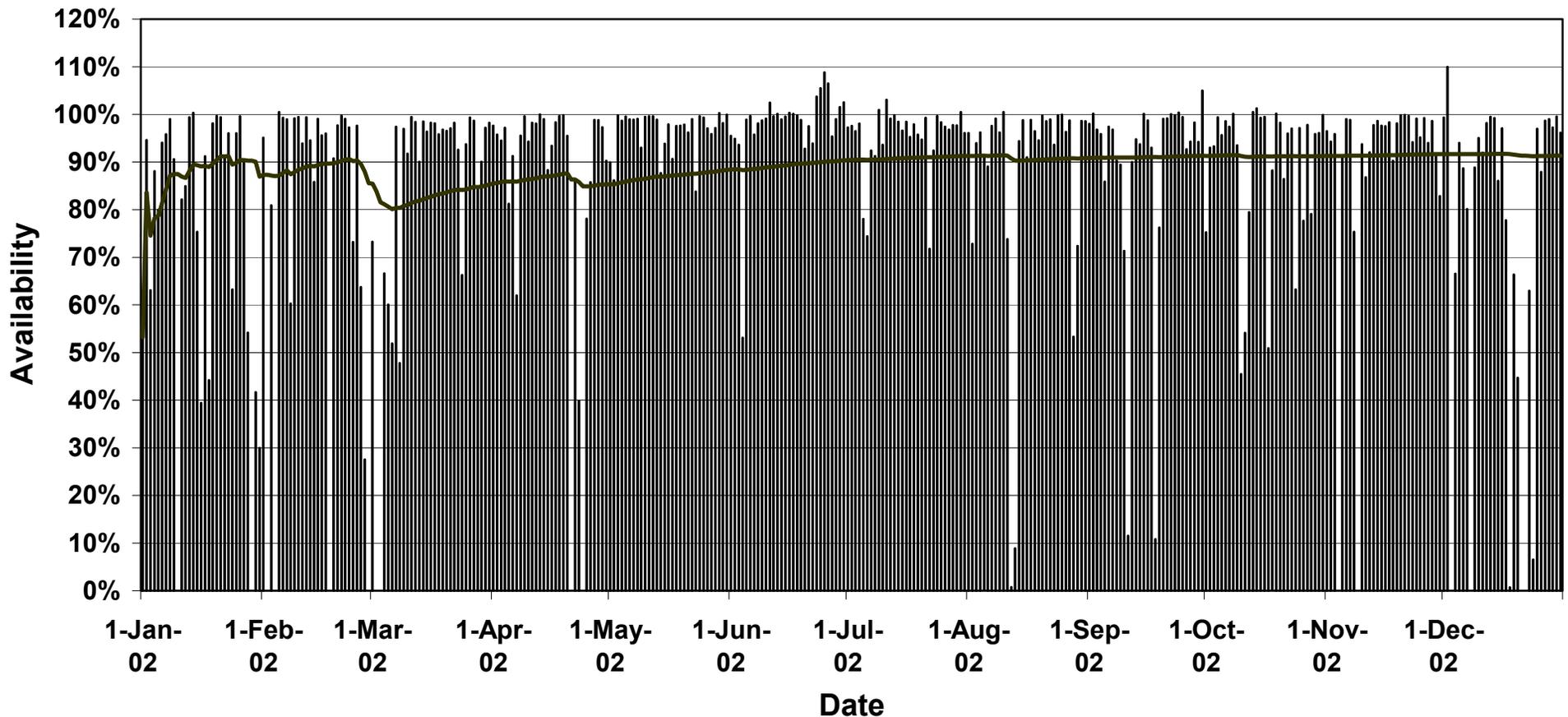


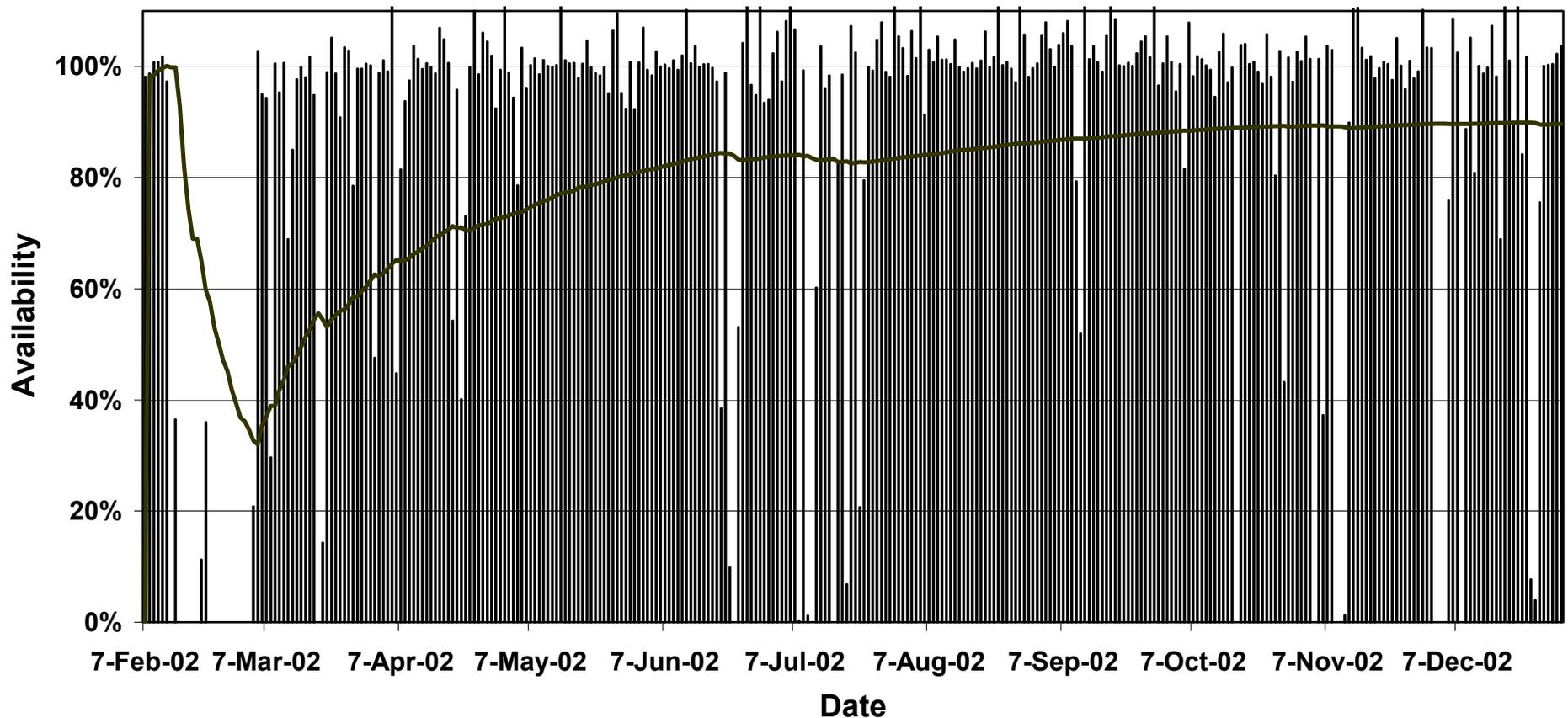
Summary of 2002 Performance Highlights of the First-Generation (Mod 1) Grid-Connected and Second-Generation (Mod 2) Off-Grid Water Pumping Advanced Dish Development System (ADDS)

