



2018年1月26日安全理事会第2342(2017)号决议所设也门问题专家小组
给安全理事会主席的信*

也门问题专家小组成员谨随信转递专家小组按照第2342(2017)号决议第6段编写的最后报告。

所附报告于2018年1月9日提交给安全理事会第2140(2014)号决议所设委员会。委员会在2018年1月23日对报告进行了审议。

请将本信和该报告提请安全理事会成员注意并作为安理会文件分发给荷。

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也门问题专家小组的最后报告

摘要

经过近三年的冲突，也门作为国家已不复存在。它不再是一个单一国家，而是多方割据混战，其中任何一方拥有的政治支持或军事力量都不足以实现国家统一或获取战场胜利。

在北方，胡塞武装正在努力巩固对萨那和大部分高地的控制，此前它在该城进行了五天巷战，最终于 2017 年 12 月 4 日处决了自己曾经的盟友、前总统阿里·阿卜杜拉·萨利赫(YEi.003)。在随后的几天和几周内，胡塞武装击溃或收编了前总统在也门剩余的大部分势力。

在南方，数个省的省长叛逃到新成立的主张南也门独立的南方过渡委员会，削弱了阿卜杜拉布·曼苏尔·哈迪总统的政府。政府还面临另一项挑战——沙特阿拉伯领导的联盟各成员国武装和资助代理军队，在实地为自己的目标而战。此外，由于阿拉伯半岛基地组织(半岛基地组织)及伊拉克和黎凡特伊斯兰国(伊黎伊斯兰国)(达伊沙)恐怖团体经常对胡塞武装、政府和沙特阿拉伯领导的联盟的目标进行打击，使得战场动态更加复杂。

胡塞武装-萨利赫联盟的破裂为沙特阿拉伯领导的联盟和忠于也门政府的军队收复失地打开了一扇机会之窗。然而，这扇窗口不大可能开太久，本身不足以确保结束战争。

由于胡塞-萨利赫联盟部队在先、胡塞武装在联盟破裂后在后向沙特阿拉伯发射短程弹道导弹，使冲突的基调得以改变，并可能使一场局部冲突变为更广泛的区域冲突。

专家小组发现有源自伊朗的导弹残留物、相关军事设备和军用无人驾驶航空飞行器在定向军火禁运实施后进入也门。因此，专家小组认定，伊朗伊斯兰共和国没有遵守第 2216(2015)号决议第 14 段，因为该国未采取必要措施，防止直接或间接向当时的胡塞-萨利赫联盟供应、销售或转让 Borkan -2H 短程弹道导弹、导弹双组元液体氧化剂推进剂野战储存罐和 Ababil-T (Qasef -1)无人驾驶飞行器。

胡塞武装还在红海部署了简易水雷，可能在长达 6 至 10 年的时间里危及商业航运和海上通信线路、也门的进口和通过红海港口进入的人道主义援助。

也门的金融体系已遭破坏。现有两个中央银行相互对立，一个在北方由胡塞武装控制，一个在南方由政府控制。两个都没有充分运作。政府无法有效取得税收，而胡塞武装却以战争为由收税、敲诈企业、扣押资产。

也门面临流动性问题。全国各地往往都无法支付工资，这意味着药品、燃料和食物即便有供应往往也异常昂贵。发战争财的新情况正在出现，黑市目前大有压倒正规交易之势。

尽管阿里·阿卜杜拉·萨利赫现已去世，但代表艾哈迈德·阿里·阿卜杜拉·萨利赫(YEi.005)行事的哈立德·阿里·阿卜杜拉·萨利赫可能继续控制萨利赫家族的财富。到目前为止，没有迹象显示他是否会利用这笔财富来支助威胁也门和平、安全或稳定的行为。

整个 2017 年，冲突的所有当事方都有普遍违反国际人道主义法和国际人权法的情况。在 2017 年的大部分时间里，沙特阿拉伯领导的联盟实施空袭，胡塞-萨利赫部队则滥用爆炸物，继续对平民和民用基础设施造成格外严重的影响。专家小组未见任何证据显示任何一方采取了适当措施，以减轻这些袭击对平民人口造成的破坏性影响。

也门各地的法治都在迅速恶化，而不论该地由谁控制。也门政府、阿拉伯联合酋长国和胡塞-萨利赫部队都实施了任意逮捕和拘留、强迫失踪和酷刑。胡塞武装单纯出于政治或经济原因对个人实施即决处决和羁押，并系统地捣毁他们眼中敌人的家园。胡塞武装还经常阻碍人道主义准入和援助分发。

在 2017 年 11 月 4 日利雅得遭导弹袭击之后，沙特阿拉伯领导的联盟下令关闭了也门所有的陆地通道、海港和机场。也门政府控制的入境点很快重新开放，而胡塞武装控制的入境点如荷台达则关闭长达数周。这实际等同于利用饥谨威胁作为战争工具。

红海港口当前的检查制度造成了供应的拖延和不可预测，使得供应也门的托运人和进口商面临更多的障碍和商业风险。必须增强沙特阿拉伯领导的联盟对联合国检查流程的信心，以确保提高基本用品和人道主义援助通过红海港口的进入量。

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一. 引言

A. 任务和引言

1. 安全理事会通过第 2342(2017)号决议，延长了也门所涉制裁措施的期限，并将也门问题专家小组的任务期限延至 2018 年 3 月 28 日。专家小组担负下列任务：

(a) 协助安全理事会第 2140(2014)号决议所设委员会执行第 2140(2014)和 2216(2015)号决议规定的任务，包括随时向委员会提供与未来可能指认参与第 2140(2014)号决议第 18 段和第 2216(2015)号决议第 19 段所述活动的个人和实体有关的资料；

(b) 收集、审查和分析各国、联合国相关机构、区域组织和其他有关各方提供的关于制裁措施和定向武器禁运执行情况的信息，尤其是破坏政治过渡的事件的信息；

(c) 最迟于 2017 年 7 月 28 日向委员会提交中期情况通报，并在同委员会讨论后，最迟于 2018 年 1 月 28 日向安全理事会提交最后报告；

(d) 协助委员会完善和更新受制裁措施限制的个人名单的信息，包括提供生物鉴别信息和公开发布的列名理由简述的增列信息；

(e) 与安全理事会设立的其他相关专家组，特别是第 1526(2004)号决议设立的分析支助和制裁监测组¹ 合作。

2. 2017 年 8 月 1 日，专家小组根据第 2342(2017)号决议第 6 段向委员会提交了中期情况通报。² 此外，专家小组还于 2017 年 3 月 31 日向委员会提交了另一份最新情况通报，其中载有关于通过胡塞-萨利赫部队³ 控制的也门红海港口的商业航运受阻碍的信息，并就 2017 年 11 月 4 日利雅得遭导弹袭击导致局势升级一事分别于 2017 年 11 月 10 日和 24 日向委员会提交了两份最新情况通报。

3. 本报告所述期间为 2017 年 1 月 1 日至 2017 年 12 月 31 日。专家小组也继续调查了自己 2017 年 1 月 31 日的上一份报告(S/2017/81)所涉未决问题。

B. 方法

4. 在调查时，专家小组遵循了第 2342(2017)号决议第 11 段，该段涉及安全理事会关于制裁的一般性问题非正式工作组的报告(S/2006/997)建议的最佳做法和方法。专家小组重点强调了遵守关于透明度和消息来源、书面证据、通过可核实

¹ 由第 1526(2004)号决议所设、并经第 2253(2015)号决议延期的监测组。

² 提交委员会和安全理事会成员的该中期情况通报和其他通报属机密文件(已存于秘书处档案)。

³ 胡塞-萨利赫部队系指 2017 年 12 月 1 日破裂之前的胡塞-萨利赫联盟的武装部队。

的独立消息来源加以印证和提供答辩机会的各项标准。⁴ 专家小组保持了调查的透明、客观、公正和独立，并通过平衡可核查的证据来确定调查结果。

5. 专家小组利用联合国从私人供货商采购的也门各地点卫星图像来支助调查，还使用了商业数据库中源自海上和航空交通及移动电话记录的信息。官员通过官方媒体渠道发表的公开言论被视为事实，除非被认定违背事实。专家小组力求尽可能以透明方式行事，但如果指明消息来源会使小组成员或其他人面临不可接受的安全风险，专家小组则决定不在报告中披露身份信息，而是将相关证据妥善保存在联合国档案中。

6. 专家小组审查了社交媒体，但未将由此收集的信息用作证据，除非可通过多个独立的消息来源或技术手法包括目击者加以印证，以达到最高的举证标准。

7. 也门地名的拼写往往取决于消息来源所属族裔或翻译质量。对于报告中个人姓名和主要地名的拼写，专家小组采用了与以往联合国文件保持一致的做法，并引用了联合国名词参考系统(UNTERM)中的标准拼法。文件中会员国提供的伊斯兰教历日期已转换为相应的公历日期。

C. 工作方案

8. 在调查过程中，专家小组成员访问了比利时、吉布提、埃及、埃塞俄比亚、法国、伊朗伊斯兰共和国、以色列、意大利、约旦、荷兰、阿曼、卡塔尔、沙特阿拉伯、西班牙、土耳其、阿拉伯联合酋长国、大不列颠及北爱尔兰联合王国、美利坚合众国和也门。专家小组两次请求正式访问也门合法政府控制的地区(马里卜和穆卡拉)，但两次都因合法政府和沙特阿拉伯的答复太迟，以至于联合国无法完成旅行核准和安全流程。

9. 专家小组分别三次请求访问胡塞武装-萨利赫联盟控制的地区(萨那和塔伊兹)。位于萨那的当局最初核准了第一次访问，但在 24 小时后撤销了该核准。它们也未对专家小组其后的两次请求作出答复，只是告知对方自己不愿与其合作。⁵

10. 阿曼最初同意专家小组访问与也门交界的 Mazyunah 边界过境点，但赶在小组启程前往阿曼之前取消了访问。

D. 与各利益攸关方和各组织的合作

1. 联合国系统

11. 专家小组希望着重强调它在到访的邻国与秘书长也门问题特使办公室及联合国驻地协调员开展的出色合作。联合国国家工作队和负有区域任务的联合国机构仍在为专家小组的工作提供支助。专家小组一直与位于萨那和整个区域的联合国国家工作队官员保持直接接触，交流信息和专门知识。

⁴ 关于方法和答辩机会的信息载于附件 1。

⁵ 2017 年 3 月 23 日给专家小组的信。

12. 专家小组按照第 2342(2017)号决议第 7 段，与关于伊拉克和黎凡特伊斯兰国(伊黎伊斯兰国)(达伊沙)、基地组织和塔利班及关联个人和实体的分析支助和制裁监测组，⁶ 索马里和厄立特里亚问题监测组⁷ 及负责第 2231(2015)号决议执行工作的秘书处工作人员保持着密切合作。

2. 会员国来文

13. 专家小组向会员国和各实体发了 192 封信，请其就与小组任务相关的具体问题提供资料。专家小组希望申明，收到此类索取资料书并不一定意味着这些国家的政府、个人或实体违反了制裁制度。不过，专家小组注意到，发给会员国的索取资料书有 25% 目前仍在等待答复。在提交本报告时，正在等待以下国家的答复：澳大利亚、法国、伊朗伊斯兰共和国、马绍尔群岛、阿曼、俄罗斯联邦、沙特阿拉伯、塞尔维亚、多哥、阿拉伯联合酋长国、联合王国和也门。此外，位于萨那的外交部和其他一些实体尚未作出答复。专家小组在本报告所述期间的往来信函总表载于本报告附件 3。

3. 也门政府

14. 2017 年 3 月，专家小组在亚丁会见了也门合法政府总理艾哈迈德·本·达格尔和其他官员。⁸ 尽管他们表示完全支持专家小组，但并未提供具有充分证据性质的信息。

4. 胡塞武装-萨利赫联盟

15. 专家小组与胡塞(安萨拉赫)运动代表和全国人民大会领导人保持着电话联系，还在访问该区域各国期间会见了它们的一些代表。

二. 对也门和平、安全或稳定的威胁

16. 安全理事会第 2140(2014)号决议第 18 段认定，阻碍或破坏海湾合作委员会倡议和执行机制协议提出的政治过渡的顺利完成，是对也门和平，安全或稳定的威胁，可用作指认标准。

A. 挑战也门合法政府的权威

17. 也门合法政府的权威目前已遭到严重侵蚀，以至于令人怀疑它能否实现也门的国家统一。专家小组根据在以下四个因素作出了这一评估：(a) 哈迪总统无法从国外施政；(b) “南方过渡委员会”业已组建，并申明其目标是实现南也门独

⁶ 第 1526(2004)号决议所设，并经第 2253(2015)号决议延期。

⁷ 第 751(1992)和 1907(2009)号决议所设，并经第 2317(2016)号决议最近一次延期。

⁸ 为避免混淆也门政府和胡塞武装-萨利赫联盟当局及各自所任用人员，并为在本报告中易于对二者加以区分，专家小组在提及也门政府各部委和政府官员时将径直使用正常称谓，例如“国防部长”、“国防部”；在提及胡塞武装另设的行政当局时将加修饰语“位于萨那的”，例如“位于萨那的国防部长”、“位于萨那的国防部”；并在提及胡塞武装的军队编制和军衔时加引号以示区分，例如“将军”、“第 62 机械化旅”等等。

立；(c) 胡塞武装在萨那和北方大部分地区继续存在；(d) 沙特阿拉伯领导的联盟资助和武装的代理军队四处扩散并独立开展行动。

18. 2017 年，哈迪总统大半时间仍不在也门。⁹ 有几位省长辞职或被哈迪总统解职，¹⁰ 包括贝达省当时的省长 Nayif Salim Saleh al-Qaysi (QDi.402)，¹¹ 此人于 2017 年 2 月 22 日因向在也门的基地组织分支机构提供支持而受到联合国制裁。¹² 合法政府无力支付公务员、士兵和其他政府雇员的薪金，损害了自己的权威，削弱了民众的支持。

1. 南方过渡委员会

19. 2017 年 5 月 11 日，亚丁省前省长 Aydrus al-Zubaydi 少将宣布成立南方过渡委员会，¹³ 并申明其目标是实现南也门独立。¹⁴ 2017 年 11 月 30 日，委员会宣布了“国民大会”303 名成员的名单。¹⁵

20. 在整个 2017 年，南方过渡委员会及其实现南也门独立的目标在民众以及也门武装部队和代理军队中获得了越来越多的支持。经常有安全地带部队的军人被拍摄到高举前也门人民共和国的旗帜参加委员会的集会。专家小组还发现有 Hadrami 精锐部队人员在其检查站张贴前南方国家的标志和旗帜。

2. 胡塞武装-萨利赫联盟

21. 在 2017 年 12 月初关系破裂之前，胡塞武装-萨利赫联盟一直在通过其联合最高政治理事会行使完全属于合法政府权力范畴的职责。¹⁶ 胡塞武装目前已单方面控制了其控制区内的所有国家机构。它保持控制的时间越长，地位就越会得到巩固。¹⁷

⁹ 哈迪总统上一次对也门的公开访问是在 2017 年 2 月。

¹⁰ 忠于合法政府的现任省长名单详见附件 4。

¹¹ 关于 Nayef al-Qaysi 网络的信息详见附件 5。

¹² Al-Qaysi 于 2017 年 7 月 23 日被解除省长职务。

¹³ 相关信息参见专家小组 2017 年中期最新情况机密报告(第 9 和 10 段)。南方过渡委员会领导人信息详见附件 7。

¹⁴ 自 1967 年至也门统一的 1990 年，南也门是一个独立国家。

¹⁵ 第一次会议于 2017 年 12 月 23 日在亚丁举行。Ahmed bin Breik 当选为总统、Anis Youssef Ali Luqman 当选为副总统。席位分配情况如下：哈德拉毛省，100 席；亚丁省，62 席；夏卜瓦省，37 席；拉哈杰省，36 席；阿比扬省，31 席；马哈拉省，24 席；达利省，10 席；索科特拉省，3 席。南方过渡委员会网站阿拉伯文版可查阅 <http://www.southerntransitionalcouncil.net/>、英文版可查阅 <http://en.southerntransitionalcouncil.net/>(除非另有说明，所有超级链接为截至 2017 年 12 月 29 日的链接)。该委员会在所有八个省都开设了地方或分支办事处。名单详见附件 7。

¹⁶ 见 S/2017/81，第 20 段。

¹⁷ 胡塞武装控制了阿姆兰、扎马尔、哈贾、伊卜、马哈维特、利马、萨达和萨那。双方争夺的省份有贝达、荷台达、焦夫、马里卜省和塔伊兹。省长名单可详见附件 8。

B. 停止敌对行动和恢复政治进程的障碍

22. 2017 年在实现和平解决方面没有取得真正的进展。由于冲突各方继续认为自己能够取得军事胜利，进而无须作出政治妥协，因此政治进程停滞不前。

23. 秘书长也门问题特使伊斯梅尔·乌尔德·谢赫·艾哈迈德的车队于 2017 年 5 月 25 日在萨那遇袭，¹⁸ 此后他就一直无法访问萨那。¹⁹ 胡塞武装拒绝接受特使此后提出的任何建议，从而切实对其实行了禁令。

24. 胡塞武装认为，只要自己能活下去，活得比沙特阿拉伯领导的联盟更长久，就能“赢得”战争的胜利；这使得它进行谈判的意愿有限。另一方面，沙特阿拉伯领导的联盟则面临着四种广泛的选择：(a) 单方面停止敌对行动，让胡塞武装取得控制权；(b) 发起大规模的地面入侵，不保证成功且会有某些伤亡；(c) 继续实施空袭，期望得到不同的结果，尽管经过为期 33 个月的空袭，剩余的可信目标据信为数极少；或(d) 尝试复兴萨利赫网络，作为反胡塞联盟的一部分。虽然胡塞武装-萨利赫联盟破裂导致今后几个月中战线可能稍有转移，但专家小组并不认为任何一方有能力获得彻底的军事胜利。

25. 还有一个因素令事态更为复杂，即首当其冲承受战争之重的不是各方的政治决策者，而是也门平民。胡塞武装领导层大多远离袭击，也不缺乏粮食、燃料、药品和水。沙特阿拉伯领导的联盟依赖风险较低的空袭和数量有限的地面部队，从而减少了国内政治受到的影响。

1. 胡塞武装-萨利赫联盟的破裂和萨利赫之死

26. 胡塞武装与阿里·阿卜杜拉·萨利赫(YEi.003)之间的关系在 2017 年 8 月急速陷入紧张，²⁰ 并因胡塞方面的武装支持者 2017 年 11 月 29 日在萨那 al-Saleh 清真寺及其周围与萨利赫的支持者发生冲突而再度紧张。后一事件引发了一次为期五天的巷战，导致胡塞武装-萨利赫联盟破裂和阿里·阿卜杜拉·萨利赫死亡。

27. 尽管阿里·阿卜杜拉·萨利赫最初在萨那似乎占了上风，但胡塞武装迅速夺回了几个军事设施，并派出增援部队进入该市，同时将萨利赫与其军事和部落盟友隔离开来。阿卜杜拉·叶海亚·哈基姆(YEi.002)和胡塞武装革命委员会首长穆罕默德·阿里·胡塞努力联络萨那周围各部落，说服对方不要支持阿里·阿卜杜拉·萨利赫。专家小组认为，穆罕默德·阿里·胡塞符合指认标准，原因是他参与领导了这些对也门和平与安全构成威胁的活动。

¹⁸ 见 <https://www.reuters.com/article/us-yemen-security-un/u-n-wants-investigation-into-attack-on-yemen-envoys-convoy-idUSKBN18L18I>。

¹⁹ 见 <https://www.reuters.com/article/us-yemen-security-un/houthis-ban-u-n-special-envoy-from-yemen-for-alleged-bias-idUSKBN18W2D0>。

²⁰ 2017 年 8 月，在公众庆祝全国人民大会成立三十五周年之前，阿卜杜勒马利克·胡塞和阿里·阿卜杜拉·萨利赫竞相发表讲话相互指责。2017 年 8 月 26 日，萨利赫的支持者、全国人民大会外交关系主任、Vulcan 集团领袖 Khaled Ahmed Zayd al-Radhi 在萨那与胡塞分子发生冲突时死亡。2017 年 9 月 12 日，阿卜杜勒马利克·胡塞与阿里·阿卜杜拉·萨利赫直接交谈，试图缓和紧张。该联盟内部紧张关系不断升级的详情参见附件 9。

28. 2017年12月2日,阿里·阿卜杜拉·萨利赫接触了沙特阿拉伯领导的联盟,许诺翻开双方关系的“新一页”,并呼吁自己的支持者拿起武器战斗。²¹但是,由于未获得不愿或无法提供帮助的部落酋长和关键将军的帮助,萨利赫和他的士兵在萨那被击溃,并于2017年12月4日早上被打死。²²

图一

穆罕默德·阿里·胡塞和阿卜杜拉·叶海亚·哈基姆在萨那
(2017年12月)^{a/}



^a 机密来源录像:穆罕默德·阿里·胡塞(左)和阿卜杜拉·叶海亚·哈基姆(右)。

29. 还有广泛的报道称,阿里·阿卜杜拉·萨利赫的侄子、高级军事指挥官塔里克·穆罕默德·阿卜杜拉·萨利赫²³在战斗中被打死。专家小组正在努力独立核实这一情况。专家小组证实,阿里·阿卜杜拉·萨利赫的高级政治助手、全国人民大会秘书长 Arif al-Zuka 也被打死。胡塞武装还成功抓获了阿里·阿卜杜拉·萨利赫的数名亲属。²⁴专家小组认为,其中一些人在战斗中受了伤,胡塞武装扣押

²¹ 专家小组注意到,在此期间,沙特阿拉伯领导的联盟部署了完全针对靠近萨利赫武装支持者的胡塞武装目标的空袭。如果这是为了保护阿里·阿卜杜拉·萨利赫,那么就违反了第2216(2015)号决议第14段,因为这等同于向名单所列个人提供军事支持。专家小组仍在调查此事。

²² 根据萨利赫尸体的照片,专家小组认为,他被一枚子弹打入头左后部,是被近距离处决的。胡塞分子用一辆运动多功能车将萨利赫的尸体运送到萨那城外,并摆出他是受到伏击、在逃命时被打死的样子。专家小组认为,这是胡塞武装在2017年12月作出的许多举动之一,用以达到诋毁阿里·阿卜杜拉·萨利赫的战略目的。

²³ 塔里克·萨利赫是萨利赫特别卫队的指挥官和共和国卫队的实际负责人。

²⁴ 专家小组认定,萨利赫的两个儿子 Salah 和 Midyan 与萨利赫的侄子、军方关键人物和 Vulcan 集团总主管穆罕默德·穆罕默德·阿卜杜拉·萨利赫一同被抓获(见<http://www.vulcanyemen.com/owners.htm>)。小组还认为,胡塞武装抓获了塔里克·萨利赫的长子 Afash 和 Yahya Muhammad Abdullah Saleh 的长子 Kenan。萨利赫的儿子和侄子名单载于机密附件 10 和 11。萨利赫的女儿和女婿名单参见机密附件 12。

他们为质，以防艾哈迈德·阿里·阿卜杜拉·萨利赫(YEi.005)或卡利德·阿里·阿卜杜拉·萨利赫试图复兴萨利赫网络。

30. 在其后几天，胡塞武装试图击溃或收编萨利赫网络的剩余人员，同时巩固自己对萨那和也门北方大部分地区的统治。它处决了萨利赫 Sanhan 部族所属的主要军事指挥官；²⁵ 逮捕了全国人民大会的著名成员，²⁶ 并恐吓其他成员；²⁷ 强行驱散抗议者；²⁸ 绑架与萨利赫有关联的著名家族的儿童；²⁹ 毁坏萨利赫支持者的房屋；并屏蔽了社交媒体网站和大部分互联网，实行媒体封锁。胡塞武装还宣布要改变 al-Saleh 清真寺的名称，并宣称在萨利赫家中发现了大量的金银和现金，正在将其存入中央银行。³⁰ 专家小组预计，随着胡塞武装努力巩固对权力的控制，镇压行动将会更多。

C. 安全和区域动态

1. 区域动态

31. 卡塔尔 2017 年 6 月 5 日被逐出以沙特阿拉伯为首的联盟，2017 年 6 月 7 日开始撤出其部队。从军事角度来看，此举并未产生什么影响。然而，卡塔尔和以沙特阿拉伯为首的联盟成员国之间的紧张关系已蔓延到也门，因为联盟成员国及其代理人将矛头对准也门改革集团，认为该集团是卡塔尔的盟友。³¹

2. 与也门合法政府联盟的部队控制下的地区

32. 虽然八个南部省份(阿比洋、亚丁、达利阿、哈德拉毛、拉哈杰、马哈拉、夏卜瓦、索科特拉群岛)到处仍有合法政府的武装部队，但阿拉伯半岛基地组织(半岛基地组织)、伊黎伊斯兰国、部落反对派、最近成立的南方过渡委员会以及以沙特阿拉伯为首的联盟的代理军队等一系列其他行为体挑战了政府治理和实施权力的能力。忠于哈迪总统的武装部队也在塔伊兹省和马里卜省行动。

²⁵ 2017 年 12 月 5 日，胡塞武装处决了 Mahdi Maqawlah “少将”、Abdullah al-Dhabaan “少将” (“第 35 装甲旅”指挥官、塔伊兹轴心前指挥官)和 Murad al-Awbali “少将” (“第 62 机械化旅”指挥官)。

²⁶ 胡塞武装羁押的全国人民大会成员名单载于附件 13。

²⁷ 在萨利赫死后，胡塞武装所属电视频道马西拉电视台播放了全国人民大会在阿姆兰举行会议的录像片段，显示与会者承诺效忠“国家”、与阿里·阿卜杜拉·萨利赫保持距离。专家小组认为，胡塞武装就是通过这种方式表明，它只会清算萨利赫的支持者，而不是整个全国人民大会 (http://www.almasirah.net/gallery/preview.php?file_id=10509#.WihdwAa5gRg.twitter)。

²⁸ 2017 年 12 月 6 日，胡塞分子开枪驱散了要求胡塞武装交出阿里·阿卜杜拉·萨利赫的尸体以便埋葬的抗议妇女。

²⁹ 隶属胡塞武装的武装男子闯进萨利赫某位妻子的妹妹 Ruqayah al-Hijri 家中(见机密附件 14)，并抓走了她的至少一个孩子(<http://www.almasdaronline.com/article/95978>)。

