

IN THE HIGH COURT OF JUSTICE
KING'S BENCH DIVISION
ADMINISTRATIVE COURT

BETWEEN:

THE KING *on the application of*
CAMPAIGN AGAINST ARMS TRADE

Claimant

-and-

SECRETARY OF STATE FOR INTERNATIONAL TRADE

Defendant

-and-

MWATANA FOR HUMAN RIGHTS

Intervener

SUMMARY TABLE OF EVIDENCE
FILED BY MWATANA FOR HUMAN RIGHTS
for hearing on 31 January 2023 – 2 February 2023

Key:

“**HBC**” = Hearing Bundle, Core; “**HBS**” = Hearing Bundle, Supplemental; “**RA**” = Witness Statement of Radhya Almutawakel; “**SAQ**” = OPEN Witness Statement of Stephanie Al-Qaq and Exhibits; “**AF**” = Witness Statement of Ann Feltham.

“**UNPoE**” = United Nations Panel of Experts; “**UNGEE**” = United Nations Group of Eminent Experts; “**HRW**” = Human Rights Watch; “**MSF**” = Medecins Sans Frontieres; “**YNC**” = Yemeni National Commission; “**OTG**” = On the ground investigation; “**OOSI**” = Online Open source investigation; “**R**” = Remote investigation (e.g. telephone interviews) “**UKN**” = Unknown.

“**Credible NGO analysis**” = evidence gathered by reputable and reliable NGOs of matters including but not restricted to crater size, blast damage type and size, crater/impact location, witness evidence including of the presence of fighter jets and unexploded munitions later removed, casualty records including shrapnel injuries.

NB: Rows shaded in green represent incidents that Mwatana has verified.

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/ compliance	JIAT/ Coalition determination	Pattern
1.	26/03/2015	Residential home in Bani Hewat - Airport Road - Bani Al-Harith district, Sana'a governorate	HBS/2115 ¹ HBC/875 (RA/§49)	Mwatana (OTG)	21 civilians killed, including 14 children and 3 women, 8 civilians wounded including 7 children	None identified	Residential area attacked between 2 and 3 AM. ² This is relevant to precautions and proportionality since the neighbourhood's residents would be expected to be at home sleeping during those hours	Unknown	Pattern 1a (Object: Residential home) Pattern 1c (Civilian harm)
2.	01/04/2015	Khamis Marran Health Unit, Saada governorate	HBS/2121 HBC/875, 878(RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Facility completely destroyed	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
3.	10/04/2015	Talammus Water Facility, Sahar district, Saada governorate	HBS/2108 HBC/869 (RA/§47)	Mwatana (OTG)	Partial damage causing facility to suspend work for 3 months & function at partial capacity thereafter	None identified. 150 metres away was an anti-aircraft machine gun placed by the Houthis	Tens of thousands of people relied on this facility as their main water source. [HBS/2108] Drinking water sources are considered objects indispensable to the survival of the civilian population ("OIS"). ³	Unknown	Pattern 1b (Object: Water facility (OIS and economic target))
4.	11/04/2015	Residential home near Office of Education, Amran governorate	HBS/1970, 1166-1167	HRW (OTG)	Four civilians killed, including two women and a girl	None identified		JIAT found that the Coalition had not conducted the attack and found that there was no damage to the roof of the house	Pattern 1a (Object: Residential home) Pattern 3 (JIAT:

¹ Full report: Mwatana for Human Rights, *Blind Air Strikes*, December 2015, available at https://mwatana.org/wp-content/uploads/2017/10/Blind-Airstrikes-Report_En.pdf ("Blind Air Strikes" hereafter), p. 26 [HBS/2115]

² *Ibid.* [HBS/2115]

³ Article 54(2), Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977.

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
								[HBS/1970]. However, HRW documented that the house had been completely destroyed by an airstrike: see text and photograph at [HBS/1167].	Denial of responsibility contradicted by credible NGO analysis)
5.	15/04/2015	Al Hamdan Petroleum Station, Al Mazroua area, Sahar District, Saada governorate	HBS/2115 ⁴ HBC/875 (RA/§49)	Mwatana (OTG)	At least 2 civilians killed and at least 6 wounded, most of them farmers	None identified	Strike occurred at 7am. ⁵ If the fuel station itself had been treated a military objective, it would not have been urgent to strike. The principle of precautions dictates that where feasible, an attacker must wait until a military target is free of civilians.	Unknown	Pattern 1b (Object: Fuel-related (economic target))
6.	18/04/2015	Al- Khafji Qat market, Bani Moath Area, Sahar District, Saada governorate	HBS/2115 ⁶ HBC/875, 879 (RA/§§49, 56(v))	Mwatana (OTG)	3 civilians were killed including 2 children, and 7 were wounded including 2 children	None identified	The market is one of the large qat markets in Saada. ⁷ This is relevant to IHL compliance since the market's civilian character and popularity could have been known or ascertained by the Coalition.	Unknown	Pattern 1b (Object: Market (economic target)) Pattern 2 (Behaviour)
7.	21/04/2015	Al Dhaleel	HBS/1971,	Mwatana	22 civilians killed	None identified	The first strike	JIAT claimed that	Pattern 1b

⁴ Blind Air Strikes, p. 36 [HBS/2115]

⁵ *Ibid.* [HBS/2115]

⁶ Blind Air Strikes, p. 34 [HBS/2115]

⁷ *Ibid.* [HBS/2115]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
		bridge, Ibb governorate	2011 HBC/866, 880, 888 (RA/§§31, 57(i), 68(i))	(OTG)	and 32 wounded		occurred at 10AM. ⁸ The fact that JIAT claims the bridge was the military objective is relevant to the principles of precautions and proportionality, since it would have been feasible to target it when no civilians were present or to take time to carry out adequate reconnaissance to identify the civilians. Instead, the first strike killed civilians and the second strike took place while first responders were present, killing many more. ⁹	the bridge was being used as a supply route for Houthis and that video recordings of the mission showed the bridge was clear of civilians and vehicles at the time of both airstrikes. [HBS/2011]	(Object: bridge) Pattern 1c (Civilian harm) Pattern 2 (Behaviour) Pattern 3 (JIAT: Factual claim contradicted by credible NGO analysis; failure to acknowledge civilian harm)
8.	26/04/2015	Al-Watan General Hospital, Marib governorate	HBS/2121 HBC/875, 878 (RA/§§49, 55(iii)), 692, 704 (SAQ)	Mwatana (OTG); YNC (OTG)	Facility completely destroyed	None identified		JIAT investigated and claimed that the building had been in use as a military objective and that the Coalition was unaware it was a medical facility. Nevertheless recommended assistance to restore the building.	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)

⁸ Blind Air Strikes, p.62 [HBS/1972]

⁹ *Ibid.* [HBS/1972]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
								[HBC/704]	
9.	28/04/2015	Al-Qafla Hospital, Amran governorate	HBS/2122 HBC/875, 878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG);	4 civilians wounded	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
10.	30/04/2015	Civilian home in Dar Sa'ad district, Aden governorate	HBS/2115, 1565 HBC/875 (RA/§49), 581, 682 (SAQ)	Mwatana (OTG)	1 woman killed and 6 injured including a child and 2 women	None identified. Houthis were apparently stationed at a stone factory 200m away from the home.	The airstrike happened in the middle of a residential neighbourhood. [HBS/1566] This is relevant to the level of incidental civilian harm that was to be expected even if a military objective had been identified.	Unknown, but strike not deniable since Raytheon remains found by Mwatana.	Pattern 1a (Object: Residential home)
11.	01/05/2015	Bab Shaa'b Neighborhood, Sawaan area, Shaob district, Sana'a governorate	HBS/2115 ¹⁰ , 1391 HBC/875 (RA/§49)	Mwatana (OTG), Amnesty Int. (OTG)	17 civilians including 8 women and 5 children were killed and 39 were wounded, including 14 women and 9 children. 14 houses were fully demolished and partial damage was done to 45 houses.	None identified (Saudi news outlets had claimed that the father of the family was a Houthi, but this was vehemently denied to Mwatana and Amnesty by his family).	The airstrike happened at night in a densely packed residential neighbourhood described by Mwatana as being "like slums". ¹¹ This is relevant to proportionality and precautions, since the expected incidental civilian harm would be particularly high even if a military target had been	Unknown	Pattern 1a (Object: Residential home) Pattern 1c (Civilian harm)

¹⁰ Blind Air Strikes, p.25 [HBS/2115]

¹¹ *Ibid.* [HBS/2115]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
							identified.		
12.	05/05/2015	Al Thabyan village, Al-Thamyd area, Sahar district, Saada governorate	HBS/2115 ¹² HBC/875 (RA/§49)	Mwatana (OTG)	8 civilians were killed, including 7 children and 1 woman	None identified in house. Mwatana identified a military target 50m from the house – a complex containing agricultural equipment that was seized by the Houthis. The family were unconnected to the Houthis.	House was in an agricultural village. Airstrike took place at 2am. ¹³ This is relevant to proportionality and precautions given that residents would be expected to be sleeping.	Unknown	Pattern 1a (Object: Residential home)
13.	07/05/2015	Burkan Health Centre, Saada governorate	HBS/2122 HBC/875, 878 (RA/§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Destruction of building's doors, windows and outer wall.	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
14.	08/05/2015	Al Jabrah house, Al Rabea village, Sahaar District, Saada	HBS/2115 ¹⁴ HBC/875 (RA/§49)	Mwatana (OTG)	1 woman and 1 child were killed	None identified. The village is located to the east of al-Talh weapons market.		Unknown	Pattern 1a (Object: Residential home)
15.	09/05/2015	Market east of al Hadi mosque, Saada Old City, Saada governorate	HBS/1693-1711, 1046, 1058-1059	HRW (OTG); GLAN source (OTG)	Complete destruction of fountain and market (about a dozen shops) and significant damage to residential houses on both sides. Damage to exterior and	None identified in mosque. Houthi armed guards at entrance to mosque	The market is right next to the ancient and culturally significant al-Hadi mosque. [HBS/1693] One crater size was 3m deep and 6m in diameter. Saada's old city appears on UNESCO's "tentative" list for nomination as	Unknown, but the Coalition openly attacked numerous locations in Saada during this time (see e.g. HBS/1046)	Pattern 1b (Object: Market (economic target)) Pattern 2 (Behaviour)