Mod 1 Daily and Cumulative Availability 2002



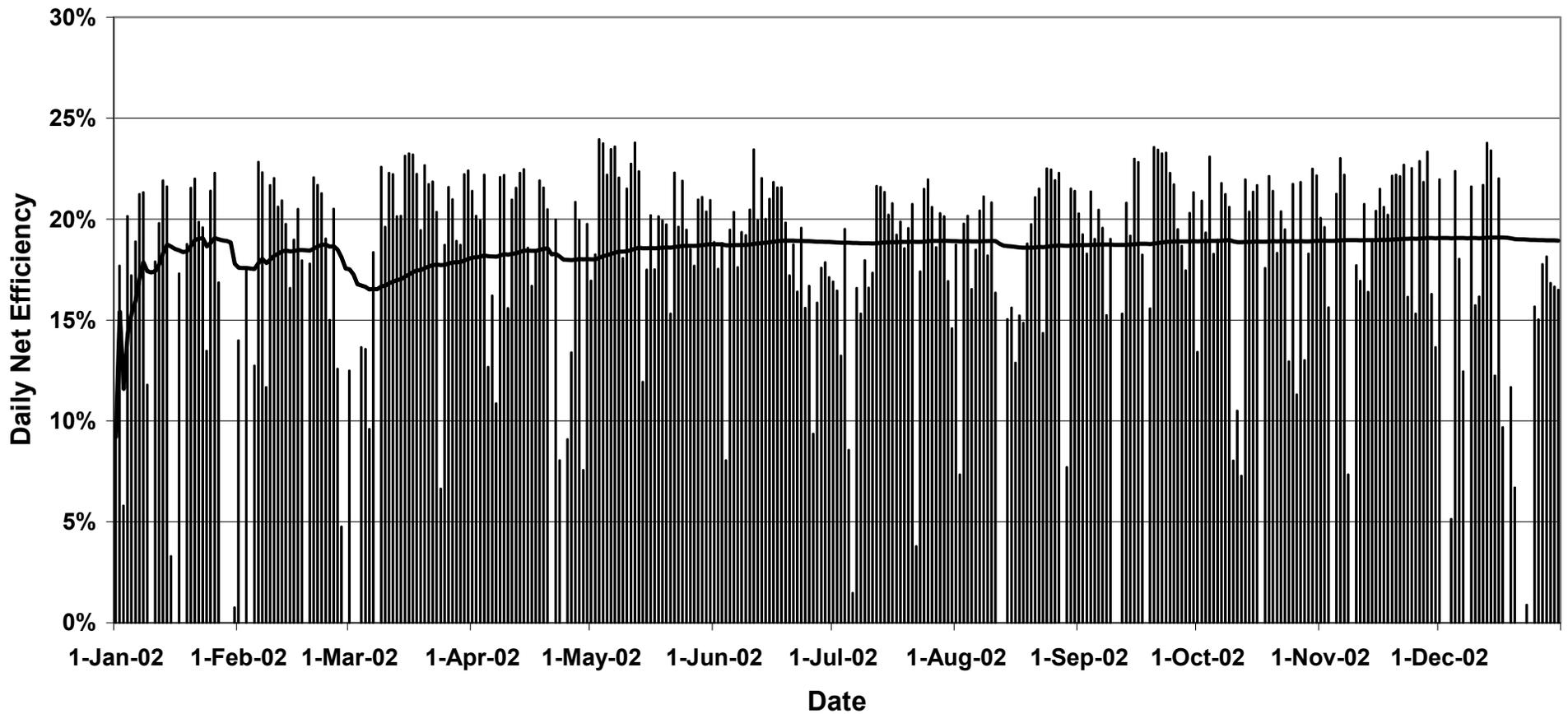
Plot showing 2002 daily and cumulative availabilities of the Mod 1 ADDS. During 2002 the Mod 1 ADDS produced 17,133 kWh of electricity (net) and produced positive power for 2628.9 hours. Availability is defined as the time when the system is producing net output divided by the time insolation and wind conditions are within specifications. As a result, availabilities over 100% are possible. For 2002, Mod 1 was 91.4% available.

