

= Typhoon Bolaven (2012) =

Typhoon Bolaven , known in the Philippines as Typhoon Julian , was regarded as the most powerful storm to strike the Korean Peninsula in nearly a decade , with wind gusts measured up to 186 km / h (116 mph) . Forming as a tropical depression on August 19 , 2012 to the southwest of the Mariana Islands , Bolaven steadily intensified as it slowly moved west @-@ northwestward in a region favoring tropical development . The system was soon upgraded to a tropical storm less than a day after formation and further to a typhoon by August 21 . Strengthening became more gradual thereafter as Bolaven grew in size . On August 24 , the system attained its peak intensity with winds of 185 km / h (115 mph) and a barometric pressure of 910 mbar (hPa ; 26 @.@ 87 inHg) . Weakening only slightly , the storm passed directly over Okinawa on August 26 as it began accelerating toward the north . Steady weakening continued as Bolaven approached the Korean Peninsula and it eventually made landfall in North Korea late on August 28 before transitioning into an extratropical cyclone . The remnants rapidly tracked northeastward over the Russian Far East before turning eastward and were last noted on September 1 crossing the International Dateline .

Although Bolaven struck the Ryukyu Islands as a powerful typhoon , damage was less than expected . Relatively few buildings were damaged or destroyed across the region . The most significant effects stemmed from heavy rains , amounting to 551 @.@ 5 mm (21 @.@ 71 in) , that caused flash flooding and landslides . One person drowned on Amami ?shima after being swept away by a swollen river . In mainland Japan , two people drowned after being swept away by rough seas . In South Korea , 19 people were killed by the storm . Many buildings were damaged and approximately 1 @.@ 9 million homes were left without power . Losses in the country reached ? 420 billion (US \$ 374 @.@ 3 million) , the majority of which was due to destroyed apple orchards . Significant damage also took place in North Korea where at least 59 people were killed and 50 others were reported missing . Additionally , 6 @,@ 700 homes were destroyed . Offshore , nine people drowned after two Chinese vessels sank .

= = Meteorological history = =

On August 18 , an area of showers and thunderstorms associated with a trough formed about 520 km (320 mi) west @-@ southwest of Guam . Over the following day , a low @-@ level circulation developed within the trough . Tracking slowly northeastward into a region of warm sea surface temperatures , low wind shear , and favorable divergence , continued development was anticipated . Later on August 19 , the Joint Typhoon Warning Center (JTWC) issued a Tropical Cyclone Formation Alert as the system was anticipated to develop further . Hours later , the Japan Meteorological Agency (JMA) classified the low as a tropical depression . The JTWC followed suit early on August 20 , designating the system as Tropical Depression 16W . Following the development of convective banding features along the southern side of the low , both the JMA and JTWC upgraded the depression to a tropical storm , with the former assigning it the name Bolaven . By this time , the storm began turning northwestward in response to a subtropical ridge south of Japan . Later on August 20 , microwave imagery from the Tropical Rainfall Measuring Mission satellite depicted a weak eye @-@ like feature .

Early on August 21 , the JMA upgraded Bolaven to a severe tropical storm , with maximum estimated winds at 95 km / h (60 mph) . Throughout the day , a large central dense overcast developed around the low @-@ level circulation and banding features became more prominent , especially over the southern half of the storm . However , the northwestern quadrant of Bolaven struggled to organize as quickly due to moderate wind shear produced by a nearby upper @-@ level anticyclone . Due to the improved structure , both the JMA and JTWC upgraded Bolaven to a typhoon during the latter half of August 21 . Gradual intensification ensued over the following days as the storm became increasingly organized . A second anticyclone developed over the center of Bolaven later that day and enhanced the cyclone 's poleward outflow . Although subsidence and wind shear increased along the northern edge of the storm on August 23 , the system 's outflow allowed it mitigate the negative effects ahead of it .

Due to the storm's large size, it began turning towards the north @-@ northwest along the subtropical ridge on August 24, earlier than anticipated. During this brief turn, the center of Bolaven crossed 135 ° E, entering the area of responsibility of the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA). As such, the administration assigned the typhoon with the local name Julian. Later that day, a well @-@ defined, 18 km (11 mi) wide eye developed within the central dense overcast and several additional feeder bands formed along the south side of the circulation. Based on the improved structure, the JTWC estimated that the system attained one @-@ minute sustained winds of 215 km / h (135 mph), equivalent to a Category 4 on the Saffir ? Simpson Hurricane Scale. By the morning of August 25, Bolaven began to undergo an eyewall replacement cycle. Despite the slightly degrading structure, the JTWC estimated the storm to have intensified slightly, attaining one @-@ minute winds of 230 km / h (145 mph).