¹² Blind Air Strikes, p.35 [HBS/2115]

¹³ *Ibid.* [HBS/2115]

¹⁴ Blind Air Strikes, p. 33 [HBS/2115]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
					interior of mosque. Reports of some civilian casualties.		a world heritage site.		
16.	10/05/2015	Old market, Saada Old City, Saada governorate	HBS/1712-1723, 1046, 1059-1061	HRW (OTG); GLAN source (OTG)	An area of approx. 40m by 30m, which included the market, was destroyed. Up to 3 people injured or killed	None identified	Multiple munitions used, causing wide-ranging destruction. Saada's old city appears on UNESCO's "tentative" list for nomination as a world heritage site.	Unknown, but the Coalition openly attacked numerous locations in Saada during this time (see e.g. HBS/1046)	Pattern 1b (Object: Market (economic target)) Pattern 2 (Behaviour)
17.	11/05/2015	Al-Sunnah mosque neighbourhood, al-Muthafar district, Taiz governorate	HBS/2115 ¹⁵ HBC/875 (RA/§49), 467 (SAQ)	Mwatana (R); YNC	5 civilians killed, including two children and a woman, and 7 wounded including 2 women and a child.	None identified in or near mosque. A witness reported Houthis being present in a Technical Institute building "not far" away, but that the airstrike took place in a location where only civilians lived.	Strike occurred at 6am. ¹⁶ This is relevant to proportionality and precautions given that residents would be expected to be sleeping.	JIAT investigated and claimed that the Coalition was not responsible and that the nearest target was 240m away [HBC/467]. Note that the two 11 May incidents appear merged in JIAT's report, whereas Mwatana found that the locations were 250m away from each other.	Pattern 1a (Object: residential) Pattern 3 (JIAT: Denial of responsibility contradicted by credible NGO evidence)
18.	11/05/2015	Residential home, al-Dahi valley, al-Muthafar district, Taiz governorate	HBS/2115 ¹⁷ HBC/875 (RA/§49), 467 (SAQ)	Mwatana (OTG); YNC	13 civilians killed, including 8 children and 3 women; 6 civilians injured –	None identified. 500-700 metres away there is a Traffic Police Department	Strike occurred at 6am. ¹⁸ This is relevant to proportionality and precautions given that	JIAT found that the Coalition was not responsible and instead targeted objects at	Pattern 1a (Object: Residential home)

¹⁵ Blind Air Strikes, p. 49 [HBS/2115]

¹⁶ *Ibid.* [HBS/2115]

¹⁷ *Ibid.* [HBS/2115]

¹⁸ *Ibid.* [HBS/2115]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
					3 women and 3 children	building where Houthis were stationed	residents would be expected to be sleeping.	least 240 metres away [HBC/467] Note that the two 11 May incidents appear merged in JIAT's report, whereas Mwatana found that the locations were 250m away from each other. ¹⁹	Pattern 3 (JIAT: Denial of responsibility contradicted by credible NGO evidence)
19.	12/05/2015	Shajjia market, Zabid, Hodeidah governorate	HBS/1973, 2013, 1169-1170 HBC/867, 871, 879, 880, 886 (RA/§§32, 48(i), 56(v), 57(ii), 68(i)), 522 (SAQ)	Mwatana (OTG); HRW; (OTG) Bellingcat (OOSI)	Dozens of civilians killed and dozens more injured	None concretely identified - HRW reported that Houthi fighters would come to the market to eat, but would not linger [HBS/1170]	The market was struck repeatedly while very busy and full of civilians. [HBS/1973; 1169]	JIAT claimed that no Coalition airstrikes took place at this location at this time. [HBS/2013] However, HRW and Mwatana reported that this was a series of airstrikes.	Pattern 1b (Object: Market (economic target)) Pattern 1c (Civilian harm) Pattern 2 (Behaviour) Pattern 3 (JIAT: Factual denial contradicted by credible NGO analysis)
20.	13/05/2015	Abs prison, Hajjah governorate	HBS/1972, 1428 HBC/518 (SAQ)	HRW (OTG); Bellingcat (OOSI)	This and a strike on a nearby home killed 25 civilians including 17 prisoners	Possible: HRW discovered parts of what appeared to be 2 military jeeps among the		JIAT concluded that the prison in Abs was not affected by airstrikes on two	Pattern 1b (Object: Prison) Pattern 1c

¹⁹ Blind Air Strikes, p. 51 [HBS/2115]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
					convicted of petty crimes, 1 woman and 3 children.	buildings.		weapons depots each several kilometers away.	(Civilian harm) Pattern 3 (JIAT: Factual denial contradicted by credible NGO analysis)
21.	25/05/2015	Al-Nahda elementary school, al-Ashra district, Amran governorate	HBS/2115 HBC/875 (RA/§49)	Mwatana (OTG)	2 killed including a child and 5 injured, including a child and a woman. One school building completely destroyed, and a hospital and neighbouring homes were also badly damaged.	None identified. At least 1 kilometre away to the south was a Houthi checkpoint.		Unknown	Pattern 1b (Object: School)
22.	26/05/2015 (and 9 October)	Sheikh Ahmed al-Faza primary school, al-Faza village, at-Tuhayat district, Hodeidah governorate	HBS/2116, 1581 HBC/875 (RA/§49), 581, 682 (SAQ)	Mwatana (OTG)	School destroyed	None identified	The school was attacked twice (in May and October). This indicates that it was not attacked in error.	Unknown, but not deniable since Mwatana found shrapnel with Raytheon's CAGE number inscribed	Pattern 1b (Object: School)
23.	27/05/2015	Abdul Wahab Petrol Station, al-Rahidah area, Dumnat Khadder district, Taiz governorate	HBS/2116 ²⁰ HBC/875 (RA/§49), 462 (SAQ)	Mwatana (OTG); YNC (OTG)	18 civilians killed including 6 children; at least 16 others injured including 6 children and 3 women. YNC	None identified at time of bombing – Houthis had used the station for a brief period and vacated it 20-30 days before it was	Petrol station is located in a meeting point for people and is surrounded by shops and a mosque. ²¹ This is relevant to the collateral damage that	JIAT investigated and found that the Houthis had seized the station and were residing in the building behind it and that	Pattern 1b (Object: Fuel (economic)) Pattern 1c (Civilian harm)

²⁰ Blind Air Strikes, p. 50 [HBS/2116]

²¹ *Ibid.* [HBS/2116]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
					civilian casualty count much higher.	bombed.	was to be expected.	the Coalition had bombed that building, but that no damage was sustained to the petrol station or other houses. Mwatana found that the petrol station was destroyed.	Pattern 3 (JIAT: Factual claim not supported by credible NGO analysis)
24.	29/05/2015	Ghadran Health Centre, Saada governorate	HBS/2122 HBC/875, 878 (RA/§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Eight people killed including a child and injured 13 others	Yes: Health centre was under construction and was occupied by Houthis	Warning should be given if feasible, even in the event that a hospital has become a military objective.	Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
25.	30/05/2015	Al-Saqeen General Hospital, Saada governorate	HBS/2122 HBC/875, 878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Hospital only provided healthcare to fighters	Yes: Hospital was occupied by Houthis and the physician's residence was used as a military base.		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
26.	Mid-2015	Al-Azzad Health Unit, Saada governorate	HBS/2122 HBC/875, 878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Facility put out of service	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
27.	02/06/2015	Residential Home, Errat Hamdan, Sana'a governorate	HBS/2116 ²² HBC/875 (RA/§49)	Mwatana (OTG)	8 killed (5 children and 3 women) and 2 women injured	None identified. Al-Dailami air base is about 5-6 kilometers away.		Unknown	Pattern 1a (Object: Residential home)

²² Blind Air Strikes, p.22 [HBS/2116]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
28.	11/06/2015	Car near water well. Shatt Nofaan, Jumaa bin Fadel area – Haydan district, Saada governorate	HBS/2116 ²³ HBC/875 (RA/§49)	Mwatana (OTG)	3 killed	None identified		Unknown	Pattern 1a (Object: Vehicle)
29.	12 or 13/06/2015	Residential home in Qasemi neighbourhood, Sana'a old city	HBS/1974, 1385 HBC/875 (RA/§49)	Mwatana (OTG); Amnesty Int. (OTG)	5 members of a family	None identified	UNESCO protected building	JIAT found that the Coalition was not responsible as the nearest bombings were several kilometres away, but Amnesty International reported finding a fragment that came from a 2,000 lb Coalition bomb. [HBS/1974; 1385]	Pattern 1a (Object: residential home) Pattern 3 (JIAT: Denial of responsibility contradicted by munition remnants)
30.	13/06/2015	Beit Meyad, al-Sabeen district, Sana'a governorate	HBS/2116, ²⁴ 1384 HBC/875 (RA/§49)	Mwatana (OTG); Amnesty Int. OTG)	10 killed, including 5 women and 3 children	None identified	The house belonged to a nephew of the former president Ali Abdullah Saleh, but he was not present and was unharmed. Not known whether he is military.	Unknown, but strike not deniable since Amnesty International found a fragment of a 2,000 lb bomb. [HBS/1384]	Pattern 1a (Object: Residential home)
31.	14/06/2015	Beir Nasser Health Centre	HBS/2122 HBC/875, 878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Multiple bombs dropped on facility	Yes: Health centre occupied by Houthis at the time of the strike		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)

²³ Blind Air Strikes, p.31 [HBS/2116]