Mod 2 Daily and Cumulative Availability 2/7/02 - 12/31/02



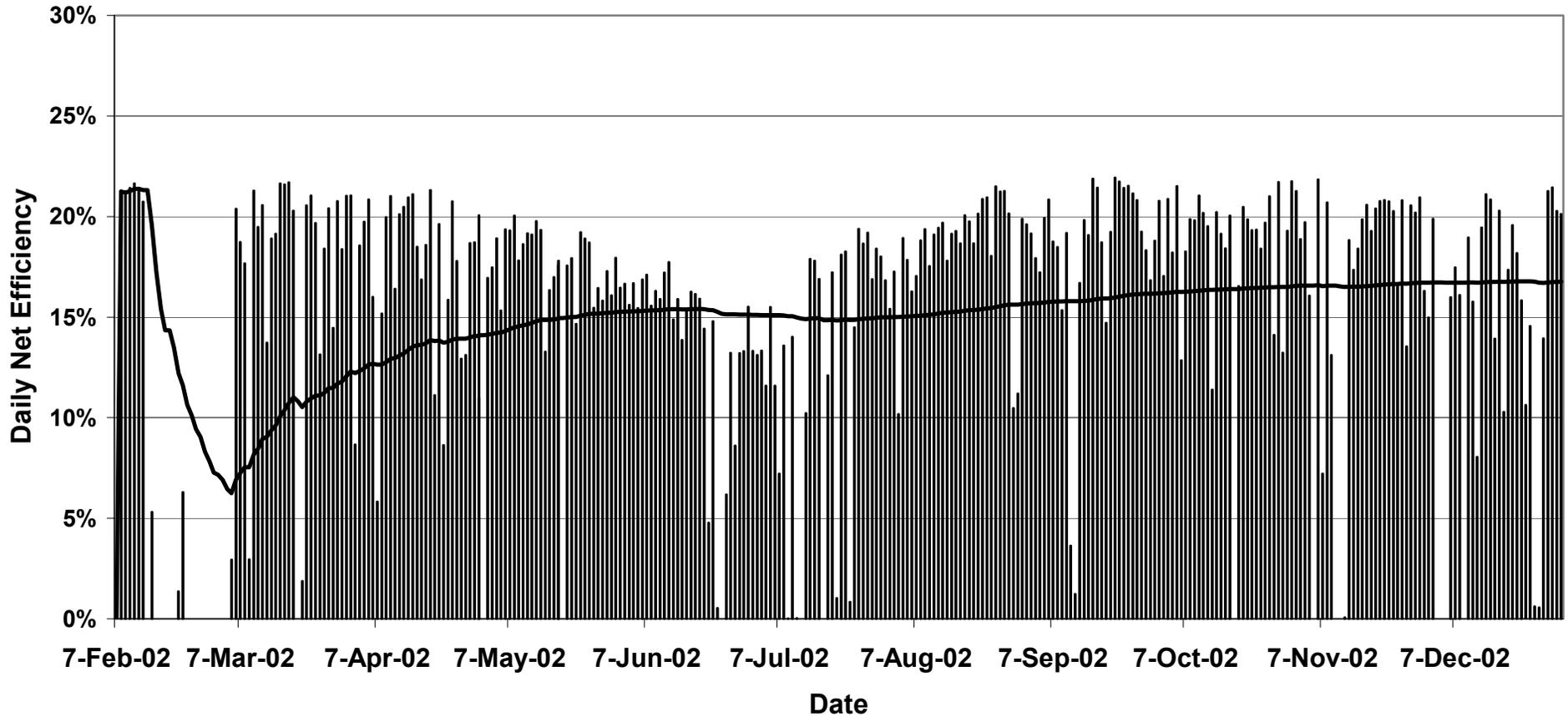
Plot showing 2002 daily and cumulative availabilities of the Mod 2 ADDS since reliability testing was initiated on February 7, 2002. During this period the Mod 2 ADDS produced 11,437 kWh of electricity (net) and produced positive power for 2146.9 hours. Availability is defined as the time when the system is producing net output divided by the time insolation and wind conditions are within specifications. As a result, availabilities over 100% are possible. For 2002, Mod 2 was 89.7% available.