On August 25, Bolaven began to interact with Typhoon Tembin, which was located over the South China Sea, causing Tembin to execute a slow counter @-@ clockwise loop. An outer eyewall became more apparent late on August 25 with a clear second ring of deep convection surrounding the original eye. Similar to the JTWC, the JMA continued to indicate that Bolaven was intensifying through early on August 26. At that time, the JMA estimated the typhoon to have reached its peak intensity with winds of 185 km / h (115 mph) and a barometric pressure of 910 mbar (hPa ; 26 @.@ 87 inHg). As the system approached Okinawa, radar imagery showed a 55 km (34 mi) wide eyewall surrounding a small, but well @-@ organized 11 km (6 @.@ 8 mi) wide inner eyewall. Shortly before 1500 UTC on August 26, the center of Bolaven passed directly over Okinawa. At the time, the JTWC assessed the system to have had one @-@ minute sustained winds of 195 km / h (120 mph) while the JMA estimated the winds to be 175 km / h (110 mph). Early on August 27, the storm's inner eyewall collapsed as the eyewall replacement cycle finished, with the new eye estimated to be about 220 km (140 mi) in diameter. In addition to its unusually large eye, the storm itself was large, spanning approximately 890 to 1 @,@ 020 km (550 to 630 mi). However, microwave satellite imagery indicated an overall weakening of the western side of the storm. Accelerating northward, Bolaven maintained a well @-@ defined outflow due to a large tropical upper @-@ tropospheric trough to its southeast and a mid @-@ latitude trough to the northwest.

As the storm moved northward over the Yellow Sea, atmospheric conditions became increasingly hostile, with significantly lower sea surface temperatures and high wind shear. During the overnight of August 27 ? 28, the typhoon brushed South Korea as a weakening cyclone. Convection on the west side of the storm diminished and its feeder bands began to collapse. Increasing shear started taking its toll early on August 28 as convection became displaced from the center of circulation, leaving part of the southwestern quadrant exposed. This also indicated that Bolaven had begun to undergo an extratropical transition as it approached the Korean Peninsula. Following structural weakening, the JMA and JTWC downgraded Bolaven to a severe tropical storm and tropical storm, respectively. Hours before moving onshore in North Korea, the majority of the convection had moved over land while the circulation and the center itself had only stratocumulus clouds covering it. Around 1500 UTC on August 28, Bolaven made landfall in North Korea with winds of 100 km / h (65 mph). Rapidly moving towards the northeast, the storm became fully embedded within a baroclinic zone near the China ? North Korea border later that day. The JMA continued to monitor Bolaven as a tropical cyclone until early on August 29, at which time the system was situated over the southern region of the Russian Far East. The extratropical remnants later turned eastward and were last noted on September 1 crossing the International Dateline.

= = Preparations = =

= = = Philippines = = =

On August 24, fishing vessels and small craft off the northern and eastern coasts of Luzon, Philippines were advised to not venture out due to large swells produced by Typhoons Bolaven and

Tembin .

== Ryukyu Islands ==

On August 22 , hours before the JTWC classified Bolaven as a typhoon , Okinawa was placed under Tropical Cyclone Condition of Readiness (TCCR) four . The following day , media reports began calling Typhoon Bolaven " the bad one . " At this time , the then Category 4 @-@ equivalent typhoon was expected to pass directly over Okinawa and based on forecasts from the JTWC , it would be the most powerful storm to hit the island in 13 years . On August 24 , the TCCR was raised to level three . During the afternoon of August 25 , the TCCR was raised to the third @-@ highest level , one . Residents were urged to have all their preparations complete as soon as possible before the storm arrived . This was further raised to TCCR 1 @-@ C (caution) as tropical storm force winds began impacting the island .

Across Ishigaki Island , all public activities were canceled by August 24 and flights to mainland Japan were suspended . Ferry service to Kagoshima Prefecture was also canceled . Throughout Okinawa , 850 people , including 300 in Naha , evacuated to public shelters due to the threat of flooding . Transportation across the island was paralyzed due to the storm as ferry terminals , airports , and bus and rail services were shut down . During the evening of August 25 , All Nippon Airways and Japan Airlines canceled all flights to and from the Ryukyu Islands , south of Amami ?shima for August 26 and the morning of August 27 . The slow motion of the storm led meteorologists at the JMA to warn residents of a potential record rainfall event , stating that localized areas could receive between 400 and 600 mm (16 and 24 in) of rain . Rainfall rates were expected to reach nearly 150 mm (5 @.@ 9 in) per hour during the height of the storm . Due to the significant threat of flash flooding and mudslides , residents living in flood @-@ prone or mountainous areas were urged to evacuate .

== China ==

Although located more than 500 km (310 mi) away from Eastern China , officials in the country issued sea warnings on August 27 due to waves estimated between 9 and 12 m (30 and 39 ft) over the East China Sea and Yellow Sea . In Northeastern China , ferry service along the Yalu River in Dandong City was suspended the same day . Due to the threat of heavy rains , approximately 23 @,@ 000 were evacuated in Jiangsu Province . In Weihai city , more than 2 @,@ 000 vessels sought refuge at port and ferry services were canceled . In Shanghai , more than 100 flights were canceled on August 28 due to the storm .