²⁴ Blind Air Strikes, p.21 [HBS/2116]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
32.	16/06/2015	Attack on two vehicles, Khabt al-Rejaa, Tor al-Baha district in Lahj governorate	HBS/2116 ²⁵ HBC/875 (RA/§49)	Mwatana (OTG)	11 killed, including a woman, and 6 wounded including 2 women and a child.	None identified	One of the tucks was a pick-up truck with an open back and its occupants were waving a white flag. ²⁶	Unknown	Pattern 1a (Object: Vehicles)
33.	01/07/2015	Al-Nazir Health Unit, Saada governorate	HBS/2122 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Complete destruction of unit and injury to one civilian	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
34.	01/07/2015	Al-Najdain village, al-Hawban area, Cairo district, Taiz governorate	HBS/2116 ²⁷ HBC/875 (RA/§49)	Mwatana (OTG)	4 killed, including a woman and 2 children	None identified		Unknown	Pattern 1a (Object: Residential home)
35.	02/07/2015	Al-Zaraa neighbourhood, al-Talh area, Sahaar district, Saada governorate	HBS/2116 ²⁸ HBC/875 (RA/§49)	Mwatana (OTG)	5 killed, including 3 children and a woman	None identified. 2 km away outside the village was a police station which had already been bombed before the al-Zaraa neighbourhood		Unknown	Pattern 1a (Object: Residential homes)
36.	04/07/2015	Muthalith Ahim Market, Hajjah governorate	HBS/1975, 2020, 1170 HBC/875, 879 (RA/§§49,	HRW (OTG), Bellingcat (OOSI)	At least 65 killed and 105 wounded	None identified. HRW was told there was a Houthi checkpoint 50m away which was not damaged	The strike happened just as large numbers of people were gathering to break their fast for the evening during	JIAT investigated and claimed that the airstrike had targeted a weapons hangar containing a	Pattern 1b (Object: Market) Pattern 1c (Civilian

²⁵ Blind Air Strikes, p.58 [HBS/2116]

²⁶ Blind Air Strikes, p. 59 [HBS/2116]

²⁷ Blind Air Strikes, p. 47 [HBS/2116]

²⁸ Blind Air Strikes, p. 30 [HBS/2116]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
			56(v)), 518 (SAQ)				Ramadan. [HBS/1170]	ballistic missile and gatherings and vehicles belonging to the Houthis. ²⁹	harm) Pattern 2 (Behaviour) Pattern 3 (JIAT: Factual claim contradicted by credible NGO analysis, failure to acknowledge civilian harm)
37.	06/07/2015	Bawn and Jawb markets, Amran governorate	HBS/1724-1743, 1172-1174	HRW (OTG), The Intercept (OTG)	At least 29 civilian deaths in total, including 16 children. Jawb market's vicinity also contained a mosque, a gas station and homes.	None identified	Airstrikes hit open areas while many civilians were present. [HBS/1724-1743; 1172]	Unknown	Pattern 1b (Object: Market (economic target)) Pattern 1c (Civilian harm)
38.	09/07/2015	Al-Waht Hospital, Lahj governorate	HBS/2122 HBC/875, 878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Severe damage to facility	Yes: Hospital occupied by Houthis		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
39.	10/07/2015	Ghout Health Centre, Saada governorate	HBS/2122 HBC/875, 878	Mwatana (OTG)	Destruction of centre's doors, windows and equipment –	None identified	Appears to have been incidental damage after attack on al-Salam High School	Unknown	Pattern 1b (Object: Medical)

²⁹ <https://www.spa.gov.sa/viewfullstory.php?lang=en&newsid=2107965>

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
			(RA/§§49, 55(iii))		centre out of service for a year.		nearby.		Pattern 2 (Behaviour)
40.	12/07/2015	Eastern workers city, Sawaan area, Shaob district, Sana'a governorate	HBS/2116 ³⁰ HBC/875 (RA/§49)	Mwatana (OTG)	14 children and 9 women killed, 28 wounded, including 17 children and 7 women	None identified. 3km away was the Houthi military engineering department.		JIAT investigated and found that a bomb went off course due to the bomb being defective; recommended assistance	Pattern 1a (Object: Residential homes) Pattern 3 (JIAT: Technical failure)
41.	12/07/2015	Baqem Rural Hospital, Saada governorate	HBS/2122 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Facility and equipment severely damaged	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
42.	13/07/2015	Al-Zaher Hospital, Saada governorate	HBS/2122 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Complete destruction of hospital by 3 airstrikes	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
43.	24/07/2015	Mokha Steam Power Plant, Mokha City, Taiz governorate	HBS/1975-1976, 1290-1291, 1323-1324, 1436-1437, 1080, 1178 HBC/875, 879, 881 (RA/§§56(i), 59(i))	Mwatana (OTG) HRW (OTG) Amnesty (OTG)	65 civilians dead, 42 injured.	None identified. A military facility was 800 metres away.	Multiple consecutive strikes; target clearly civilian in nature with the presence of children's swings and roundabouts	JIAT found that a residential complex was "partly affected by unintentional bombing" as part of a legitimate operation and recommended compensation. [HBS/1976]	Pattern 1a/1b/1c (Object: Residential compound of power plant; civilian harm) Pattern 2

³⁰ Blind Air Strikes, p.19 [HBS/2116]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									(Behaviour) Pattern 3 (JIAT: Failure to acknowledge extent of civilian harm; Report describing failure to follow procedures designed to ensure compliance with IHL)
44.	01/08/2015	Al-Hamra village, Tuban district, Lahj governorate	HBS/2116 ³¹ HBC/875 (RA/§49)	Mwatana (OTG)	8 civilians, including 3 women and 2 children, and 2 injured including a woman. 8 houses destroyed, 23 were damaged.	None identified. 200-300 metres away there were Houthi gunmen stationed in two locations.	The attack took place at 1am in the middle of a residential district. ³² This is relevant to proportionality and precautions given that residents would be expected to be sleeping.	Unknown	Pattern 1a (Object: Residential home)
45.	05/08/2015	Al-Qimmah Hall, Haoth al-Ashraf, Cairo district, Taiz governorate	HBS/2116 ³³ HBC/875 (RA/§49), 493 (SAQ)	Mwatana (OTG); YNC (OTG)	6 killed including 3 children and a woman, 7 injured including a woman	None identified. Area reportedly under control of Popular Resistance, an anti-Houthi movement.		JIAT investigated and found that the Coalition had not attacked the house. However, Mwatana reported	Pattern 1a (Object: Residential home) Pattern 3

³¹ Blind Air Strikes, p.57 [HBS/2116]

³² *Ibid.* [HBS/2116]

³³ Blind Air Strikes, p.43 [HBS/2116]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/ compliance	JIAT/ Coalition determination	Pattern
								that witnesses heard the sound of planes before the explosions. ³⁴	(JIAT: Denial contradicted by credible NGO reporting)
46.	07/08/2015	Malaria Control Unit, al-Hodeidah governorate	HBS/2122 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Everyone in the unit was killed, including the entire medical staff, 3 civilians and a hospital guard.	Yes: Houthis occupied the unit	IHL requires warning to be given if the circumstance permit	JIAT claimed that the location had never been reported as a medical facility. ³⁵	Pattern 1b (Object: Medical facility) Pattern 2 (Behaviour)
47.	09/08/2015	Auto Spare Parts Center, al-Rahidah area, Domnat Khadder district, Taiz governorate	HBS/2116 HBC/875 (RA/§49)	Mwatana (OTG)	1 child killed, 3 civilians injured including a child.	None identified		Unknown	Pattern 1b (Object: Commercial)
48.	15/08/2015	Residential homes, Haradh district, Hajjah governorate	HBS/2117, 1544 HBC/875 (RA/§49) 582, 683 (SAQ)	Mwatana (OTG)	10 civilians killed including 6 children and 3 women, six injured including 4 children and 1 woman	None identified	Cluster munition used in residential neighbourhood. [HBS/1544] Cluster munitions have an extremely wide scatter area and their submunitions remain unexploded long after the munition has been deployed. [e.g. HBS/1121] Indiscriminate attacks include those which make use of a weapon which cannot be directed at a specific military	Unknown, but not deniable since US-made cluster munition used	Pattern 1a (Object: Residential home)

³⁴ *Ibid.* [HBS/2116]

³⁵ <https://wam.ae/en/details/1395302672258>

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
							objective or which employ a means of combat the effects of which cannot be limited as required by Additional Protocol I. ³⁶		
49.	17/08/2015	House in al-Qarameah neighbourhood, Jebelah, 6km to the south of Ibb city, Ibb governorate	HBS/2117 ³⁷ HBC/875 (RA/§49)	Mwatana (OTG)	At least 5 killed, 3 women and 3 children, and at least 5 wounded, including a woman.	None identified		Unknown	Pattern 1a (Object: Residential home)
50.	17/08/2015	Bir Zied Health Unit, Kitaf al-Boqa district, Saada governorate	HBS/2122 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Complete destruction of facility	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
51.	20/08/2015	Houses near presidential palace, Salah, Taiz	HBS/1977, 2010 HBC/880, 886 (RA/§§58(ii), 68(ii))	Mwatana (OTG)	About 50 civilians killed and more than two dozen wounded	None identified	Very densely populated civilian area (“like slums”); six strikes took place, delaying rescue efforts. Sixth bomb landed while first responders were present. ³⁸ These features are relevant to precautions and proportionality, since the expected incidental civilian harm would be	JIAT claimed that the Coalition did not bomb the homes.	Pattern 1a (Object: Residential homes) Pattern 3 (JIAT: Denial of responsibility contradicted by credible NGO analysis)

³⁶ Article 51 (4), Additional Protocol I

³⁷ Blind Air Strikes, p.60 [HBS/2117]

³⁸ *Ibid.* [HBS/2117]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
							particularly high under these circumstances.		
52.	24/08/2015	Asma'a bint Abi Bakr school, al-Mansuriyah district, Hodeidah governorate	HBS/2117, 1584 HBC/875 (RA/§49)	Mwatana (OTG)	School destroyed	None identified		Unknown, but not plausibly deniable since weapons remnants found at scene appear to be US-made JDAM GBU-31 bomb.	Pattern 1b (Object: School) Pattern 2 (Behaviour)
53.	28/08/2015	Residential homes, al-Dhihar district, Ibb governorate	HBS/1549-1551, 1977-1978 HBC/887 (RA/§68(iii))	Mwatana (OTG)	5 civilians killed, including a child and a woman	None identified	3 bombs in rapid succession	JIAT investigated and found that the Coalition was not responsible for the attack. However, Mwatana recovered remnants containing serial numbers indicating that the weapon was a DAM GBU-31 bomb. [HBS/1551]	Pattern 1a (Object: Residential homes) Pattern 3 (JIAT: Denial contradicted by munition remnants)
54.	30/08/2015	Al-Sham Water Bottling Factory, Abs City, Hajja Governorate	HBS/2117 ³⁹ , 153; 1180; 1291; 1434; HBC/875 (RA/§49)	Mwatana (OTG) HRW (OTG)	14 civilians killed, including three children. 11 civilians injured.	None identified	Yemen is extremely water-scarce. Water sources are regarded as OIS.	JIAT claimed that clouds had caused the weapon to malfunction.	Pattern 1b (Object: Water bottling factory (economic target)) Pattern 3 (JIAT: Technical failure)