Mod 1 Daily and Cumulative Efficiency 2002



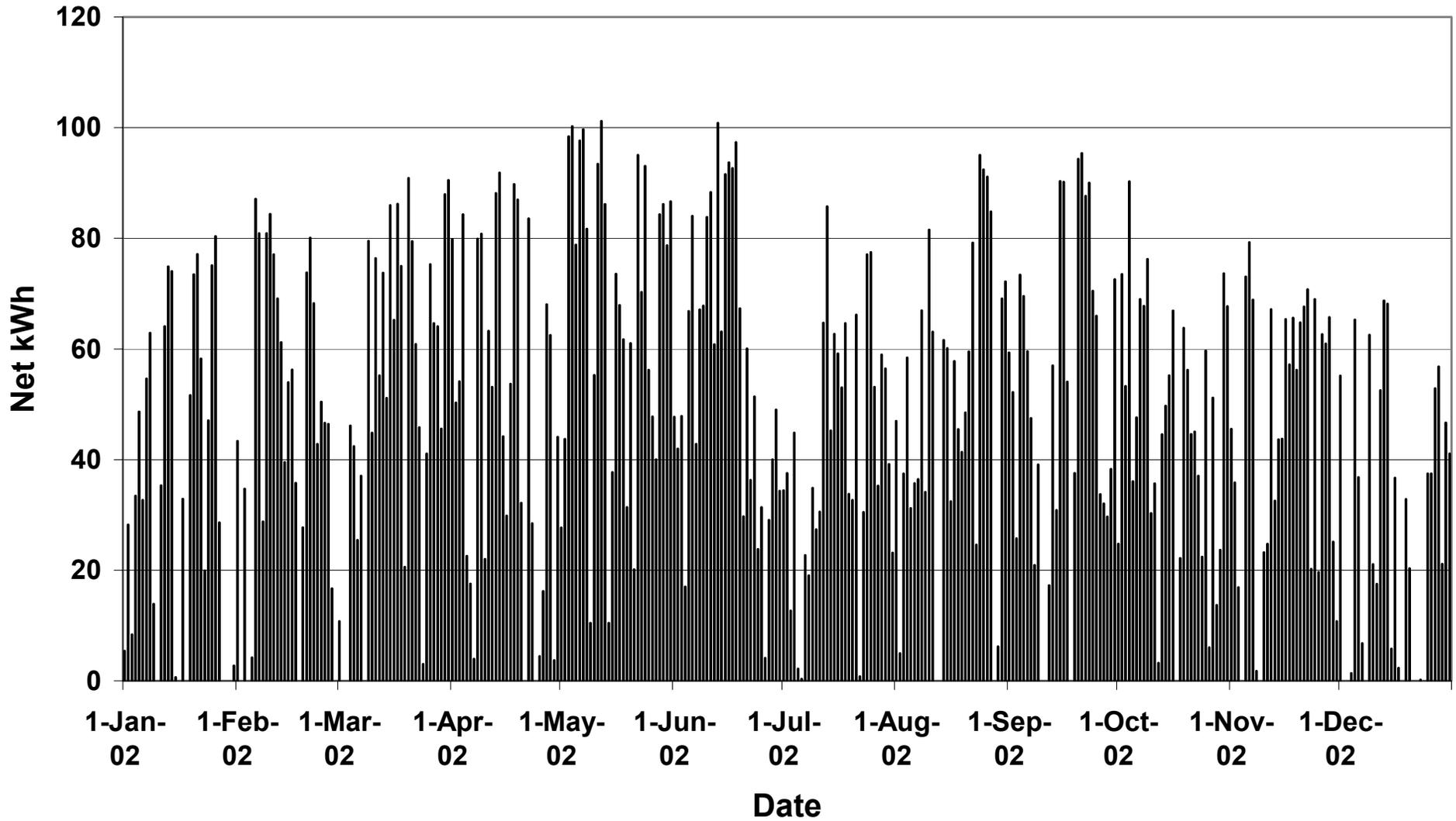
Efficiency is defined as net electric power delivered to the grid divided by total direct normal insolation on the mirrors while conditions are within the systems operational specifications and accounts for all parasitics between midnight and midnight. It also includes lost insolation while faulted, in maintenance, and while going on sun. The efficiency for the Mod 1 ADDS for 2002 was 18.93%.

Mod 2 Daily and Cumulative Efficiency 2/7/02 - 12/31/02



Efficiency is defined as net electric power delivered to the water pump divided by total direct normal insolation on the mirrors while conditions are within the systems operational specifications and accounts for all parasitics. It also includes lost insolation while faulted, in maintenance, and while going on sun. The efficiency for the Mod 2 ADDS for 2002 was 16.77%.