== Korean Peninsula and Russia ==

Initially , forecasts from the JMA and Korea Meteorological Administration indicated that Bolaven would strike the country at an intensity greater than that of the nation 's worst typhoon disaster in decades : Typhoon Rusa in 2002 . On August 27 , nearly all of South Korea was placed under a typhoon warning as the storm approached . The state disaster relief board went to its highest alert level prior to the storm 's arrival . More than 400 flights were canceled across the country , including 109 international flights from Incheon International Airport . The majority of cancellations were domestic flights , mainly from Ningbo to Jeju Island . Local authorities conducted safety inspections of areas prone to landslides and closed off beaches and seawalls . Residents in flood @-@ prone areas were encouraged to evacuate for their own safety as well . Along the coast , hundreds of ships sought refuge from rough seas in various harbors and ports . Numerous ports banned sea travel and shut down activities by August 27 , and 68 of the nation 's 87 ferry routes were canceled . In Busan , all ships were not allowed access to the docks until the typhoon 's passage .

Storm warnings were issued as far north as the Russian Far East as officials anticipated the remnants of the typhoon to cause significant disruption in the region . Residents were advised to avoid outdoor activities from August 28 to 29 as the storm moved through . In the Sea of Japan ,

more than 100 ships sought refuge in bays across the Primorsky Krai . Ferry service to all islands in the region was also suspended . All military personnel in the region were placed at an elevated state of readiness for the storm . On August 28 , crisis centers were opened in 12 cities and 22 districts across Primorsky Krai . Although the storm was expected to cause significant disruptions in the region , Russian Emergencies Minister Vladimir Puchkov stated that the Asia @-@ Pacific Economic Cooperation Summit in Vladivostok would continue as planned .

= = Impact = =

= = = Japan = = =

Regarded as the most powerful typhoon to strike the region since 1956 , strong winds in Japan 's Kagoshima Prefecture left approximately 60 @, @ 000 residences without power . Although a strong storm when it passed over Okinawa , damage was less than initially feared . Across Okinawa , sustained winds were measured up to 167 km / h (104 mph) with gusts to 222 km / h (138 mph) . On Okinoerabujima , wind gusts were measured up to 153 km / h (95 mph) . At Kadena Air Base , a barometric pressure of 952 mb (hPa ; 28 @. @ 11 inHg) was measured as the storm passed over . Numerous trees were snapped or uprooted and dozens of buildings were damaged by the winds . Throughout the Ryukyu Islands , rainfall peaked in Setouchi , Kagoshima at 551 @. @ 5 mm (21 @. @ 71 in) . In Kunigami , 535 mm (21 @. @ 1 in) of rain fell during the storm . These rains triggered flash flooding across several islands . On Amami ?shima , one person drowned after being swept away by a swollen river . Numerous landslides took place across the islands , damaging roads and buildings . During the height of the storm , the highest level of warning , TCCR 1 @-@ E (emergency) , was issued for the island , indicating that all outdoor activities were banned . Numerous roads and bridges were either shut down or blocked by debris across many of the islands , making travel difficult . Damage to public facilities throughout Kagoshima reached ¥ 6 @. @ 3 billion (US \$ 80 @. @ 6 million) .

Due to the threat of landslides , 5 @, @ 500 households were evacuated across the Amami Islands on August 27 . One home was destroyed and 1 @, @ 065 residences were evacuated in Tokunoshima . Eight people were injured across the island and 549 sought refuge in public shelters . In Yonabaru , the typhoon 's storm surge and large swells flooded coastal highways and inundated nearby buildings . Large sections of roads were also washed away by the storm . Cellphone service was lost late on August 26 throughout much of Okinawa Prefecture .

Passing over Okinawa with a central pressure of 910 mbar (hPa ; 26 @. @ 87 inHg) , Bolaven became one of the most intense typhoons to ever strike the region . Off the coast of Wakayama Prefecture , swells from the typhoon battered fishing vessels and knocked the captain of one ship overboard . Although a rescue helicopter was quick to reach him , he was later pronounced dead at a local hospital . Just off the coast of Jogashima Misaki @-@ cho in Miura , Kanagawa , two boys were swept away by large swells . A mother attempted to swim after them to save them but later drowned . The two boys were later rescued with minor injuries by the Coast Guard . Although the storm did not strike the Japanese mainland , its outer bands brought showers and thunderstorms to parts of Kyushu . Due to the rains , rail service in Saga Prefecture was temporarily suspended , affecting 4 @, @ 200 passengers . In Isahaya , one person was injured after being struck by a billboard downed by high winds . Throughout Japan , losses to agriculture and fisheries amounted to ¥ 423 @. @ 28 million (US \$ 5 @. @ 39 million) .