³⁹ Blind Air Strikes, p.66 [HBS/2117]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
55.	30/08/2015	Mashabah village, Mukeiras district, al-Baidha governorate	HBS/2117 ⁴⁰ HBC/875 (RA/§49)	Mwatana (OTG)	10 killed from one family, including 5 women and 4 children, 3 children wounded	None identified. The nearest military site is about 1-2 km away.		Unknown	Pattern 1a (Object: House)
56.	02/09/2015	Ketaf Health Centre, Ketaf al-Boqa district, Saada governorate	HBS/2122 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Partially destroyed the Centre and the area surrounding it	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
57.	02/09/2015	Al-Atfain Health Centre, Saada governorate	HBS/2123 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	2 people killed and centre and staff residence damaged	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
58.	04/09/2015	Al-Karama Hospital, Taiz governorate	HBS/2123 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Heavy damage to hospital putting it out of service, and 1 civilian killed	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
59.	04/09/2015	Hussein Mujali Girls' School, Rahban, Saada governorate	HBS/2117 HBC/875 (RA/§49)	Mwatana (OTG)	4 classrooms destroyed, 3 others partially destroyed. School was closed for a year.	None identified at time of this attack.		Unknown	Pattern 1b (Object: School)
60.	05/09/2015	Al-Khamseen St (Fifty Street) – al-Sabaen district, Sana'a	HBS/2117 ⁴¹ HBC/875 (RA/§49)	Mwatana (OTG)	7 killed, including a woman and a child	None identified		Unknown	Pattern 1a (Object: House and workshop)

⁴⁰ Blind Air Strikes, p.72 [HBS/2117]

⁴¹ Blind Air Strikes, p. 16 [HBS/2117]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
		governorate							
61.	05/09/2015	Al-Nahda neighbourhood, al-Thawra district, Sana'a governorate	HBS/2117 ⁴² HBC/875 (RA/§49)	Mwatana (OTG)	9 killed, including 3 women and 2 children	None identified in house, but house is about 20-30 meters away from the wall of al-Eman University, where Houthis have been stationed since 2014		Unknown	Pattern 1a (Object: Residential)
62.	08/09/2015	Ghafrah Health Unit	HBS/2123 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Unit completely destroyed, leaving area without a health facility	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
63.	14/09/2015	Wa'an agricultural complex engineers' residences, Bilad al-Rus district, Sana'a governorate	HBS/1546, 1785-1807 HBC/867, 880 (RA/§§33, 57(iii))	Mwatana (OTG)	8 civilians killed including 2 children and 12 more injured, half of them children	None identified in complex. 500m away, west of the complex, was a military camp.	5 consecutive airstrikes	Unknown, but incident not deniable since Raytheon remnants discovered. [HBS/1798-1804; 1546]	Pattern 1a/1b (Object: Residential area of agricultural complex (economic target))
64.	15/09/2015	Civilian home in as-Sabain district, Amanat al-Asimah governorate	HBS/2117, 1571	Mwatana (OTG)	2 injured, including a woman	None identified		Unknown, but not deniable since US-made Raytheon munition remnants found	Pattern 1a (Object: Residential home)
65.	19/09/2015	Civilian home in UNESCO-protected al-Feleihi district, Sana'a governorate	HBS/1744-1784 HBC/861, 878, 880, 887 (RA/§§28(i))	Mwatana (OTG); GLAN source (OTG)	13 civilian deaths, including a woman and nine children. The house was destroyed, and severe damage	None identified. All sources claimed the house's owner was a vegetable seller.	Sana'a old city is on the UNESCO World Heritage List and the al-Feleihi district is a densely populated civilian residential area. The attack	JIAT investigated and concluded on 7 June 2018 that the attack was not carried out by the Coalition [HBS/1744;].	Pattern 1a (Object: Residential home) Pattern 2 (Behaviour)

⁴² Blind Air Strikes, p.18 [HBS/2117]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
			, 55(i), 58(i), 68(iv))		was done to neighbouring houses.		happened at night when people would be expected to be in their homes, eating or sleeping.	However, photographs taken at the scene show fragments of a munition which has been identified as a Mark-80 series bomb, most likely a GBU-12. [HBS/1749-1765]	Pattern 3 (JIAT: Denial contradicted by munition remnants)
66.	19/09/2015	Al-Nazir Health Centre, Saada governorate	HBS/2123 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Only health centre in al-Nazir district completely destroyed.	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
67.	19/09/2015	Al-Maqna'a Health Unit, Saada governorate	HBS/2123 HBC/875, 878 (RA/§§49, 55(iii)), 693-694 (SAQ)	Mwatana (OTG)	Unit partially destroyed and medical worked killed by shrapnel to the neck	None identified in hospital. Attack appears to have been aimed at Houthi official's home nearby		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
68.	23/09/2015	Radfan Ceramics Factory, Matna Village, Beni Matar District, Sanaa Governorate	HBS/2118, 1602, 1292-1293 HBC/875 (RA/§49)	HRW (OTG); Mwatana (OTG) Amnesty (OTG)	One civilian dead, and two injured (including a child). Ceramics factory destroyed.	None identified. (There was a Houthi makeshift detention facility nearby, but the strike did not hit that.)		Unknown, but incident not deniable since UK-made precision guided munition used	Pattern 1b (Object: Ceramics factory (economic target))
69.	27/09/2015	Zeila village, Harad district, Hajjah governorate	HBS/2118 ⁴³ HBC/875 (RA/§49)	Mwatana (OTG)	18 killed, including 14 children and 4 women	None identified. Houthis were firing from a farm about 4 km away from the village	Three bombs launched in the middle of a village, in a populated area. ⁴⁴	Unknown	Pattern 1a (Object: residential homes and fleeing)

⁴³ Blind Air Strikes, p.70 [HBS/2118]

⁴⁴ *Ibid.* [HBS/2118]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									civilians) Pattern 1c (Civilian harm)
70.	28/09/2015	Waheja wedding airstrike, Taiz governorate	HBS/2118 HBC/875 (RA/§49)	Mwatana (OTG)	26 civilians killed, including 13 children and 12 women	None identified by Mwatana	Busy wedding; multiple airstrikes.	Coalition spokesperson denied any airstrike took place but there has been no known formal JIAT assessment.	Pattern 1a (Object: Wedding) Pattern 1c (Civilian harm)
71.	07/10/2015	Wedding in Sanaban village, Dhamar governorate	HBS/ 1979, 153 HBC/875 (RA/§49), 518 (SAQ)	Mwatana (OTG); Bellingcat (OOSI); UNPoE	Around 40 civilians killed.	None identified		JIAT claimed that a group of armed vehicles were targeted on an asphalt road and that there was no targeting of civilian objects.	Pattern 1a (Object: Wedding) Pattern 3 (JIAT): Factual claim concerning military objective unsupported by credible NGO analysis; failure to acknowledge civilian harm)
72.	22/10/2015	Kaaban Island, Bayt al-Faqih district, Hodeidah	HBS/2118 ⁴⁵ HBC/875 (RA/§49)	Mwatana (OTG)	42 civilians killed including 5 children, 8 wounded.	None identified.	Airstrikes on fisherman sleeping on their boats. ⁴⁶	Unknown	Pattern 1b (Object: fishing boats)

⁴⁵ Blind Air Strikes, p. 53 [HBS/2118]

⁴⁶ *Ibid.* [HBS/2118]

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
		governorate							Pattern 1c (Civilian harm)
73.	28/10/2015	Al-Khansa girls' school, al Bayda City, al Bayda governorate	HBS/2118, 1587 HBC/875 (RA/§49)	Mwatana (OTG)	School partially destroyed; surrounding houses demolished or damaged	None identified		Unknown, but not deniable since Mwatana recovered a remnant with "962" inscribed, likely the initial digits of Raytheon's CAGE number.	Pattern 1b (Object: School)
74.	12/11/2015	Civilian farm, Haradh district, Hajjah governorate	HBS/1980, 1492, 1561 HBC/867 (RA/§34), 583, 684 (SAQ)	Mwatana (OTG)	2 civilians killed and 3 injured	None identified	Cluster bomb (likely CBU-58 with BLU-63 submunitions) used over civilian farm. See item 48 for commentary on cluster munitions.	Unknown, but not deniable since US-made cluster bomb remnants found	Pattern 1b (Object: Farm)
75.	31/12/2015	Al Kahlani Factory, Kilo 16, Hodeidah governorate	HBS/1981, 1593-1594 HBC/867 (RA/§35), 583, 684 (SAQ)	Mwatana (OTG)	Damage to factory and displacement of families living nearby	None identified. 1 kilometre away was a military camp.		Unknown, but not deniable since remnants recovered at the scene had inscriptions used by the US system.	Pattern 1b (Object: Factory)
76.	06/01/2016	Al-Muqbeli warehouse in Hodeidah governorate	HBS/1981, 1269-1271, 1595-1596 HBC/868 (RA/§36), 133 (AF), 473 (SAQ)	Mwatana (OTG); HRW (OTG)	Destruction of warehouse containing car parts.	None identified. 100 metres away was a checkpoint.	Two airstrikes in quick succession	JIAT claimed that the strike was legitimate, because the target was being used as a weapons depot.	Pattern 1b (Object: Warehouse containing goods including car parts) Pattern 3 (JIAT: Claim of military)