³⁰ 胡塞武装用以支持这一说法的图像源于也门境外的库存图像(见 <http://www.saba.ye/ar/news481198.htm>)。

³¹ 2017 年 10 月 11 日，亚丁省的安全部队根据安保负责人 Shallal Ali Shaye 的命令，冲进也门改革集团的大楼，逮捕了十个人(见 <https://www.reuters.com/article/us-yemen-security/yemen-islamist-party-members-arrested-ratcheting-up-tensions-idUSKBN1CG1J17197>)。

33. 在也门南部的阿拉伯联合酋长国部队将安全地带部队(安全地带部队的领导层和组织结构见附件 6)视为其也门安全战略的主要支柱。这一做法使国家安全和政治安全局等政府机构继续被边缘化,进一步破坏和削弱合法政府的情报能力和安保能力。

3. 以沙特阿拉伯为首的联盟部队的介入

34. 以沙特阿拉伯为首的联盟部队继续向也门武装部队和一些代理武装团体提供财政、政治、军事和后勤支持。沙特阿拉伯部队的主要战场在马里卜和米迪,而阿拉伯联合酋长国部队主要在亚丁、阿比洋、哈德拉毛、拉哈杰、马哈拉、摩卡和夏卜瓦作战。

35. 2017 年 12 月 7 日,南方抵抗部队在 Abdul Salam al-Shehi 准将指挥的以沙特阿拉伯为首的联盟支持下,控制了 Khawkhah 外的 Abu Musa al-Ashar 营地,并继续往北向荷台达市推进。³² 作为这一安全行动的一部分,南方人员在 Haitham Qassem Taher 的指挥下,在荷台达省发动了军事进攻,在红海沿岸摩卡市北部的胡塞分子进行了微弱的抵抗。

36. 阿拉伯联合酋长国继续扩大对南方代理军队的支持,主要是对阿比洋、亚丁和拉哈杰各省安全地带部队以及对 Hadrami 和 Shabwani 精锐部队的支持(见下文第 55 至 58 段)。阿拉伯联合酋长国维持穆卡拉附近 Shamussah 和 Rayyan 的军事培训设施,一些外国军事顾问和教官驻扎在这里为精锐部队提供支持。³³

D. “南方问题”

37. 专家小组的评估认为,由于战争旷日持久、军事上缺乏进展以及出现分裂,分离出一个分裂的“南也门”现在有了现实上的可能性。此外,合法政府对它声称已控制的八个省份的管理和治理能力在 2017 年被严重削弱。亚丁省和马哈拉省的局势切实说明了这一风险的背景。

1. 亚丁省

38. 2017 年期间,省内的安全状况显著恶化。伊黎伊斯兰国进行了几次大规模自杀式袭击,并声称对一系列暗杀事件负责(见下文第 74 段)。还发生了一些出于政治动机的暗杀事件,半岛基地组织或伊黎伊斯兰国均未声称系其所为。例如,2017 年 10 月 18 日,亚丁省的 Sahaba 清真寺教长 Fahd al-Yunisi 被暗杀,但枪手至今身份不明。³⁴

39. 合法政府还多次未能支付政府工作人员的薪金,似乎无法提供城市基本服务,包括足够的电力。2017 年 11 月 16 日,亚丁省省长 Abd al-Aziz al-Muflahi 递交了

³² 见 <http://adengad.net/news/291513/>。

³³ 证据来自专家小组对也门的访问和对保密来源的访谈。

³⁴ 见 <http://adengad.net/news/283179/>。专家小组在也门发现半岛基地组织或伊黎伊斯兰国均未声称系其所为的其他出于政治动机的暗杀事件。

辞呈，理由是政府无力支付工资。³⁵ 专家小组看到亚丁省各地和该国南部其他城市的广告牌将总理本·达格尔和合法政府妖魔化，指责他们无能力安排也门人的生活。³⁶ 地方当局似乎没有作出努力来反击这种抹黑政府的宣传。

2. 马哈拉省

40. 由于部署了新的军事部队进入马哈拉省东部地区打击走私，该地区的局势越来越紧张。³⁷ 2017年11月15日，Abdullah Mansour Ali 准将和第123步兵旅取代了马哈拉省的第137机械化旅。近两个星期后在2017年11月27日，哈迪总统任命 Rajih Said Bakrit 为马哈拉省的新省长，接替 Mohammed Abdullah Kudah。³⁸ 这位前省长仍留在马哈拉省，由其部落的武装分子和有共同利益的其他官员对他进行保护。³⁹ 他的 Al Kudah 部落控制着盖海达港以东 Jarub 和 Zagher 通往阿曼边界的沿海领土的入口。

E. 有争议地区和可能出现的分裂

41. 贝达省和塔伊兹省发生的事件也进一步表明，也门面临非常实际的分裂危险。

1. 贝达省

42. 贝达省处于原南北边界的十字路口，占据非常宝贵的战略位置。特别重要的是贝达省北部的 Bayhan 地区，该地区是南部通往萨那的主要走私路线，连接马里卜省和阿拉伯海沿岸。胡塞武装集中驻扎在 Rada' 市，而半岛基地组织似乎活跃在 Dhahab 附近以及 Suma 周围地区和整个 Zahir 南部。伊黎伊斯兰国在 Qayfah 内一块小飞地活动，而以沙特阿拉伯为首的联盟支持的抵抗分子仅限于在贝达市 Humaiqan 下西南部和 Mukayras 附近(见附件 17 的地图)活动。⁴⁰

2. 塔伊兹

43. 如专家小组的中期情况机密报告第 28 至 33 段所述，塔伊兹市仍是一个冲突爆发点和人道主义灾难。塔伊兹是过去一年中持续时间最长的战斗的焦点所在。胡塞部队继续包围该市。2017年10月，美国、沙特阿拉伯和海湾合作委员会决定对萨拉菲派一名重要的领导人阿布·阿巴斯进行制裁之后，⁴¹ 当地的抵抗分子、萨拉菲派民兵与也门军队之间的紧张关系激化。与萨那的胡塞武装一样，阿

³⁵ 2017年4月在哈迪总统解除 Aydarus al-Zubaydi 职务后被任命；Al-Muflahi 还与本·达格尔总理发生冲突，声称后者经常包揽了省长的职权。

³⁶ 见 <https://twitter.com/goldensla/status/926022844307378178>。

³⁷ 建立一支与哈德拉毛省和夏卜瓦省的精锐部队相似的 Mahrahi 精锐部队的尝试目前似乎已提上桌面。

³⁸ 见 <http://adengad.net/news/289730/>；Kudah 被任命为国务部长和哈迪总统的部长会议成员。

³⁹ 马哈拉省的主要官员列于附件 15。已知在该省活动的半岛基地组织关联者列于附件 16。

⁴⁰ 这些抵抗分子与贝达前省长 Nayif al-Qaysi(QDi.402)和 Abd al-Wahhab al-Humayqani 有关联(见附件 5 和 18)。

⁴¹ 2017年10月25日阿布·阿巴斯受美国和以沙特阿拉伯为首的联盟的制裁。已知的关联者列于附件 19。

布·阿巴斯继续在市内占据地盘，并行使完全属于合法政府的权利和责任。⁴² 2017年10月25日之前，阿布·阿巴斯得到阿拉伯联合酋长国的大力支持。专家小组正在调查这一支持是否还在继续。

44. 在近三年战争中出现的各派萨拉菲民兵⁴³ 不仅与政府部队进行竞争并时而发生冲突，而且彼此之间也相互竞争和冲突。对阿布·阿巴斯进行制裁只不过使这一竞争加剧。各派民兵将塔伊兹视为一个零和博弈，阿布·阿巴斯被削弱意味着有几支较小的民兵队伍为更多的地盘而进行争夺。在塔伊兹，一个团体在市内占有越多的地盘，就能吸引越多的外部支持。

45. 对阿布·阿巴斯的制裁还有可能促使胡塞-萨利赫部队加大对塔伊兹市内及周边地区抵抗力量的攻击。以沙特阿拉伯为首的联盟在塔伊兹据信是针对胡塞-萨利赫部队的若干次空袭造成了平民的伤亡。Saber 山 al-Aroos 地区的一次空袭击中忠于哈迪总统的第 22 装甲旅的人员。⁴⁴ 此类事件打乱了当地部队与以沙特阿拉伯为首的联盟之间的关系，让胡塞-萨利赫部队有机会动员其部队，利用这一局势在塔伊兹各个战线上夺得新的地盘。

46. 半岛基地组织和伊黎伊斯兰国都继续在塔伊兹活动，尽管这两个团体出现叛逃和分裂(见下文第 66 段)。

F. 海事安全

47. 2017 年期间影响到海上战略性交通线和进入红海各港口通道的安全和安保的海事安全事件数量和类型有所增加。这危及从海上向也门运送人道主义援助，违反了第 2216(2015)号决议第 19 段。图二说明 2017 年期间该区域内发生的海事安全事件的数量和分布，其中包括：

(a) 使用导弹或爆炸物袭击以沙特阿拉伯为首的联盟的军舰艇和红海港口，包括新出现的利用下列方式的威胁：(一) 载有爆炸物的遥控小艇(水载简易爆炸装置)；(二) 使用陆基反坦克导弹；

(b) 采用与袭击悬挂西班牙国旗的 Galicia Spirit 号商船非常相似的作案手法，对悬挂马绍尔群岛国旗的 Muskie 号商业油轮的未遂袭击；⁴⁵

(c) 2017 年 3 月 16 日，由至今身份不明的肇事者驾驶的一架武装直升机对载有移民的民用船只的袭击，造成至少 42 人死亡；

⁴² 在受到制裁之前，副总统阿里·穆赫辛·艾哈迈尔试图将阿布·阿巴斯及其民兵收编入也门武装部队，但没有成功。

⁴³ 塔伊兹的其他民兵派别包括：al-Sa'lik 旅以及由 Hashem al-Sanani、Saud Mayub、Hareth al-Izzy 和 Abu Saduq 控制的派别。

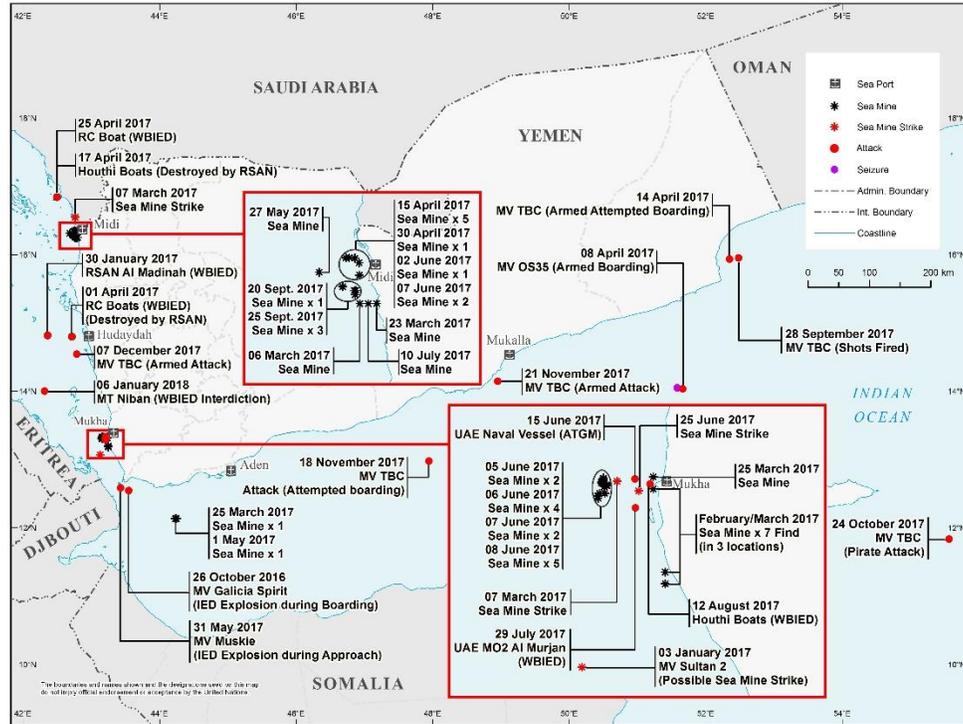
⁴⁴ <http://www.middleeasteye.net/news/saudi-forces-accused-deliberately-targeting-allies-yemens-Ta'izz-179331116>。

⁴⁵ 关于 Galicia Spirit 号商船遭到袭击事件的报告见 S/2017/81，第 37 和 38 段及附件 14。关于 Muskie 号商船遭到袭击事件的报告见专家小组 2017 年中期情况机密报告。

(d) 使用海军水雷和简易水雷(见下文第 110 至 114 段)。

图二

海事安全事件：2017 年



Map No. 4572.1.1 UNITED NATIONS January 2018. Geospatial Information Section, Department of Field Support. Data and location source: Panel of Experts for Yemen, United Nations Security Council Sanctions Committee

48. 行业出版物《有关保护船舶免遭索马里海盗侵害的最佳管理实践》⁴⁶ 所载策略在某种程度上能够防止武装分子或海盗小团伙企图登船，但无法防止采用水载简易爆炸装置、反舰艇导弹、⁴⁷ 陆基反坦克导弹或水雷的袭击。

三. 武装团体和军事单位

49. 根据经安全理事会第 2216(2015)、2266(2016)和 2342(2017)号决议重申的第 2140(2014)号决议第 17 段，专家小组继续调查与有威胁也门和平、安全或稳定的行为或为之提供支持的武装团体有关联的个人或实体。

A. 也门政府和以沙特阿拉伯为首的联盟的正规部队

50. 表面上由哈迪总统控制的部队经常展示独立的南也门旗帜。有时，他们将前亚丁省省长、目前的南方过渡委员会负责人 Aydarus al-Zubaydi 称为他们的“总

⁴⁶ 见 www.mschoa.org/docs/public-documents/bmp4-low-res_sept_5_2011.pdf?sfvrsn=0。最佳管理实践虽然针对索马里的海盗，但也适用于在红海上的通行和保护船舶免遭也门海盗的侵害。新版最佳管理实践沿用了《有关保护船舶免遭索马里海盗侵害的最佳管理实践》(《最佳管理实践 1》)第一版的标题。

⁴⁷ 见 S/2017/81，第 35 和 36 段及附件 13。

统”。⁴⁸ 专家小组的评估认为，哈迪总统已经失去对以也门合法政府名义进行作战的军事和安全部队的有效指挥和控制。⁴⁹ 哈迪总统试图阻止权力被进一步削弱的办法之一是部署新的军事单位，特别是驻扎在塔伊兹的第 5 总统保护旅，这让人回想起前总统阿里·阿卜杜拉·萨利赫用来维护其统治的共和国卫队旅。⁵⁰

51. 依靠也门合法政府提供全部或大部分薪金和装备的正规军部队，例如阿比洋省的第 103 步兵旅，⁵¹ 则装备不足，往往拖欠或只支付部分薪金。由于该旅在阿比洋省的营地处于前线，是半岛基地组织频繁袭击的目标，这一问题变得更加复杂。⁵² 9 月，第 103 步兵旅沮丧的士兵在阿比洋省堵截一条主要公路，抗议只能拿到部分薪金。

52. 马里卜省的情况略有不同，副总统阿里·穆赫辛·艾哈迈尔⁵³ 花了大量时间访问 Sirwah 和 Nihm 的前线。该地区部队的收入和装备较好，其直接原因是副总统艾哈迈尔的支持和赞助。

53. 但是，也门最有效的安全部队是以沙特阿拉伯为首的联盟成员国组建和支持的代理部队，这些部队进而充当这些成员国在也门的代理人。

B. 以沙特阿拉伯为首的联盟的代理部队

54. 专家小组认为，以沙特阿拉伯为首的联盟成员国资助和武装的代理军队构成对也门和平、安全或稳定的威胁。除非将他们重新置于也门的直接指挥和控制之下，所有薪金和装备通过也门政府的渠道发放，否则这些部队与其说是促使也门的团结，不如说是加深该国的分裂。

1. 安全地带部队

55. 安全地带部队于 2016 年 3 月成立，⁵⁴ 严格地说隶属于内政部。但实际上，部队由阿拉伯联合酋长国训练、提供补给和支付工资，在也门军事指挥和控制结

⁴⁸ 2017 年 10 月 25 日，Hadrami 精锐部队的官方推特账户将 Aydarus al-Zubaydi 称为 al-raï 或“总统”。见(<https://twitter.com/NokhbaHadramout/status/923209607174152192>)。

⁴⁹ 也门的军事地区及其指挥官名单见附件 20。

⁵⁰ 2017 年 11 月 17 日成立。卫队旅由 Adnan Ruzaiq 准将指挥，他是来自夏卜瓦省 Al Qamush 部落的一名萨拉菲战斗人员，2015 年带着 160 名战斗人员来到塔伊兹。Ruzaiq 曾与安全地带部队发生冲突，安全地带部队 2017 年 1 月袭击了他在亚丁的房子，这次袭击是合法政府武装部队分裂的又一例证。总统保护旅名单见附件 21。

⁵¹ 该旅 2017 年 7 月底从亚丁的基地被调到阿比洋省。

⁵² 2017 年 8 月 8 日，半岛基地组织一名自杀炸弹手 Arif Adil Hassan Habib 袭击他们的兵营，打死 12 名士兵，打伤 28 人。

⁵³ 阿里·穆赫辛·艾哈迈尔是前总统阿里·阿卜杜拉·萨利赫的一名亲戚，萨利赫 2011 年与他决裂。艾哈迈尔是也门最近历史上最强势的军事指挥官，在也门军队内部仍有强大的支持网络。

⁵⁴ 早在 2015 年 9 月，时任亚丁省省长的 Nayif Bakri 就谈到沙特阿拉伯和阿拉伯联合酋长国的部队在南方组建一个“安全地带”(<https://sputniknews.com/middleeast/201509051026642155/>)。

构之外运作。安全地带部队由最初约 10 000 名士兵增加到超过 15 000 名士兵，活跃在亚丁、阿比洋和拉哈杰各省。⁵⁵

56. 安全地带部队与忠于哈迪总统的也门军事单位数次发生冲突，⁵⁶ 并参与了一系列违反国际人道主义法和国际人权法事件(见下文第 166 段)。⁵⁷ 安全地带部队也是在也门最积极打击半岛基地组织和伊黎伊斯兰国的部队之一，自 2017 年 8 月以来更是如此(见上文第 38 段)。

2. “精锐部队”

57. 2016 年初，在一次对穆卡拉有计划的袭击之前，阿拉伯联合酋长国成立并资助 Hadrami 精锐部队。⁵⁸ 与安全地带部队一样，Hadrami 精锐部队比也门常规部队报酬更加优厚，并在也门的军事指挥和控制结构之外运作。

58. 2016 年底，阿拉伯联合酋长国还使用相同的模式建立并资助 Shabwani 精锐部队。与 Hadrami 精锐部队一样，Shabwani 部队由地方战斗人员组成，在也门的军事指挥和控制结构之外运作。⁵⁹ 专家小组估计，Shabwani 精锐部队目前人数在 3 000 至 4 000 人之间。⁶⁰ 虽然这些部队一直在也门积极打击半岛基地组织和伊黎伊斯兰国，专家小组认定他们是破坏也门合法政府权力的代理部队。

C. 胡塞部队

59. 在军事上，胡塞武装是一个部落民兵团体，⁶¹ 融入一支由前也门武装部队人员组成的受过专业训练的武装力量，并与之结盟。⁶² 胡塞武装在 2014 年底控制了萨那时，他们需要阿里·阿卜杜拉·萨利赫的网络提供的政治和军事经验(见下文第 43-45 段)。到 2017 年底，这种情况已不复存在。在过去一年中，胡塞武装将萨利赫的效忠者逐渐挤出关键职位，由自己的支持者取而代之。这一过程终于演变为 2017 年 11 月底和 12 月初萨那一场历时 5 天的巷战，以阿里·阿卜杜拉·萨利赫的死亡告终(见上文第 29 段)。

⁵⁵ 指挥结构概览见附件 6。

⁵⁶ 专家小组已查明双方之间发生的几次冲突，例如，2017 年 9 月 16 日，哈迪的总统卫队拒绝将亚丁-阿比洋公路上 Arish 军事检查站交给阿拉伯联合酋长国支持的安全部队(<https://www.reuters.com/article/us-yemen-security-clash/gunfight-erupts-in-southern-yemen-one-civilian-killed-witnesses-idUSKCNIBR0M4>)。

⁵⁷ 隶属于安全地带部队的人员也在亚丁参与若干对平民未经司法程序的处决(见附件 22)。

⁵⁸ 创建 Hadrami 精锐部队最初的动力是创造一支地方部队，以便在 2016 年 4 月从半岛基地组织手里夺回穆卡拉市(见 S/2017/81，第 51 段)。

⁵⁹ 专家小组已查明 2017 年 10 月 Shabwani 精锐部队和忠于副总统阿里·穆赫辛·艾哈迈尔的第 23 机械化旅之间的几次冲突。

⁶⁰ Shabwani 精锐部队的指挥结构载列于附件 23。

⁶¹ 胡塞武装重要的安全和军事人物列于附件 24。胡塞武装重要的政治人物列于附件 25。

⁶² 胡塞民兵在过去 13 年中大部分时间都在作战，先是在 2004 年至 2010 年与当时的萨利赫总统的政府连续的 6 场战争，2015 年 3 月以来与以沙特阿拉伯为首的联盟战斗。胡塞武装 2015 年初控制了萨那之后，也门军队发生分裂，若干重要的军官加入胡塞武装，其他人员仍效忠于前总统萨利赫，另一些人则支持哈迪总统。

60. 尽管仍然效忠于阿里·阿卜杜拉·萨利赫网络的士兵有可能逃离，但专家小组并不认为这些人的逃离将有足够多的人数，或以有组织的方式进行，从而威胁胡塞武装对萨那和北方大部分地区的控制，至少在近期内是如此。阿里·阿卜杜拉·萨利赫一死，胡塞武装迅速采取行动，对他的残余网络或镇压或收编，同时通过一系列残酷的镇压、逮捕和处决巩固其统治(见上文第 29 段)。

61. 2017 年 11 月 4 日，胡塞武装向利雅得发动了一次短程弹道导弹袭击(见下文第 82 段)。沙特阿拉伯两天后的回应包括发布一份列有 40 名胡塞武装人员的“通缉”名单，对提供可以导致其被俘或死亡的信息者许诺巨额悬赏。⁶³

62. 随着胡塞-萨利赫联盟的瓦解，胡塞武装可能要寻找国际合作伙伴，以弥补国内盟友的损失。事实上，专家小组认为，战争进一步“国际化”是可能的。胡塞武装越是孤立，他们就越期待与力求打击以沙特阿拉伯为首的联盟成员国的国家合作。专家小组注意到有媒体报道伊朗伊斯兰共和国向胡塞武装提供了“顾问”，并正在对此事进行调查。⁶⁴

63. 尽管胡塞武装继续招募新战斗人员，包括招募儿童(见下文第 185 和 186 段)，但该运动是一个地地道道的家族组织。⁶⁵ 这意味着最受信赖的指挥官是领导人阿卜杜勒·马利克·胡塞(YEi.004)的亲戚。⁶⁶ 这解释了为什么在 2017 年 4 月以沙特阿拉伯为首的联盟看来正在计划对荷台达发动进攻时，胡塞武装任命 Yusif Ahsan Isma 'il al-Madani⁶⁷ 为荷台达“第 5 军区指挥官”。⁶⁸ 胡塞武装在 2017 年早些时候采取了一项类似的行动，将 Abd al-Khaliq al-Houthi(YEi.001)从 Midi 前线调到萨那附近的 Nihm 前线，以加强对首都的保护。

D. 阿里·阿卜杜拉·萨利赫的网络

64. 专家小组并不认为，艾哈迈德·阿里·阿卜杜拉·萨利赫、哈立德·阿里·阿卜杜拉·萨利赫或任何其他个人能够重组阿里·阿卜杜拉·萨利赫的网络。共和国卫队和特别卫队的士兵现在面临着一个选择，或者与他们在过去三年的大部分时间内一直与之战斗的合法政府部队和以沙特阿拉伯为首的联盟站在一起，或者加入在 2017 年 12 月处决了阿里·阿卜杜拉·萨利赫和多名高级军事指挥官的胡

⁶³ 2009 年，前总统阿里·阿卜杜拉·萨利赫的政府发布了一份类似的胡塞分子 55 人“通缉”名单。沙特阿拉伯发布的名单载于附件 26。

⁶⁴ 针对 2017 年 11 月 28 日专家小组的信，伊朗伊斯兰共和国在 2017 年 12 月 6 日答复说，“伊朗在也门没有军事存在，但在萨那有外交代表，为支持寻求以政治方式解决当前危机的努力提供‘咨询援助’”。

⁶⁵ 第一位领导人是侯赛因·巴德尔丁·胡塞。2004 年他被杀死之后，领导权移交给他的父亲巴德尔丁·胡塞，之后又交给他的同父异母兄弟，也就是现任领导人阿卜杜勒·马利克·胡塞。胡塞的家谱载于附件 27。

⁶⁶ 在政治层面上也是如此，例如，“最高政治理事会”负责人 Saleh al-Samad 与阿卜杜勒·马利克·胡塞关系密切，并曾跟随侯赛因·巴德尔丁·胡塞及其父亲巴德尔丁·胡塞学习。

⁶⁷ Al-Madani 是胡塞家族的姻亲。他在 2004 年第一次胡塞战争中是侯赛因·巴德尔丁·胡塞最信赖的“指挥官”之一，后与侯赛因的一个女儿结婚。

⁶⁸ 胡塞武装“军区指挥官”名单载于附件 28。

塞部队。由于多个共和国卫队士兵小群体分布在各个战场上，企图全面抵制胡塞武装已经变得十分复杂。这种部队分布方式意味着萨利赫在 2017 年 12 月 3 日需要大量忠实的士兵时，无法指望他们在短时间内召之即来。

65. 鉴于胡塞武装在阿里·阿卜杜拉·萨利赫死后进行了多起未经司法程序的处决和大规模拘留(见上文第 29 段)，有可能出现持续多年的一轮报复性杀戮。例如，2004 年，萨利赫的士兵杀害胡塞运动的第一位领导人侯赛因·巴德尔丁·胡塞。十三年后胡塞部队杀死阿里·阿卜杜拉·萨利赫时，其战斗人员宣称是为侯赛因复仇。⁶⁹ 萨利赫死后，阿卜杜勒·马利克·胡塞一次在电视上露面时佩戴侯赛因的匕首，明显表示他认为杀害兄弟之仇已报。萨利赫的家人和支持者可能会寻求自己对胡塞人进行报仇。然而，关键的区别是，侯赛因·巴德尔丁·胡塞领导的是一个运动，而阿里·阿卜杜拉·萨利赫带领的是一个网络。