= = = South Korea = = =

The first area in South Korea impacted by Typhoon Bolaven was Jeju Island , a small island located off the southwestern coast of the nation . There , high winds from the storm downed power poles , broke street lamps , and damaged buildings . More than 70 @, @ 000 households on the island lost power . On Jeollanam @-@ do Wando , a wind gust of 186 km / h (116 mph) was recorded during

the storm 's passage . Across the country , approximately 1 @. @ 9 million people lost power , though it was quickly restored to all but 34 @, @ 000 within a day . In Seoul , strong winds damaged street lamps , church spires , and downed signs . Due to various storm @- @ related incidents , hundreds of people had to be evacuated . Throughout the country , at least 19 people were killed by Typhoon Bolaven . Reports indicated that there was extensive property damage from the storm . Many buildings lost their roofs , several collapsed , and smaller structures were blown over . In Gwangju , a record 10 @, @ 004 emergency calls were made in one day in relation to the storm , the majority of which were about fallen billboards .

In Naju , the country 's largest producer of pears , approximately 1 @, @ 400 hectares (3 @, @ 460 acres) of pear trees , or 60 % of the total crop , was destroyed . Agriculture as a whole suffered significantly from the storm , with a total of 9 @, @ 000 hectares (22 @, @ 000 acres) of apple and pear plantations being destroyed . As a result , the price of produce across the nation jumped substantially . In Yesan alone , a town where more than 1 @, @ 500 families relies on their apple orchards for a living , losses to the orchards reached ? 300 billion (US \$ 265 @. @ 4 million) . The prices of spinach , cabbage , and lettuce rose by 124 % , 72 % , and 26 % respectively in just one day . Total losses throughout the country were estimated at ? 420 billion (US \$ 374 @. @ 3 million) . More than 500 people were left homeless as a result of Bolaven , mostly in South Jeolla Province . Additionally , economic losses to airlines related to the typhoon reached ? 17 billion (\$ 15 million) . Korean Air and Asiana Airlines suffered the greatest losses of the affected companies .

About 2 km (1 @. @ 2 mi) off the coast of Jeju Island , two Chinese vessels with a total of 33 people aboard , sank during the storm on August 28 . According to local media , 18 of the crewmen were rescued or swam back to shore while 9 drowned and 6 others remained missing . Off the coast of South Gyeongsang Province , a 77 @, @ 458 ton cargo ship ran aground during the storm and broke in half . Eighteen people were on board the vessel , though no one was injured during the incident .

= = = North Korea = = =

In North Korea , heavy rains from the storm triggered significant flooding and many landslides . The Korean Central News Agency reported wind speeds of more than 108 km / h (67 mph) in North Hwanghae , South Hwanghae , South Hamgyong , South Pyongan Provinces and the city of Nampho , and waves as high as 1 @. @ 11 m (3 @. @ 6 ft) in the sea of Kimchaek . According to the North Korean Hydrometeorological Management Office , wind gusts reached 130 km / h (81 mph) . Widespread damage took place throughout the country as a result of the storm . The hardest hit area was South Hamgyong Province , where 48 people were killed and another 45 were reported missing . Across the province , 2 @, @ 405 homes were destroyed and another 1 @, @ 500 were damaged . In South Phyongan Province , eight people were killed and 714 homes were destroyed . Two people were killed in North Hamgyong Province and another died in Ryanggang Province . At least 8 @, @ 950 homes were destroyed and approximately 101 @, @ 000 hectares (250 @, @ 000 acres) of crop and rice fields were flooded . More than a dozen schools and medical buildings were destroyed . Additionally , 16 @, @ 730 trees were downed and 880 public and industrial buildings were severely damaged . In all , at least 59 people were killed , 50 others were reported missing , and more than 21 @, @ 800 others were left homeless .

= = = China and Russia = = =

Northeastern China did not experience the full @- @ force of Typhoon Bolaven , though heavy rains did impact the country . Changchun recorded the heaviest rains in China related to Bolaven , with 120 @. @ 6 mm (4 @. @ 75 in) falling . In the city alone , 25 roads were flooded and 20 power poles were downed . Thousands of people were evacuated due to flooding triggered by the storm . Gale @- @ force winds in Jilin Province damaged approximately 690 @, @ 000 hectares (1 @. @ 7 million acres) of crops . Rainfall amounting to 139 mm (5 @. @ 5 in) caused localized flooding , disrupting transportation in Heilongjiang Province . Throughout Northeastern China , an estimated

40 million people were affected by the typhoon .

On August 29 , the remnants of Bolaven brought winds up to 90 km / h (56 mph) in the Primorsky Krai , leaving 9 @, @ 800 people without power . Power was soon restored to all but 195 residents who live in the town of Vityaz . In Vladivostok , wind gusts reached 118 km / h (73 mph) , downing numerous trees . Rains associated with the storm were light , with only 5 mm (0 @. @ 20 in) recorded in Vladivostok . Gale @- @ force winds prompted the temporary closure of the Bridge to Russky Island , which was built specifically for the Asia @- @ Pacific Economic Cooperation Summit . With ferries already canceled , residents were unable to leave the island until the storm passed . In the Khabarovsk Krai , heavy rains from the storm proved beneficial as they allowed firefighters to extinguish six wildfires and contain five others within a 24 ? hour span . Along the coast , large waves caused some beach erosion and prompted evacuations in Manchzhurka . Additionally , five people had to be rescued after ignoring warnings and wading into the sea . In some areas , large numbers of crabs , fish , and oysters washed ashore during the storm .

