This week in history: August 10-16

10 August 2015

25 Years Ago | 50 Years Ago | 75 Years Ago | 100 Years Ago

25 years ago: Magellan probe reaches orbit of Venus

On August 10, 1990, the NASA spacecraft Magellan fired its solid-rocket motor to complete its 15-month journey from Earth and position it for an orbit of Venus. Magellan was the first US planetary spacecraft launched since 1978 and its successful maneuvering into orbit around Venus was a significant event for NASA after the problems in the Hubble mission earlier in the year.

George Alexander, chief spokesman for NASA's Jet Propulsion Laboratory in Pasadena, said, "The system worked as planned. A lot of hard work was rewarded. I'm tremendously gratified we were able to do something for NASA and the public that shows this is a capable agency. This breaks the string of bad luck."

As the spacecraft sped over the north pole of Venus, the braking rocket fired to slow it from a speed of 24,600 miles per hour to 18,500 miles per hour, allowing Magellan to be captured by the planet's gravity. The mission plan was to map the surface of Venus with more accuracy than any previous probes, using cloud-piercing radar to produce photo-like images that could help answer the question of what caused Venus to become a 900-degree inferno—believed to be due to an unchecked greenhouse effect.

The radar mapping was scheduled to begin within a month of Magellan's achieving Venus orbit. At its lowest point in orbit, the craft would reach 186 miles above the planet's surface.

[top]

50 years ago: Watts riot in Los Angeles

On August 11, 1965, one of the largest urban uprisings in US history erupted in the Watts ghetto of southeast Los Angeles, beginning a week of fighting with police and National Guard troops that left 36 people dead, 1,000 injured, 4,000 arrested and $200 million in buildings and other property destroyed. More than 15,000 troops and 1,000 police were mobilized to subdue the uprising, ravaging a 50-square-mile area.

The riot was sparked by the arrest of a young black motorist, an incident that escalated into a roadside argument. But the cause lay in the appalling conditions of economic deprivation and racial oppression in the Watts ghetto, where more than 100,000 people lived crammed into a relatively small area, many living in run-down housing projects. The unemployment rate in Watts was 30 percent and half the population was on welfare, under conditions where the US economy overall was at the height of the postwar boom.

President Lyndon Johnson denounced the rioters, claiming that black youth who took up arms against the racist LA cops were morally equivalent to the Ku Klux Klan. All the officially recognized black civil rights leaders, from Roy Wilkins to Martin Luther King Jr., condemned the uprising and supported Johnson's decision to send in the troops.

King travelled to Los Angeles and announced he would tour Watts to "offer hope to the ghetto." But he was literally jeered out of Watts by youth who mocked him with chants of "I had a dream, I had a dream." One onlooker commented, "Hell, we don't need no damn dreams. We want jobs."

The American Trotskyists, then organized in the American Committee for the Fourth International, the predecessor of the Workers League and the Socialist Equality Party, wrote, "[T]his insurrection has certainly struck fear in the hearts of America's rulers who know full well that in order to save their dying system they will have to face and subdue bigger, better organized and more conscious rebellions in the future."

[top]

75 years ago: The Battle of Britain begins

On August 13, 1940, the German Luftwaffe launched a massive air attack with the aim of destroying the Royal Air Force (RAF) and wiping out Britain as a base of operations against Nazi Germany's domination of the European continent.

The Luftwaffe first bombed airports, military-industrial plants and dock areas. Later, the bombing was extended to residential areas. On September 7 and 8 alone, 842 civilians were killed in mass bombings by the Luftwaffe on London. Britain retaliated by sending the RAF on missions to bomb Berlin.

Relying on their ability to decipher the German codes and the use of radar, British military commanders were able to parcel out fighter planes at precise locations to more effectively combat the German attack. From July to the end of October, the Luftwaffe lost 1,733 aircraft, while the RAF lost 915 fighter planes. In November the Luftwaffe ended daytime bombing and limited itself to night raids on the cities, industrial centers and ports. These missions continued until May 1941.

The German air raids were to have been a preliminary to an invasion by ground troops across the English Channel. But the dangers involved in such a massive seaborne operation, along with the inability to destroy the RAF, caused Hitler to postpone the invasion. More and more the military stalemate caused Hitler to relinquish the idea of decisively defeating Britain and turn instead to his main objective—the military annihilation of the Soviet Union.

The whole purpose of Hitler's westward invasion of France and the Low Countries had been to free his hand for expansion into Eastern Europe and the USSR. After the collapse and surrender of France, Hitler had hoped that Churchill and the British bourgeoisie would come to terms with him and take part in a joint war on the Soviet Union. It was Churchill's rejection of such an alliance that led to the German air assault.

[top]

100 years ago: Leading young physicist killed in First World War

On August 10, 1915, British scientist Henry G.J. Moseley was killed in the fighting on the Gallipoli peninsula against the Ottoman Empire in World War I. Moseley was 27 years old when he died. He was considered an outstanding young physicist and was responsible for Moseley's Law in X-ray spectra.

Through the use of X-ray spectroscopy Moseley discovered a relationship between the wavelengths of the X-rays produced and the atomic numbers of the metals that were used as targets in the X-ray tubes. His work provided the explanation from physical laws of the previous empirical and chemical concept of atomic number, sorting the chemical elements of the periodic table in a logical order based on their physical characteristics. It also advanced atomic physics by providing the first experimental evidence in favor of the Rutherford-Bohr model of the atom as a small positively charged nucleus surrounded by electrons travelling in circular orbits.

In the opinion of some scientists, Moseley, had he lived, could have contributed much to our knowledge of atomic structure. Bohr said in 1962, "You see actually the Rutherford work [the nuclear atom] was not taken seriously. We cannot understand today, but it was not taken seriously at all. There was no mention of it any place. The great change came from Moseley."

The First World War was a catastrophe for the working class. It also had a devastating impact on the development of science and culture. Of the young people who matriculated to Oxford between 1910 and 1914, almost 30 percent were killed during the war. These figures were not unique to Oxford or indeed to Britain. Young scientists, writers, artists from every country were killed in combat and from disease in the trenches before they had the chance to develop or fully use their talents.