E. 阿拉伯半岛基地组织

66. 在整个 2017 年，半岛基地组织的袭击频率平均略高于每两天一次。⁷⁰ 这些袭击大概分为五类：(a) 自杀式袭击；⁷¹ (b) 迫击炮攻击；(c) 暗杀；⁷² (d) 简易爆炸装置袭击；(e) 小规模攻击。这些袭击大多发生在以下三个省份：贝达省、阿比洋省、哈德拉毛省。⁷³

67. 半岛基地组织在也门与三个敌人多线作战：(a) 胡塞武装；(b) 美国和西方；(c) 也门政府和沙特阿拉伯领导的联军，⁷⁴ 其最终目标是获取领土并进行统治。⁷⁵ 在国际上，该组织仍然有两个目标：从该组织位于也门的基地向西方目标发动袭击；鼓动或煽动居住在西方国家的个人实施恐怖袭击。⁷⁶

⁶⁹ 在胡塞战斗人员将萨利赫的尸体放入一辆皮卡车后箱的视频中可以听到这些口号。

⁷⁰ 半岛基地组织在 2017 年声称实施了 200 多起袭击。这与半岛基地组织 2016 年声称负责的袭击次数大致相似。

⁷¹ 半岛基地组织利用人体携带简易爆炸装置/自杀车辆装载简易爆炸装置实施的自杀式袭击清单列于附件 29。

⁷² 半岛基地组织实施的绝大多数暗杀行动使用了简易爆炸装置。专家小组对一般性简易爆炸装置袭击和暗杀加以区分。例如，2017 年 10 月 3 日，半岛基地组织在穆卡拉一位犯罪调查员 Arif Said Abdullah al-Muhammadi 的汽车下面放置了一枚简易爆炸装置。Al-Muhammadi 幸存于难。

⁷³ 半岛基地组织在夏卜瓦省、马里卜省、拉哈杰省和亚丁省也进行活动和袭击，但绝大多数袭击发生在上文所列的三个省份。2017 年半岛基地组织声称负责的袭击一半以上发生在贝达省。

⁷⁴ 半岛基地组织领导人 Qasim al-Rimi(QDi.282)在 2017 年 3 月的一次访谈中对上述做法给出了最清晰的表述，该访谈于 2017 年 4 月 29 日发布(见 https://azelin.files.wordpress.com/2017/05/al-qacc84_idah-in-the-arabian-peninsula-22interview-with-qacc84sim-al-raymicc8422-en.pdf)。

⁷⁵ 半岛基地组织曾于 2011 至 2012 年以及再次于 2015 年和 2016 年在也门境内占领和统治领土；两次都不被当地居民接受，因此选择撤出而非留守作战。

⁷⁶ 2017 年 5 月 7 日，al-Rimi 发布了一段视频讲话，题为“孤独的圣战者还是一个人的军队”，鼓励在西方的个人实施袭击(见 <http://jihadology.net/2017/05/07/new-video-message-from-al-qaidah-in-the-arabian-peninsulas-shaykh-qasim-al-raymi-an-inspire-address-1-a-lone-mujahid-or-an-army-by-itself/>)。2017 年 8 月 13 日，半岛基地组织发布了其英文杂志《启发》第 17 期，题为“火车脱轨行动”，这是 2016 年 11 月以来的第一份杂志。

68. 专家小组评估认为半岛基地组织仍然完全有能力发起或鼓动对国际目标的袭击，⁷⁷ 但同时认为半岛基地组织现在与过去那些年相比更加脆弱。专家小组的评估基于以下四个因素：(a) 美国的空袭和无人机袭击急剧增加；(b) 也门和国际部队持续进行地面作战；(c) 逮捕了数名半岛基地组织中低级别人物；(d) 该组织成员之间有内部分歧。⁷⁸

69. 2017 年，美国增加了在也门的空袭和无人机袭击，从 2016 年的 30 次增加到 2017 年的超过 120 次。⁷⁹ 美国还宣布也门的三个省份为“现行敌对行动区”，这个认定是在授权降低对攻击目标的批准级别。⁸⁰

70. 2017 年 8 月，阿拉伯联合酋长国支持下的也门部队连同阿拉伯联合酋长国和美国的顾问，对半岛基地组织在夏卜瓦省、哈达拉毛省和阿比扬省部分地区的目标发动了地面攻势。⁸¹ 这一进攻行动扩大并一直持续到 2017 年底，导致半岛基地组织数名低级和中级成员死亡或被俘。⁸² 尽管如此，半岛基地组织在也门的核心领导未受损伤。⁸³

71. 2017 年 8 月 17 日，半岛基地组织发布了一份声明，警告阿比扬省各部落不要加入阿拉伯联合酋长国及其代理人的部队，例如安全地带部队。五天后，即 2017 年 8 月 22 日，半岛基地组织在夏卜瓦省发布了一份相似的声明，⁸⁴ 再次警告当地部落不要加入夏卜瓦精英部队。这两份声明清楚地显示了半岛基地组织在部落政治面前处于弱势。半岛基地组织在部落内部招募成员，但更为重要的是，它的

⁷⁷ 专家小组继续调查半岛基地组织现在如何利用其在 2015 年和 2016 年初控制穆卡拉时获得的资金。

⁷⁸ 专家小组认为，其中许多行动，特别是空袭和无人机袭击可能会造成长期不利影响，尤其是如果造成平民死亡这样的附带损害，基本就是今天杀死一名恐怖主义分子，明天增加两名新的恐怖主义分子。

⁷⁹ 2017 年，美国实施了“多重地面行动和超过 120 次打击”，主要是针对半岛基地组织(见 <http://www.centcom.mil/MEDIA/PRESS-RELEASES/Press-Release-View/Article/1401383/update-on-recent-counterterrorism-strikes-in-yemen/>)。

⁸⁰ 见 <https://www.nytimes.com/2017/03/12/us/politics/trump-loosen-counterterrorism-rules.html>。在“现行敌对行动区”内，美国部队被准予实施打击而无需白宫明确批准的自由度，这至少可以部分解释空袭次数增加的原因。

⁸¹ 2017 年 1 月 29 日，美国对贝达省疑似半岛基地组织的一处目标实施袭击，致使一名美国士兵死亡。另一名美国士兵 Emil Rivera-Lopez 中士于 2017 年 8 月 25 日在“也门沿海”的直升机坠毁事件中丧生。美国否认属于特种作战支援部队的 Rivera-Lopez 当时正在执行作战任务(见 <http://www.centcom.mil/MEDIA/PRESS-RELEASES/Press-Release-View/Article/1298631/dod-declares-dustwun-soldier-deceased/>)。

⁸² 大多数被俘或被杀的半岛基地组织人物属于中低级别，例如安全地带部队于 2017 年 10 月 31 日在阿比扬省突袭了一个半岛基地组织营地，抓获了一些人，包括乌萨马·本·拉丹的前保镖之一 Muhammad al-'Awadh (见 <http://www.almasdaronline.com/article/95157/>)。

⁸³ 附件 30 提供了专家小组关注的半岛基地组织人物名单。

⁸⁴ 对半岛基地组织与也门部落关系的说明载于附件 31。

存续依赖的是部落对其不侵犯。如果也门各部落转而对抗半岛基地组织，该组织将无法生存。

72. 2017年9月17日，半岛基地组织发布了一个系列影片中的第八部，题为“击退侵略”，其中关于阿拉伯联合酋长国在也门角色的内容首次超过胡塞武装所占篇幅。⁸⁵ 媒体的这个侧重点也反映了半岛基地组织在战场上的行动。整个2017年上半年，半岛基地组织三分之二以上的攻击以胡塞武装为目标。自八月份以来，这一趋势已扭转，半岛基地组织现在更多以阿拉伯联合酋长国所支持的部队为目标，而不是胡塞武装。新成立的反恐怖主义融资靶向行动中心⁸⁶ 于2017年10月25日宣布它正在对与半岛基地组织和伊黎伊斯兰国⁸⁷ 有关的11名也门人和2个也门组织实施制裁，这给半岛基地组织施加了更多国际压力。

73. 部分迫于更大的压力，部分由于在众多战线上同时作战，半岛基地组织还艰难地维持着在也门各地的组织团结。组织内部存在分歧的一个迹象是，半岛基地组织于2017年10月发布了一项声明，表示塔伊兹的伊斯兰教法法院已不再按该组织的指示运作。此外，该组织最近几个月的许多媒体新闻稿着重提到在“逆境”时期和“挫折”中生存。然而，半岛基地组织的也门分支曾经遭受过挫折，最明显是在2004年和2005年，当时该团体几乎绝迹。从那以后，它又设法死灰复燃。专家小组评估认为，也门当前的冲突持续时间越长，半岛基地组织吸引到的新成员就越多。

F. 伊拉克和黎凡特伊斯兰国

74. 虽然规模远远小于半岛基地组织，但伊黎伊斯兰国在也门的附属组织仍有能力实施协同配合的大规模袭击。⁸⁸ 伊黎伊斯兰国大多活跃在也门南部和中部各省，特别是贝达省、阿比扬省和亚丁省，这与半岛基地组织非常类似。⁸⁹ 事实上，半岛基地组织在2016年和2017年初经常活动的贝达省一些地区如今是伊黎伊斯兰国的作战前线，这让一些人认为这两个组织正在合作。专家小组没有看到任何证据表明这两个团体是在合作或协同攻击。相反，证据显示，半岛基地组织和伊

⁸⁵ 见 <http://jihadology.net/2017/09/17/new-video-message-from-al-qaidah-in-the-arabian-peninsula-repulsion-of-aggression-8/>。

⁸⁶ 反恐怖主义融资靶向行动中心是2017年5月美国总统唐纳德·特朗普访问沙特阿拉伯期间成立的。美国和沙特阿拉伯担任共同主席，其他成员国家有巴林、科威特、阿曼、卡塔尔和阿拉伯联合酋长国(见 <https://www.treasury.gov/press-center/press-releases/Pages/sm0092.aspx>)。

⁸⁷ 受到反恐怖主义融资靶向行动中心成员国制裁的与半岛基地组织有关联的个人名单载于：<https://www.treasury.gov/press-center/press-releases/Pages/sm0187.aspx>。受制裁的个人包括贝达省前省长 Nayif al-Qaysi (QDi.402)，他于2017年7月23日被替换。同样受制裁的有塔伊兹的一位萨拉菲派领导人 Abu al-Abbas，他曾接受来自阿拉伯联合酋长国的资金和支持(见上文第45段)。

⁸⁸ 2017年11月5日，伊黎伊斯兰国袭击了亚丁省的一处刑事侦查局建筑：一名自杀炸弹手驾车冲撞大门，并与穿着自杀背心的另外三人一起冲进大楼。伊黎伊斯兰国后来声称对这起导致69人死亡的袭击负责，并明确表示其4名战斗人员来自哈德拉毛省、伊卜省、塔伊兹省和夏卜瓦省。

⁸⁹ 总的来说，伊黎伊斯兰国在也门开展了三种类型的袭击：自杀式袭击、近距离暗杀和迫击炮袭击。

黎伊斯兰国之间最多只有一种因面对共同敌人(即胡塞武装⁹⁰ 以及与合法政府和沙特阿拉伯领导的联盟有关联的安全部队)而形成的互不侵犯默契。

75. 2017年10月16日,美国在也门对伊黎伊斯兰国实施了首次直接空袭,击中了贝达省的两个营地。⁹¹ 不到两周后,在10月25日,美国、沙特阿拉伯和反恐怖主义融资靶向行动中心的其他国家伙伴对在也门与伊黎伊斯兰国有关联的五名个人实施制裁。⁹² 自最初于2017年10月中旬实施打击以来,美国又对伊黎伊斯兰国实施了数次空中和无人机袭击,迄今为止所有这些空袭都发生在贝达省。⁹³

76. 除了遭受更大的空中打击压力,伊黎伊斯兰国还遭受了该组织在伊拉克和阿拉伯叙利亚共和国的所谓哈里发国的土崩瓦解。专家小组尚未看到有任何证据表明伊黎伊斯兰国战斗人员涌入也门。反而看起来正好相反:伊黎伊斯兰国的低级别战斗人员似乎投向半岛基地组织。⁹⁴ 专家小组继续调查这是否与缺乏外部资金流入也门或其他因素相关。

四. 军火以及定向军火禁运的执行情况

77. 根据第2216(2015)号决议第14至17段,专家小组继续重点关注一系列监测和调查活动,以确定是否有任何违反定向军火禁运的行为,包括向委员会和安全理事会列名的个人和实体或为这些个人和实体的利益直接或间接供应、出售或转让军火的行为。

78. 专家小组于2017年1月31日报告的向委员会和安全理事会列名的个人和实体或代表其行使或按其指示行事的个人和实体运送武器和弹药的供应链可能方式没有任何改变。⁹⁵ 2017年没有关于海上缉获武器和弹药的报告,只在主要的陆上补给线缉获了非常有限的来自也门东部的军火物资。⁹⁶

⁹⁰ 就像半岛基地组织一样,伊黎伊斯兰国对敌人进行分级,什叶派胡塞武装组织是其首要敌人。2017年8月,伊黎伊斯兰国发布了一名被其钉上十字架的胡塞指挥官照片,其身份确定为 Abu Murtada al-Muhatawari。

⁹¹ 见 <http://www.centcom.mil/MEDIA/PRESS-RELEASES/Press-Release-View/Article/1344652/us-forces-conduct-strike-against-isis-training-camps-in-yemen/>。两个营地以伊黎伊斯兰国两名已故的领导人命名,分别是 Abu Bilal al-Harbi 和 Abu Muhammad al-Adnani。2015年10月9日,在美国实施空袭的前一周,伊黎伊斯兰国从这些营地发布了培训照片。

⁹² 见 <https://www.treasury.gov/press-center/press-releases/Pages/sm0187.aspx>。附件32提供了专家小组关注的伊黎伊斯兰国人员名单。

⁹³ 例如,美国于2017年11月10日、11日和12日在贝达省进行了三次连续的无人机袭击,导致五人死亡。

⁹⁴ 但美国估计,伊黎伊斯兰国在也门“过去一年的规模扩大了一倍”(见 <http://www.centcom.mil/MEDIA/PRESS-RELEASES/Press-Release-View/Article/1401383/update-on-recent-counterterrorism-strikes-in-yemen/>)。

⁹⁵ 见 S/2017/81, 第60段和表1。

⁹⁶ 见附件33。

79. 专家小组已经发现了强有力的迹象，表明在 2015 年 4 月 14 日实施定向军火禁运后，特别是在短程弹道导弹技术(见下文第 86 至 96 段)和无人驾驶飞行器(下文第 98 至 105 段)领域，有人提供由伊朗伊斯兰共和国制造或来自该国的军火相关物资。

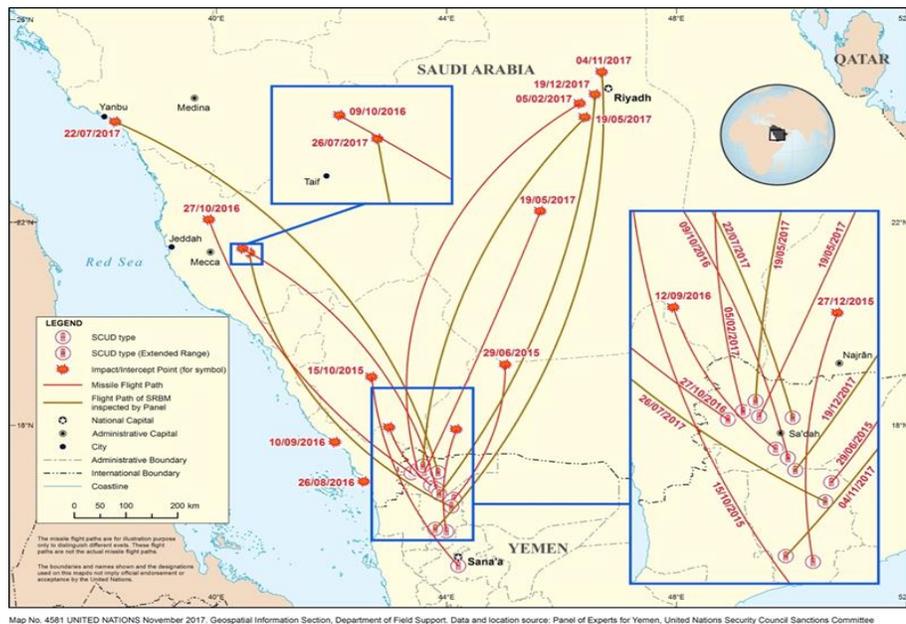
A. 胡塞武装-萨利赫“陆地导弹运动”

1. 概况

80. 胡塞-萨利赫联盟在 2017 年继续以沙特阿拉伯为目标实施战略性“陆地导弹运动”，但密集度有所下降(是 2016 年的 64%)。胡塞-萨利赫联盟继续展示能够对沙特阿拉伯实施打击的移动短程弹道导弹或无制导火箭能力。⁹⁷ 上述行动的战略影响体现为：(a) 表明沙特阿拉伯面对威胁防御薄弱，迫使沙特阿拉伯采取过于高昂的应对措施，以便在这些攻击中自我保护；(b) 表明沙特阿拉伯平民容易遭受这样的袭击；(c) 反击沙特阿拉伯领导的联盟发布的已在 2015 年摧毁导弹库存的不实之词，从而削弱该联盟更广泛的媒体行动可信度；(d) 表明胡塞-萨利赫联盟有能力直接威胁到沙特阿拉伯。本报告附件 34 载有已报告和已证实的短程弹道导弹和无制导火箭发射摘要。图三仅显示短程弹道导弹的发射。

图三

2015 至 2017 年发射的短程弹道导弹



81. 短程弹道导弹由于数量少、固有的不精确性以及高爆炸药弹头较小(不足 600 千克至 950 千克)，在战术上的军事影响有限。

2. 区域紧张局势升级

⁹⁷ 无制导火箭弹是简易的 S-75 Drina 地对空导弹，胡塞武装称其为 Qaher-1 型导弹(见 S/2017/81，第 81 段和附件 42)。

82. 当地时间 2017 年 11 月 4 日 20 时零 7 分左右，一枚短程弹道导弹的残骸落在利雅得的哈利德国王国际机场范围内。⁹⁸ 胡塞-萨利赫联盟的这次袭击⁹⁹ 立即导致地区紧张局势升级，沙特阿拉伯领导的联盟宣布自 2017 年 11 月 6 日起暂时关闭通往也门的所有地面、海上和航空路线。

83. 专家小组于 2017 年 11 月 17 日至 21 日前往利雅得，检查胡塞-萨利赫部队于 5 月 19 日、7 月 22 日、7 月 26 日和 11 月 4 日对沙特阿拉伯发射短程弹道导弹袭击的残骸。专家小组还于 2017 年 12 月 24 日至 26 日访问了沙特阿拉伯，检查 2017 年 12 月 19 日利雅得短程弹道导弹袭击事件的残骸。专家小组的调查结果和结论载于下文(见第 88 至 92 段)。

3. 胡塞-萨利赫部队的短程弹道导弹能力

84. 可以肯定的是，也门导弹防御司令部在冲突前的 2004 年拥有至少 18 枚 SS-1 飞毛腿-B 型导弹，并且在 2000 年代还采购了 90 枚火星-6 型(飞毛腿-C 型)导弹。¹⁰⁰ 在 2015 年初的敌对行动中，第 5 和第 6 导弹旅与胡塞-萨利赫部队一致行动。

85. 最初沙特阿拉伯领导的联盟所实施的空袭未能完全摧毁短程弹道导弹的供应。以沙特阿拉伯为目标的¹⁰¹ 飞毛腿-C 型¹⁰² 短程弹道导弹第一次已证实的发射是在 2015 年 6 月 29 日，最后一次飞毛腿-C 型攻击可能发生在 2017 年 7 月 26 日。¹⁰³ 2017 年 1 月 31 日专家小组报告中提及的 Qaher-1 型无制导火箭弹袭击¹⁰⁴ 在 2017 年持续进行，直至 2017 年 3 月 27 日最后一次已证实的发射。¹⁰⁵

⁹⁸ 最初报告说，该短程弹道导弹在达到预定目标之前，被一枚 MIM-104 “爱国者”地对空导弹空中拦截。从检查的物证来看，专家小组只能说火箭发动机组件可能已被拦截。按设计应当分离的推进剂舱没有被截击导弹弹头击碎的痕迹。在弹着点处(哈利德国王国际机场)还有一个弹坑。

⁹⁹ 之前在 2017 年 2 月 5 日和 2017 年 5 月 19 日，发生了两次针对利雅得地区的短程弹道导弹袭击，分别在 Muzahimiyah 和利雅得省。

¹⁰⁰ 其中包括：(a) 简氏防卫装备和技术情报数据库；(b) 美国国会研究所的一份报告(见 <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA521480>)。2002 年 12 月 10 日发现了转运去也门的 12 枚飞毛腿型导弹，但在最初扣留后，允许该船只继续前往也门运送货物，因为当时没有合法理由实施扣押。

¹⁰¹ 2017 年 10 月 4 日沙特阿拉伯给专家小组的信。

¹⁰² 或是飞毛腿-B 型升级到飞毛腿-C 型，或是朝鲜民主主义人民共和国供应的火星-6 型。

¹⁰³ 由专家小组根据弹头图像确认，这种弹头是安装在飞毛腿-C 型短程弹道导弹上的集束弹药型弹头。

¹⁰⁴ 见 S/2017/81，第 81 至 84 段和附件 42。

¹⁰⁵ 2017 年 8 月 7 日和 27 日报告了两次导弹发射，但未经证实，可能是 Qaher-1 型导弹。

B. 延长射程的短程弹道导弹

1. 背景

86. 在本报告所述期间，已经有四次经证实的延长射程短程弹道导弹袭击，其延长的射程大大超出了胡塞-萨利赫联盟库存中已知导弹的正常预期射程。第一枚导弹的发射是在 2017 年 5 月 19 日(见表 1)。¹⁰⁶

表 1

2017 年胡塞-萨利赫联盟经证实的延长射程短程弹道导弹发射^a

日期	事件	射程(公里)	说明
5 月 19 日	弹着点在利雅得省	965	首次经证实的发射
7 月 22 日	弹着点在西梅迪纳的 Yanbu'	900+	距前次发射约 2 个月
11 月 4 日	朝利雅得发射的导弹	1043 ^b	距前次发射约 3 个月
12 月 19 日	朝利雅得发射的导弹	915	2017 年 12 月 19 日胡塞武装发布的一段发射视频 ^c 很可能在飞行中被拦截

^a 资料来源：2017 年 10 月 4 日会员国的来信(头两次发射)。

^b 由于导弹飞行距离有可能已超过 1 000 公里，因此可以更准确地称之为中程弹道导弹。由于射程重叠很小，专家小组将继续称其为短程弹道导弹，因为它是由这类导弹衍生的。射程是按照爱国者系统提供的目标事件报告确定的。从共享预警系统获得的数据把估计的发射点定在向北的 1 个经度位置，即 937 公里的距离。

^c 见 <https://mobile.almasdarnews.com/article/video-footage-houthis-long-range-missile-launch-saudi-arabia/>。

87. 胡塞军事发言人沙拉夫·鲁格曼(Sharaf Luqman)“少将”于 2017 年 3 月 30 日首次承认，空袭中损坏的导弹正在由也门专家进行修复和改造。¹⁰⁷ 专家小组尚未印证的设想是，外国导弹专家可能正在也门提供技术咨询，¹⁰⁸ 或者胡塞-萨利赫导弹专家可能曾访问第三国以接受培训。胡塞武装部队几乎肯定没有制造一种新型短程弹道导弹的设计或工程技术能力。

2. 技术分析和调查结果

88. 专家小组最初研究了胡塞-萨利赫库存中已知的飞毛腿-C 型短程弹道导弹延长射程的可用选项，其结论是不可能充分减轻这种导弹的重量，也不可能充分提升其能量输出的水平从而将已知的最远 600 公里射程延长至超过 1 000 公里。

¹⁰⁶ 还有媒体报道说，2017 年 2 月 5 日有短程弹道导弹在利雅得省落地，但未经证实。如果得到证实的话，这将是也门第一次经确认的延长射程短程弹道导弹发射。

¹⁰⁷ sputniknews.com/middleeast/201703301052137016-yeminis-repair-soviet-missiles/。

¹⁰⁸ <https://english.alarabiya.net/en/features/2018/01/01/Who-are-the-Iranian-Revolutionary-Guard-officers-leading-Houthis-in-Yemen-.html>。

89. 2016 年见过射程超过 670 公里的短程弹道导弹发射，这表明在 2016 年几乎可以肯定进行了飞毛腿-C 型导弹减重计划(见附件 35)，把该类型导弹的射程有限地延长了约 11.75%。这方面的证据包括使用美国设计的复合材料压缩空气瓶，代替标准的钢制空气瓶。¹⁰⁹ 胡塞武装把这种导弹称为 Borkan-2。

90. 专家小组在利雅得检查了“7 月 22 日”和“11 月 4 日”延长射程的短程弹道导弹遗骸后发现：

(a) 专家小组检查的导弹遗骸的许多内部设计特点、¹¹⁰ 外部特征¹¹¹ 和规格与伊朗设计制造的起义-1 型导弹一致。这意味着它们几乎肯定是由同一个制造商生产的。图四显示了专家小组检查的与起义-1 型有关的主要部件的位置。图五是飞毛腿-C 型导弹的图解，图六是专家小组检查过的延长射程的短程弹道导弹图示，用于对比；

图四

主要部件及其与起义-1 型短程弹道导弹的位置对比^a



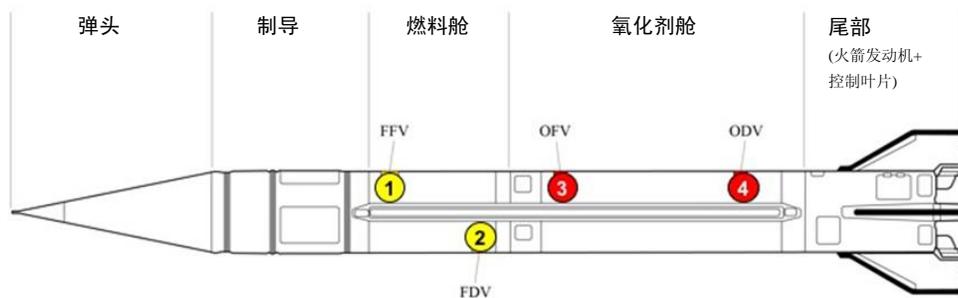
^a 2017 年 11 月 19 日和 20 日，专家小组在利雅得拍摄的延长射程的短程弹道导弹图像(起义-1 型图像来自 <http://3.bp.blogspot.com/-qsK7VV6oZfc/Tq1ET0NyVdI/AAAAAAAAADo/NGlhWpeJTsw/s1600/Qiam-1.jpg>)。