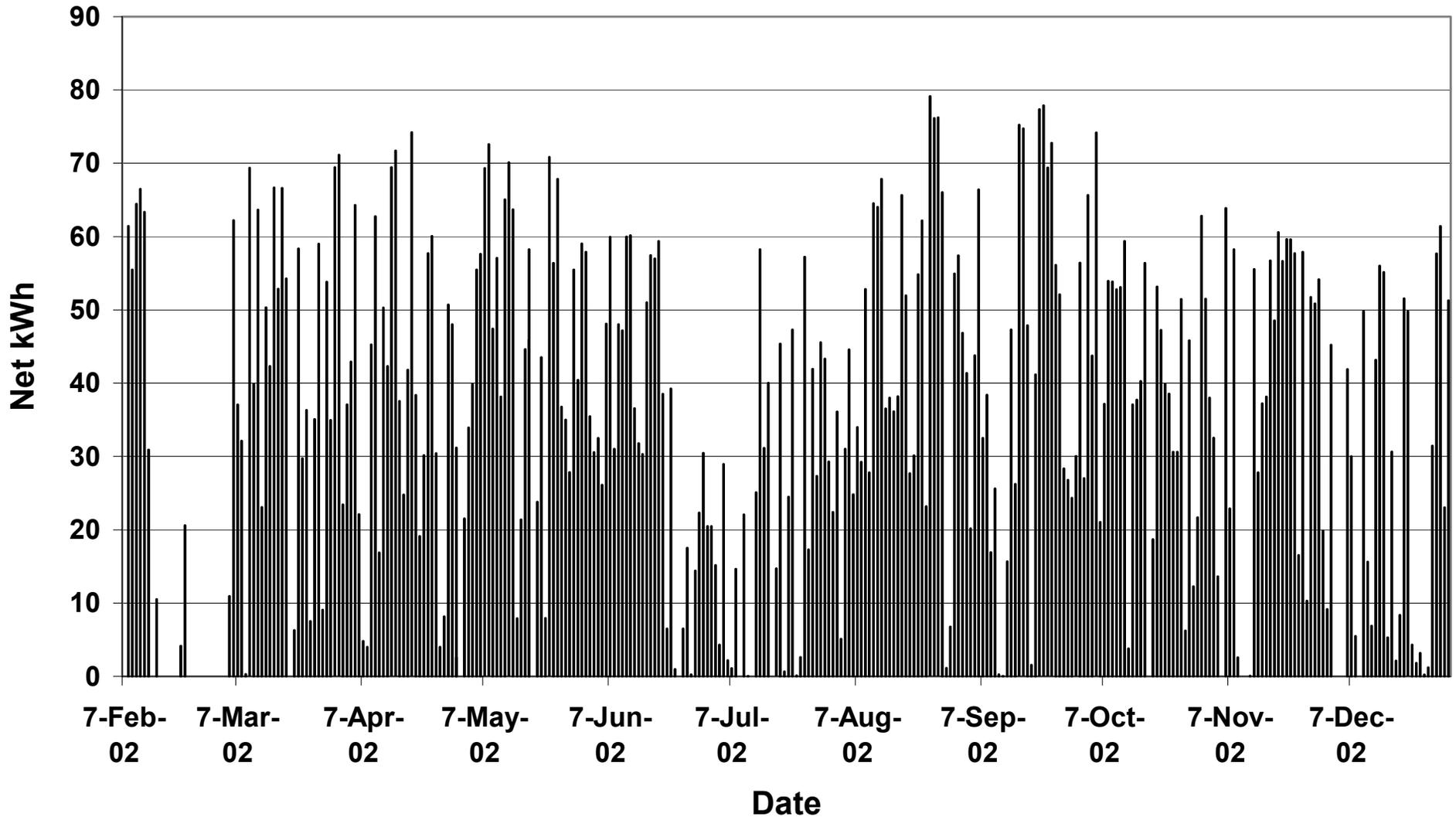
Mod 1 Net Daily Output, kWh 2002



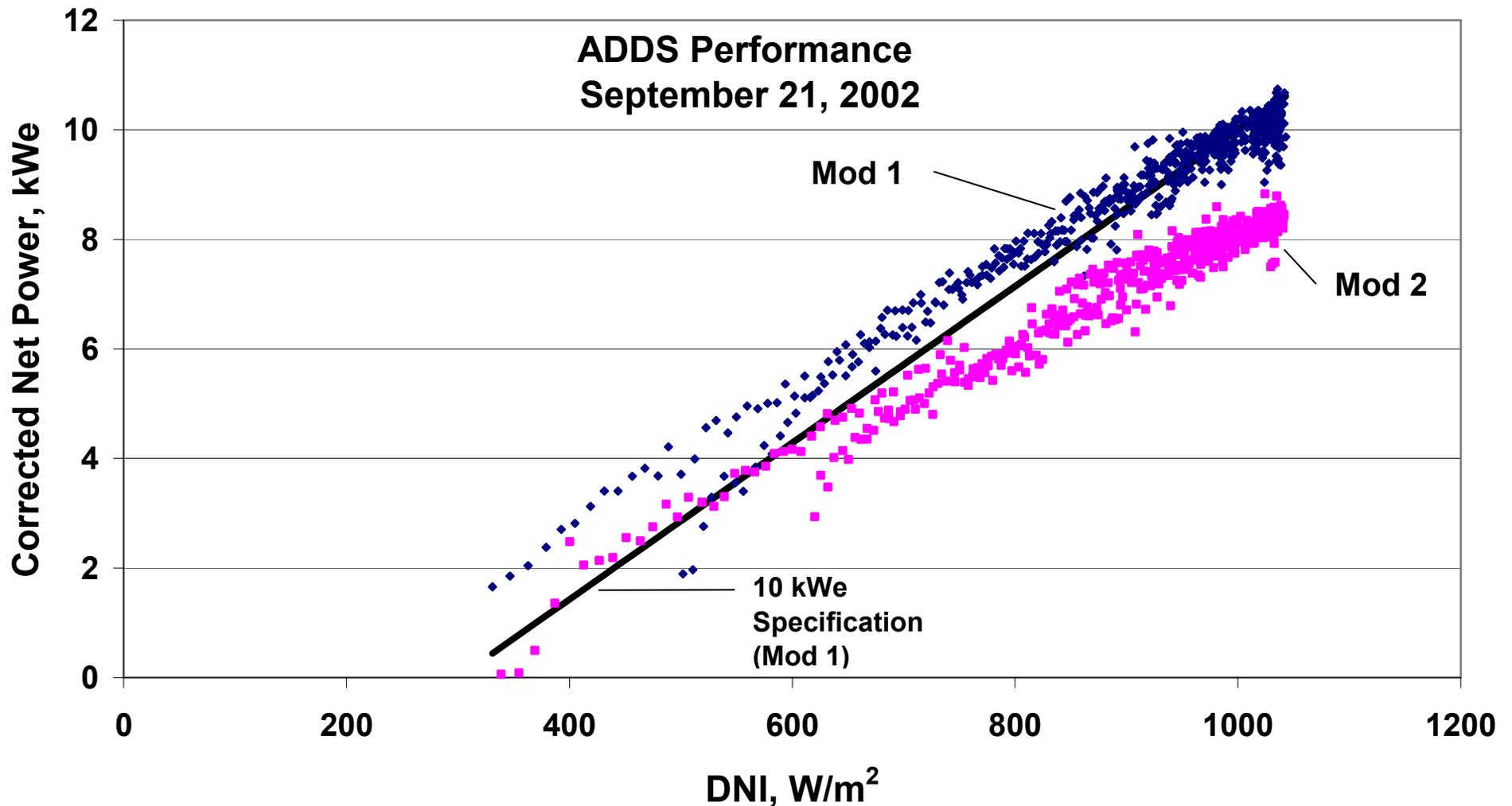
Plot showing daily net system output of the Mod 1 ADDS for 2002. Output diminished in late June and July as a result of smoke from forest fires and the North American monsoons.