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									objective not supported by credible NGO analysis)
77.	06/01/2016	Derhim Industrial Factory in Hodeidah governorate	HBS/1982, 1269-1271, 1595-1596 HBC/868 (RA/§36), 133 (AF), 473 (SAQ)	Mwatana (OTG); HRW (OTG)	Destruction of industrial factory	None identified	Four airstrikes	JIAT claimed that the strike was legitimate, because the target was being used as a weapons depot.	Pattern 1b (Object: Factory (economic target)) Pattern 3 (JIAT: Claim of military objective not supported by credible NGO analysis)
78.	08/01/2016	Community college, Bilad ar-Rus district, Sana'a governorate	HBS/2118, 1589-1590 HBC/875 (RA/§49), 583, 684 (SAQ)	Mwatana (OTG)	Some areas of college completely destroyed, others partially destroyed.	None identified		Unknown, but not deniable since UK-made precision guided munition used.	Pattern 1b (Object: School/educational)
79.	12/01/2016	Al-Qeid Health unit, Razih district, Saada governorate	HBS/2123 HBC/875,878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Munition landed 200m from health unit	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
80.	18/01/2016	Ketaf Rural Hospital, Letaf al-Boqa district, Saada governorate	HBS/2123 HBC/875,878 (RA/§§49, 55(iii)), 693	Mwatana (OTG)	Attack left a temporary suspension of services before rehabilitation by	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
			(SAQ)		UNICEF				(Behaviour)
81.	02/02/2016	Cluster bomb on civilian home in Haradh district, Hajjah governorate	HBS/2118, 1563 HBC/875 (RA/§49)	Mwatana (OTG)	1 killed and 8 injured, including a woman	None identified	See note at item 48 concerning cluster munitions	Unknown, but not deniable since US-made CBU-52 cluster bomb recovered at the scene	Pattern 1a (Object: Residential neighbourhood)
82.	04/02/2016	Al-Abu Jabara Health centre, Ketaf al-Boqa district, Saada governorate	HBS/2123 HBC/875, 878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Centre almost completely destroyed	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
83.	06/02/2016	Civilian home, at-Ta'iziyah, Taiz governorate	HBS/2118, 1558, 1983 HBC/862, 875 (RA/§§28(ii), 49), 583, 684 (SAQ)	Mwatana (OTG)	2 civilians killed (a child and a woman)	None identified	Strike took place at 1.30 am in a residential neighbourhood. [HBS/1558] This is relevant to precautions and proportionality since the neighbourhood's civilian residents would be expected to be sleeping in their homes.	Unknown, but not deniable since Mk-82 warhead remnants found	Pattern 1a (Object: Residential home)
84.	24/02/2016	Al-Ghail Health Centre, al-Jawf governorate	HBS/2123 HBC/875, 878 (RA/§§49, 55(iii)), 693 (SAQ)	Mwatana (OTG)	Building partially destroyed	Yes: Houthis were occupying the building		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
85.	27/02/2016	Al-Abdel Health Centre, Kattaber district, Saada governorate	HBS/2122 HBC/875, 878 (RA/§§49,	Mwatana (OTG)	Partial destruction of health centre	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
			55(iii)), 693 (SAQ)						(Behaviour)
86.	25/05/2016	Civilian residence, al-Mahala, Lahj governorate	HBS/1983, 84	UNPoE (R)	6 people were killed – 1 man (deputy director of education), 1 woman and 4 children, 1 woman and 2 children were critically injured.	None identified. Another house located 544 metres away, belonging to an AQAP ⁴⁷ fighter, was bombed shortly afterwards.	Strike took place at 4 AM. [HBS/1984] This is relevant to precautions and proportionality, since women and children would be expected to be at home asleep. The second airstrike prevented members of the family surviving [HBS/1984]	JIAT concluded that the house contained a gathering of Houthi leaders, claiming that video recordings proved that no civilians were present. JIAT only acknowledges a strike on one house, not two.	Pattern 1a (Object: Residential home) Pattern 3 (JIAT: Factual claim not supported by credible UN evidence; failure to acknowledge civilian harm)
87.	06/08/2016	Al-Eshash water facility, Kitaf wa al-Buqa'a district, Saada governorate	HBS/2107 HBC/871 (RA/§47)	Mwatana (OTG)	Water tank completely destroyed, pump room partially damaged	None identified. One interview said there was a checkpoint 200m away.	Water facilities are regarded as OIS. Yemen is extremely water-scarce.	Unknown	Pattern 1b (Object: Water facility)
88.	11/08/2016	Main bridge between Hodeidah and Sana'a	HBS/1984 HBC/878 (RA/§55(ii))	Oxfam (UKN);	Bridge completely destroyed	None identified by Oxfam in report (but possible it was being used by Houthis)	Main bridge between Hodeidah and Sana'a; was on No Strike List ("NSL") according to an insider.	Unknown	Pattern 1b (Object: Bridge)
89.	15/08/2016	Abs hospital, Hajjah Governorate	HBS/2123, 89-93, 219, 415, 1302-1320, 1454 HBC/875 (RA/§49), 132 (AF)	MSF (OTG); UNPoE	19 people killed, including 5 children. 24 people injured, including 4 children. Other critical patients later died from suffering adverse medical effects	None identified.	There were roof markings on the hospital [HBS/1311]. MSF had communicated its location to the Coalition.	JIAT found that the vehicle was a "legitimate military target" and the damage to the hospital was "unintentional." Claimed the hospital was not marked.	Pattern 1b (Object: Hospital/civilian vehicle) Pattern 1c (Civilian harm)

⁴⁷ Al Qaeda in the Arabian Peninsula

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
					trying to escape the airstrike.			Recommended apology and assistance, in addition to accountability. [E.g. HBS/91]	<p>Pattern 2 (Behaviour)</p> <p>Pattern 3 (JIAT: Analysis indicating failure to follow procedure designed to ensure compliance with core IHL principles)</p>
90.	02/09/2016	Cultural center, Al-Mina district, Hodeidah governorate	HBS/2118, 1605 HBC/875 (RA/§49)	Mwatana (OTG)	1 killed and 5 injured	None identified in cultural center. 200 metres away was a Houthi-controlled security administration office	Two bombs used.	Unknown, but not deniable since Raytheon weapon used [HBS/1605]	Pattern 1a/1b (Object: cultural center)
91.	12 or 13/09/2016 [and 22/09/2016]	Al-Senidar factory complex (including al-Caprari water pump factory), Bani al-Harith district, Amanat al-Asmirah governorate	HBS/1598-1600, 1985, 58, 103, 155, 159 HBC/868 (RA/§38)	Mwatana (OTG) UNPoE (UKN)	Destruction of three separate factories in a complex and damage to a house nearby using four bombs	None identified. Nearest was a base about 500m away.		JIAT concluded that the location had become a military objective [HBS/1985]	<p>Pattern 1b (Object: Factory (economic target))</p> <p>Pattern 3 (JIAT: Factual claim concerning military objective not supported by credible NGO)</p>

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									analysis)
92.	20/09/2016	Pick-up truck (open-backed) carrying women and children, al-Matmmah district, al-Jawf governorate	HBS/1538-1541, 1808 HBC/871, 889 (RA/§§48(ii), 56(iii), 68bis(ii))	Mwatana (OTG),	15 civilians killed (including 12 children and 3 women), 3 children injured	None identified	The pick-up truck was open-backed and full of women and children. [HBS/1538] This is relevant to IHL compliance since the Coalition claims it has video evidence of the pick-up truck with no persons on its surface.	JIAT investigated and found that the pick-up truck was being driven by Houthis and that video showed “no persons on its surface.” [HBS/1808] This was not the case – 12 children were killed including 3 babies. [HBS/1809]	Pattern 1a (Object: Civilian vehicle) Pattern 1c (Civilian harm) Pattern 3 (JIAT: Factual claim denying civilian harm contradicted by credible NGO evidence)
93.	21/09/2016	Hunood neighbourhood, Hawak district, Hodeidah governorate	HBS/1535, 1824 HBC/862, 887 (RA/§§28(ii), 58(iii), 68(v)), 488 (SAQ)	HRW (OTG); Mwatana (OTG)	23 civilians killed (including 5 children and 2 women), 46 injured, severe damage to homes on street	None identified	Use of Mark-83 1,000 lb bomb in densely populated civilian residential and commercial area[HBS/1824, 1535]	JIAT investigated and found that the Coalition was not responsible. However, weapons remnants have been identified as US-manufactured GBU-16 Paveway II with Mark-83 warhead [MIB/269]	Pattern 1a (Object: Civilian residential; Funeral) Pattern 1c (Civilian harm) Pattern 2 (Behaviour) Pattern 3 (JIAT: Denial of airstrike)

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									contradicted by munition remnants)
94.	24/09/2016	Residential building, al-Dhihar district, Ibb governorate	HBS/1866, 58, 155, 168, 1549, 1555 HBC/862, 887 (RA/§§28(iv), 68(v))	Mwatana (OTG); UNPoE (UKN)	6 civilians killed, including 3 children and a woman and 1 woman injured	None identified. A About 500m from the apartment building was a Houthi military building.		JIAT found that the nearest Coalition airstrike that day was over 1km away, but Mwatana and the UNPoE found a remnant of a GBU-12 Paveway II laser-guided bomb [e.g. HBS/1831]	Pattern 1a (Object: Residential home) Pattern 3 (JIAT: Denial of responsibility contradicted by munition remnants)
95.	01/10/2016	Baqem Rural Hospital, Saada governorate	HBS/2123 HBC/875 (RA/§49), 693 (SAQ)	Mwatana (OTG)	Second attack on this hospital, inflicting further damage	None identified.		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
96.	05/10/2016	Cluster bomb attack on fishing boat, al-Khawkhah district, Hodeidah governorate	HBS/2119, 1568-1570 HBC/875 (RA/§49)	Mwatana (OTG)	1 killed	None identified	Cluster bomb used. See item 49 for comments on the use of cluster munitions.	Unknown, but not deniable since US-made cluster munition used [HBS/1569]	Pattern 1b (Object: Boat)
97.	08/10/2016	Al-Sala al-Kubra community hall, Sana'a	HBS/1660, 2008, 2119, 1573-1575, 1437-1438, 94-101, 59 HBC/875, 880, 881 (RA/§§49,	Mwatana (OTG); UNPoE (UKN); Bellingcat (OOSI)	132 civilians killed and 695 injured (including at least 24 children).	Yes: There were some Houthi fatalities.	The funeral was advertised on Facebook [e.g. HBS/100] and it would have been known that custom obliged civilians to attend. [HBS/99-100] A significant number	JIAT attributed responsibility to the Coalition; claimed the attack was based on "wrong information" provided by the Yemeni gov. in	Pattern 1a (Community hall) Pattern 1c (Civilian harm) Pattern 2