¹⁰⁹ 制造这种瓶子的公司产量很大，因此无法追踪这些部件。

¹¹⁰ 例如，导弹体内燃料舱和氧化剂舱的位置颠倒。在已知的短程弹道导弹系统中，只有已经淘汰的飞毛腿-A 型和伊朗的起义-1 型导弹中才能看到这种构造。延长射程的短程弹道导弹的其他设计特点包括：(a) 复合压缩空气瓶；(b) 升级制导系统。

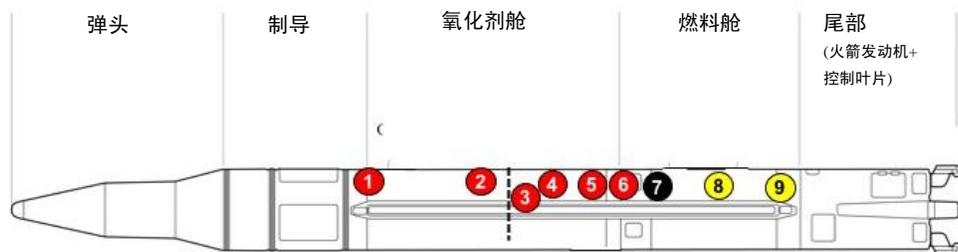
¹¹¹ 例如：(a) 主要使用铝制机体；(b) 导弹没有尾翼。飞毛腿-C 型的变种有尾翼，伊朗的起义-1 型没有。

图五
飞毛腿-C型导弹主要部分的布局图示^a



^a 专家小组的示意图(不按比例)。与实际导弹相比,图中的阀门成比例放大,以助于识别(见附件 36,附录 C,图 C.36.1)。

图六
延长射程的短程弹道导弹主要部分的布局图示^a



^a 见附件 36,附录 C,图 C.36.2。

(b) 标准的起义-1型导弹射程为 750 至 800 公里,而专家小组查验的导弹射程超过 1 000 公里。专家小组认为,它不是起义-1型短程弹道导弹,而是一种衍生的轻型导弹,由起义-1型制造商专门设计,通过减轻重量将射程延长到 1 000 公里以上;¹¹²

(c) 专家小组识别的建造质量和焊接标准差异意味着该技术几乎肯定已经采取模块系统形式加以转让,¹¹³ 需要胡塞-萨利赫联盟的导弹工程师在作战部署之前对导弹进行组装和功能测试;

¹¹² 伊朗设计和制造的 Shabab-3 型导弹射程为 1 300 公里,因此这种导弹几乎肯定不是为了填补伊朗弹道导弹系列中的“射程缺口”而设计的。

¹¹³ 模块系统包括:(a) 弹头;(b) 制导单元;(c) 燃料舱;(d) 氧化剂舱;和(e) 尾部(火箭发动机、舵机和泵)。

(d) 2017 年 11 月 4 日导弹残骸上的三个喷气叶片外壳上有标记(见图七), 其设计与伊朗伊斯兰共和国的沙希德巴盖里工业公司(Shahid Bagheri Industries)的公司标志十分相似(见图八)。¹¹⁴ 已向伊朗伊斯兰共和国当局发出追查请求;¹¹⁵

图七
喷气叶片外壳上沙希德巴盖里工业公司标志的放大图像^a



^a 专家小组拍摄的图象。

图八
贸易展台上的沙希德巴盖里工业公司标志^a



^a 来源: <http://www.sns.co.ir/?p=327>。

(e) 胡塞-萨利赫联盟已得到获取“延长射程”导弹技术的渠道, 比已知该联盟在 2015 年 1 月拥有的飞毛腿-C 型和火星-6 型短程弹道导弹更先进。他们将该导弹称为 Borkan-2H, 这是专家小组对该导弹的命名;

(f) 供应 Borkan-2H 部件所使用的路线极有可能是用船只运送到马哈拉省 Nishtun 和 Ghaydah 地区的港口, 上岸后通过主要的陆上补给线进入胡塞-萨利赫占领区。¹¹⁶ 尽管不太可能隐藏在红海港口卸货船只的货物中, 但也不能排除这种可能的选项;

(g) 使用 Borkan-2H 以沙特阿拉伯的平民为袭击目标是违反国际人道主义法的行为(见下文第 179 段和附件 64);

(h) 迄今为止, 专家小组没有关于供应人身份或任何居间第三方的证据;¹¹⁷

(i) 由于伊朗伊斯兰共和国没有向专家小组提供任何信息, 说明对制造延长射程的短程弹道导弹部件变更保管安排, 因此该国没有遵守第 2216(2015)号决议第 14 段, 因为该国未能采取必要措施以防止向胡塞-萨利赫部队直接或间接提供、

¹¹⁴ 也可能称为沙希德巴克里工业公司(Shahid Bakeri Industries)。该组织是伊朗航空工业组织的附属公司。

¹¹⁵ 请求是在专家小组 2017 年 12 月 9 日和 12 日的信中提出的。

¹¹⁶ 专家小组注意到, 作为改善这条主要补给线安全战略的一部分, 2017 年 11 月 27 日第 123 步兵旅重新部署到 Ghaydah, 还任命了马哈拉省的新省长 Rajih Said Bakarit。

¹¹⁷ 专家小组于 2017 年 11 月 26 日、12 月 11 日和 12 月 14 日向制造商所在的会员国发送了追查请求。

出售或转让这种技术，而胡塞-萨利赫部队是按照名单所列个人的指示行事的实体。¹¹⁸

91. 专家小组的意见和支持上述结论的全面技术分析载于附件 36。

3. 相关案件短——程弹道导弹液体推进剂氧化剂现场存储罐

92. 2017 年 1 月，沙特阿拉伯所领导联盟的一个成员国在从马哈拉省出发的主要补给线沿线的马里卜省附近没收了一批工业加工设备。没收的这批货物中还有两个危险化学品存储罐，其设计、结构和尺寸都与飞毛腿导弹或其他短程弹道导弹系统使用的氧化剂现场存储罐几乎一样(见图九和图十供比较)。

图九

在马里卜省附近没收的氧化剂现场存储罐^a



图十

飞毛腿导弹现场存储罐^a



^a 机密资料。

^a 存放在利比盖尔扬防空基地(2017年)。机密资料。

93. 尽管没收的其他设备大部分也是化工或食品加工行业的标准设备，但一些物项看起来有一些手工改装，上有不寻常的焊接接头(管道和法兰)及其他简易工程特征。这表明对这些物项进行了改装，将其用于与其初始用途不同的其他目的。专家小组认为，这一设备具有军事用途，可用于浓硝酸(短程弹道导弹中使用的液体双推进剂氧化剂)的再处理。

94. 专家小组的追查请求已经确定：(a) 两个组件是伊朗伊斯兰共和国制造的；(b) 三个组件是外国制造商提供给伊朗伊斯兰共和国的，其中一个组件是通过欧洲一个银行账户付款的，并在上面贴上了波斯语标签。¹¹⁹

95. 专家小组迄今还没有任何证据可证明供应商或任何中间第三方的身份。¹²⁰

¹¹⁸ 专家小组 2017 年 12 月 15 日致函伊朗伊斯兰共和国，向该国当局通报这一调查结果，并再次要求该国政府提供其可能拥有的关于这些部件保管安排变更的资料。专家小组随后于 2018 年 1 月 15 日至 17 日访问伊朗伊斯兰共和国，以便进一步讨论。关于伊朗伊斯兰共和国对专家小组调查结果的答复，见附件 36，附录 E。

¹¹⁹ 见附件 36 附录 A 的全面分析。

¹²⁰ 2017 年 12 月 11 日，专家小组向有关会员国发出了追查请求。

96. 由于伊朗伊斯兰共和国没有向专家小组提供资料,说明液体双推进剂存储罐的保管出现了任何变化,也没有解释为何出现了伊朗制造的组件,因此可以认定伊朗伊斯兰共和国未遵守第 2216(2015)号决议第 14 段的规定,因为其未能采取必要措施,防止直接或间接向胡塞-萨利赫部队(一个听从列名个人指示行事的实体)供应、销售或转运增程型短程弹道导弹相关的军事装备。¹²¹

C. 胡塞使用无人驾驶飞行器

97. 2017 年期间,胡塞-萨拉赫联盟部队继续有限度地使用中小型无人驾驶飞行器进行情报、监视、目标捕获和侦察,¹²² 使用中型无人驾驶飞行器进行爆炸袭击。¹²³ 小型无人驾驶飞行器都是基于商用系统,例如 X-8 “天行者”,它具有进行监视和目标规划的军事用途。

1. Qasef-1 型无人驾驶飞行器

98. 2016 年 11 月 27 日,在马里卜省附近的阿尔梅勒检查站截获了一辆迪拜注册的卡车(迪拜/13933),发现车上运载了至少 6 架完整的 Qasef-1 型无人驾驶飞行器的组件以及再制造 24 架无人驾驶飞行器的部分组件。¹²⁴ 阿拉伯联合酋长国部队从马里卜省(2016 年 9 月 19 日)¹²⁵ 和亚丁机场(2016 年 11 月 16 日)¹²⁶ 坠毁的无人驾驶飞行器中也找到了一些组件。

99. 专家小组认为,中型 Qasef-1 型无人驾驶飞行器在设计、尺寸和性能上都与伊朗飞机制造工业公司¹²⁷ 制造的 Ababil-T 型无人驾驶飞行器¹²⁸ 几乎一样。对 Qasef-1 型无人驾驶飞行器的分析见附件 38。

100. 专家小组发现,自 2015 年 4 月 14 日实施定向武器禁运后,伊朗伊斯兰共和国至少获得了系统的 2 个组件。其中一个组件的资金走向使用了第三方经纪人,以及第三国的一个中介账户。这表明这是试图蓄意掩盖该组件的最终目的地。

101. 专家小组根据:(a) 该无人驾驶飞行器的设计;(b) 对组件各部分的追踪,认定组装 Qasef-1 型无人驾驶飞行器所需的材料源自伊朗伊斯兰共和国。

¹²¹ 见上文脚注 118。

¹²² 专家小组 2017 年机密中期最新情况报告首次报告了这一情况。

¹²³ 见附件 37 关于阿拉伯联合酋长国部队遭爆炸袭击的综述。

¹²⁴ 一个会员国的来信中提供的信息:包括 Qasef-1 型序列号 22-122-33、22-122-34、22-122-38、22-1721-39、22-1721-X、22,1721-0 和 22-1722-9。

¹²⁵ 一个会员国的信,包括 Qasef -1 型序列号 22-1728。

¹²⁶ Qasef -1 型序列号 22-122-39。

¹²⁷ 简氏数据库(见 www.janes.his.com)。

¹²⁸ 伊朗飞机制造工业公司是附属于伊朗飞机工业组织的一家公司,伊朗飞机工业组织为伊朗政府所有。航空工业组织是国防工业组织联合会的一部分。

2. Rased 型无人驾驶飞行器

102. 几乎可以肯定地讲，被胡塞-萨利赫联盟称为 Rased(“Surveyor”)的无人驾驶飞行器就是天行者 X-8 型无人驾驶飞行器(见附件 39)。

3. 违反禁运情况

103. 专家小组认为，向代表安全理事会指认个人或实体行事的实体提供专门用于军事情报、监视、目标捕获和侦察或袭击行动的无人驾驶飞行器属于第 2216(2015)号决议第 14 段“军事装备”范畴。

104. 由于伊朗伊斯兰共和国没有向专家小组提供资料，说明 Qasef-1 或其组件的保管出现了任何变化，¹²⁹ 因此，可以认定伊朗伊斯兰共和国未遵守第 2216(2015)号决议第 14 段的规定，因为其未能采取必要措施，防止直接或间接向胡塞-萨利赫部队(一个听从列名个人指示行事的实体)供应、销售或转运军事相关装备。

105. 专家小组认为，由于商用无人驾驶飞行器具有显著的军事用途，可用于监视和目标侦察，或可以很容易地改装为袭击型无人驾驶飞行器，因此当这些无人驾驶飞行器被用于军事目的时应属于第 2216(2015)号决议第 14 段“军事装备”的范畴。

D. 水上简易爆炸装置

106. 胡塞至少两次成功地部署了水上简易爆炸装置：(a) 袭击一艘沙特阿拉伯皇家海军护卫舰；(b) 穆卡港。专家小组注意到，阿拉伯联合酋长国已经向美国 and 一家商业军备调查公司发布资料，说明没收了一个这种类型的爆炸装置。

107. 虽然专家小组已经看到了这一水上简易爆炸装置的影像和第三方分析，但由于专家小组所看到的信息未达到安全理事会关于制裁的一般性问题非正式工作组报告(S/2006/997)中建议的最佳做法和方法第 21 和 22 段所载的透明度和核实标准，因此本报告未列出任何分析或调查结果。

108. 专家小组认为，由于阿拉伯联合酋长国不允许专家小组可不受阻碍地为执行任务目的查阅文件和前往各地点，因此，认定阿联酋未遵守安全理事会第 2342(2017)号决议第 8 段的规定。专家小组进一步认定，由于阿联酋没有及时向委员会提供关于没收的初步书面报告，也没有在随后的 30 天内提交书面报告，因此认定阿联酋未遵守安理会第 2216(2015)号决议第 17 段的规定。

109. 因此，专家小组不能独立证实，2015 年 4 月 14 日实施定向武器禁运后(第 2216(2015)号决议第 14 段)，技术被转移到了也门，并将继续调查此事。

E. 水雷

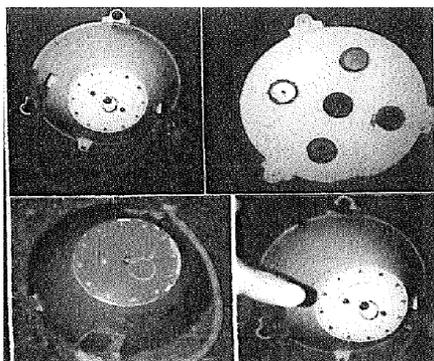
110. 专家小组在 2017 年期间又发现了使用水雷的情况，事件年表见附件 40。

¹²⁹ 专家小组 2017 年 12 月 19 日给伊朗伊斯兰共和国的信。

1. 伊朗制造的“底层”水雷

111. 阿拉伯联合酋长国向专家小组报告称，穆卡港发现了至少三枚水雷。¹³⁰ 发现的水雷(见图十一)的形状和大小与伊朗制造的“底层”水雷(见图十二)相一致。伊朗的水雷是在 2015 年 10 月的一个伊朗武器展销会上首次被发现的。

图十一
在穆卡发现的水雷(2017 年)



图十二
伊朗武器展销会上的水雷(2015 年)



112. 专家小组致函伊朗，要求澄清图十二显示的水雷的术语表和出口情况，但尚未收到答复。

2. 胡塞-萨利赫联盟使用简易水雷情况

113. 专家小组调查了胡塞-萨利赫联盟¹³¹ 确认使用简易水雷的情况。¹³² 2017 年 3 月 23 日在 Midi 发现了一个水雷(见图十三)，2017 年 5 月 27 日或在此前后在 Thwaq 岛发现了两个类似但样式并不完全一样的水雷¹³³ (见图十四)。Thwaq 岛无人居住，从该岛发现了水雷证明胡塞武装已在红海使用这些水雷类型。由于 2016 年 11 月在胡塞控制区的岸边存储区发现了大约 12 个简易水雷，¹³⁴ 因此使用的水雷极有可能远超过发现的三枚简易水雷，从而对红海的海上战略交通线构成威胁。威胁的时长仅限于水雷电源的电池寿命，这取决于使用何种类型的 AA 电池，但时长可能在 6 至 10 年之间。

图十三

在 Midi 附近发现的简易水雷(2017 年 3 月 23 日)^a

图十四

在 Thwaq 岛区域发现的简易水雷(2017 年 5 月)^a

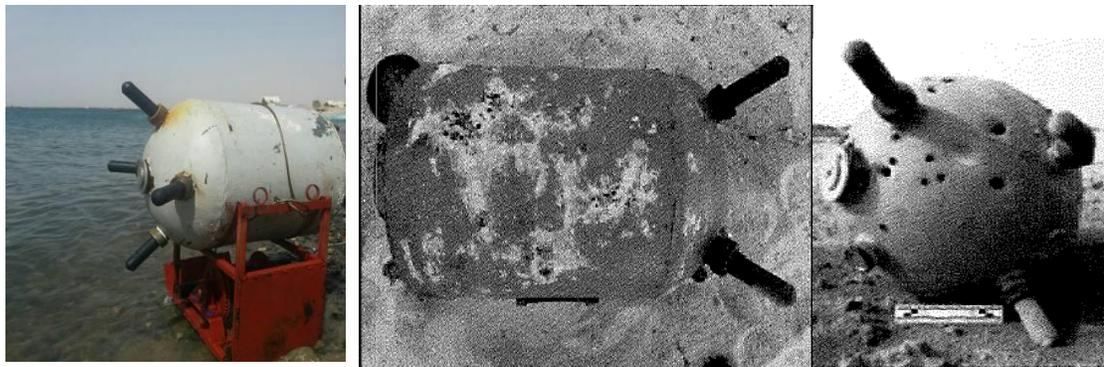
¹³⁰ 2017 年机密中期最新情况报告第 61 段首次报告了这一情况。

¹³¹ 2017 年 9 月 13 日的信中向委员会作了报告。

¹³² 2017 年机密中期最新情况报告第 63 至 64 段首次报告了这一情况。

¹³³ 坐标为 16° 18' 42.61" N, 42° 41' 10.77" E。

¹³⁴ 机密资料。



^a 见 www.youtube.com/watch?v=6H04M4Vpif8&feature=youtu.be。

^a 会员国提供并经专家组证实的影像。专家组通常不会使用未经证实的单一来源社交媒体，但由于图像显示的样式与机密目击者描述的样式基本一样，因此专家组就采用了这一资料来源。

114. 虽然这些水雷从设计上看是系泊的触发雷，但存在设计缺陷，而且这些水雷类型并未总是发挥设计的系泊作用，或者可能脱离系泊。从 Thwaq 岛发现的水雷证明，其中一些系泊雷已成为漂流水雷。详细的技术和威胁分析见附件 41。

F. 反坦克导弹

115. 专家组在 2017 年 1 月 31 日的报告中¹³⁵ 中报告了没收的反坦克导弹情况，它们的实际性能特点与伊朗制造的 Dehleyvah 非常相似。当时缺乏开源资料，使专家组无法确认这些就是 Dehleyvah 导弹。

116. 专家组现已比较了 2016 年 3 月 20 日法国海军“普鲁旺斯”号船舶缴获的 9M133 “Kornet” 导弹和伊朗“Dehleyvah” 导弹的标记和设计特点。¹³⁶ 比较结果见本报告附件 42。该结果将作为未来调查和鉴定的一个权威来源。¹³⁷

G. 黑市

1. 小武器弹药

117. 专家组继续监测黑市小武器弹药的价格。虽然价格现在已经开始上涨（2017 年上涨了 20%），但如附件 43 所示，比如亚丁的一种 7.62 毫米 X39 毫米的弹药现在的价格仍然比冲突之前（1.60 美元）低很多（0.94 美元）。这有力地表明，也门各方仍然可以随时买到小武器弹药，不需要外部的再补给。

2. 可疑的最终用户证书

118. 专家组拿到了¹³⁸ 由胡塞-萨利赫行政当局签发的多份最终用户证书副本，为当时的胡塞-萨利赫行政当局从保加利亚、中国、菲律宾、伊朗伊斯兰共和国、塞尔维亚和斯洛伐克共和国采购武器和弹药提供佐证（见附件 44）。专家组

¹³⁵ S/2017/81，第 76 至 77 段以及附件 37。

¹³⁶ 见 S/2017/924 附件 7.2。

¹³⁷ 另见 <https://www.ihs.com/products/janes-weapons-ammunition.html>。

¹³⁸ 机密资料。

联系了这些会员国；保加利亚、中国、菲律宾和斯洛伐克共和国都证实，他们未给武器购买出具过这些最终用户证书。

119. 授权代理上述潜在的军火交易的 Al Fosal(又名 Fusal)贸易公司，写明的管理者是 Adeeb Fares Mohamed Mana'a, 此人是已知的武器贩运者, 被指认个人 Fares Mohammed Hassan Mana'a(SOi.008)的儿子。¹³⁹ Fares Mana'a 目前是位于萨那的的国务部长。¹⁴⁰

120. 该文件的日期, 2015年7月6日, 正值胡塞-萨利赫联盟控制萨那三个月。正如专家小组2017年1月31日的报告¹⁴¹所述, 胡塞-萨利赫同盟此时可能已经控制了至多国家武器储备的68%。因此, 他们不太可能需要研究如何买到最终用户证书上列出的小武器、轻武器和弹药。更有可能的是, Fares Mohammed Hassan Mana'a 认为这是利用他在当时新的胡塞-萨利赫行政当局的联系人获得适当文件的机会, 可以利用这些文件支持其采购武器, 壮大地区武器规模。

121. 正如专家小组之前的报告¹⁴²称, Fares Mana'a 和 Adeeb Mana'a 2013-2015年期间都参与了一起单独的非法武器转让过程。Fares Mohammed Hassan Mana'a 作为经纪公司的一部分参与其中, 以及他与胡塞人之间的已知关系, 意味着使用这些最终用户证书的任何未来潜在的区域转移仍然会给列名个人带来经济好处, 因此违反了第2216(2015)号决议第14段的规定。

H. 提高定向军火禁运的效力

122. 胡塞-萨利赫部队部署了先进的增程型短程弹道导弹技术, 这表明, 目前的监察和执法措施面对计划周密的装运非爆炸性武器和武器相关材料存在薄弱环节。¹⁴³ 只有也门政府和沙特阿拉伯领导的联盟才能改善覆盖马哈拉省陆路的拦截措施。

123. 为提高沙特阿拉伯领导的联盟对这一进程的信心, 专家小组审议了提高联合国核查和视察机制系统核查率的各种方案。联合国核查和视察机制在胡达亚港派驻常驻力量将会: (a) 帮助提高沙特阿拉伯领导的联盟的信心, 使非法货物更难通过该港口; (b) 对可能将要发生的非法货运起到威慑作用。在联合国主持下在荷台达港口部署一艘海军或舰队支援舰将消除永久性岸基存在的已知问题。该船舶将具有必要的自我保护监视和武器系统, 并能够在必要时将联合国核查和视察机制检查员带上岸。上岸后东道国船舶的武装海军或海军陆战队员可以提供近身保护, 根据胡塞政府核准的一个谅解备忘录将港口安全通过合同交给了一家

¹³⁹ 2010年4月12日, 安全理事会关于索马里和厄立特里亚的第751(1992)号和第1907(2009)号决议所设委员会依照第1844(2008)号决议第8段的授权列名。

¹⁴⁰ 2016年11月28日被任命。

¹⁴¹ 见S/2017/81, 第78段和附件39。

¹⁴² 同上, 第80段和附件41。

¹⁴³ 正如专家小组的机密中期最新情况报告所述, 沙特阿拉伯领导的联军2016年在马里卜省没收胡塞-萨利赫部队军用无人驾驶飞行器组件是表明存在薄弱环节的另一个例子。

私营安保公司负责。这将大大降低联合国核查和视察机制检查员的个人风险，消除了永久性岸基存在所需的后勤和安全要求，同时确保商船卸货时对其进行中立的检查和监督。该船舶还可以作为由两党人员联合组成的一个中立的也门海岸警卫队的能力建设基地。

五. 经济背景和财务概述

124. 专家小组按照其任务规定调查了依照第 2140(2014)号和第 2216(2015)号决议指认个人的经济情况，这些个人的网络仍在违反制裁措施运作。特别是，专家小组研究了资金流动、财富转移和设立新的空壳公司资助威胁到也门和平、安全或稳定行动的情况。

125. 专家小组认为，2017 年期间，合法政府、地方当局、胡塞-萨利赫联盟和其他民兵部队都继续在各自地区收缴“国家”税收，但回报的公共服务有限。他们的行为侵蚀了正规经济的基础，造成流动性问题，增加了也门银行业和金融体系崩溃的可能性。有利于洗钱的条件已经形成，这是和平的政治过渡和复苏面临的另一个障碍。冲突持续不断使也门出现了新的战争奸商，他们逐渐取代了萨那和塔伊兹的传统商业社区。这必将带来新的挑战 and 新的搅局者。

A. 胡塞武装及其附属团体控制国家经济资源

1. 胡塞武装从国家资产中收缴的收入

126. 胡塞武装继续通过忠于他们的部长和主管，或通过在各组织内担任主管的代表和革命委员会，直接控制本地区的大部分国民经济。

127. 专家小组根据最新的国家预算(2011 年)分析了非税收入，评估哪些收入有可能被胡塞收入囊中。相当于约 28 180 亿里亚尔(113 亿美元)，¹⁴⁴ 其中最低 4 070 亿里亚尔(16.2 亿美元)可能在他们的控制之下(见附件 45)。

128. 电信公司是胡塞武装在萨那的主要收入来源。¹⁴⁵ 2017 年 8 月 21 日，位于萨那的电信部长 Julaidan Mahmood Julaidan¹⁴⁶ (隶属于全国人民代表大会党派)在一次媒体会议上表示，自从他 2016 年 12 月 1 日接任电信管理部门 20 个月以来，

¹⁴⁴ 萨那也门中央银行将官方汇率定在 1 美元兑换 250 里亚尔，浮动利率约为 370 里亚尔(自 2017 年 8 月 15 日起)；该日的市场汇率。这一汇率不断上涨，到 2017 年 12 月 31 日已涨到 1 美元兑换 400 里亚尔。专家小组在分析萨那经济时采用的 250 里亚尔兑换 1 美元或 370 里亚尔兑换 1 美元的市场汇率(10 万美元以下金额被四舍五入)

¹⁴⁵ 也门现有四个电信公司运营：(a) 移动(国有)；(b) 也门电信(国家控制)；(c) Sabafon，与 Hamed Al Ahmar 有关联；(d) MTN，已知与 Shaher Abdulhaq 有关联，但专家小组获悉，为获得 MTN 南非公司的股份，他很可能已将其股份转到了南非 MTN 公司。