= = Aftermath = =

= = = South Korea = = =

By September 6 , farmers in southern areas of the country requested aid from the government . In South Jeolla Province , ? 35 billion (US \$ 31 @. @ 1 million) was allocated for post @- @ storm recovery . Of this , about half went to repairing public facilities . Across the province , repairs were expected to be completed by October or November 2012 . On September 11 , the Food , Agriculture , Forestry and Fisheries Minister announced that residents severely affected by the typhoon were eligible for up to ? 50 million (US \$ 44 @, @ 000) in construction assistance . Economically , Typhoons Bolaven and Tembin contributed to a 6 @. @ 6 % decrease in construction investment , the largest drop since January 2003 .

= = = North Korea = = =

On September 4 , Hwang Woo @- @ yea , chairman of South Korea 's Saenuri Party , urged the government to seek international aid , namely in the form of food , for North Korean residents affected by the typhoon . On September 6 , the Red Cross Society of Democratic People 's Republic of Korea announced that international aid may be requested for the effects of severe flooding in July and Typhoon Bolaven . Locally , the Red Cross distributed 2 @, @ 515 emergency kits to more than 11 @, @ 600 people in three of the hardest hit provinces . During the first week of September , the government of North Korea requested aid from South Korea and later accepted their offer of 10 @, @ 000 tons of flour , and 3 million packages of instant noodles , medical supplies and other aid . Additionally , the United Nations World Food Program called for emergency assistance for the country . However , despite initially agreeing to terms with South Korea , North Korea rejected the aid offer , stating that " they don 't need such aid . "

= ... And Justice for All (album) =

? And Justice for All is the fourth studio album by American heavy metal band Metallica , released on August 25 , 1988 , by Elektra Records . It was the band 's first studio album to feature bassist Jason Newsted after the death of Cliff Burton in 1986 . ? And Justice for All is musically progressive , with long and complex songs , fast tempos , and few verse @- @ chorus structures . The album is noted for its sterile production , which producer Flemming Rasmussen attributed to his absence during the mixing process . The lyrics feature themes of political and legal injustice seen through the prisms of censorship , war , and nuclear brinkmanship .

The album 's front cover , designed by Stephen Gorman on a scheme by James Hetfield and Lars

Ulrich , features a representation of Lady Justice , bound by ropes , with one breast bare and its scales tipping toward one plate filled with money . The phrase " ? And Justice for All " appears spray @-@ painted in the lower right corner . The album title is derived from the American Pledge of Allegiance . Originally released on one vinyl disc , the album was quickly re @-@ released as a double album without additional tracks . Three songs from the album were released as singles : " Harvester of Sorrow " , " Eye of the Beholder " , and " One " , while the title track was released as a promotional single .

? And Justice for All was acclaimed by music critics . It was included in The Village Voice 's annual Pazz & Jop critics ' poll of the year 's best albums , and the single " One " earned Metallica its first Grammy Award for Best Metal Performance in 1990 . The group 's best @-@ selling album at the time , it was the first underground metal album to achieve chart success in the United States . The album was certified 8 × platinum by the Recording Industry Association of America (RIAA) in 2003 for shipping eight million copies in the US , making it Metallica 's second @-@ best @-@ selling album in the country .

= = Background = =

? And Justice for All was Metallica 's first full @-@ length studio album to feature bassist Jason Newsted after the death of Cliff Burton in 1986 . Newsted had previously played on Metallica 's The \$ 5 @-@ 98 E.P. : Garage Days Re @-@ Revisited , an extended play released in 1987 . The band intended to record the album earlier , but was sidetracked by the large number of festival dates scheduled for the summer of 1987 , including the European leg of the Monsters of Rock festival . Another reason was frontman James Hetfield 's arm injury in a skateboarding accident . The band 's previous studio album , Master of Puppets , marked the end of Metallica 's contract with the Music for Nations label . Manager Peter Mensch wanted the band to sign with British record distributor Phonogram Records , and Phonogram chairman Martin Hooker was keen to obtain the band 's contract . To persuade Metallica to choose his label Hooker offered them a bigger deal , " worth well over £ 1 million , which at that time was the biggest deal we 'd ever offered anyone " . His explanation was that the final figure for combined British and European sales of all three Metallica albums was more than 1 @-@ 5 million copies . The album title was revealed in April 1988 : ? And Justice for All , after the final words of the Pledge of Allegiance . The artwork was created by Stephen Gorman , based on a concept developed by Hetfield and drummer Lars Ulrich . It depicts a cracked statue of a blindfolded Lady Justice , bound by ropes with her breasts exposed and her scales overflowing with dollar bills . The title appears graffiti @-@ style in the lower right corner .