Mod 2 Net Daily Output, kWh

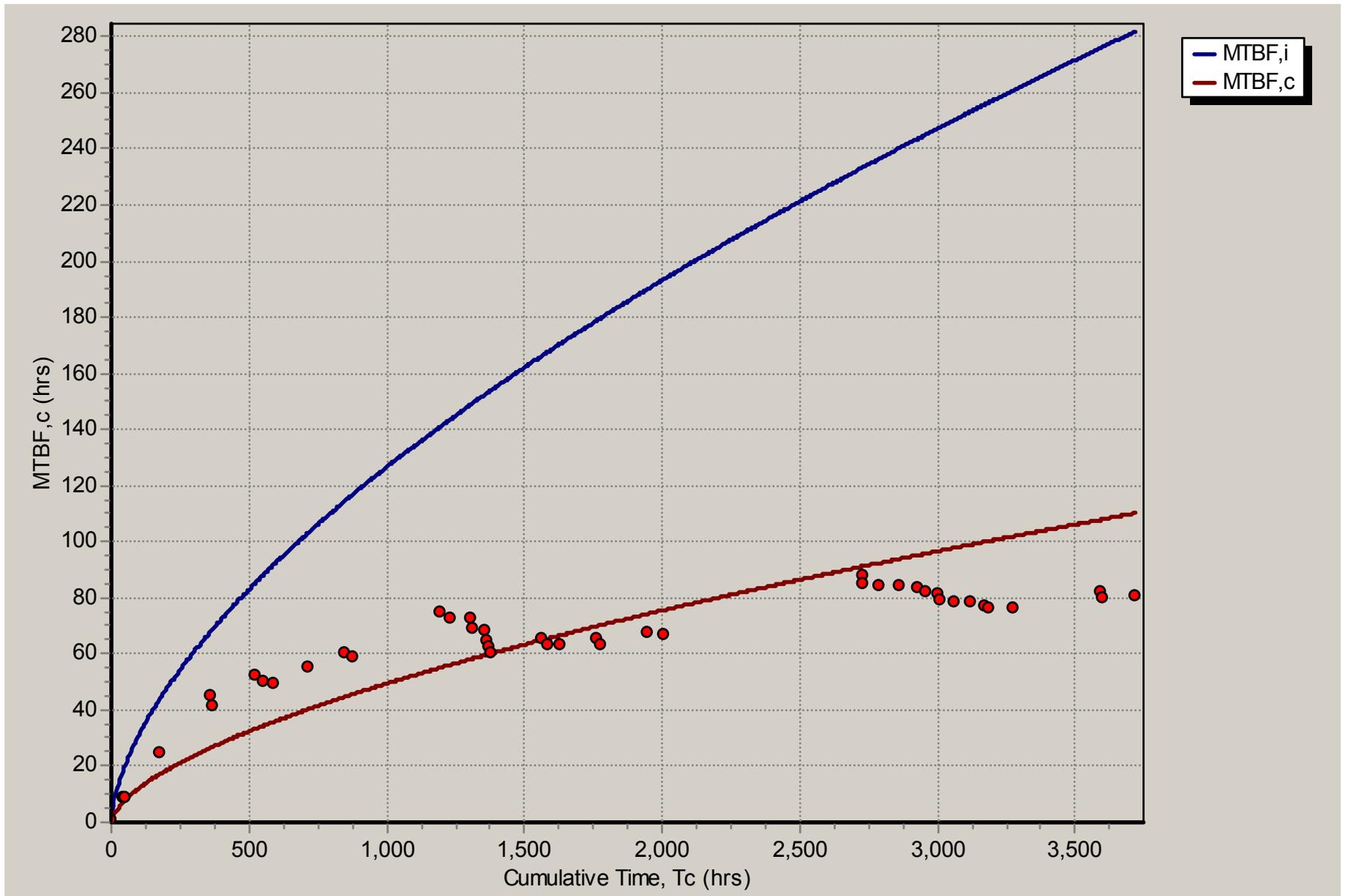
2/7/02 - 12/31/02



Plot showing daily net system output of the Mod 2 ADDS from February 7, 2002 through the end of 2002. Output diminished in late June and July as a result of smoke from forest fires and the North American monsoons.



Plot showing net power of the ADDS as a function of direct normal insolation (DNI) on a sunny day. The data points are taken at 1-minute intervals. The data points below the line at a DNI of 600 to 700 W/m² were taken while the system was warming up in the morning. Net power output of the Mod 1 ADDS exceeds the original specification of 9 kW at 1000 W/m² DNI. The system specification was increased from 9 to 9.5 kW and the mirror area reduced from 46.3 to 41 m² on November 13, 2001. On August 28, 2002 the system rating was increased again to 10 kW at 1000 W/m² and the mirror area reduced to 40 m². Mod 2 output is limited by the 10 HP water pump motor. Mirror area has, therefore, been reduced to 35.4 m² from 44.5 m².



Reliability growth of the Mod 1 ADDS between July 2001 and December 2002. The data points are incidents and show the cumulative Mean Time Between Failure (MTBF) over this period of time. Instantaneous MTBF is projected at over 200 operational hours (top line) and growing. This includes all levels of incidents, including incidents that can be responded to remotely (level 1). The instantaneous MTBF for incidents requiring a site visit is over 500 hours.