¹⁴⁶ 据报告，由胡塞 2017 年 12 月 4 日之后执行。

移动通信公司已经转移了 98 亿里亚尔(合 2.648 亿美元)。¹⁴⁷ 胡塞武装并不否认这一数额, 该数额相当于每年 1.59 亿美元。

129. 烟草销售是胡塞武装可获得的第二大收入来源。例如, 卡马兰工业投资公司宣布其 2015 年税收和关税额为 239 亿里亚尔(6 470 万美元)。¹⁴⁸ 专家小组估计, 另外两个生产商的数额类似。¹⁴⁹

130. 为增加海关收入, 胡塞武装开始对合法政府控制地区进口的商品征收额外关税(见附件 46)。

131. 2016 年 5 月 28 日, Mohamed Ali al-Houthi 任命 Yahya Mohamed Abdullah al-Osta 为位于萨那的也门海关当局代理局长。¹⁵⁰ 此后, 他一直负责监督关税征收的非法机制的执行, 为代表 Abdulmalik al-Houthi 及其控制下的实体和个人谋取利益。

132. 2017 年 4 月 4 日, 位于萨那的财政部在阿姆兰和达马尔检查站设立了新的常设海关岗亭,¹⁵¹ 由于经过胡达伊港口航线的来往交通减少, 希望向更多的陆路交通征税。

2. 黑市燃油

133. 专家小组发现, 燃料和石油产品的分销仍是胡塞武装组织的一个主要收入来源。胡塞武装在 2015 年 6 月 28 日结束了也门石油公司对石油产品进口和分销的垄断。¹⁵² 他们策划了分销的私人投标竞争, 主要通过由他们控制的黑市分销商实现, 目前控制了该行业。

134. 专家小组在 2016 年 5 月至 2017 年 7 月期间获得的数据(当时的官方汇率为 250 里亚尔兑 1 美元)显示, 胡塞武装从在红海港口 Hudaydah 和 Ras Issa¹⁵³ 交

¹⁴⁷ 全国人民大会附属电视台, “今日也门节目”, 2017 年 8 月 21 日, (见 <https://www.youtube.com/watch?v=RlsXBIGWvhk>)。

¹⁴⁸ 见 http://www.kamaram.com/english/research_and_development.php。

¹⁴⁹ 与 Pall Mall 和 Rothmans 等品牌有关联的三家公司控制了也门的烟草业。其中一家公司是 HSA 集团的 Kamaran 联合工业公司。卖出的每包烟, 国家除收取 18 里亚尔的各种其他费用外, 还将销售价格的 90% 征为烟草税。

¹⁵⁰ Mohamed Abdullah al-Osta 是财政部内的一名中级工作人员, 职务是法律顾问。

¹⁵¹ 2017 年第 138 号决定(见 http://customs.gov.ye/news_show_ar.php?id=132)。

¹⁵² 也门的燃油分销历来包括该区域走私活动的收入。也门燃油不交税, 而且受到补贴, 这其中的套利机会因此使非洲之角各地的走私活动有利可图。胡塞武装前总理穆罕默德·巴桑杜领导的政府以取消燃油补贴为借口夺取了萨那。目前不对燃油进口征税, 也不提供补贴。

¹⁵³ 自 2017 年 6 月关闭。

付的黑市油品得到的销售收入可能高达 3 180 亿里亚尔(合 12.7 亿美元)¹⁵⁴ (见附件 47)。¹⁵⁵

135. 专家小组注意到, 迄今已有 61 家公司通过联合国也门核查和视察机制¹⁵⁶ 为 234 艘油轮申请清关, 其中 173 艘已被允许向这些港口运送燃油。¹⁵⁷ 收货方名单见机密附件 48。专家小组注意到, 2016 年和 2017 年期间只有 11 家公司继续进口燃油, 12 家公司在 2017 年 3 月 1 日之后似乎停止了向也门的进口, 自那时起还出现了 11 家新公司。这表明了胡塞武装控制石油进口的战略。其他证据包括:

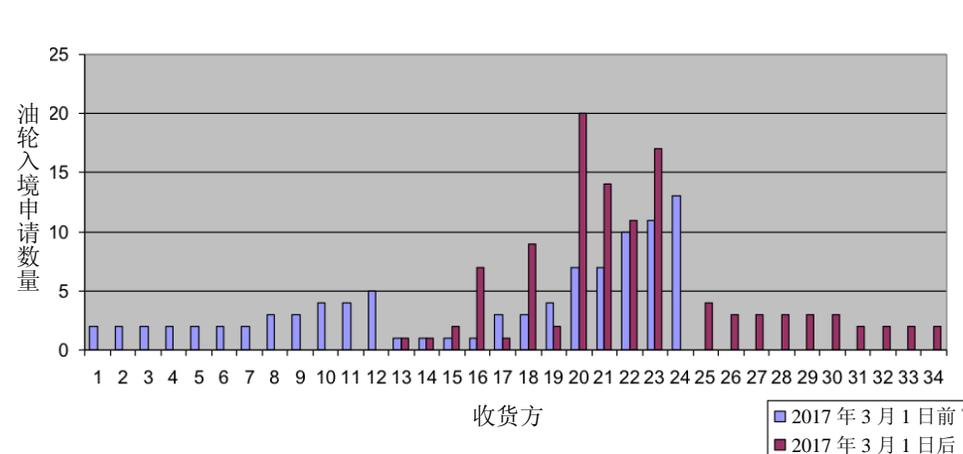
(a) 只有在石油行业有往绩的 Alhuthaily 集团继续以相同的水平运营(见图十五中的第 22 个收货方, 详情见附件 48 的附录 2);¹⁵⁸

(b) Tawfiq Mathar 兄弟使用的 Falak 航运公司曾在萨利赫时期为也门石油公司进口燃油, 该公司已停止经由也门红海港口的运营;

(c) 目前所有活跃的石油进口商都附属于胡塞武装。

图十五

2016 和 2017 年燃油收货方的变化



136. 专家小组继续监测这一情况, 以评估“前胡塞武装时代”的商人失去的市场空间是否是冲突造成的结果, 还是胡塞武装所采取战略的一部分, 即以也门人所称的“2017 年代”商人(指胡塞武装在也门的商业伙伴)将其取而代之。专家小

¹⁵⁴ 也门中央银行汇率: 1 美元=250 也门里亚尔。

¹⁵⁵ 数据来自: (a) 联合国也门核查和视察机制对 2016 年 5 月以来交付燃油的记录; (b) 也门燃油供应、运输和储存市场价格; (c) 贸易商和也门境内消息人士确认的其他费用。

¹⁵⁶ [https://www.vimye.org/docs/GoY Announcement of UNVIM Launch.pdf](https://www.vimye.org/docs/GoY%20Announcement%20of%20UNVIM%20Launch.pdf)。

¹⁵⁷ 截至 2017 年 11 月 30 日, 交付量相当于 2 358 953 吨燃油产品。

¹⁵⁸ ATICO 贸易公司是在也门注册的石油业传统运营商(见 <http://www.alhuthaily.com/index.php/contact>)。

组正在调查 Vulcan 集团受益所有权的变化, 该集团是萨利赫时期也门国防部最重要的供应商。¹⁵⁹

3. 掠夺、贩运古物和文物的风险

137. 专家小组调查了从也门冲突区走私古物和文物以供在国外销售的风险(见附件 49)。

138. 2009 至 2010 年间在瑞士缉获了一箱来自卡塔尔和阿拉伯联合酋长国的艺术品, 虽然仍处在司法程序之中,¹⁶⁰ 但可能有助于专家小组查明走私方法和网络。虽然这些艺术品在实施制裁之前就从也门运走, 但因涉案物品在萨利赫政权期间违反也门第 N21/1994 号文物法¹⁶¹ 非法出口, 可能会借此发现更多的萨利赫家族资产, 专家小组正在调查该案。这些艺术品的市值估计超过 150 万美元。

139. 由于没有正式的也门文化遗产记录, 很难确定为获取利益而出口和在国外出售的古物的查禁情况。专家小组看到了拉哈杰、萨那、塔伊兹的有关方面在官方媒体上公布的图片, 显示珍贵文物在没有任何保护机制的情况被遗弃。最近, al Masirah 电视台播放了卡马兰岛前主席 Tawfiq Saleh Abdulla Saleh 住宅的图像。¹⁶²

B. 货币供应问题

1. 也门流动性情况和也门中央银行

140. 在胡塞武装的控制区内, 一个由私人银行和金融机构组成的中央银行架构继续运作。¹⁶³

141. 2017 年, 合法政府设法印制了 6 000 亿里亚尔(16 亿美元)。¹⁶⁴ 印发这些纸币是为了: (a) 获得储备金, 以重新开始支付工资; (b) 由于 M1¹⁶⁵ 货币供应现已枯竭, 要以此改善全也门的货币流通; (c) 更换破损纸币。这些目标都尚未实现。¹⁶⁶

¹⁵⁹ 见 <http://vulcanyemen.com/>。专家小组有证据显示公司所有者(Khalid Ahmed Alradi)参与了以借款合同。因他支持萨利赫, 胡塞武装在 2017 年 8 月 26 日将其杀害。

¹⁶⁰ 见 <http://ge.ch/justice/vestigis-archeologiques-le-ministere-public-confisque-des-objets-provenant-de-palmyre-en-syrie-du-ye>。

¹⁶¹ 经 1997 年 2 月 17 日第 8/1997 号法修订。

¹⁶² <http://www.yafa-news.net/archives/263955> and http://almasirah.net/gallery/preview.php?file_id=10481#.Wifxroebms.whatsapp (at minute 15.36)。

¹⁶³ 在也门运作的所有 18 家银行都在萨那设有总部, 只有也门国家银行(又名 Al Ahli 银行)除外, 其总部设在亚丁(见附件 50)。

¹⁶⁴ 由俄罗斯 GOZNAK 联合股份公司印制(见 <http://goznak.ru/en/>)。

¹⁶⁵ M1 是衡量货币供应中流动性最高的组成部分的标准, 包括现金和能迅速转换为货币的资产。

¹⁶⁶ 根据也门中央银行 2014 年发布的报告, 也门的 M0 货币供应量估计为 11 295 亿里亚尔。某银行官员指出, 这可能占 M1 货币供应量的 50%(提供给 2017 年 6 月在利雅得举行的专家小组会议的信息)。使用 6 年以上的纸币可能会有破损且无法用于交易。附件 51 提供了纸币年度印刷情况的数据。

142. 胡塞武装使用了几种办法解决流动性问题,目前都失败了。这些办法包括:

(a) 据报名为“Abu Nabil al-Qaramani”的人以腐败方式利用食品券系统,该人在胡塞武装的许可下开展活动,为其谋求经济利益(见附件 52);

(b) 2017 年 5 月 25 日,在 Jawf 政府控制区截获了一辆卡车,内载有价值 350 亿里亚尔(相当于 1.4 亿美元)、在也门境外印刷的本票。使用这种面额为 5 000 里亚尔本票的企图因此被挫败。迄今,这一面额没有被用作交易(见附件 53)。

143. 专家小组将一张 5 000 也门里亚尔的本票送去做法证分析,以查明伪造者以及支持他们的外部实体和个人。

144. 专家小组注意到,2017 年 11 月 20 日,美国财政部外国资产管制处指认一个伊朗网络和由伊朗人所有、总部设在法兰克福的公司 ForEnt Technik GmbH¹⁶⁷ 参与印刷上述的也门银行假币。¹⁶⁸ 专家小组将继续调查此事。

2. 跨境贩运货币和黄金

145. 专家小组调查了 3 起代表被列名人员为胡塞-萨利赫联盟贩运金融资产的案件(见表 2)。

表 2

2017 年在马哈拉截获的金融资产

(价值以百万美元计)

日期	地点	路线	走私者	截获物项	价值
5 月 9 日	Shehen, 马哈拉省	从也门至阿拉伯 联合酋长国	也门人	纸币 7 个金条	3.42
7 月 17 日	Shehen, 马哈拉省	从也门至阿拉伯 联合酋长国	在阿拉伯联合酋 长国的也门人	7 174 700 沙特里亚尔	1.91
7 月 27 日	Shehen, 马哈拉省	从也门至阿拉伯 联合酋长国	阿拉伯联合酋长 国公民	700 000 沙特里亚尔 42 个金条	0.19

146. 这些案件显示了马哈拉省贩运活动的程度(见附件 54)。

C. 冲突给食品进口造成的财务后果

147. 冲突各方对进口的限制导致进口商的财务费用大大增加。许多供应商和货运商不再愿意承担与也门进口商交易的风险。

1. 硬通货兑换问题

148. 主要的挑战是,硬通货目前主要通过地下经济交易,伴有腐败和洗钱等多方面的风险。来自也门工人和海外侨民的汇款主要是沙特里亚尔。在出现当前的

¹⁶⁷ 见 <http://forent-tech.com/index.html>。

¹⁶⁸ 见 <https://www.treasury.gov/press-center/press-releases/Pages/sm0219.aspx>。

冲突之前，也门银行和货币兑换积累的沙特里亚尔结余曾通过空运转移到巴林，在那里兑换成美元并转换成信用证。

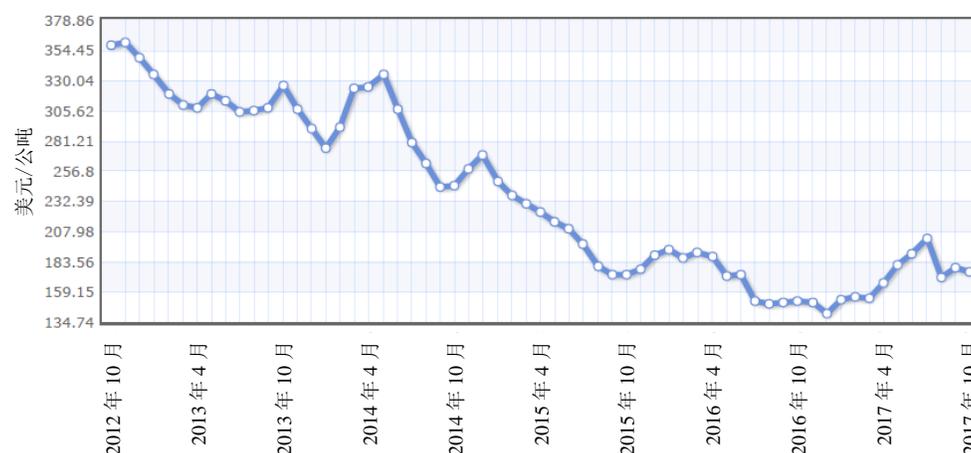
2. 货物进口面临的挑战

149. 如果不是因为国际食品贸易前景对进口商有利，也门的情况会远远更糟。与冲突前相比，目前的食品商品和供应商运输成本仍然较低(见表 3 中的示例)，但由于海上延误和港口滞留，在进入也门港口前的最后一段航程有一些额外的运输费用。¹⁶⁹

表 3

小麦成本(1 号硬红冬小麦): 2012-2017^a

(美元/吨)



^a 资料来源: 美国农业部, 市场新闻(见 <http://www.indexmundi.com/commodities/?commodity=wheat&months=60>)。

150. 由沙特阿拉伯领导的联盟在检查期间拖延、转移或没收商船货物，给船东和贸易商造成重大经济损失。这些拖延给船东和承运商造成的费用每天可达到 3 万美元，逐渐削弱了他们在国际贸易伙伴(供应商、保险公司和货运公司)面前的信誉。悬挂利比亚旗帜的油轮 MV Androussa 在 2017 年 4 月 4 日前往 Ra's Isa 时被没收，该案例研究的详情见保密附件 55。专家小组 2017 年 12 月 25 日在沙特阿拉伯官员的陪同下视察了位于延布的油轮。专家小组和沙特阿拉伯官员在一个车间旁边看到一些钢管，官员们认为这些钢管可疑，但专家小组估计这些钢管很可能是用来维修船只的。沙特阿拉伯尚未根据第 2216(2015)号决议第 17 段的规定在 30 天内提交检查报告。¹⁷⁰ 这个案例说明了在也门经营的贸易商和航运

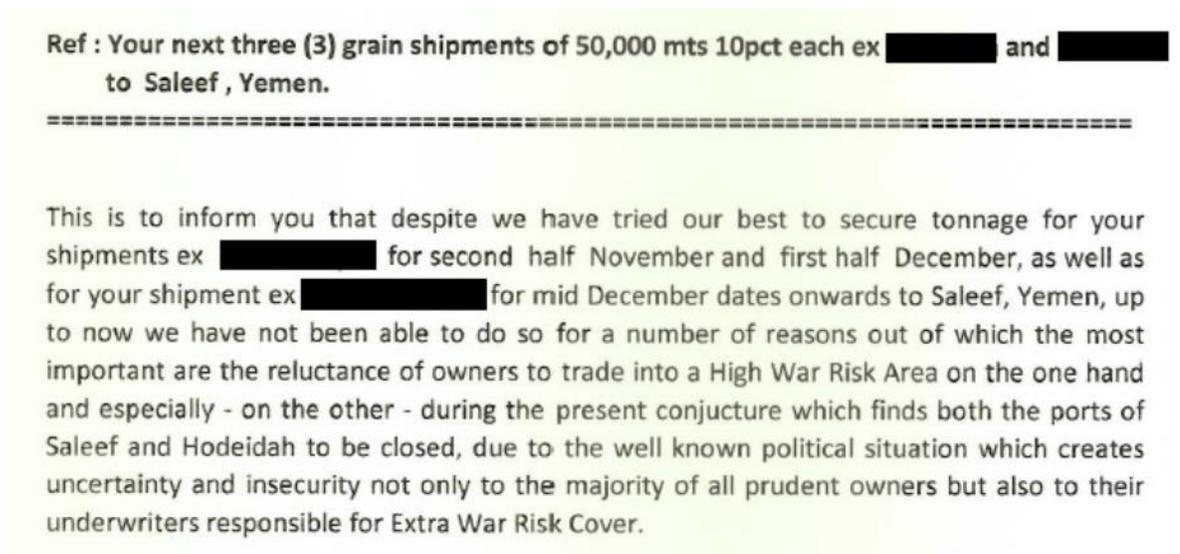
¹⁶⁹ 胡塞武装运输和贸易部(见 <http://www.moit.gov.ye/moit/sites/default/files/%20%D8%A7%D9%84%D8%AB%D8%A7%D9%84%D8%AB%D9%85%D9%86%D8%A3%D9%83%D8%AA%D9%88%D8%A8%D8%B1.pdf>)。

¹⁷⁰ 联合国也门核查和视察机制于 2017 年 5 月 12 日提交了一份会员国临时监测报告，说明了 2017 年 4 月 8 日至 16 日在吉达的视察情况，以及随后于 2017 年 4 月 17 日至 5 月 11 日在延布港的视察。报告的结论是，船上没有发现违禁物品，但检查组发现了一系列不一致、违规和误报情况，以及 3、4、6 号压载舱中有高能炸药痕迹。

公司遭受的损失。¹⁷¹ 由于冲突造成的风险，一个贸易商在 2017 年剩余时间计划进行的 3 次货运被取消(图十六)。

图十六

某进口商收到的撤销函摘录^a



^a 机密资料来源：进口商。

六. 资产冻结

151. 根据经第 2342(2017) 号决议第 5 段延长的第 2140(2014) 号决议第 11 和 21(b) 段规定的任务授权，专家小组继续收集、审查和分析会员国执行资产冻结措施的有关信息。专家小组继续重点关注 5 名被列名人员，确定和调查可能代表他们或在其指导下行事的其他个人和实体，以及由他们拥有或控制的实体。

152. 阿里·阿卜杜拉·萨利赫死后产生的继承财富将不再属于专家小组的任务范围，除非：(a) 这些资金被提供给艾哈迈德·阿里·阿卜杜拉·萨利赫或代表他行事的任何其他个人，包括哈立德·阿里·阿卜杜拉·萨利赫；或(b) 代表 3 名胡塞武装被列名人员行事的胡塞武装战斗人员截获了萨利赫资产。专家小组已致函也门政府和艾哈迈德·阿里·阿卜杜拉·萨利赫，要求提供证明阿里·阿卜杜拉·萨利赫死亡的正式文件，以便委员会更新清单。专家小组于 2017 年 12 月 27 日在阿布扎比与艾哈迈德·阿里·阿卜杜拉·萨利赫会晤。他表示，他尚未收到关于他父亲埋葬地点的确信信息，他的家人仍被也门的胡塞武装分子扣留并剥夺财产。他抱怨说，他被列名并不公正，因为他以前从未参与、现在也没有参与任何威胁也门和平、安全和稳定的行为。

¹⁷¹ 该油轮及油轮上价值逾 2 300 万美元的 4.15 万吨瓦斯油随后于 2017 年 9 月 14 日被正式没收(见 <https://www.uqn.gov.sa/articles/1507838892820964500/>)。

153. 下表 4 列出了萨利赫家族被列名个人和专家小组追踪的代表其行事的实体估计拥有的资产情况。

表 4
达到资产冻结标准、由萨利赫家族拥有的估计资产^a

(以千美元估计)

国家	已发现	已冻结	状态	注
法国	11 350 000		待定	艾哈迈德·阿里·阿卜杜拉·萨利赫拥有的两所公寓
马来西亚		780 000	冻结	艾哈迈德·阿里·阿卜杜拉·萨利赫所有(2016 年余额)
荷兰		待定	冻结	代表艾哈迈德·阿里·阿卜杜拉·萨利赫行事(资产位于法国)
阿曼	25 818 000		冻结	艾哈迈德·阿里·阿卜杜拉·萨利赫 2012 年从也门的一个账户中转结
新加坡		460 000		艾哈迈德·阿里·阿卜杜拉·萨利赫持有的证券
瑞士		4 431 000	冻结	由阿里·阿卜杜拉·萨利赫所有
阿拉伯联合酋长国	55 000 000		待定	由阿里·阿卜杜拉·萨利赫所有，于 2011 年 6 月转结
阿拉伯联合酋长国	51 720 000		待定	2014 年由 Trice Bloom 有限公司和 Towkay 有限公司从纽约梅隆银行转结，来自最初的 71 493 448 美元的转入
阿拉伯联合酋长国	33 472 000			由 PACT Trust 转结，阿里·阿卜杜拉·萨利赫(2014 年 10 月)
阿拉伯联合酋长国	58 140 000			由 Wildhorse Investments 转结，阿里·阿卜杜拉·萨利赫(2014 年 10 月)
阿拉伯联合酋长国	3 024 000			由 Shaheer Abdulhak 拥有的公司 Ansan Wikfs 投资有限公司转结
阿拉伯联合酋长国共计：198 332 000				
联合王国		3 700 000	冻结	由艾哈迈德·阿里·阿卜杜拉·萨利赫所有；资产追回民间论坛的联合王国当局在 2017 年通知专家小组。 ^a 该资产位于一家在联合王国注册的银行，但处于另一个欧洲国家的账户中
美利坚合众国	90 000 000 ^b		待定	2013 年 8 月至 2014 年 12 月期间，从美国的银行或通过美国银行转入阿拉伯联合酋长国的银行，供哈立德·阿里·阿卜杜拉·萨利赫使用
小计	191 036 000	35 355 000		
共计	226 391 000			

^a 哈立德·阿里·阿卜杜拉·萨利赫管理的资金。

^b 这其中的部分资金属于在阿拉伯联合酋长国追踪到的资金。一旦确认有关细节，即可在美国与阿拉伯联合酋长国的数据之间进行资金的重新调节。

154. 专家小组正在调查胡塞武装分子查封资产以从中获益的情况。2017 年 12 月 23 日，“查封叛徒资产委员会”向位于萨那的也门中央银行发出命令，查封 1 223 人的所有银行账户(见附件 56)。

155. 专家小组向 5 个会员国提供了列名个人的银行账户和账户转账信息，正在等待他们的答复。缺乏已冻结资产的信息使专家小组受到限制，无法追查更多的金融资产。2017 年，委员会和专家小组都没有收到冻结资产的信息，委员会收到了一份有意解冻资产的通知。

哈立德·阿里·阿卜杜拉·萨利赫

156. 专家小组在 2017 年 1 月 31 日的报告¹⁷² 中指认哈立德·阿里·阿卜杜拉·萨利赫¹⁷³ 代表其父阿里·阿卜杜拉·萨利赫和其兄艾哈迈德·阿里·阿卜杜拉·萨利赫开展金融活动或在其指示下开展此类活动。专员小组正在调查 Raydan 投资有限公司在阿拉伯联合酋长国通过相当于 2 090 万美元的转账和投资可能为哈立德·阿里·阿卜杜拉·萨利赫提供的资金，以供被列名个人使用(见附件 57)。

157. 专家小组收到哈立德·阿里·阿卜杜拉·萨利赫持有的一张信用卡(4XXXXXXXXXX3455)的银行对账单；他使用了某会员国的两本护照。该银行对账单确认，他在 2016 年早些时候和 2017 年初前往德国慕尼黑、布达佩斯、布拉格、维也纳和瑞士苏黎世。专家小组注意到他寻求慕尼黑 Keyana 管理咨询公司¹⁷⁴ 的服务。2016 年 12 月 26 日(<http://www.nashq.com/>)和 2017 年 1 月 18 日(<https://www.dmhq-shop.de/>)，该信用卡还被用来在 PayPal 上也对也门定向军火禁运中禁止的潜在武器和专用设备进行个人采购。他继续以这种方式管理萨利赫家族的资产，以规避资产冻结和定向武器禁运制裁措施。

七. 旅行禁令

158. 根据第 2140(2014)号决议第 15 段，专家小组继续重点开展一系列监测和调查活动，以查明委员会和安理会指定的个人是否违反了旅行禁令。迄今没有发现违规行为。

八. 违反国际人道主义法和人权法的行为

159. 安全理事会第 2140(2014)号决议第 9 段促请所有各方履行国际法、包括有关国际人道主义法和人权法为其规定的义务。在该决议第 17、18 和 21 段以及第 2216(2015)号决议第 19 段中，安理会进一步澄清了专家小组在调查违反国际人道主义法和国际人权法及践踏人权的行、包括调查阻碍提供人道主义援助的行为方面的职责。