= = Production and recording = =

? And Justice for All was recorded from January to May 1988 at One on One Recording Studios in Los Angeles . Metallica produced the album with Flemming Rasmussen . Rasmussen was initially unavailable for the planned start on January 1 , 1988 , and the band brought in Mike Clink , who had caught their attention for producing Guns N ' Roses ' debut Appetite for Destruction (1987) . Things did not work out as planned , and three weeks later Rasmussen became available after Ulrich gave him a call . Rasmussen listened to Clink 's rough mixes for the album on his February 14 flight to Los Angeles , and upon his arrival Clink was fired . Hetfield explained that recording with Clink did not work out so well , and Rasmussen came over as a last @-@ minute replacement . However , Clink is credited with engineering the drums on two of the album 's tracks : " The Shortest Straw " and " Harvester of Sorrow " . While waiting for Rasmussen to arrive , the band recorded two cover songs ? " Breadfan " and " The Prince " ? to " fine ? tune the sound while they got into the studio vibe " . Both were released as B @-@ sides of the " Harvester of Sorrow " CD single , as separate B @-@ sides for " Eye of the Beholder " and " One " respectively , and were included on the covers album Garage Inc . (1998) .

Rasmussen 's first task was to adjust and arrange the guitar sound with which the band was dissatisfied . A guide track for the tempos and a click track for Ulrich 's drumming were used . The

band played in a live room , recording the instruments separately . Each song used three reels : one for drums , a second for bass and guitars and a third for anything else . Hetfield wrote lyrics during the recording sessions ; these were occasionally unfinished as recording began , and Rasmussen said that Hetfield " wasn 't really interested in singing " but instead " wanted that hard vibe " . Metallica 's recording process was new to Jason Newsted , who questioned his impact on the overall sound and the lack of discussion with the rest of the team . Newsted had a different experience with his previous band , Flotsam and Jetsam , describing their style as " basically everybody playing the same thing like a sonic wall " . He recorded his parts separately from the rest of the band , with only the assistant engineer present . Newsted noted that his parts were at the same audio frequency as Hetfield 's guitar parts , and this created a " [battle] for the same frequency " . Steve Thompson , who mixed the album , claims that Ulrich was squarely to blame for the inaudible bass and unusual drums . Thompson wanted to be relieved of his mixing duties when Ulrich presented his ideas on the production , but Thompson was not allowed to leave and received the majority of the criticism for the poor sound quality of the record .

= = Music = =

? And Justice for All is a musically progressive album featuring long and complex songs , fast tempos and few verse @-@ chorus structures . Metallica decided to broaden its sonic range , writing songs with multiple sections , heavy guitar arpeggios and unusual time signatures . Hetfield later explained : " Songwriting @-@ wise , [the album] was just us really showing off and trying to show what we could do . ' We 've jammed six riffs into one song ? Let 's make it eight . Let 's go crazy with it . ' " Music critic Simon Reynolds noted the riff changes and experimentation with timing on the album 's epically constructed songs : " The tempo shifts , gear changes , lapses , decelerations and abrupt halts " . BBC Music 's Eamonn Stack wrote that ? And Justice for All sounds different from the band 's previous albums , with longer songs , sparser arrangements , and harsher vocals by Hetfield . According to journalist Martin Popoff , the album was less melodic than its predecessors because of its frequent tempo changes , unusual song structures and layered guitars . He argued that the album is more of a progressive metal record because of its intricately performed music and bleak sound . Music writer Joel McIver called the album 's music aggressive enough for Metallica to maintain its place with bands " at the mellower end of extreme metal " . According to writer Christopher Knowles , Metallica took " the thrash concept to its logical conclusion " on the album .

The album was noted for its " dry , sterile " production . Rasmussen said that was not his intention , as he tried for an ambient sound similar to the previous two albums . He was not present during the album 's mixing , for which Steve Thompson and Michael Barbiero had been hired beforehand . Rasmussen felt that , in his absence from the mixing process , Thompson and Barbiero ended up using only the close microphones on the mix and none of the room microphones , thus causing the " clicking " , thin drum sound . Popoff noted that because of the strange production , the bass guitar was nearly inaudible , while the guitars sounded " strangled mechanistic " . He saw the " synthetic " percussion as another reason for the album 's compressed sound . The sound has nearly @-@ inaudible bass guitar , which Rasmussen claims was ordered by Hetfield and Ulrich after hearing the initial mixes , resulting in his belief that " Jason Newsted , [engineer] Toby Wright and I are probably the only people who know what the bass parts actually sounded like on that album " . Thompson similarly blamed Ulrich for the inaudible bass , stating that Ulrich ordered him to remove the bass from the mix . In their defence , Hetfield and Ulrich said that most of Newsted 's bass lines closely followed the rhythm guitar lines to the point of being indiscernible from each other . A lack of direction is also partly to blame ; since the album was largely produced by the band , there was no one present in the studio to guide the band 's new bassist and tell him what was expected of him , something a producer would typically do . Newsted was not satisfied with the final mixes : " The Justice album wasn 't something that really felt good for me , because you really can 't hear the bass

