

Date	Event
10 Sep 2008	CERN successfully fired the first protons around the entire tunnel circuit in stages.
19 Sep 2008	Magnetic quench occurred in about 100 bending magnets in sectors 3 and 4, causing a loss of approximately 6 tonnes of liquid <u>helium</u> .
30 Sep 2008	First "modest" <u>high-energy</u> collisions planned but postponed due to accident. <sup>[32]</sup>
16 Oct 2008	CERN released a preliminary analysis of the accident.
21 Oct 2008	Official inauguration.
5 Dec 2008	CERN released detailed analysis.
20 Nov 2009	Low-energy beams circulated in the tunnel for the first time since the accident. <sup>[61]</sup>
23 Nov 2009	First particle collisions in all four detectors at 450 GeV.
30 Nov 2009	LHC becomes the world's highest-energy particle accelerator achieving 1.18 TeV per beam, beating the <u>Tevatron</u> 's previous record of 0.98 TeV per beam held for eight years. <sup>[110]</sup>
15 Dec 2009	First scientific results, covering 284 collisions in the <u>ALICE</u> detector. <sup>[111]</sup>
30 Mar 2010	The two beams collided at 7 TeV (3.5 TeV per beam) in the LHC at 13:06 CEST, marking the start of the LHC research programme.
8 Nov 2010	Start of the first run with lead ions.
6 Dec 2010	End of the run with lead ions. Shutdown until early 2011.
13 Mar 2011	Beginning of the 2011 run with proton beams. <sup>[112]</sup>
21 Apr 2011	LHC becomes the world's highest-luminosity hadron accelerator achieving a peak luminosity of $4.67 \cdot 10^{32} \text{ cm}^{-2}\text{s}^{-1}$ , beating the Tevatron's previous record of $4 \cdot 10^{32} \text{ cm}^{-2}\text{s}^{-1}$ held for one year. <sup>[113]</sup>
24 May 2011	ALICE reports that a <u>Quark-gluon plasma</u> has been achieved with earlier lead collisions. <sup>[114]</sup>
17 Jun 2011	The high-luminosity experiments ATLAS and CMS reach 1 $\text{fb}^{-1}$ of collected data. <sup>[115]</sup>
14 Oct 2011	LHCb reaches 1 $\text{fb}^{-1}$ of collected data. <sup>[116]</sup>
23 Oct 2011	The high-luminosity experiments ATLAS and CMS reach 5 $\text{fb}^{-1}$ of collected data.
Nov 2011	Second run with lead ions.
22 Dec 2011	First new composite particle discovery, the $\chi_b$ (3P) <u>bottomonium</u> meson, observed with proton-proton collisions in 2011. <sup>[117]</sup>
5 Apr 2012	First collisions with stable beams in 2012 after the winter shutdown. The energy is increased to 4 TeV per beam (8 TeV in collisions). <sup>[118]</sup>