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
			57(iv) 59(ii)), 523 (SAQ)				of Houthi-affiliated military and political leaders were expected to attend. [e.g. HBS/58]	Riyadh which did not take into account the “nature of the targeted area”.	(Behaviour) Pattern 3 (JIAT: Analysis describes failure to follow procedures designed to ensure compliance with precautions and proportions)
98.	08/10/2016	Residential home, Bajil district, Hodeidah governorate	HBS/2119, 1552-1554 HBC/875 (RA/§49), 584, 685 (SAQ)	Mwatana (OTG)	6 civilians killed, including 4 children and a pregnant woman, 1 woman injured	None identified/unclear. Around 300 metres away was a Houthi checkpoint.	Airstrike took place at 3am	Unknown	Pattern 1a (Object: Residential home)
99.	29/10/2016	Al-Zaydiyah prison, Hodeidah governorate	HBS/1432, 1986 HBC/891 (RA/§69)	HRW (OTG)	Strike killed at least 63 people, including Houthi personnel and civilians, and wounded 67 more.		Prisoners were immune from attack, whether because they were civilians or <i>hors de combat</i> fighters.	JIAT claimed that the Coalition had intelligence indicating Houthi leaders were using the building for military purposes.	Pattern 1b (Object: prison) Pattern 1c (Civilian harm) Pattern 3 (JIAT: Failure to address proportionality or acknowledge

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									civilian harm)
100.	12/12/2016	Residential home, al-Hajawrah, Midi district, Hajjah governorate	HBS/1986, 1542	Mwatana (OTG)	15 civilians killed including 9 children and 4 women, 7 injured (2 children and 5 women)	None identified	Cluster bomb used in attack (US-made BLU-63). See general comment at item 49 in relation to cluster munition use.	Unknown, but not deniable since US-made cluster munition used	Pattern 1a (Object: Residential home)
101.	30/01/2017	Ibn Huwaidi Health Unit, Saada governorate	HBS/2123 HBC/875,878 (RA/§§49, 55(iii)), 694 (SAQ)	Mwatana (OTG)	Near-total destruction of centre, specifically the emergency room	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
102.	22/02/2017	Cluster bomb attack on farm, Qahza, al'O'albi, Saada	HBS/1987 HBC/585 (SAQ)	HRW (R)	2 boys wounded; and cluster bombs leave many unexploded submunitions which become de facto landmines	None identified. Around 3-5 kilometres away was a military camp.	Detonated over area with cultivated farmland and visible greenhouses. See general comment at item 49 in relation to cluster munition use.	Not known, but strike not deniable since Brazilian cluster munition used, linking the attack to the Coalition	Pattern 1b (Object: Farm)
103.	10/03/2017	Al Khokha market, Hodeidah governorate	HBS/1988, 1464 HBC/869, 888 (RA/§§39, 56(v), 68(vii))	Mwatana (OTG); Bellingcat (OOSI)	21 civilians killed including 3 children	None identified. About 200 metres away was a military camp which was also being bombed at the time. [HBS/1988]		JIAT investigated and found that the Coalition was not responsible	Pattern 1b (Object: Market (economic target)) Pattern 2 (Behaviour) Pattern 3 (JIAT: Factual denial contradicted by credible NGO)

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									analysis)
104.	15/03/2017	Baqem Rural Hospital, Saada governorate	HBS/2124 HBC/875,878 (RA/§§49, 55(iii)), 694 (SAQ)	Mwatana (OTG)	Third strike on this hospital	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
105.	08/04/2017	Farm in al-Jer area, Abs district, Hajjah governorate	HBS/2106 HBC/871 (RA/§47)	Mwatana (OTG)	4 civilians wounded including a child, destroyed water pump, pond, irrigation network and killed some livestock	None (though occupied by Houthis after attack)		Unknown	Pattern 1b (Object: Farm)
106.	23/05/2017	Farm in al-Jer area, Abs district, Hajjah governorate	HBS/2106 HBC/871 (RA/§47)	Mwatana (OTG)	3 civilians wounded including 2 children, water pump and parts of irrigation network destroyed along with crops.	None	Water sources are regarded as OIS.	Unknown	Pattern 1b (Object: Farm, irrigation equipment, crops)
107.	03/06/2017	Qahzeh Health Centre, Saada governorate	HBS/2124 HBC/875,878 (RA/§§49, 55(iii)), 694 (SAQ)	Mwatana (OTG)	Damage to northern and eastern parts of the hospital	None identified at health centre. Coalition was attacking Jabal Qahzeh, a brigade military camp less than 500 metres away.		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
108.	9/06/2017	Civilian home, al-Qoubari neighbourhood, 50 th Street, Sana'a	HBS/1990, 1335, 1464 HBC/500 (SAQ)	UNPoE, HRW (R); YNC (OTG)	4 civilians killed, including 3 children. 6 homes destroyed and 5 more damaged.	None identified		JIAT investigated and found that the house had been hit due to a technical failure and recommended assistance.	Pattern 1a (Object: Residential home) Pattern 3 (JIAT:

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
								[HBC/500]	Technical failure)
109.	18/07/2017	Homes in al-Ua'shira village, Mokha district, Taiz governorate	HBS/19911466	HRW (R)	At least 14 civilians killed, including 9 children	None identified		Unknown	Pattern 1a (Object: Residential homes)
110.	02/09/2017	Al-Maqadhi house, Farah village, Washa, Hajjah governorate	HBS/1991, 146, 1469	UNPoE (R)	3 killed, 13 injured	None identified	Casualties high because second day of Eid – the annual day of gathering for the al-Maqadhi tribe [HBS/146]. This may have been foreseeable by the Coalition, depending on intelligence available	JIAT found that the house contained military targets and a vehicle laden with weapons had just approached it	Pattern 1a (Object: Residential) Pattern 3 (JIAT: Factual claim concerning military objective not supported by credible UN analysis; failure to acknowledge civilian harm)
111.	10 or 11 /11/2017	Fishermen and fishing boats in al-Badeea' Island, al-Luhaiyah district, al-Hodeidah governorate	HBS/2105, 220 HBC/476 (SAQ)	Mwatana (OTG); UNGEE (R)	At least 9 fishermen killed and 5 wounded. Multiple fishing boats and tools destroyed.	None identified		JIAT investigated and found that a gathering of Houthis was targeted. JIAT claimed that no casualties resulted.	Pattern 1b (Object: Fishing boats) Pattern 3 (JIAT: Factual claim contradicted by credible NGO and UN

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									evidence; failure to acknowledge civilian harm)
112.	26/12/2017	Alhaima Sh'b Almaleeh market, al-Hayma al Sufla village, at-Taizziah district, Taiz governorate	HBS/2119, 1472 HBC/869, 875, 889 (RA/§§40, 49, 56(v), 68bis(iii))	Mwatana (OTG); UNGEE (UKN)	At least 27 killed including 6 children, 8 wounded including a child (UN estimates higher)	None identified	Occurred at 8am when a group of qat sellers had just arrived at the market. Fighter planes had been flying over the area at 8pm the previous evening and dropped a bomb, but the market was empty.	JIAT investigated and claimed that there was no market at the location they bombed on this date.	Pattern 1b (Object: Market) Pattern 1c (Civilian harm) Pattern 2 (Behaviour) Pattern 3 (JIAT: Factual claim contradicted by credible NGO and UN evidence; failure to acknowledge civilian harm)
113.	27/11/2017	Al-Maqna Health Unit, Saada governorate	HBS/2124 HBC/875,878 (RA/§§49, 55(iii)), 694 (SAQ)	Mwatana (OTG)	Centre nearly completely destroyed	None identified		Unknown	Pattern 1b (Object: Medical) Pattern 2 (Behaviour)
114.	10/01/2018	Attack on home of Ali Ma'idh al	HBS/2119	Mwatana (OTG)	3 children killed, 1 woman injured.		Home struck at 3.30 am, while family	Unknown	Pattern 1a (Object:

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
		Ghamri in al Shawmiah village, Saada governorate	HBC/875 (RA/§49), 586 (SAQ)				sleeping		Residential home)
115.	27/01/2018	Residential home, al-Raqab, at-Ta'iziyeh, Taiz governorate	HBS/1994 HBC/861 (RA/28(v)), 587, 687, 702 (SAQ)	Mwatana (OTG), Amnesty	2 children and their mother killed, 2 children and their father wounded	None identified		JIAT investigated and claimed that the building in question was in use by the Houthis, and was therefore legitimately targeted. JIAT claimed it was in a remote location on the top of a mountain.	Pattern 1a (Object: Residential home) Pattern 3 (JIAT: Factual claim concerning military target not supported by credible NGO analysis)
116.	02 or 3/04/2018	Civilian buildings in al-Saleh city (complex of IDPs) Hali district, Hodeidah governorate	HBS/1995, 220, 251, 254, 263 HBC/880 (RA/§58(iv))	UNPoE, (R) UNGEE (R)	At least 12 killed, including at least 7 children and at least 2 women. About 15 injured.	Yes: UN stated that the Houthis were likely using one of the towers	UNPoE found that even if Houthis had been present, this was unlikely to confirm with precautions and proportionality.	JIAT claimed that the Coalition did not carry out the incident. However, the UN analysed fragments of weapons used, and found that the coalition was likely responsible.	Pattern 1a (Object: Civilian residential) Pattern 3 (JIAT: Denial contradicted by munitions remnants)
117.	08/04/2018 (some reports say 9th or 10th)	Outside family home, al-Mahoul village, Khidair district, Taiz governorate	HBS/2120 1474 HBC/875 (RA/§49),	Mwatana (OTG); Daily Mail (R);	12 killed, including 5 children and 4 women, 1 injured.	None identified		JIAT investigated and found that the Coalition was not responsible for the attack ⁴⁸	Pattern 1a (Object: Civilian residential)