. "

= = Lyrics = =

The lyrical content of ? And Justice for All is conceptually unified around notions of political and legal injustice as seen through the prism of war , censored speech , and nuclear brinksmanship . The majority of the songs raise issues that differ from the violent retaliation of the previous releases . Tom King wrote that for the first time the lyrics dealt with political and environmental issues . He named contemporaries Nuclear Assault as the only other band who applied ecological lyrics to thrash metal songs rather than singing about Satan and Egyptian plagues . McIver noted that Hetfield , the band 's main lyricist , wrote about topics that he had not addressed before , such as his revolt against the establishment . Ulrich described the songwriting process as their " CNN years " , with him and Hetfield watching the channel in search for song subjects ? " I 'd read about the blacklisting thing , we 'd get a title , ' The Shortest Straw , ' and a song would come out of that . "

Concerns about the environmental plight of the planet (" Blackened ") , corruption (" ? And Justice for All ") , and blacklisting and discrimination (" The Shortest Straw ") are emphasized with traditional existential themes . Issues such as freedom of speech and civil liberties are presented from a grim and pessimistic point of view . " One " was unofficially entitled " antiwar anthem " because of the lyrics which portray the suffering of a wounded soldier . " Dyers Eve " is a lyrical rant from Hetfield to his parents . Burton received co @-@ writing credit on " To Live Is to Die " as the bass line was a medley of unused recordings Burton had performed prior to his death . Because the original recordings are not used on the track , the composition is credited as written by Burton and played by Newsted . The spoken word at the end of the song (" When a man lies , he murders some part of the world . These are the pale deaths which men miscall their lives . ") was written by German poet Paul Gerhardt , but was erroneously attributed to Burton in the liner notes . The second half of the speech (" All this I cannot bear to witness any longer . Cannot the kingdom of salvation take me home ? ") was written by Burton .

= = Critical reception = =

Released on August 25 , 1988 , by Elektra Records , ? And Justice for All was acclaimed by music critics . In a contemporary review for Rolling Stone , Michael Azerrad said that Metallica 's compositions are impressive and called the album 's music " a marvel of precisely channeled aggression " . Spin magazine 's Sharon Liveten called it a " gem of a double record " and found the music both edgy and technically proficient . Simon Reynolds , writing in Melody Maker , said that " other bands would give their eye teeth " for the songs ' riffs and found the album 's densely complicated style of metal to be distinct from the monotonous sound of contemporary rock music : " Everything depends on utter punctuality and supreme surgical finesse . It 's probably the most incisive music I 've ever heard , in the literal sense of the word . " Borivoj Krgin of Metal Forces said that it was the most ideal album he has heard because of typically exceptional production and musicianship that is more impressive than on Master of Puppets . In a less enthusiastic review for The Village Voice , Robert Christgau felt that the band 's compositions lack song form and that the album " goes on longer " than Master of Puppets . In 1988 , ? And Justice for All was nominated for a Grammy Award for Best Hard Rock / Metal Performance , but with much controversy , it lost to Jethro Tull 's Crest of a Knave . In 2007 , Entertainment Weekly , named the win one of the 10 biggest upsets in Grammy history .

In a retrospective review , Greg Kot of the Chicago Tribune said that ? And Justice for All was both the band 's " most ambitious " and ultimately " flattest @-@ sounding " album . AllMusic 's Steve Huey noted that Metallica followed the blueprint of the previous two albums , with more sophisticated songs and " apocalyptic " lyrics that envisioned a society in decay . Music journalist Mick Wall was critical of the progressive elements on the album and felt that , apart from " One " and " Dyers Eve " , most of the album sounded clumsy . Colin Larkin , writing in the Encyclopedia of Popular Music (2006) , wrote that , apart from the praiseworthy " One " , the album diminished the band 's creativity by concentrating the songs with too many riffs . Ulrich said in retrospect that the album has improved with time and it is well @-@ revered among their contemporaries .

== Accolades ==

In The Village Voice 's annual Pazz & Jop critics poll , ? And Justice for All was voted the 39th best album of 1988 , having received 117 votes , including 12 first @-@ place votes . The album was ranked at number nine on IGN 's Top 25 Metal Albums . In a 2006 reader poll by Guitar World , ? And Justice for All was placed 12th among the 100 Greatest Guitar Albums . All of the album 's tracks were featured on " The 100 Greatest Metallica Songs of All Time " made by the same magazine . Kerrang ! listed the album at number 42 among the " 100 Greatest Heavy Metal Albums of All Time " . Martin Popoff ranks the effort at number 19 in his book The Top 500 Heavy Metal Albums of All Time , the fourth highest ranked Metallica album on the list . The album is featured in Robert Dimery 's 1001 Albums You Must Hear Before You Die .