¹⁷² S/2017/81，第六节，第 42 至 44 段。

¹⁷³ 出生于 1987 年 8 月 2 日。

¹⁷⁴ 见 <http://www.keyana-consulting.com/>，该公司设在慕尼黑，提供金融投资服务。

A. 沙特阿拉伯领导的联盟制造的事件

1. 空袭

160. 在本报告所述期间，专家小组调查了 10 次空袭，¹⁷⁵ 这些空袭造成了至少 157 人死亡，135 人受伤，其中包括至少 85 名儿童。空袭还摧毁了五座住宅楼、两艘民用船只、一个市场、一家汽车旅馆和一个也门政府部队驻地(见表 5)。对头四起事件的详细案例研究(包括遵守国际人道主义法情况评估)载于附件 58。

表 5
空袭：2017 年

附件 58 的附录	日期	地点	事件和目标	军械类型	平民伤亡
A	3 月 16 日	红海	移民船只	小武器弹药	42 人死亡 34 人受伤
B	8 月 25 日	萨那	住宅楼	烈性炸药飞机炸弹	16 人死亡 17 人受伤
C	9 月 2 日	哈贾省	住宅楼	烈性炸药飞机炸弹	3 人死亡 13 人受伤
D	11 月 1 日	萨达	夜市	装配“Paveway”制导装置的烈性炸药飞机炸弹	31 人死亡 26 人受伤
E	6 月 9 日	萨那	住宅楼	装配“Paveway”制导装置的 Mark82 或 84 烈性炸药飞机炸弹/Paveway	4 人死亡 8 人受伤
F	8 月 4 日	萨达	住宅楼	Mark84 烈性炸药飞机炸弹	9 人死亡 3 人受伤
G	8 月 23 日	阿哈卜	汽车旅馆	装配“Paveway”制导装置的 Mark82 或 84 烈性炸药飞机炸弹	33 人死亡 25 人受伤
H	9 月 16 日	马里卜省	车辆	烈性炸药空投炸弹或空对地导弹	12 人死亡
I	11 月 10 日	萨达	住宅楼	装配“Paveway”制导装置的 Mark82 或 84 烈性炸药飞机炸弹	4 人死亡 4 人受伤
J	11 月 14 日	塔兹	政府部队	装配“Paveway”制导装置的 Mark82 或 84 烈性炸药飞机炸弹	3 人死亡 5 人受伤

161. 在所调查的 10 起事件中，专家小组认为：

- (a) 使用精密制导武器有力地表明，预定目标是那些受到空袭影响的人员；
- (b) 在所有接受调查的案件中，没有证据表明在这个基础设施里面或附近的平民(初步证据表明不应被袭击)失去了其平民保护；

¹⁷⁵ 选择本节提及的这些和其他事件的原因是现有证据符合附件 1 附录 B 规定的标准。

(c) 即使在表 5 所列的一些案件中，沙特阿拉伯领导的联盟打击了合法军事目标，但专家小组认为，在袭击中尊重国际人道主义法的相称原则和防范原则的可能性极小；

(d) 对平民和民用基础设施的积累影响表明，即使采取了防范措施，这些措施基本上不足和无效的。

162. 关于个案研究，专家小组认为：

(a) 除了事件 A，有能力发动这些空袭的唯一军事实体是沙特阿拉伯领导的联盟。在事件 A 中，攻击基本不可能是由沙特阿拉伯领导的联盟成员国以外的任何实体发起的；

(b) 除了事件 B 和 D，沙特阿拉伯领导的联盟未承认参与任何袭击，亦未公开澄清寻求实现的军事目标。在事件 B 和 D 中，专家小组无法认同沙特阿拉伯领导的联盟提出的理由(见附件 58)；¹⁷⁶

(c) 沙特阿拉伯领导的联盟在目标设定进程中采取的尽量减少儿童伤亡措施(如有)依然基本无效，¹⁷⁷ 特别是在其继续袭击住宅楼的情况下。

163. 专家小组在整个 2017 年期间要求沙特阿拉伯领导的联盟提供关于该联盟给专家小组所确定的平民和民用基础设施造成附带损害的正当理由。收到的答复中没有任何可核实的信息。关于表 5 所列的空袭，专家小组的独立调查无法找到任何证据，证明存在有理由使上述目标场址遭受附带损害的高价值目标。在另一起事件中，沙特阿拉伯领导的联盟承认在对一个据称训练营的空袭中除掉了一个高价值目标，但随后发现是一所学校，而联合事件评估小组后来否认沙特阿拉伯领导的联盟发动了空袭(附件 59)。

164. 专家小组还确定，在两起案件(见表 6)中，联合事件评估小组认为沙特阿拉伯领导的联盟没有发动空袭，但专家小组的独立调查发现了明确的空袭证据。因此，专家小组得出结论认为，有能力发动上述两起袭击的唯一实体是沙特阿拉伯领导的联盟(详情载于附件 60)。

¹⁷⁶ 沙特阿拉伯领导的联盟官方发言人的声明。

¹⁷⁷ 关于沙特阿拉伯领导的联盟据报采取的减少儿童伤亡措施的资料，见 S/2017/821，第 200 段。

表 6
联合事件评估小组的调查结果以及专家小组的结论

日期	事件	联合事件评估小组的结论	专家小组的结论
2016 年 8 月 9 日	萨那食品工厂	沙特阿拉伯领导的联盟没有对该地点发动空袭。	使用了烈性炸药飞机炸弹。 系沙特阿拉伯领导的联盟所为。
2016 年 9 月 24 日	伊卜省住宅区	沙特阿拉伯领导的联盟没有对该地点发动空袭。	使用了装配“Paveway”制导装置的 Mark 82 烈性炸药飞机炸弹。 系沙特阿拉伯领导的联盟所为。

165. 负责策划、授权和(或)实施严重影响平民和民用基础设施的空袭的人员可能符合第 2140(2014)号决议第 17 和 18 段所载指认标准。专家小组仍在调查这一问题。

2. 地面行动——阿联酋的拘留行为

166. 2017 年，专家小组调查了 12 起事件，其中一些人员被拘留在 Bureiqa 的阿拉伯联合酋长国基地、al-Rayyan 机场和 Belhaf 港的拘留设施，失去自由(见机密附件 61 和附件 62)。专家小组认为：

(a) 驻也门的阿拉伯联合酋长国部队在也门境内的至少三个拘留所羁押人员，这些拘留所完全由阿拉伯联合酋长国管理和监督；

(b) 也门政府对被拘留在阿拉伯联合酋长国管理的基地里的人员无法行使权力；

(c) 阿拉伯联合酋长国部队参与或督导了与 Hadrami 和 Shabwani 精锐部队的联合逮捕行动；

(d) 阿拉伯联合酋长国部队协同也门安全部队定期转移被拘留者；

(e) 阿拉伯联合酋长国部队实施了：(一) 酷刑(包括殴打、电刑、限制性捆绑和金属牢房(囚笼)囚禁暴晒)；(二) 虐待；(三) 拒不及时提供医疗；(四) 剥夺正当程序权利；(五) 违反国际人道主义法和国际人权法，造成被拘留者强迫失踪。¹⁷⁸

167. 据专家小组估计，截至 2017 年 11 月 1 日，也门境内处于阿拉伯联合酋长国部队羁押之下的被拘留者人数超过 200 人。¹⁷⁹

168. 专家小组向阿拉伯联合酋长国或也门索要但未得到关于阿拉伯联合酋长国作为外国势力受权在也门境内逮捕人员并剥夺自由的行为的相关法律依据。相反，阿拉伯联合酋长国否认监督或管理也门境内的拘留设施。¹⁸⁰

¹⁷⁸ 关于局势的法律评估见附件 62。依照专家小组的调查方法，通过医疗报告、其他被拘留者及其家人证词和(或)卫星图像核对了被拘留者提供的资料。

¹⁷⁹ 本报告提及的被拘留者一词是指被剥夺自由的人，其中包括政治和军事囚犯。

¹⁸⁰ 2017 年 11 月 8 日阿拉伯联合酋长国给专家小组的信。

169. 阿拉伯联合酋长国在也门境内广泛和系统性对人员进行任意逮捕、剥夺自由和强迫失踪体现的行为模式显然违背该国根据国际人道主义法和国际人权法承担的义务。与此同时，继续否认阿拉伯联合酋长国在任意逮捕和拘留方面的角色助长了阿拉伯联合酋长国部队及其也门代理人实施有罪不罚的侵害行为。这种否认认为他们提供了保护，并使他们得以在没有任何可预见后果的情况下肆意妄为。

170. 对阿拉伯联合酋长国而言，与也门政府安全部队协作给侵权行为提供了貌似可信的否认借口，¹⁸¹ 同时还为以他们名义实施的任意逮捕和随后拘留提供了一层合法性和权威性外衣。

171. 两国政府均拒绝对此类虐待行为开展可信调查或对行为人采取行动。阿拉伯联合酋长国驻留也门得到也门合法政府的同意，也门政府完全有权撤销、限制或澄清同意界限，以促使阿拉伯联合酋长国部队进一步遵守国际人道主义法和国际人权法。也门政府在这方面亦未能对自己的部队行使有效的指挥和控制(见上文第 54 段)。

172. 专家小组认为，在也门境内实施的与拘留有关的虐待行为符合第 2140(2014)号决议第 17 和(或)18 段规定的指认标准。

B. 胡塞和萨利赫部队：与剥夺自由相关的侵权行为

173. 专家小组调查了胡塞-萨利赫部队实施的 16 起任意逮捕和剥夺自由案件以及其他违反国际人道主义法和人权准则的行为。确定了实施侵权行为或对侵权行为负有指挥责任的 11 名个人。¹⁸² 这些侵权行为的实施者包括位于萨那的政治安全局官员(3 人)、位于萨那的国家安全局官员(3 人)和其他胡塞当局官员(10 人)。在国家安全局，国家安全局副局长 Motlaq Amer al-Marrani(亦称 Abu Emad)参与了专家小组调查的所有侵权行为。

174. 位于萨那的政治安全局、位于萨那的国家安全局成员和其他胡塞当局人员的上述侵权行为涉及：任意逮捕和剥夺自由；酷刑(包括针对一名儿童)；拒不及时提供医疗救助；长期强迫失踪；缺乏正当程序；3 人在羁押中死亡。

175. 去年，专家小组注意到，拘留当局的一些人正从拘留中牟利。专家小组确定，1 名被拘留者在家人向位于萨那的政治安全局官员支付了 1 000 000 门里亚尔(4 000 美元)后获释。

176. 专家小组调查了 Dhammar 社区学院(非正式拘留所)的拘留人员情况。¹⁸³ 该监狱继续关押人员的一个主要原因是胡塞-萨利赫部队领导人与“抵抗”部队领导人无法商定当地囚犯交换方案。一些被拘留者获悉，他们获释的条件是：(a) 付

¹⁸¹ 同上。

¹⁸² 法律评估载于机密附件 63。

¹⁸³ 该设施的被拘留者总数在 25 到 100 人之间。

钱；或(b) 囚犯交换。将拘留平民完全作为今后囚犯交换筹码的行为是国际人道主义法禁止的挟持人质行为。¹⁸⁴

胡塞当局在 2017 年 12 月 1 日后的侵权行为

177. 专家小组开始调查对全国人民大会附属人员进行任意逮捕、剥夺自由和未经司法程序处决，包括煽动对其实施暴力的行为。2017 年 12 月 2 日，41 名当地记者遭到任意拘留，构成了严重剥夺自由行为。¹⁸⁵

C. 对平民居住区滥用爆炸物

178. 专家小组调查了 10 起在塔兹等人口稠密区滥用爆炸物的事件，这些事件共造成 23 名平民死亡(见表 7)。专家小组认为，在这些案件中，几乎肯定存在滥用爆炸物的行为。对其中三起事件的详细案例研究(包括遵守国际人道主义法情况评估)载于附件 64。除了表 7 中的案例研究 C 外，所有研究的案例是胡塞-萨利赫部队所为。¹⁸⁶

表 7
在平民居住区滥用爆炸物情况汇总：2017 年

附件 64 的附录	日期	地点	事件和目标	爆炸物类型	平民伤亡
E	1 月 18 日	Nur, 塔兹	住宅区	120 毫米烈性炸药迫击炮弹	9 人死亡 8 人受伤
F	5 月 21 日	Jahmila, 塔兹	住宅区	烈性炸药爆炸物(待确认)	2 人死亡
G	5 月 21 日	Tha'bat, 塔兹	住宅区	烈性炸药爆炸物(待确认)	3 人死亡 3 人受伤
H	5 月 21 日	Humayrah, 塔兹	商业区	烈性炸药爆炸物(待确认)	2 人死亡 5 人受伤
A	5 月 29 日	Nur, 塔兹	住宅区	120 毫米烈性炸药迫击炮弹	1 人死亡 7 人受伤
I	6 月 30 日	Jumhuri, 塔兹	住宅区	106 毫米无后坐力炮	1 人死亡 9 人受伤
B	9 月 6 日	Rawdah, 马里卜省	住宅区	120 毫米烈性炸药迫击炮弹	3 人受伤
J	9 月 21 日	Seinah, 塔兹	住宅区	火箭推进榴弹-7 变速	0
D	11 月 2 日	Onsowa, 塔兹	住宅区	120 毫米烈性炸药迫击炮弹	5 人死亡
C	11 月 11 日	利雅得	民用机场	短程弹道导弹	0

¹⁸⁴ 关于挟持人质的习惯国际人道主义法规则第 96 条(见 https://ihl-databases.icrc.org/customary-ihl/eng/docs/v2_rul_rule96)。根据国际人道主义法的规定，只能在平民构成迫在眉睫的安全威胁时才能将其拘留，而且拘留期不得超过威胁存续期。

¹⁸⁵ 见 <https://rsf.org/en/news/houthis-holding-41-journalists-hostage-inside-yemeni-tv-station>。

¹⁸⁶ 在 2017 年 11 月 2 日的迫击炮袭击中，技术分析表明迫击炮底板处于 Abu al-Abbas 控制区。

179. 胡塞-萨利赫部队在也门和沙特阿拉伯对平民地点滥用爆炸物属于第 2140(2014)号决议第 17 段和(或)18 段所述行为。专家小组认为,除非胡塞高层领导人、包括阿卜杜勒·马利克·胡塞本人将滥用爆炸物确定为一项政策,否则不会持续使用此类武器。

D. 也门政府的侵犯行为

180. 专家小组调查了任意逮捕和拘留、强迫失踪、酷刑、虐待和拒不及时向 21 人提供医疗救助等违反国际人道主义法和国际人权法的行为。这些人被羁押在以下势力的控制区:亚丁和拉哈杰的安全地带部队;马里卜省的特种部队; Hadrami 和 Shabwani 精锐部队; Shallal Ali Shaye 少将;¹⁸⁷ Ali Abdullah Taher 准将;¹⁸⁸ Ghassan al-Aqrabi;¹⁸⁹ Abu Mohammad Abdul Ghani Shaalan 上校;¹⁹⁰ Imam al- Nubi。¹⁹¹ 关于此类侵犯行为的更多信息载于附件 65 和机密附件 66。还有 9 人在羁押期间死亡,其中包括 3 名儿童。

181. 一些官员保留了法外拘留场所。在亚丁省,这包括 Shallal Ali Shaye 少将在 At-Tawahi 控制的一栋房屋,这栋房屋此前是 Waddah 夜总会。Bir Ahmed I 曾是 Ghassan al-Aqrabi 管理的法外拘留场所,此人附属安全地带部队和阿拉伯联合酋长国部队。2017 年 11 月 12 日,阿拉伯联合酋长国将被拘留者转至 Bir Ahmed II。2017 年 11 月 13 日,也门总检察长收到了被拘留者案件档案。2017 年 12 月初,在总检察长的干预下,一些被拘留者家属探访了 Bir Ahmed II,其中一些人获释。

182. 同样在 2017 年 11 月,133 名被拘留者据报从 Al-Rayyan 机场转至穆卡拉中央监狱,¹⁹² 但没有足够的资料认定此前在 Al-Rayyan 的所有被拘留者被转移,因为有些家庭仍无法接触被拘留在 Al-Rayyan 的家人。

¹⁸⁷ 安全总局局长,亚丁省。所调查的与拘留有关的虐待行为发生在其控制的位于 At-Tawahi 的一栋房屋内。

¹⁸⁸ 前安全局局长,马里卜省(见 <https://yemensaeed.net/news.php?id=61163>)。

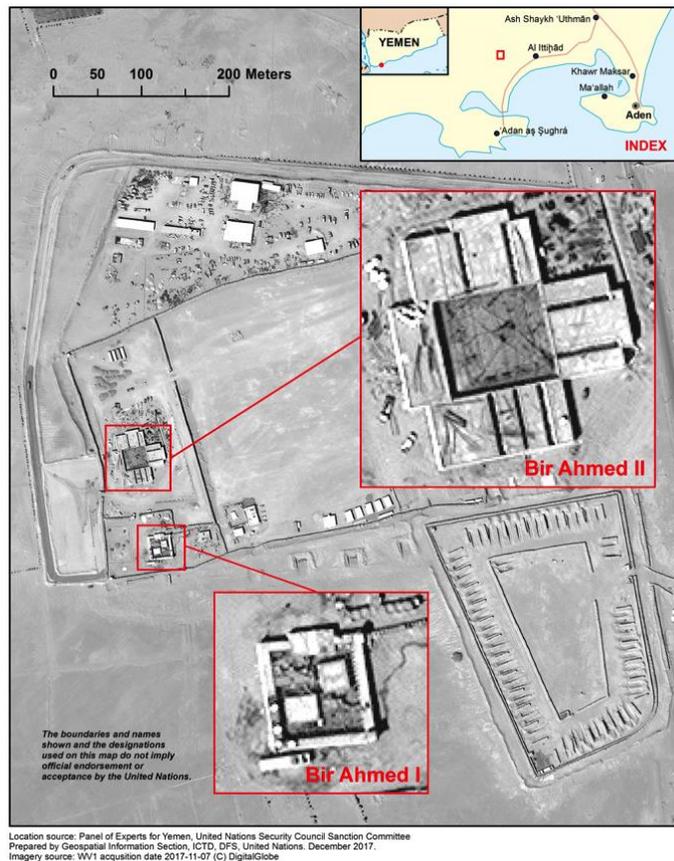
¹⁸⁹ Bir Ahmed I 和 II 的主管。

¹⁹⁰ 特种部队指挥官,马里卜省。当一名儿童被打死时,Shallan 上校在场并掌控部队。

¹⁹¹ 20 号营地前指挥官,亚丁省。

¹⁹² 见 <http://www.chicagotribune.com/sns-bc-ml--yemen-prisoners-20171113-story.html>。

图十七

Bir Ahmed I 和 Bir Ahmed II**E. 袭击医院**

183. 专家小组调查了两起事件，其中有两名重病人于 2017 年 3 月 24 日和 2017 年 12 月 13 日在革命医院内遭到暗杀(见机密附件 67)。

184. 在萨那，在阿里·阿卜杜拉·萨利赫死后，专家小组正在调查伤者在医院内被杀的事件。伤者、病者和不参战人员受到国际人道主义法的保护。¹⁹³

F. 武装团体招募和使用儿童的情况

185. 专家小组调查了也门境内参与招募儿童的个人和网络。专家小组查明了为胡塞部队招募共计 5 名儿童的两人(见附件 68 和机密附件 69)。专家小组认为，根据他们在过去一年里的分析，这些案件背后的问题要大得多。

186. 专家小组认为，下列因素也加剧了招募儿童兵行为：

(a) 停止支付薪水导致儿童被迫为家庭寻找其他经济出路：胡塞-萨利赫部队每月付给新招募的儿童兵约 15 000-20 000 里亚尔(60-80 美元)；

¹⁹³ 见 1949 年日内瓦四公约共同第 3 条和关于保护非国际性武装冲突受难者的附加议定书(第二议定书)第 7(1)条。

(b) 教育中断意味着儿童通常无所事事，因而容易接受街头招募；

(c) 由于家人仍然生活在胡塞-萨利赫部队控制区，他们不敢直言反对此类招募，因而致使招募活动继续横行；

(d) 对于有财务资源的父母而言，机场关闭和签证限制意味着他们无法为了保护子女将其送带出国。

九. 阻碍人道主义援助

187. 根据第 2216(2015)号决议第 19 段，专家小组继续调查阻碍向也门提供人道主义援助或阻碍在也门获取或分配人道主义援助的行为。

A. 阻碍提供人道主义援助

188. 沙特阿拉伯领导的联盟继续阻碍人道主义和商业物资进入也门，并为此：

(a) 继续封锁萨那机场的商业航班(见附件 70)；(b) 对通过红海港口进入也门的民用物品逐步设限(见机密附件 71)；(c) 2017 年 11 月 6 日至 23 日对商业和人道主义物资的进口严格设限。在后一期间，超过 750 600 吨的商业和人道主义物资被转运出也门或延迟进入也门。¹⁹⁴

189. 2017 年 11 月 6 日，沙特阿拉伯领导的联盟施加了更多的通行限制，再次企图将第 2216(2015)号决议第 14 段作为阻碍实际属于民用性质的商品进入也门的理由。阻止机密附件 71 所列的许多商品进入也门违背第 2216(2015)号决议精神。

190. 封锁实际是将饥饿威胁作为讨价还价筹码和战争工具。胡塞部队加紧袭击沙特阿拉伯亦是民众作为马前卒，因为胡塞部队完全了解平民将首当其冲地遭到报复。胡塞分子公开谴责沙特阿拉伯的报复行为，以冲抵他们对这些行动的任何责任。

191. 2017 年，会员国仍未报告在境内进行检查的情况，这意味着它们没有遵守第 2216(2015)号决议第 17 段的规定。这有损第 2216(2015)号决议第 17 段设想的委员会监测职责，而且破坏了确保不为实现单边目标而滥用制裁制度的保障措施。

B. 阻碍分配人道主义援助

192. 2017 年，胡塞-萨利赫部队继续阻碍分配人道主义援助，并阻止人道主义援助准入。¹⁹⁵ 专家小组调查了阻碍行为，其中包括：(a) 援助他用；(b) 影响及时分配的拖延或拒绝行为；(c) 对人道主义工作人员实施逮捕、拘留、恐吓和酷刑以及没收设备；(d) 干涉受益人、业务领域及执行伙伴甄选；(e) 将一些地区宣布为军事区，拒绝人道主义工作者进入；(f) 利用暴力威胁进行敲诈和勒索；(g) 阻碍提供霍乱治疗物资；(h) 与结关手续有关的问题；(i) 拖延从萨那国际机场放行

¹⁹⁴ 联合国核查和视察机制提供的资料以及 LogCluster 数据。

¹⁹⁵ 联合国、国际和国家非政府组织提供的资料。

进口药品。加剧这些障碍的因素包括拒付公共部门薪金以及对人道主义工作者施加签证限制。

193. 专家小组还调查了行政部门(塔兹省、哈贾省、荷台达省)、位于萨那的教育部和卫生部及位于萨那的国家安全局阻碍人道主义准入的情况。其中一些行为体正将援助分配工作军事化。专家小组认为, 位于萨那的国家安全局副局长 Amer al-Marrani Motlaq(亦称 Abu Emad)还实施了任意逮捕、拘留和虐待人道主义工作人员以及开展人道主义援助的其他主管人员。他还在人道主义准入问题上不当利用权力和影响, 将其作为牟利工具。

194. 应人道主义利益攸关方的要求, 与本节有关的机密资料和分析载于机密附件 72。

十. 建议

193. 专家小组建议安全理事会:

(a) 考虑在其决议或主席声明中吁请沙特阿拉伯领导的联盟成员国不滥用第 2216(2015)号决议, 将其作为阻碍通过空运或海运提供基本物资和人道主义援助的理由;

(b) 作为一项建立信任措施, 考虑在联合国核查和视察机制主持下, 向海上通道和荷台达港口部署一艘中立海军船只, 从而提高卸载率并确保商船在胡塞控制领土上卸载期间有中立的检查和监测人员;

(c) 考虑在决议措辞中明确指出, 用于制造军事装备的部件可能属于定向军火禁运范围;

(d) 考虑委托委员会在其专家小组协助下, 同时与裁军事务厅等联合国其他有关机构合作并与国际和区域组织和实体协商, 编写一份特别报告, 审查在冲突区出于军事目的使用通过商业途径获得的无人机的情况和影响, 并就关于转让和使用无人机的适当对策提出建议。

194. 专家小组建议委员会:

(a) 考虑与国际海事组织(海事组织)互动协作,¹⁹⁶ 以建议其与负责出版《有关保护船舶免遭索马里海盗侵害的最佳管理实践》(BMP4)的行业船运集团联络, 确保该出版物所述保护措施仍适于应对红海地区出现的新威胁;

(b) 考虑与海上联合部队接触, 鼓励其根据第 2117(2013)号决议第 10 段和第 2342(2017)号决议第 8 段与专家小组合作, 并答复专家小组索取资料的请求;

(c) 考虑提醒会员国, 根据第 2140(2014)号决议第 11 段, 它们有义务从速冻结在本国境内代表名单所列人员或按其指示行事的个人或实体、或由其拥有或控制的实体直接或间接拥有或控制的资金、其他金融资产和经济资源, 特别提醒

¹⁹⁶ 见 <http://www.imo.org>。

阿拉伯联合酋长国冻结本报告和 2017 年 1 月 31 日委员会报告(S/2017/81)确定的哈立德·阿里·阿卜杜拉·萨利赫本人及其管理的资产；

(d) 考虑与联合国教育、科学及文化组织接触，鼓励其发表一项公报，告知国际拍卖行和博物馆，出口和销售也门文物是非法行为，而且应采取措施确保不将交易也门文化遗产所得资金用来资助武装团体；

(e) 考虑鼓励也门政府与国际金融机构及沙特阿拉伯领导的联盟设立机制，以便也门银行在采取有效反洗钱措施的前提下转账也门境外的硬通货，从而积累支持进口所需的信用证；

(f) 考虑与秘书长办公厅接触，审查在联合国核查和视察机制内建立一个托运人和货运代理投诉机制，并通过联合国核查和视察机制网站提供。

Annex 1: Methodology

1. The Panel used satellite imagery of areas of Yemen procured by the United Nations from private providers to support its investigations. It also used commercial databases recording maritime and aviation data and mobile phone records. Public statements by officials through their official media channels were accepted as factual unless contrary facts were established. While the Panel strived to be as transparent as possible, in situations in which identifying sources would have exposed them or others to unacceptable personal security risks, the Panel decided not to include identifying information in the present report and instead placed the relevant evidence in United Nations archives.
2. The Panel reviewed social media, but no information gathered was used as evidence unless it could be corroborated using multiple independent or technical sources, including eyewitnesses, to appropriately meet the highest achievable standard of proof.
3. The spelling of toponyms within Yemen often depends on the ethnicity of the source or the quality of transliteration. The Panel has adopted a consistent approach in the present report.
4. The Panel has placed importance on the rule of consensus among the Panel members and agreed that, if differences and/or reservations arise during the development of the report, it would only adopt the text, conclusions and recommendations by a majority of four out of the five members. In the event of a recommendation for designation of an individual or a group, such recommendation would be done on the basis of unanimity.
5. The Panel has offered the opportunity to reply to Member States, entities and individuals involved in the majority of incidents that are covered in this report. Their response has been taken into consideration in the Panel's findings. The methodology for this is provided in appendix A.