⁴⁸ <https://nbetapk.arabnews.com/node/2054001/saudi-arabia>

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
			586, 687 (SAQ)						Pattern 3 (JIAT: Denial of responsibility contradicted by credible NGO analysis)
118.	17 April 2018 (and 17 November 2015) [Note error in bundle which states 2017.]	Al-Hamazat Water Facility, Sahar district, Saada governorate	HBS/2104, 2180-2186 HBC/871 (RA/§47)	Mwatana (OTG)	Cement water reservoir completely destroyed and bombed again after repair	None identified	Facility out of service for two years, repaired by UNICEF and then struck again. [HBS/2104] Yemen is extremely water scarce. Water sources are considered OIS.	Unknown	Pattern 1b (Object: Water infrastructure)
119.	22/04/2018	Wedding party, Bani Qais district, Hajjah governorate	HBS/1871-1907, 220, 251, 266, 1420-1423, 1429 HBC/872, 879, 881 (RA/§§48(iv)), 56(iv), 59(iii)), 523 (SAQ)	HRW (UKN); Mwatana (OTG); The Intercept (OTG); UNGEE (R); UNPoE (R); Bellingcat (OOSI)	Around 21 people killed (including 11 children), 97 injured including 48 children and 2 women)	None identified	Hundreds of civilians had been coming and going from the wedding since the morning.	JIAT investigated and found that proper procedures were not followed, while simultaneously not acknowledging the extent of the civilian harm	Pattern 1a (Object: Residential home, Wedding) Pattern 1c (Civilian harm) Pattern 2 (Behaviour) Pattern 3 (JIAT: Analysis indicating failure to follow procedure designed to

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									ensure compliance with IHL)
120.	27/04/2018	Blood Bank at al-Sabeen Hospital, Amanat al-Asimah	HBS/2124 HBC/875,878 (RA/§§49, 55(iii)), 506 (SAQ)	Mwatana (OTG); YNC (OTG)	Bomb did not explode, but the centre was closed for a month for restoration and acquisition of alternative equipment	None identified	Concrete bomb used (according to JIAT), which is a measure taken to reduce the area of impact in populated areas.	JIAT investigated and found that the target was a gas station inside the Special Security Forces camp, in use by the Houthis, about 200m away from the Blood Bank, but that the bomb malfunctioned and hit the Blood Bank. Recommended assistance.	Pattern 1b (Object: Medical) Pattern 2 (Behaviour) Pattern 3 (JIAT: Technical malfunction)
121.	14/05/2018	Airstrike affecting Maswadah family, Saada governorate	HBS/1908 HBC/879 (RA/§56(vi))	The Intercept	None (airstrike missed its target)	None identified	Leaked US record which described an attack being launched without any positive information suggesting this was a military objective. Assessor comments that the decision did not follow procedure and that KSA failed to weigh the lack of time-sensitivity with	Unknown – but not possible to deny this incident	Pattern 1a (Object: Tents housing family) Pattern 2 (Behaviour) Pattern 3 (No JIAT report but this is a clear

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
							the decision to take the strike immediately [HBS/1913]		example of failure to follow procedures designed to comply with IHL.)
122.	26/05/2018	Fuel station, Maeen, Sana'a	HBS/1995 HBC/869 (RA/§41), 481 (SAQ)	Mwatana (OTG)	Four people, including a woman and a child killed, and about a dozen wounded	None identified	JIAT claimed that the strike took place at "breakfast" time, meaning the time in the <u>evening</u> when most people would have returned home to break their Ramadan fast.	JIAT found that the Houthis had seized the gas station and were using it to support the war effort. They also claimed that <u>one</u> bomb was used, whereas Mwatana documented <u>two</u> .	Pattern 1b (Object: Fuel station) Pattern 3 (JIAT: Factual claim concerning military target unsupported by credible NGO analysis; failure to acknowledge civilian harm)
123.	11/06/2018	Cholera treatment centre, Abs district, Hajjah governorate	HBS/1923, 186, 187, 415, 438, 455, 1002, 1454, 1476, 1596 HBC/132 (AF/6), 878-879, 882 (RA/§§55(iii)), 56(ii),	UNGEE, (R); UNPoE; MSF	Cholera treatment clinic completely destroyed. No fatalities.	None identified	The centre's adjacent building had enormous red crescents marking it and visible from satellite imagery [HBS/1939], and MSF had communicated the coordinates at least 12 times. [HBS/1925]	JIAT found that the Coalition did not follow its targeting procedure to confirm information coming from a source inside Yemen. At the same time, it found that MSF had not provided	Pattern 1b (Object: Medical facility) Pattern 2 (Behaviour) Pattern 3 (JIAT: Analysis indicating failure to

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
			59(iv))					the coordinates of the clinic to the SLC. [HBS/1923] JIAT also claimed that it was “not clear” that there were signs on the roof of the warehouses, which is false [see HBS/1939].	follow procedure designed to ensure compliance with IHL principles; numerous factual claims contradicted by credible NGO evidence and satellite imagery)
124.	25/06/2018	Civilian neighbourhood, al-Ettisalat neighbourhood, Amran city	HBS/1996 HBC/588, 690 (SAQ)	Mwatana (OTG)	9 people killed including 2 women and 4 children, 19 injured including 5 children and 5 women	None identified		Unknown	Pattern 1a (Object: Residential home)
125.	23/07/2018	Water supply system/treatment plant, Nashur, in Sa'dah	HBS/1670 1675, 1996-1997, 251, 269, 1478, 1492 HBC/869, 878 (RA/§42, 55(iv)), 134 (AF), 588, 690 (SAQ)	Mwatana (OTG); UNPoE (R)	Water borehole half destroyed. UNICEF said attack would deprive 10,500 people of safe drinking water.	None identified	Water treatment plant struck repeatedly. Confirmed to be on NSL by UN Panel of Experts. UNICEF said attack would deprive 10,500 people of safe drinking water. [HBS/269] Yemen is extremely water scarce. Water sources are considered OIS.	Unknown	Pattern 1b (Object: Water borehole (OIS and economic target)) Pattern 2 (Behaviour)
126.	22/08/2018	Farm of Mohammad Hasan al Awka,	HBS/2120 HBC/875	Mwatana (OTG)	4 killed including 3 children, 1 wounded	None identified		Unknown	Pattern 1b (Object: Farm)

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
		Bani Hasan, Abs	(RA/§49), 589, 690 (SAQ)						
127.	30/08/2018	Fishermen and fishing boats, Aqaban Island, al-Luhaiah district, al-Hodeidah governorate	HBS/2120 HBC/875 (RA/§49)	Mwatana (OTG)	7 fishermen killed including 3 children, 2 fishermen wounded; 4 boats completely destroyed. 7 civilians remain missing	None identified		Unknown	Pattern 1b (Object: Fishing boats)
128.	10/01/2019	Residential home, al-Farash village, al-Sha'ab, Haradh, Hajjah governorate	HBS/1944 HBC/863 (RA/§28(vii)), 589, 690 (SAQ)	Mwatana (OTG)	2 men killed and 4 people injured, including 2 children.	None identified		Unknown	Pattern 1a (Object: Residential home)
129.	13/02/2019	Fishermen and fishing boat, al-Badeea' Island, al-Luhaiah district, al-Hodeidah governorate	HBS/1947 HBC/873 (RA/§48(v))	Mwatana (OTG)	8 fishermen killed including 2 children, 5 wounded. Boat and fishing equipment destroyed.	None identified		Unknown	Pattern 1b (Object: Fishing boat) Pattern 1c (Civilian harm)
130.	09/03/2019	Airstrikes on houses and a far in Maghrabat Talan, Kushar, Hajjah governorate	HBS/1483, 1997, 2022 HBC/864, 889 (RA/§§28(ix), 68bis(iv))	Mwatana (OTG); UNGEE (R)	12 civilians killed – 7 women and 5 children, and 8 civilians injured – 2 women and 6 children.	None identified	Two air strikes [HBS/1483]	JIAT claimed that the target was a house which Houthi fighters had recently entered [HBS/2022]. It did not acknowledge any civilian harm.	Pattern 1a (Object: Residential home) Pattern 3 (JIAT: Failure to acknowledge civilian harm; factual claim concerning military)

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									target not supported by credible NGO analysis)
131.	12/05/2019	Al-Shahid Mohammad Mahmoud al-Zubayri school, Shakhb, Qa'atabah district, al-Dhalea governorate	HBS/2120 HBC/875 (RA/§49)	Mwatana (OTG)	Four of school's six classrooms destroyed	None identified		Unknown	Pattern 1b (Object: School)
132.	16/05/2019	Al Raqas neighbourhood, Sana'a city, Sana'a governorate	HBS/469, 1486, 1950 HBC/863, 880 (RA/§§28(vi ii), 58(v)), 510, 589, 691 (SAQ)	Mwatana (OTG), UNGEE (R); Bellingcat (OOSI)	5 children killed and 77 injured	None identified	Very densely populated residential area [HBS/1950]. This is relevant to proportionality and precautions, since the expected civilian harm would be high.	JIAT found that the bomb had had a technical defect, causing it to malfunction and veer 2500m from its target	Pattern 1a (Object: Residential home) Pattern 1c (Civilian harm) Pattern 3 (JIAT: Technical failure)
133.	04/07/2019	Farm, al-Jer area, Abs district, Hajjah governorate	HBS/2103 HHC/871 (RA/§47)	Mwatana (OTG)	Civilian injured, electricity generator destroyed along with irrigation network and water pump, and beehives	None identified - but was occupied afterwards	Irrigation structures are considered OIS.	Unknown	Pattern 1b (Object: Farm)
134.	11/08/2019	Civilian home in al-Sawamel	HBS/515, 1487, 2120	Mwatana (OTG);	11 killed, including 7	None identified.	Multiple strikes within minutes of	JIAT investigated and found that the	Pattern 1a (Object:

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
		region, Mustaba district, Hajjah Governorate	HBC/875 (RA/§49), 131 (AF), 718 (SAQ)	The Office of the Resident and Humanitarian Coordinator for Yemen; UNPoE; UNGEE	children and 2 women. 76 civilians injured.		each other. [HBS/515]	Coalition had targeted gatherings of Houthi militia and a building used by the Houthis. [HBC/718]	Civilian home) Pattern 2 (Behaviour) Pattern 3 (JIAT: Factual claim concerning military objective not supported by credible NGO and UN analysis)
135.	31/08/2019	Dhamar Community College in Dhamar Governorate (which was being used as a prison)	HBS/452-454, 476, 515, 945, 2108 HBC/878 (RA/§55(v)), 131 (AF), 714 (SAQ)	Mwatana (OTG); UNPoE; UNGEE; ICRC; Bellingcat (OOSI)	At least 100 detainees killed and 40 injured. Those killed were male civilian prisoners.	Possibly: College had been converted to a prison by the Houthis	Site had been regularly visited by the Red Cross. Prison not legitimate target in itself, and harm to detainees, who are protected persons, must be proportionate if a military objective was identified. Should have been on NSL.	Coalition justified attacking the prison as a legitimate military target due to presence of Houthis and air defence equipment. JIAT claimed that the Coalition did not know the location housed prisoners. Recommended assistance to detainees proven to have been harmed [HBC/714]	Pattern 1b (Object: college converted to prison) Pattern 2 (Behaviour) Pattern 3 (JIAT: Failure to adequately acknowledge significant civilian harm; analysis indicating precautions were not taken)

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
									although JIAT does not accept that the rules of engagement were not followed)
136.	24/09/2019	Farmhouse in Qa'ataba, Al Dhale governorate	HBS/452, 464, 479, 2108, 2121 HBC/875 (RA/§49), 131 (AF)	Mwatana (OTG) UNPoE; UNGEE	10 killed, including 4 children, 6 injured, including 2 children	None identified.		Unknown	Pattern 1b (Object: Farmhouse and vehicle)
137.	14/02/2020	Civilian homes in al-Saida village, al-Masloob district, al Jawf governorate	HBS/2026-2056, 2108 HBC/855, 864, 880, 887, 890 (RA/§§20(i), 28(x), 57(v), 68bis(v), 69), 131 (AF), 692, 725 (SAQ)	Mwatana (OTG)	32 people killed, including 18 children (14 of them under the age of 10), and 21 injured including 12 children and 6 women	None identified (Tornado fighter jet had been shot down and landed about 800m from homes)	Multiple airstrikes; the second airstrike killed rescuers and the third killed women and children who were trying to hide among some trees, and a fourth hit near where other women and children were trying to protect themselves in a hole in the ground. [HBS/2018]	JIAT claimed that the target was some Houthis fighters who were fleeing the wreckage of the downed fighter jet. However, Mwatana found that 32 civilians were killed including 14 children under the age of 10. JIAT acknowledged that "human losses" had taken place due to the air controller acting too quickly in urgent	Pattern 1a (Object: Civilian homes) Pattern 1c (Civilian harm) Pattern 2 (Behaviour: JIAT confirmed breach of the rules of engagement)

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
								circumstances and recommended accountability and compensation.	
138.	03/03/2020	Two civilian cars, al-Labnat area of al-Hazm district, al-Jawf governorate	HBS/2057 HBC/856, 873 (RA/§§20(ii), 48(vi))	Mwatana (R)	5 civilians killed and 1 injured	None identified – general fighting was taking place nearby		Unknown	Pattern 1a (Object: Vehicles) Pattern 1c (Civilian harm)
139.	07/04/2020	Farm, Baghtah village, al-Jer area, Abs district, Hajjah governorate	HBS/2064 HBC/856, 870 (RA/§§20(ii), 43)	Mwatana (R)	1 civilian killed and 1 wounded	None identified	Cultivated farm	Unknown	Pattern 1b (Object: Farm)
140.	08/04/2020	Civilian Hilux vehicles, al-Labnat area, al-Hazm district, al-Jawf governorate	HBS/2102 HBC/856, 874 (RA/§§20(iv), 48(vii))	Mwatana (R)	1 civilian killed	None identified		Unknown	Pattern 1a (Object: Vehicles) Pattern 1c (Civilian harm)
141.	07/06/2020	Empty parcel of land, Nawah village, Bakil Mir district, Hajjah governorate	HBS/2101 HBC/856, 864 (RA/§§20(v), 28(xi))	Mwatana (R)	1 girl was injured	None identified		Unknown	Pattern 1a (Object: empty parcel of land where children played)
142.	01/07/2020	Warehouse containing food, blankets and irrigation tools – al-Maqash area,	HBS/2067 HBC/856, 870 (RA/§§20(vi	Mwatana (OTG)	2 civilian women killed and 5 women and children wounded.	Unclear. Warehouse was run by a Houthi contractor (not conclusively known	The warehouse contained items essential for civilian survival	Unknown	Pattern 1b (Object: Warehouse containing food,

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
		al-Safra district, Saada governorate	, 44)		Warehouse and many materials destroyed.	if he was taking an active part in hostilities). A sixth wounded person was a man affiliated with the Houthis			blankets and irrigation tools)
143.	12/07/2020	Al-Jassim village, al-Asra, Washaha district, Hajjah governorate	HBS/2101, 2023, 2053 HBC/857, 865 (RA/§§20(vi i), 28(xii))	Mwatana (R)	9 civilians killed including 6 children and 3 women, 4 injured including 1 woman and 3 children	No, but the home was of a Houthis leader. There was a checkpoint 300m from the north side of the house	The owner of the house was not home at the time	JIAT found that this house was not the target and that the bomb had gone off course by 780m. [HBS/2101]	Pattern 1a (Object: Residential home) Pattern 3 (JIAT: Technical failure)
144.	15/07/2020	Al-Masa'fa village, al-Hazm district, al-Jawf governorate	HBS/2070 HBC/857, 865 (RA/§§20(vi ii), 28(xiii))	Mwatana (OTG)	12 civilians killed including 7 children and 2 women. 6 others including 5 children and a woman were injured.	None identified	Civilians had been gathered for a circumcision ceremony.	JIAT investigated and found that the coalition had acted on inaccurate information concerning the evacuation of civilians from one of the buildings in question, and recommended accountability and compensation. ⁴⁹	Pattern 1a (Object: Residential homes) Pattern 3 (JIAT: Analysis indicating failure to follow procedures designed to verify military targets)
145.	06/08/2020	Shob Heradh area of Khab w al-Sha'af district,	HBS/2084, 2006-2007	Mwatana (OTG)	8 children killed, 15 civilians wounded	None identified		JIAT claimed that the Coalition had attacked vehicles	Pattern 1a (Object: Vehicles)

⁴⁹ https://sabq-org.translate.google/saudia/%D8%AA%D9%82%D9%8A%D9%8A%D9%85-%D8%AD%D9%88%D8%A7%D8%AF%D8%AB-%D8%A7%D9%84%D9%8A%D9%85%D9%86-%D9%8A%D9%81%D9%86%D8%AF-%D8%A7%D8%AF%D8%B9%D8%A7%D8%A1%D8%A7%D8%AA-%D9%88%D8%A7%D8%B1%D8%AF%D8%A9-%D9%85%D9%86-%D8%AC%D9%87%D8%A7%D8%AA-%D9%88%D9%85%D9%86%D8%B8%D9%85%D8%A7%D8%AA-%D8%B9%D8%A7%D9%84%D9%85%D9%8A%D8%A9?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=wapp (google translate)

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
		al-Jawf governorate	HBC/874, 882, 887 (RA/§§48(vi), 59(v), 60, 68bis(vi)) 232, 504 (SAQ)		including 8 children and 4 women			which were carrying Houthi fighters but that one civilian vehicle had entered the convoy and the targeting officer had failed to re-evaluate the target after re-fuelling. [HBC/504] Mwatana's investigation found that all of the vehicles were civilian.	Pattern 1c (Civilian harm) Pattern 3 (JIAT: Factual claim contradicted by credible NGO evidence)
146.	23/08/2020	Terak area of al-Ashash, Kataf district, Saada governorate	HBS/2121 HBC/875 (RA/§49)	Mwatana (OTG)	2 civilian women were killed	None identified. The man who owned the tent was supported of the Houthis but there is no more information		Unknown	Pattern 1a (Object: Tent)
147.	04/09/2020	Main street of al-Ardhiya village, Maheliya district, Marib governorate	HBS/2099 HBC/858, 875 (RA/§§20(xi), 48(ix))	Mwatana	4 children and a man were injured	None identified at the time. Possibly Houthi fighters in area a few hours before the strike;		Unknown	Pattern 1b (Object: Shops (economic target)) Pattern 1c (Civilian harm)
148.	12/09/2020	Al-thib village, Arhab district, Sana'a governorate	HBS/2099 HBC/858, 871 (RA/§§20(xi)	Mwatana (OTG)	2 civilians injured, and chicken farm destroyed	None identified at farm. There was a group of gunmen about 200 metres from the site of the		Unknown	Pattern 1b (Object: Chicken farm (economic

No.	Date	Incident	Bundle ref(s)	Known sources of evidence	Civilian harm	Military objective identified by documenting party	Additional indicators of IHL breach/compliance	JIAT/Coalition determination	Pattern
			i), 45)			incident, and a checkpoint 300 metres from the farm.			target))
149.	13/09/2020	Qalas area, al-Mahliya district, Marib governorate	HBS/2096 HBC/858, 871 (RA/§§20(xi ii), 46)	Mwatana	5 civilians were killed including a child, and Three stores and the fuel station were damaged.	None identified	If the fuel station was the target, it may not have been time-sensitive. This is relevant to precautions, since IHL requires the attacker to wait until a target is clear of civilians before striking if feasible.	Unknown	Pattern 1b (Object: Fuel station)