After years of refusing to release music videos , Metallica released its first for " One " . The video was controversial among fans , who had valued the band 's apparent opposition to MTV and other forms of mainstream music . Slant Magazine ranked it number 48 on their list of the " 100 Greatest Music Videos " , saying that Metallica " evoke a revolution of the soul far more devastating than that presented in the original text " . The guitar solo was ranked number seven in Guitar World 's compilation of the 100 Greatest Guitar Solos of all time . Additionally , heavy metal website Noisecreep classed the song ninth among the " 10 Best ' 80s Metal Songs " .

== Commercial performance ==

Although Metallica 's music was considered unappealing for mainstream radio , ? And Justice for All became the first underground metal album to achieve chart success in the US . It became Metallica 's best @-@ selling album upon release , peaking at number six on the Billboard 200 , where it charted for 83 weeks . Since 1991 , when Nielsen SoundScan began tracking sales , ? And Justice for All has sold 5 @,@ 330 @,@ 000 copies in the United States . It was certified platinum nine weeks after it was released in stores , and sold 1 @.@ 7 million copies in the US by the end of 1988 . Since its release , the album has scanned more than 8 million copies in the US and , according to MTV 's Chris Harris , " helped cement [Metallica 's] status as a rock and roll force to be reckoned with " . Classic Rock explained that with this album , Metallica received substantial media exposure , becoming a multi @-@ platinum act by 1990 . The group broke through on radio in 1988 with " One " , which was released as the third single from the record . According to Billboard , ? And Justice for All found the band evolving into arena headliners , as " One " , accompanied by the group 's first music video , garnered significant airplay .

? And Justice for All achieved similar chart success outside the United States . It peaked within the top 5 on the charts in Germany , Sweden , and the United Kingdom , and remained on the UK chart for six weeks . The album managed to peak in the top 10 on the Finnish , Norwegian , and Swiss album charts . It was less successful in Spain , Mexico and France , where it peaked at number 92 on the former chart , number 130 on the latter , and number 64 in Spain . ? And Justice for All received a three times platinum certification from Music Canada for shipping 300 @,@ 000 copies , a platinum certification from IFPI Finland for having a shipment of little over 50 @,@ 000 copies , and was certified gold by the Bundesverband Musikindustrie (BVMI) for shipments of 250 @,@ 000 copies . It was awarded gold by the British Phonographic Industry in 2013 for shipping 100 @,@ 000 copies in the UK . ? And Justice for All was commercially succeeded by the band 's following album Metallica (1991) .

== Live performances ==

Guitarist Kirk Hammett noted that the length of the songs was problematic for fans and for the band : " Touring behind it , we realized that the general consensus was that songs were too fucking long . One day after we played ' Justice ' and got off the stage one of us said , ' we 're never fucking playing that song again . ' " Nevertheless , " One " quickly became a permanent fixture in the band 's

setlist . When performed live , the opening war sound is lengthened from seventeen seconds to approximately two minutes . At the song 's conclusion , the stage turns pitch @-@ black and fire erupts from various points . The live performance is characterized as a " musical and visual highlight " by Rolling Stone journalist Denise Sheppard . Other songs from ? And Justice for All that have frequently been performed are " Blackened " and " Harvester of Sorrow " , which were often featured during the album 's promotional Damaged Justice Tour .

Metallica played the title track in the opening show of the Sick of the Studio ' 07 tour , for the first time since October 1989 , and made it a set @-@ fixture for the remainder of that tour . A statue of Lady Justice is commonly placed on the scene , to be torn down as the song approaches its conclusion . " Eye of the Beholder " has not been played live since 1989 ; one such performance appears on Metallica 's live extended play , Six Feet Down Under . During the World Magnetic Tour in 2009 , " The Shortest Straw " made its way back into the setlist after a 12 @-@ year absence , and has been sporadically performed since . " The Frayed Ends of Sanity " debuted live on the Metallica By Request tour in 2014 , although the band had previously played segments during solos , impromptu jams , or in a " Justice " medley . " To Live Is to Die " premiered at the band 's 30th @-@ anniversary concert at The Fillmore in San Francisco . " Dyers Eve " debuted live sixteen years after it was recorded , during the Madly in Anger with the World Tour at The Forum in Inglewood , California .

= = Track listing = =

All lyrics written by James Hetfield , except " To Live Is to Die " by Cliff Burton .

= = Personnel = =

Credits are adapted from the album 's liner notes .

= = = Metallica = = =

James Hetfield ? lead vocals , rhythm guitar
Kirk Hammett ? lead guitar
Jason Newsted ? bass guitar
Lars Ulrich ? drums

= = = Production = = =

Michael Barbiero ? mixing
Mike Clink ? drum engineering
George Cowan ? assistant engineering
Bob Ludwig ? mastering
Metallica ? production
Flemming Rasmussen ? production , engineering
Steve Thompson ? mixing
Toby Wright ? additional engineering

= = = Packaging = = =

Stephen Gorman ? cover art
Ross Halfin ? photography
Pushead ? illustrations
Reiner Design Consultants , Inc . ? design , layout

= = Charts = =

= = Certification = =