Appendix A to Annex 1: ‘The opportunity to reply’ methodology used by the Panel

1. Although sanctions are meant to be preventative not punitive, it should be recognized that the mere naming of an individual or entity¹ in a Panel’s report, could have adverse effects on the individual. As such, where possible, individuals concerned should be provided with an opportunity to provide their account of events and to provide concrete and specific information/material in support of their narrative. Through this interaction, the individual is given the opportunity to demonstrate that their alleged conduct does not fall within the relevant listing criteria. This is called the ‘opportunity to reply’.
2. The Panel’s methodology on the opportunity to reply is as follows:
 - (a) Providing an individual with an ‘opportunity to reply’ should be the norm;
 - (b) The Panel may decide not to offer an opportunity of reply if there is credible evidence that it would unduly prejudice its investigations, including if it would:
 - (i) Result in the individual moving assets if they get warning of a possible recommendation for designation;
 - (ii) Restrict further access of the Panel to vital sources;
 - (iii) Endanger Panel sources or Panel members;
 - (iv) Adversely and gravely impact humanitarian access for humanitarian actors in the field; or
 - (v) For any other reason that can be clearly demonstrated as reasonable and justifiable in the prevailing circumstances.
3. If the circumstances set forth in 2 (b) do not apply, then the Panel should be able to provide an individual an opportunity to reply.
4. The individual should be able to communicate directly with the Panel to convey their personal determination as to the level and nature of their interaction with the Panel.
5. Interactions between the Panel and the individual should be direct, unless in exceptional circumstances.
6. In no circumstances can third parties, without the knowledge of the individual, determine for the individual its level of interaction with the Panel.
7. The individual, on the other hand, in making their determination of the level and nature of interaction with the Panel, may consult third parties or allow third parties (for example, legal representative or his government) to communicate on his/her behalf on subsequent interactions with the Panel.

¹ Hereinafter just the term individual will be used to reflect both.

Appendix B to Annex 1: Violations relating to IHL, IHRL, and acts that constitute human rights abuses
investigative methodology

1. The Panel adopted the following stringent methodology to ensure that its investigations met the highest possible evidentiary standards, despite it being prevented from visiting places in Yemen other than Aden. In doing so it has paid particular attention to the “Informal Working Group on General Issues of Sanctions Reports”, [S/2006/997](#), on best practices and methods, including paragraphs 21, 22 and 23, as requested by paragraph 11 of resolution [2342 \(2017\)](#).
2. The Panel’s methodology in relation to its investigations concerning IHL, IHRL and human rights abuses is set out as below:
 - (a) All Panel investigations are initiated based on verifiable information being made available to the Panel, either directly from sources or from media reports.
 - (b) In carrying out its investigations on the use of explosive ordnance, the Panel relies on at least three or more of the following sources of information:
 - (i) At least two eye-witnesses or victims;
 - (ii) At least one individual or organization (either local or international) that has also independently investigated the incident;
 - (iii) If there are casualties associated with the incident, and if the casualties are less than ten in number, the Panel obtains copies of death certificates and medical certificates. In incidents relating to mass casualties, the Panel relies on published information from the United Nations and other organizations;
 - (iv) Technical evidence, which includes imagery of explosive events such as the impact damage, blast effects, and recovered fragmentation. In all cases, the Panel collects imagery from at least two different and unrelated sources. In the rare cases where the Panel has had to rely on open source imagery, the Panel verifies that imagery by referring it to eyewitnesses or by checking for pixilation distortion;
 - a. In relation to air strikes, the Panel often identifies the responsible party through crater analysis or by the identification of components from imagery of fragmentation; and
 - b. The Panel also analyses imagery of the ground splatter pattern at the point of impact from mortar, artillery, or free flight rocket fire to identify the direction from which the incoming ordnance originated. This is one indicator to assist in the identification of the perpetrator for ground fire when combined with other source information.
 - (v) The utilisation of open source or purchased satellite imagery wherever possible, to identify the exact location of an incident, and to support analysis of the type and extent of destruction. Such imagery may also assist in the confirmation of timelines of the incident;
 - (vi) Access to investigation reports and other documentation of local and international organizations that have independently investigated the incident;
 - (vii) Other documentation that supports the narrative of sources, for example, factory manuals that may prove that the said factory is technically incapable of producing weapons of the type it is alleged to have produced;
 - (viii) In rare instances where the Panel has doubt as to the veracity of available facts from other sources, local sources are relied on to collect specific and verifiable information from the ground. (For example, if the Panel wished to confirm the presence of an armed group in a particular area);
 - (ix) Statements issued by or on behalf of a party to the conflict responsible for the incident; and/or

- (x) Open source information to identify other collaborative or contradictory information regarding the Panel's findings.
- (c) In carrying out its investigations on deprivation of liberty and associated violations the Panel relies on the following sources of information:
- (i) The victims, where they are able and willing to speak to the Panel, and where medical and security conditions are conducive to such an interview;
 - (ii) The relatives of victims and others who had access to the victims while in custody. This is particularly relevant in instances where the victim dies in custody;
 - (iii) Interviews with at least one individual or organization (either local or international) that has also independently investigated the incident;
 - (iv) Medical documentation and, where applicable, death certificates;
 - (v) Documentation issued by prison authorities;
 - (vi) Interviews with medical personnel who treated the victim, wherever possible;
 - (vii) Investigation and other documentation from local and international organizations that have independently investigated the incident. The Panel may also seek access to court documents if the detainee is on trial or other documentation that proves or disproves the narrative of the victim;
 - (viii) Where relevant, the Panel uses local sources to collect specific and verifiable information from the ground, for example, medical certificates;
 - (ix) Statements issued by the party to the conflict responsible for the incident; and/or
 - (xx) Open source information to identify other collaborative or contradictory information regarding the Panel's findings.
- (d) In carrying out its investigations on other violations, including forced displacement and threats against medical workers, the Panel relies on information that includes:
- (i) Interviews with victims, eyewitnesses, and direct reports where they are able and willing to speak to the Panel, and where conditions are conducive to such an interview;
 - (ii) Interviews with at least one individual or organization (either local or international) that has also independently investigated the incident;
 - (iii) Documentation relevant to verify information obtained;
 - (iv) Statements issued by the party to the conflict responsible for the incident; and/or
 - (v) Open source information to identify other collaborative or contradictory information regarding the Panel's findings.
- (e) The standard of proof is met when the Panel has reasonable grounds to believe that the incidents had occurred as described and, based on multiple corroboratory sources, that the responsibility for the incident lies with the identified perpetrator. The standard of proof is "beyond a reasonable doubt".

(f) Upon completion of its investigation, wherever possible, the Panel provides those responsible with an opportunity to respond to the Panel's findings in so far as it relates to the attribution of responsibility. This is undertaken in accordance with the Panel's standard methodology on the opportunity to reply. Generally, the Panel would provide detailed information in any opportunity to respond, including geo-locations. However, detailed information on incidents are not provided when there is a credible threat that it would threaten Panel sources, for example, in violations related to deprivation of liberty, violations associated with ground strikes on a civilian home, or in violations associated with children.

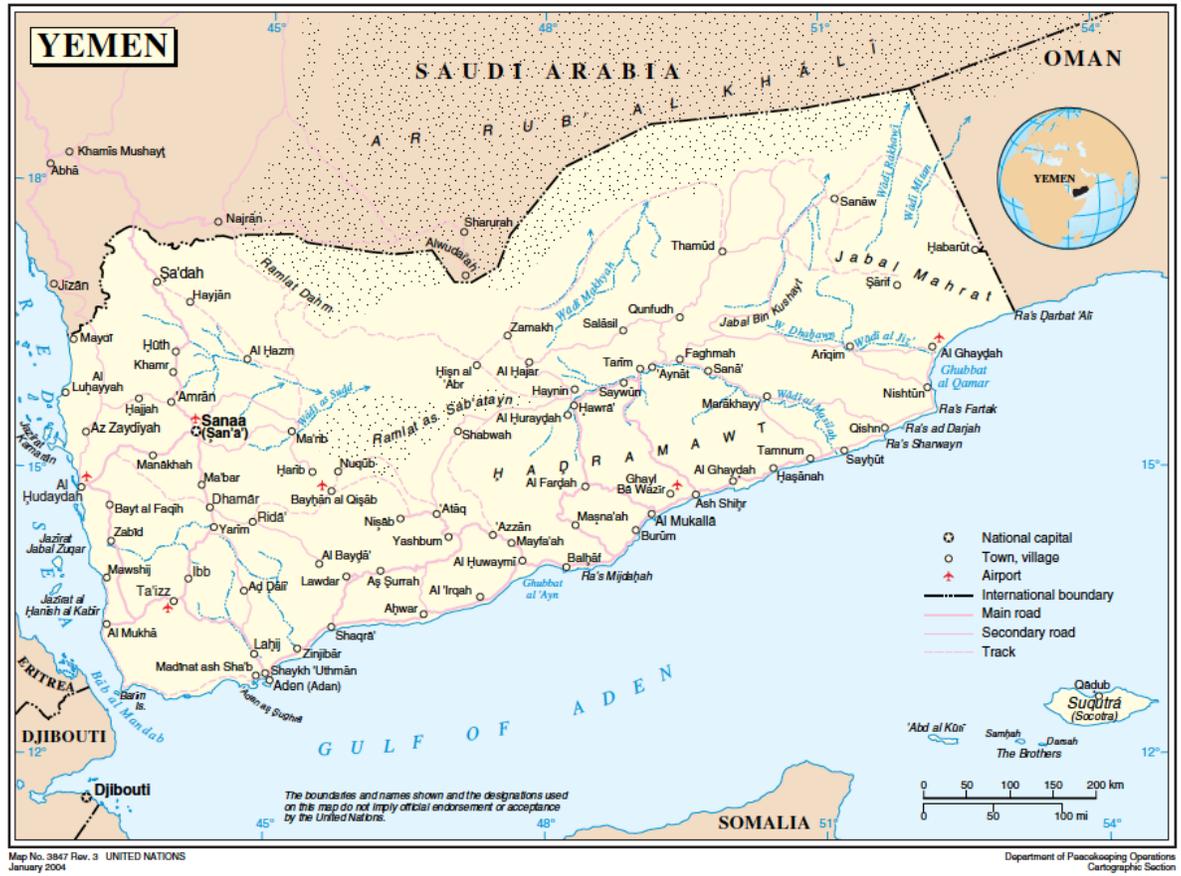
(g) If a party does not provide the Panel with the information requested, the Panel will consider whether this is of sufficient gravity to be considered as non-compliance with paragraph 8 of resolution [2342 \(2017\)](#), and thus consideration for reporting to the Committee.

3. The Panel will not include information in its reports that may identify or endanger its sources. Where it is necessary to bring such information to the attention of the Council or the Committee, the Panel may include more source information in confidential annexes.

4. The Panel will not divulge any information that may lead to the identification of victims, witnesses, and other particularly vulnerable Panel sources, except: 1) with the specific permission of the sources; and 2) where the Panel is, based on its own assessment, certain that these individuals would not suffer any danger as a result. The Panel stands ready to provide the Council or the Committee, on request, with any additional imagery and documentation to support the Panel's findings beyond that included in its report. Appropriate precautions will be taken though to protect the anonymity of its sources.

Annex 2: UN Geographic Information Systems (GIS) map (place name identification)

Figure 2.1
UN GIS place names Yemen



Annex 3: Summary of Panel correspondence (2017)

Table 3.1
Correspondence with Member States ¹

<i>Member State</i>	<i>Number of letters sent by the Panel</i>	<i>Number of unanswered letters by Member State</i>	<i>Remarks</i>
Australia	3	3	
Bulgaria	1		
Canada	1		
China	7		
Djibouti	2		
Egypt	2		
Finland	1		
France	4	4	
Germany	3		
India	3		
Islamic Republic of Iran	9	5	
Italy	4		
Japan	1		
Marshall Islands	1	1	
Netherlands	1		
Oman	5	1	
Philippines	1		
Republic of Korea	2		
Russian Federation	5	3	
Kingdom of Saudi Arabia	30	7	
Serbia	2	2	
Singapore	3		
Slovakia	1		
Sweden	1		
Switzerland	9		
Togo	1		
Turkey	2		
Ukraine	2		
United Arab Emirates	22	4	
United Kingdom of Great Britain and Northern Ireland	4	2	

¹ This includes letters received by the Panel in Arabic on 2 January 2018, which had been outstanding for some months. This has not allowed the Panel time to fully analyze and verify all the information provided; hence some of it has not been included in the annexes to this report. The information will be used in ongoing investigations and reported on accordingly at the appropriate time.

<i>Member State</i>	<i>Number of letters sent by the Panel</i>	<i>Number of unanswered letters by Member State</i>	<i>Remarks</i>
United States of America	10		
Yemen	26	11	.
Total	169	43	25% unanswered

Table 3.2
Correspondence with Sana'a based authorities

<i>Entity</i>	<i>Number of letters sent by the Panel</i>	<i>Number of unanswered letters by entity</i>	<i>Remarks</i>
Sana'a based ministry of foreign affairs	3	2	
Total	3	2	

Table 3.3
Correspondence with international and regional organizations

<i>Organization</i>	<i>Number of letters sent by the Panel</i>	<i>Number of unanswered letters by entity</i>	<i>Remarks</i>
Combined Maritime Force	6	6	
IFC (World Bank Group)	1		
Total	7	6	

Table 3.4
Correspondence with commercial companies

<i>Company</i>	<i>Number of letters sent by the Panel</i>	<i>Number of unanswered letters by entity</i>	<i>Remarks</i>
Aerovironment (USA)	1	1	Holding email only
Daewoo (Republic of Korea)	1	1	
Dileton Maritime (Greece)	1		
Garmin (USA)	2	1	
MSA Incorporated (USA)	1		
PayPal (USA)	1	1	
Phillips (Netherlands)	1	1	
Prime Tanker Management (Greece)	1		
Winterbotham (Bahamas)	1	1	
Total	10	6	

Table 3.5
Correspondence with Individuals

<i>Individual</i>	<i>Number of letters sent by the Panel</i>	<i>Number of unanswered letters by entity</i>	<i>Remarks</i>
Ahmed Ali Abdullah Saleh (Yei.005)	1		
Total	1		

Annex 4: Governors loyal to the legitimate Government

Table 4.1
Governors loyal to the legitimate Government

<i>Ser</i>	<i>Name</i>	<i>Governorate municipality</i>	<i>Remarks / Appointed</i>
1	<i>(Abd al-Aziz al-Maflakhi, ¹ resigned 16 November 2017)</i>	Aden	Resigned November 2017
2	Major General Abu Bakr Hussayn Salem	Abyan	Previous Axis Commander in Abyan Resigned 22
3	Major General Abd al-Ghani Hafed'Ilah Jamil	Amanat Al Asimah	Minister of State
4	Abd al-Rahman Khazm al-Sa'wr	Amran	July 2017
5	Saleh Ahmed Ali al-Rasas <i>(Replaced Nayef Salih Salem al-Qaysi (QDi.402) on 23 July 2017)</i>	Bayda'	
6	Major General Ali Muqbil Saleh ² <i>(Replaced Dr Fadhi al-Ja'di)</i>	Dali'	24 December 2017
7	Major General Ali al-Qawsi	Dhamar	
8	Brigadier General Faraj Salami al-Bahasani	Hadramawt	Commander, 2 nd Military District. June 2017
9	Major General Abd al-Karim al-Sanini	Hajjah	
10	Dr. al-Hasan Ali Taher	Hudaydah	
11	Major General Abd al-Wahab al-Wai'li	Ibb	
12	Amin al-'Akimi	Jawf	
13	Brigadier General Ahmed Abdullah al-Turky ³ <i>(Replaced Dr Naser al-Khubaji)</i>	Lahij	24 December 2017
14	Rajah Said Ba'Krait <i>(Replaced Mohammed Abdallah Kudah)</i>	Mahrah	28 November 2017
15	Salah Sami'ah	Mahwit	
16	Major General Sultan Ali Mabkhout al-Aradha	Ma'rib	
17	Mohammed al-Hawri	Raymah	

¹ President Hadi issued a statement refusing to accept his resignation. Governor Maflakhi remains outside Yemen. See <http://www.worldbulletin.net/headlines/196024/yemeni-president-rejects-aden-governors-resignation>.

² Major General Saleh also remains commander of the 33rd Armored Brigade in Dali'.

³ Brigadier General Ahmed Abdullah al-Turky also remains commander of the 17th Infantry Brigade.

<i>Ser</i>	<i>Name</i>	<i>Governorate municipality</i>	<i>Remarks / Appointed</i>
18	Hadi Tarshan Abdullah Tarshan	Sa'dah	
19	Major General Abd al-Qawi Ahmed 'Ubad al-Sharif	Sana'a	
20	Ali Bin Rashid al-Harhi	Shabwah	June 2017
21	Ahmed Abdullah Ali al-Soqotri	Socotra	June 2017
22	Ameen Ahmed Mahmoud (Replaces Ali al-Mamari) ⁴	Ta'izz	24 December 2017

⁴ Resigned in late September 2017 over unpaid salaries in his governorate, he rescinded his resignation, and remained in office until replaced. <http://en.nthnews.net/2017/09/28/taiz-governor-appointed-by-hadi-announced-his-resignation-because-of-disagreement-over-salaries/>.

Annex 5: Network of Nayef Salih Salem al-Qaysi¹

Table 5.1
Network of Nayef Salih Salem al-Qaysi²

<i>Ser</i>	<i>Name</i>	<i>Position</i>	<i>Location</i>
1	Abdo Rabbo al-Qaysi	Office manager	Aden
2	Ahmed Saleh al-Aysi		
3	Jalal Muqatah		Aden
4	Mohammed Saleh al-Ghunaimy	Local resistance leader	Diy Na'am Front
5	Mohammed Abd al-Qawi Musa al-Homaiqani	Ta'izz front liaison	

¹ <https://www.treasury.gov/press-center/press-releases/Pages/jl0462.aspx>.

² <https://www.treasury.gov/press-center/press-releases/Pages/jl0462.aspx>.

Annex 6: Leadership and structure of provincial security and Security Belt forces¹

Table 6.1

Leadership and structure of provincial security and Security Belt forces

<i>Serial</i>	<i>Name</i>	<i>Position</i>	<i>Location</i>	<i>Remarks</i>
1	Colonel Khader al-Nub ²	Director of General Security	Abyan	
2	Colonel Abd al-Latif al-Sayed ³	Commander Security Belt Forces	Abyan	
3	Lieutenant Colonel Mohammed al-Oban	Deputy Commander Security Belt Forces	Abyan	
5	Major General Shallal Ali Shaye	Director of General Security	Aden	
6	Brigadier General Wadha Omar Abdulaziz ⁴	Commander Security Belt and 3 rd Support Brigade	Aden	
7	Brigadier General Munir Mahmoud Ahmed al-Mashali ⁵	Commander 1 st Support Brigade ⁶ Emergency Forces	Abyan/Aden	
8	Colonel Nabil al-Mashwashi	Commander 2 nd Support Brigade	Aden	
9	Colonel Hader al-Shukhaty	Commander 4 th Support Brigade	Lahij	
10	Colonel Mukhtar al-Nubi	Commander 5 th Support Brigade	Radfan/Lahij	

¹ Note. Directors of General Security fall under the umbrella of the Ministry of Interior. Security Belt Forces are now organized under each General Security Directorate, as per confidential security officials.

² Appointed 14 November 2017, replacing Brigadier General Abdullah al-Fadhli.

³ Former head of Abyan popular Committees In south Yemen, a militia leader is president's top ally. The Daily Mail, 24 March 2015. <http://www.dailymail.co.uk/wires/ap/article-3009836/In-south-Yemen-militia-leader-presidents-ally.html>.

⁴ Replaced Nasser al-Shukhaty.

⁵ Also known as Abu al-Yamama al-Yafa'i.

⁶ Security Belt Forces component since 17 February 2017.

Annex 7: Southern Transitional Council (STC) local office directors¹

Table 7.1

Southern Transitional Council local office directors

<i>Ser</i>	<i>Name</i>	<i>Position</i>	<i>Office Location</i>
1	Aydarous Muhammed Saleh Haqis	Head of Office	Abyan
2	Dr. Abd al-Nasser Ahmed Ali al-Waly	Head of Office	Aden
3	Abdullah Mahdi Saeed Ahmed	Head of Office	Dali'
4	Nassib bin Ahmed bin Nassib al-'Omry	Head of Office	Hadramawt
5	Faysal Ahmed Hamash Saleh	Head of Office	Lahij
6	Salem Ali Saeed al-Qamiry	Head of Office	Mahrah
7	Ali Muhsin Rawis al-Suleimany	Head of Office	Shabwah
8	Nazim Mubarak Ali bin Qablan	Head of Office	Soqotra

¹ The names were announced on 30 November 2017, see <http://adengad.net/news/290304/>.

Annex 8: Houthi Governors

Table 8.1
Houthi appointed governors¹

<i>Ser</i>	<i>Name</i>	<i>Governorate / municipality</i>	<i>Remarks</i>
1		Aden	
2		Abyan	
3		Amanat Al Asimah	
4	Faysal Ja'man	Amran	
5		Bayda'	
6		Dali'	
7	Fadhil al-Sharqi	Dhamar	
8		Hadramawt	
9	Nayef Abu Kharfashah	Hajjah	
10	Abd al-Khaliq Badr al-Din al-Houthi	Hudaydah	
11	Abd al-Wahid Saleh	Ibb	
12	Sam al-Malahi	Jawf	
13		Lahij	
14		Mahrah	
15		Mahwit	
16		Ma'rib	
17	Murad al-Sharef	Raymah	
18		Sa'dah	
19	Ahmed Qatinah	Sana'a	
20		Shabwah	
21		Socotra	
22	Mansour al-Lakoumi	Ta'izz	

¹ The table includes all governorates of Aden to illustrate those to which the Houthis' have appointed governors.

Annex 9: The killing of Khaled Ahmed al-Radhi

I. Introduction

1. The Panel is investigating whether the killing of Khalid Ahmed al-Radhi by the Houthis, on 26 August 2017¹ was a targeted killing, part of a larger strategy or as a consequence of confusion. Khaled Ahmed al-Radhi served as a deputy of the GPC foreign policy committee, was a Colonel in the Armed Forces and the owner of Vulcan Group, the most important supplier of material for the Yemeni Ministry of Defence during Ali Abdullah Saleh (YEi.003)'s presidency.²

2. Khaled al-Radhi's family extends from tribal elements in Amran, namely the Al Kharef tribe of the Hashid Confederation, which was led by Bayt al-Ahmar until 2014 when Houthis took over Amran governorate.³ His family, of Zaydi background, included various pro-Houthi members as well as officials within the GPC and pro-Saleh armed forces. His cousin, Ambassador Abdullah Ali al-Radhi, a former Yemeni envoy to Tehran⁴ and London⁵ during Ali Abdullah Saleh (YEi.003)'s presidency, is well known for his links to the regime in Tehran. The family's status survived the six wars between Ali Abdullah Saleh (YEi.003)'s regime and Houthis,⁶ and the 2011 uprising.

II. Tensions within the Houthi-Saleh alliance

3. As result of distrust, miscalculation and obstructed lines of communication between former president Ali Abdullah Saleh (YEi.003) and the Houthi leadership, pre-existing tensions within the alliance of necessity deepened in 2017. A speech by Abdulmalik al-Houthi (YEi.004) on 19 August 2017⁷ brought to light the level of looming tension. Abdulmalik al-Houthi (YEi.004) referred to rising threats by a 'Fifth Column', used by his supporters to accuse GPC elements protesting unpaid salaries. The speech served to pave the ground for much graver accusations of treason against Ali Abdullah Saleh (YEi.003) and his party.⁸

4. Ali Abdullah Saleh (YEi.003) responded on 20 August⁹ 2017 with a speech of his own, setting the stage for the rally in Sana'a on 24 August 2017 to commemorate the 35th anniversary of the establishment of

¹ <https://www.thenational.ae/world/mena/pro-saleh-colonel-killed-in-fighting-with-houthi-allies-in-sanaa-1.623118>.

² <http://vulcanyemen.com/>. The Panel has evidence indicating his involvement in previous contracts.

³ Houthi militia took control of Shaykh Abdullah bin Hussein al-Ahmar's (d. Dec. 2007) complex in al-Khamr, Amran and demolished all residential quarters on 2 February 2014. See <https://yemenpress.com/news26876.html>.

⁴ <https://worldpeace365.wordpress.com/2017/11/08/iran-in-yemen-tehrans-shadow-looms-large-but-footprint-is-small/>;
https://wikileaks.org/plusd/cables/09SANAA149_a.html ;https://wikileaks.org/plusd/cables/09SANAA1662_a.html.

⁵ <https://www.reuters.com/article/us-yemen-saleh/yemens-saleh-stable-recovering-ambassador-idUSTRE75A1HH20110611>.

⁶ https://www.rand.org/content/dam/rand/pubs/monographs/2010/RAND_MG962.pdf.

⁷ <http://www.aljadeedpress.net/archives/24938>.

⁸ <https://www.thenational.ae/world/houthi-rebels-may-soon-oust-saleh-yemen-vice-president-says-1.628087>.

⁹ <https://www.youtube.com/watch?v=QZHPiVj3ts4&feature=youtu.be>.

the GPC.¹⁰ By this time the Houthis had begun to mobilise militia elements around the capital limits,¹¹ calling the deployment a security operation, which was not meant to intimidate the GPC. By Saturday 26 August 2016, the Houthis had established a number of checkpoints around Sana'a, some coincidentally, very near residential sites of Ali Abdullah Saleh (YEi.003)'s family and party members.

III. The killing of Khaled Ahmed al-Radhi

5. Check points not only emerged in order to constrain the movement of Ali Abdullah Saleh (YEi.003) and his loyalists, but as was the case on Saturday 26 August 2017, they aimed to instigate confrontations. Such was the case when Salah Ali Abdullah Saleh and his armed escort were stopped at a check point in the Hadda District, leading to an altercation and clashes when Salah refused to exit his vehicle, and his armed escorts scuffled with Houthi elements. Khaled Ahmed al-Radhi responded by deploying armed tribal elements, in attempts to de-escalate the confrontation and mediate Salah's right of way. The Houthis shot Al-Radhi dead upon exiting his own vehicle.

6. The immediate response to al-Radhi's killing was the suggestion it was a targeted assassination, as one shot to the head was identified as cause of death, with a second wound in the torso area. Houthi gunmen were identified as the culprits, and a sniper shot to the head was confirmed to the Panel.

7. A targeted assassination was generally quickly dismissed as Houthi elements would require an order for such a thing. Furthermore, SRC president Mohammed Ali al-Houthi and SPC president Saleh al-Samad visited al-Radhi's family home on 29 August 2017 to clear all doubt. There are no confirmed reports on the traditional tribal customs arranged to repair relations between the family and Houthis. The Panel maintains the killing of Khaled al-Radhi was an accidental consequence of confusion at a time of heightened tensions.

¹⁰ <http://www.aljazeera.com/news/2017/08/yemen-saleh-stages-mass-rally-houthi-rift-170824183626444.html>.

¹¹ https://www.youtube.com/watch?v=SArbJ_AuA0andfeature=youtu.be.

CONFIDENTIAL ANNEX NOT FOR PUBLIC DISSEMINATION

Annex 10: Ali Abdullah Saleh (YEi.003) sons

CONFIDENTIAL ANNEX NOT FOR PUBLIC DISSEMINATION

Annex 11: Ali Abdullah Saleh (YEi.003) nephews

CONFIDENTIAL ANNEX NOT FOR PUBLIC DISSEMINATION

Annex 12: Ali Abdullah Saleh (YEi.003) daughters

Annex 13: GPC members killed or detained by the Houthi (December 2017)

Table 13.1
Officials of the General People's Congress (GPC) Party¹

<i>Ser</i>	<i>Name</i>	<i>Title</i>	<i>Status</i>
1	Ali Abdullah Saleh (YEi.003)	President, GPC	Deceased (4 December 2017)
2	Sadeq Amin Abu Ras	Vice President, GPC	
3	Aref Awadh al-Zuqa	Secretary General	Deceased
4	Yasser Ahmed al-Awadhi	Assistant Secretary General, Regulatory Affairs	In Sana'a
5	Dr. Abu Bakr al-Qirbi	Assistant Secretary General, Cultural and Information Affairs	Outside Yemen
6	Fayqa al-Saeed	Assistant Secretary General, Civil Society Organizations	In Sana'a
7	Yahya al-Ra'i	Assistant Secretary General/ Speaker of Parliament	In Sana'a

¹ The Panel has been unable to confirm if Sana'a based GPC members are under detention.

CONFIDENTIAL ANNEX NOT FOR PUBLIC DISSEMINATION

Annex 14: Ali Abdullah Saleh (YEi.003) wives

Annex 15: Mahrah Governorate Officials

Table 15.1

Mahrah Governorate Officials

	<i>Name</i>	<i>Position</i>	<i>Location of Origin</i>	<i>Remarks</i>
1	Rajah Saeed Ba’Krait ¹	Governor	Hawf	
2	Salim Mohammed al-Aboodi	Assistant Governor		
3	Ahmed “Qahtan” Muhawi al-Mujibi	Chief of Security		
4	Mughareb bin Burqaimi	Nishtun Port Director	Kudah	Serves as tribal affairs advisor
5	Ali Salem al-Kharizy	Assistant Governor for Desert Region	Miz’yunah	
6	Abdullah Issa bin Afrar	Sultan		STC member

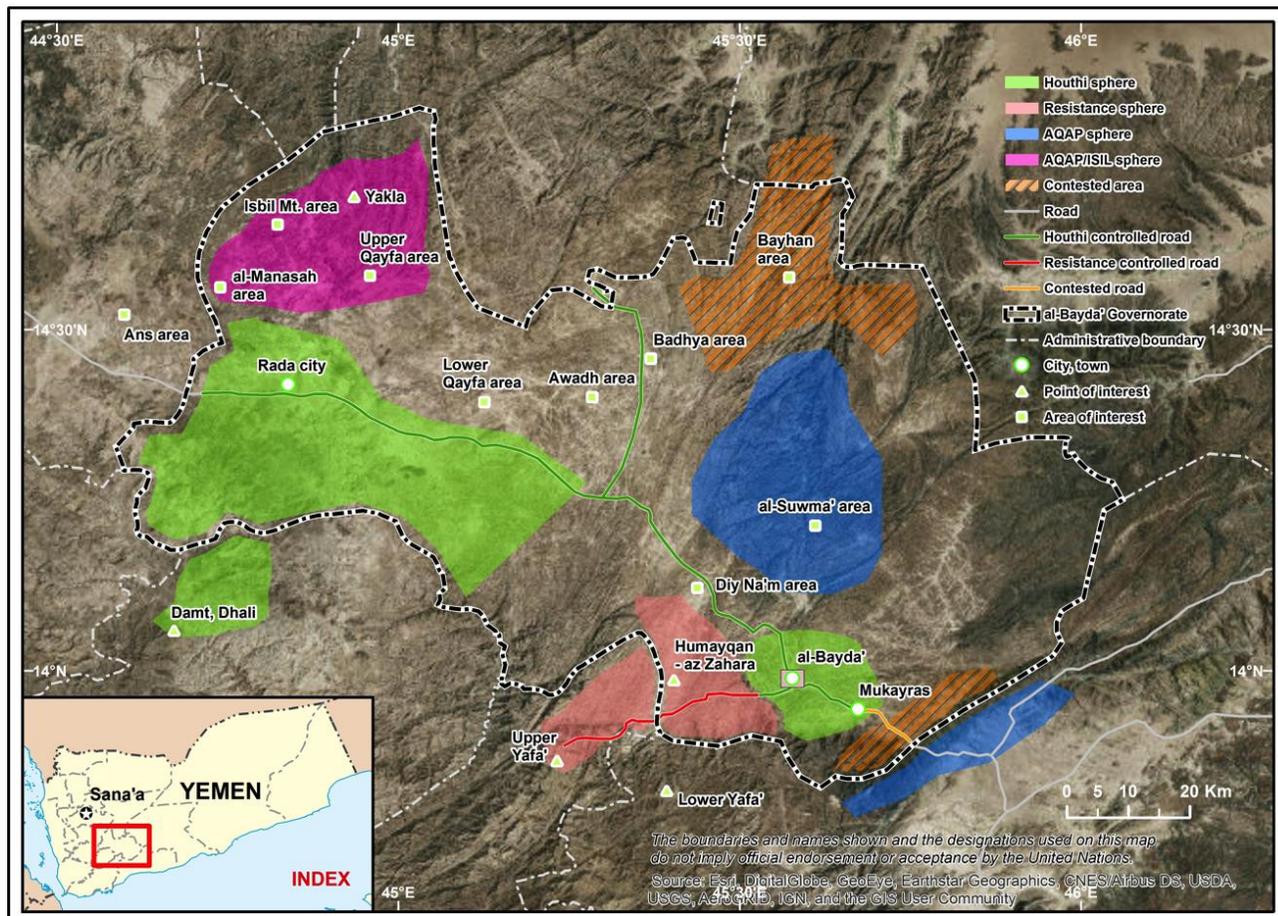
¹ Was appointed on 18 November 2017 by President Hadi, replacing Mohammed Abdullah Kudah.

Annex 16: AQAP affiliates in Mahrah - 2017

Table 16.1
AQAP affiliates in Mahrah - 2017

<i>Ser</i>	<i>Name</i>	<i>Title</i>	<i>Location of Origin</i>		<i>Remarks</i>
1	Mohammed Salem Bir al-Sa'b	AQAP affiliate	Bayt Sumud tribe		
2	Abu Bakr Mohammed al-Jaylani	AQAP affiliate	Hawf		
3	Rashid Ali al-Sulimy	AQAP affiliate	Hawf		
4	Hisham al-Hamad	AQAP affiliate	Hawf		
5	Aydha bin Dhuwama	AQAP affiliate	Subaiha		
6	Mohammed Arman	AQAP affiliate	Bayt Tribe region	Sumud /Herma	
7	Khudress Arman	AQAP affiliate	Bayt Tribe region	Sumud /Herma	Brother to Mohammed Arman

Annex 17: Conflict Map of Bayda¹



Map No. 4582 UNITED NATIONS December 2017
 Data and location source: Panel of Experts for Yemen, United Nations Security Council Sanctions Committee

Department of Field Support
 Geospatial Information Section (formerly Cartographic Section)

¹ Developed by the Panel.

Annex 18: Network of Abd al-Wahhab al-Humayqani

Table 18.1
Network of Abd al-Wahhab al-Humayqani

<i>Ser</i>	<i>Name</i>	<i>Position</i>	<i>Location of Origin</i>	<i>Remarks</i>
1	Abdo Rabbo Hussein al-Wuhayshi	Senior aide to Abd al-Wahhab al-Homaiqani	Bayt Sumud tribe	
2	Ali Mohammed Taher al-Homaiqani	Bayda' Resistance	Hawf	
3	Mohammed Ali Mohammed Taher al-Homaiqani	Financial Officer	Hawf	
4	Hisham al-Hamad		Hawf	
5	Hussein Ali Mohammed Taher al-Homaiqani		Subaiha	
6	Suleiman Mohammed Abd al-Rahman al-Homaiqani		Bayt Sumud tribe / Herma region	
7	Abd al-Rahman Abdullah Mohammed al-Homaiqani		Bayt Sumud Tribe / Herma region	Brother to Mohammed Arman

Annex 19: Associates of Abu al-Abbas

Table 19.1
AQAP associates of Abu al-Abbas

<i>Ser</i>	<i>Name</i>	<i>Position</i>	<i>Location</i>	<i>Remarks</i>
1	Ali al-Hassan	Salik brigade	Saber mountain	Related to Abd al-Malik al-Hudaby (also AQAP)
2	Majid Mahyub (a.k.a Majid Aby Ayhum)	Salik brigade	Saber mountain	Lieutenant to Abu al-Abbas
3	Azzam al-Farhan	Jund al-Khalifa brigade		Lieutenant to Abu al-Abbas (ISIS associated) ¹

Table 19.2
Subordinates of Abu al-Abbas

<i>Ser</i>	<i>Name</i>	<i>Position</i>	<i>Location</i>	<i>Remarks</i>
1	Ammar al-Jendaby (a.k.a Umar al-Jandabi)	Deputy	Houd al-Sharaf and al-Shaab school	
2	Adnan Rozaiq al-Qamishy	Hassan brigade	al-Saeed library	Also a Damaj student
3	Maran Ghalib	Commander	Musy Gate	
4	Nathan Kuwati			Nephew of Maran Galib (serial 3).

Table 19.3
Political and civilian associates of Abu al-Abbas

<i>Ser</i>	<i>Name</i>	<i>Position</i>	<i>Location</i>	<i>Remarks</i>
1	Abdu Hamoud al-Sagheer	Teacher		Allied to al-Islah through Sheikh Hamoud Saeed Makhalfi (Islah)
2	Harith Lutf al-Aizy	Prison escapee / ex judge in AQAP courts	Suq al-Samil, Houd al Sharaf area	

¹ Formerly worked under Abu Malik al-Musabi, who was killed in action in the Tha'bat area in June 2016.

Annex 20: Yemeni Government Military Districts and Commanders

Table 20.1

Yemeni Government Military Districts and Commanders

<i>Military District</i>	<i>Area</i>	<i>Name</i>
1	Sayyun	Major General Saleh Muhammad Tamis ¹
2	Mukalla	Major General Faraj Salamin al-Bahasani ²
3	Ma'rib	Major General Ahmed Hasan Jibrani ³
4	Aden	Major General Fadhl Hasan
5	Hudaydah	Major General Amr Sajaf ⁴
6	Amran / Sa'dah	Major General Amin al-Wa'ili ⁵
7	Dhamar / Sana'a	Major General Nasser al-Dhaybani ⁶

¹ On 20 June 2017, Tamis was lightly wounded while attempting to mediate a tribal dispute in Hadramawt.

² On 29 June 2017, President Hadi named al-Bahasani Governor of Hadramawt to replace Ahmed bin Brik, who was fired for joining the STC.

³ Appointed on 21 January 2017.

⁴ Appointed on 23 February 2017. Sudanese troops are active in district 5 under the command of Brigadier General Hafiz Taj Maki.

⁵ When Major General al-Wa'ili is out of the district, the acting commander is Major General Mansur bin Thawabah.

⁶ Appointed 22 August 2017.

Annex 21: Presidential Protection Brigade Commanders

Table 21.1

Presidential Protection Brigade Commanders

<i>Ser</i>	<i>Name</i>	<i>Brigade</i>	<i>Rank</i>
1	Sind al-Rahwah	1st	Brigadier General
2	Abd al-Raqib Dabwan	2nd	Brigadier General
3	Ibrahim Haydan al-Sayari	3rd	Brigadier General
4	Mahrn al-Qubati	4th	Brigadier General ¹
5	Adnan al-Rozaiq	5th	Brigadier General ²

¹ Brigadier General Mihran bin Muhammad bin Sayyid al-Qubati was born in 1983 in the Khor Maksar district of Aden. He is also known by the *kunya* Abu Jafar and is loyal to President Hadi

² Brigade formed by presidential decree on 17 November 2017.

Annex 22: Camp 20 case study

I. Introduction

1. Camp 20¹ was named after the police uprising of 20 June 1967 (Black Tuesday) against British authorities.² It was established under the former People Democratic Republic of Yemen (PDRY). The camp was maintained under the Central Security Forces since unification until July 2015.
2. The Panel continues to investigate a number of arbitrary detentions by Government security forces and armed groups operating throughout the liberated governorates of Yemen. A number of incidents in Aden this year led to investigations of Camp 20 in the Crater District of Aden governorate.³ Ordered closed on 28 October 2017 by President Abdo Rabbo Mansour Hadi,⁴ Camp 20 was under the command of Imam Ahmed Muhammed Abdu al-Salwy,⁵ who resigned on 31 October 2017.
3. The case of Amjad Mohammed Abd al-Rahman, assassinated on 14 May 2017, is at the centre of the investigation. His assassination and detention related abuses remain unsolved and without proper judicial investigation by local authorities.

II. Background

4. Imam Ahmed Muhammed Abdu al-Salwy, a.k.a Imam al-Nubi, is originally from the Crater district of Aden governorate. He is regarded as a local preacher and youth leader within the al-Islah Party.⁶ It is reported that Imam al-Nubi joined the al-Islah party in 2007, leading a group of party loyalists in 2011 when conflict erupted between Southern Secessionists (Hirak) and al-Islah during the youth uprising against Ali Abdullah Saleh (YEi.003).
5. Al-Nubi later led a group of armed elements against Houthi-Saleh forces in Tawilah neighbourhood of Crater district from March to July 2015. Al-Nubi is said to have taken control of Camp 20 in August following the liberation of Aden from Houthi-Saleh forces.
6. Imam al-Nubi's ascent through the ranks of the Southern Resistance, and his integration into the Security Belt Forces, was facilitated by the position held by his half-brother Mukhtar al-Nubi.⁷ Mukhtar was appointed commander of the 5th Support Brigade⁸ on 23 November 2016 after leading Security Belt Forces

¹ Today across from Aban Mosque in Crater, Aden.

² <https://www.nam.ac.uk/explore/aden-emergency-1963-67;> and <http://hansard.millbanksystems.com/lords/1967/jun/21/south-arabia-mutiny-by-federal-forces.>

³ Camp 20 fell under the Ministry of Interior, previously occupied by Central Security Forces until liberation of Aden in July 2015.

⁴ <http://www.aden-tm.net/NDetails.aspx?contid=35227>.

⁵ Imam al-Nubi did not hold any military rank, as Camp 20 remained under the Ministry of Interior until ordered closed by president Hadi. He was regarded as a 'civilian leader' of the camp. Although Imam al-Nubi dressed in military uniform, no insignias or ranks were ever displayed; <http://adengd.net/news/285234/>. Imam is his given name, not his title.

⁶ al-Tajammu al-Yamani lil-Islah (Yemeni Congregation for Reform).

⁷ a.k.a. Mukhtar Ahmed Abdu al-Nubi; Mukhtar Ali al-Nubi; Mukhtar Ali Muthni Saleh al-Nubi; and Mukhtar Ahmed Abdu al-Nubi.

⁸ <http://almandeb.news/?p=74113>.

in the Radfan district of Lahj governorate.⁹ Mukhtar is a well-respected leader within Hirak. Reports indicate that Imam al-Nubi was instrumental in arming Mukhtar and his forces in 2015 from his arsenal in Crater.

III. Amjad's case¹⁰

7. Elements belonging to the forces in Camp 20 have been accused of engaging in a harassment campaign against those political activists and individuals perceived as supporting 'secularist agendas' in Aden.¹¹ Among those targeted was Amjad Mohammed Abd al-Rahman.¹²

8. Amjad was a fourth-year student at Aden university, in his early 20s, and has been engaged in political activism since 2011. In February 2015, he co-founded the al-Nadi al-Nasiyya Cultural Organization with a group of like-minded youths. His activism focused on promoting political ideas that conflicted with those of local religious leaders. On 24 January 2017, he published a post on his Facebook page discussing sermons from the al-Hamad mosque in Crater District. That same day he was forcefully removed from near his home by armed men and detained in Camp 20. He was released 24 hours later, deprived of sleep and telling his family he had been tortured.

9. Amjad told the story of his detention in a dark room inside the Camp 20 facilities. Amjad indicated he was repeatedly questioned about his views on God, upsetting his interrogators by answering 'I am my own god', meaning he was self-taught and not a student of any particular religious shaykh. Interrogators are believed to have misinterpreted this and used it as evidence of him being an atheist.

10. At 11:45 hours on 14 May 2017 Amjad was assassinated at the Café Max (an internet shop) on Kuwait Street in Shaykh Othman district. One masked man shot Amjad four times in the face. Witnesses were unable to provide sufficient information about the shooter. The media attributed responsibility to elements from Camp 20.¹³

11. Individuals familiar with Amjad's case point to threats received via WhatsApp text messages from one 'Khaled Sa'yl' and others from inside Yemen and outside, and public warnings via media outlets against his activism.

IV. Other incidents

12. As a result of the allegations against Amjad, such as him being atheist, his family was unable to hold his funeral services in the area of Crater.¹⁴ He had to be buried in al-Shab district instead. A number of close acquaintances were also harassed by elements from Camp 20 immediately following his death.

⁹ <http://adengd.net/news/212587/>.

¹⁰ Information provided with informed consent from the family.

¹¹ <https://english.alarabiya.net/en/features/2017/04/04/Yemeni-student-in-Aden-gets-detained-tortured-with-electric-wires.html>. The Panel has verified another case where elements associated with Camp 20 were reportedly behind another case of arbitrary arrest and detention because of the detainee being an atheist. In this case, harassments and death threats resulted in the individual having to flee Aden.

¹² <https://womenpress.org/en/womenpress-news/journalists-released-after-being-tortured-and-charged-with-atheism-in-aden.html>.

¹³ <https://www.hunaaden.com/news39780.html>.

¹⁴ <https://www.middleeastmonitor.com/20170722-yemens-al-hirak-movement/>.

13. Among those also harassed by elements from Camp 20 were journalists Hani al-Junaid, Hussam Radman of Dubai TV, Majid al-Shuabi of Abu Dhabi TV, Ismail Salim of Shaqdafah TV (detained/tortured) and Khaled Senami.¹⁵

V. Remaining concerns

14. Although Camp 20 has been ordered closed by President Hadi,¹⁶ and Imam al-Nubi has resigned from his command, it is unclear as where he and his troops have been reassigned. The Panel continues to monitor individuals who exerted influence over Imam al-Nubi and his troops from outside the Camp and government institutions.

¹⁵ <https://twitter.com/demolinari/status/917971227825844224>.

¹⁶ <https://presidenthadi-gov-ye.info/archives/أبووقف-عدن-أمن-مدير-بوجه-الجمهورية-رئيس/>.

Annex 23: Shabwani Elite Forces command structure

Table 23.1

Shabwani Elite Forces command structure

<i>Ser</i>	<i>Name</i>	<i>Unit</i>	<i>Rank</i>
1	Muhammad al-Buhar al-Qumayshi	Shabwani Elite Forces	Lieutenant Colonel
2	Mahdi Mohammed Barahma	Shabwah Rapid Intervention Forces	Major
3	Muhammed Saleh Farah al-Kirby	Harad Base (Shabwah)	General
4	Muhammed Saleh al-Qakhly al-Nasy	Training Facilities (Shabwah)	Colonel

Annex 24: Key Houthi military and security figures

Figure 24.1

Prominent Houthi military commanders

<i>Ser</i>	<i>Name</i>	<i>Role</i>	<i>Rank/Remarks</i>
1	Muhammad Abd al-Karim al-Ghamari	head of general staff	major general
2	Ali Hamud al-Mushki	deputy head general staff	major general
3	Muhammad Fadhl	head of the navy and coastal defence	major general
4	Abdullah Yahya al-Hakim	head of intelligence	major general (YEi.002) known as Abu Ali al- Hakim ¹
5	Muhammad Nasser al-Ata'fi	minister of defence	major general
6	Ali al-Kuhlani	head of military logistics and support	major general
7	Husayn al-Ruhani	head of special operations	major general
8	Muhammad al-Miqdad	head of military operations	major general
9	Ibrahim al-Shami	head of the air force	major general

¹ Abdullah Yahya al-Hakim was previously the military commander of district 4 for the Houthis. He was appointed to his new position on 20 August 2017.

Annex 25: Key Houthi political figures

Table 25.1

Key Houthi political figures

<i>Serial</i>	<i>Name</i>	<i>Title</i>	<i>Organization</i>	<i>Remarks</i>
1	Mohammed Ali al-Houthi	president	supreme revolutionary committee	Military wing
2	Abdullah Yahya ‘Abu Ali’ al-Hakim (YEi.002)	chief of military intelligence / commander of republican guard (Dec 2017)	ministry of defence	Military wing
3	Mutlaq ‘Abu Emad’ Amer al-Marani	deputy director	national security bureau (‘NSB’)	Military wing
4	Abdul Karim al-Houthi	chairman	executive committee	Affiliated with Military wing
5	‘Mohammed’ Abd al-Salam Salah Filaitah	spokesman	politburo	Affiliated with Military wing
6	Saleh al-Samad	president	supreme political council	Political wing
7	Mahdi al-Mashat	chief of staff	sayyid abdulmalik badr al-din al-houthi	Political wing
8	Ali al-Emad	chairman	revolutionary monitoring committee/ politburo	Political wing
9	Hamza al-Houthi		foreign affairs committee	Political wing
10	Hussein al-‘Izzi		foreign affairs committee	Political wing

Annex 26: Saudi Arabia published Houthi “Most Wanted” list¹

Figure 26.1
Houthi “Most Wanted” list

<i>Ser</i>	<i>Name</i>	<i>Reward (US\$)</i>	<i>Remarks</i>
1	Abdul Malik al-Houthi	30,000,000	(YEi.004)
2	Saleh Ali al-Samad	20,000,000	president, supreme political council
3	Muhammad Ali al-Houthi	20,000,000	head of revolutionary committee
4	Zakariya Yahya al-Shami	20,000,000	
5	Abdullah Yahya al-Hakim	20,000,000	(YEi.002)
6	Abd al-Khaliq al-Houthi	20,000,000	
7	Muhammad Nasser al-Ata‘fi	20,000,000	minister of defence
8	Yusif al-Madani	20,000,000	head of 5 th military district
9	Abd al-Qadir al-Shami	20,000,000	
10	Abd al-Rabb Jarfan	20,000,000	
11	Yahya Muhammad al-Shami	20,000,000	
12	Abd al-Karim Amir al-Din al-Houthi	15,000,000	
13	Yahya Badr al-Din al-Houthi	10,000,000	
14	Hassan Muhammad Zayd	10,000,000	
15	Safr Maghdi al-Sufi	10,000,000	
16	Muhammad Abd al-Karim al-Ghamari	10,000,000	
17	Abd al-Raziq al-Marwani	10,000,000	
18	Amar Ali al-Marani	10,000,000	
19	Ibrahim Ali al-Shami	10,000,000	
20	Fadhil Muhammad al-Matla	10,000,000	
21	Muhsin Saleh al-Hamzi	10,000,000	
22	Ahmed Saleh Hindi Daghsan	10,000,000	
23	Yusif al-Fiyshi	10,000,000	
24	Husayn Hamud al-Azzi	5,000,000	
25	Ahmed Muhammad Yahya Hamid	5,000,000	
26	Talal Abd al-Karim Aqlan	5,000,000	
27	Abdullah Muhammad Hajir	5,000,000	
28	Fares Mana‘a	5,000,000	
29	Ahmed Abdullah Aqubat	5,000,000	
30	Abd al-Latif Hamud al-Mahdi	5,000,000	head of 4 th military district

¹ This list was released by the Saudi Arabian government on 6 November 2017.

<i>Ser</i>	<i>Name</i>	<i>Reward (US\$)</i>	<i>Remarks</i>
31	Abd al-Hakim Hashim al-Khaywani	5,000,000	
32	Abd al-Hafiz al-Saqqaf	5,000,000	
33	Mubarak Mishn al-Zayadi		head of 3 rd military district; member of SPC
34	Ali Sa' id al-Razimi	5,000,000	
35	Saleh al-Sha'ir	5,000,000	
36	Ali Hamud al-Mushki	5,000,000	deputy head general staff
37	Muhammad Sharaf al-Din	5,000,000	
38	Dhayf Allah Qasim al-Shami	5,000,000	
39	Abu Ali al-Kuhlani	5,000,000	
40	Ali Nasser Qirshah	5,000,000	

Annex 27: Houthi family tree

Table 27.1

Houthi family tree

1. The Houthi family tree shows the sons of Badr al-Din Amir al-Din Husayn al-Houthi (1922 – 2010), the father of Abdulmalik al-Houthi (YEi.004).

<i>Ser</i>	<i>Wife</i>	<i>Name</i>	<i>Remarks</i>
	Wife 1		From Khawlan bin Amr
1		Husayn Badr al-Din al-Houthi ¹	(Deceased) (1960 – 2004) Initial Houthi Movement Leader
2		Yahya Badr al-Din al-Houthi	Current minister of education in ‘28 November government’
3		Ahmed Badr al-Din al-Houthi	
4		Abd al-Qadir Badr al-Din al-Houthi	
	Wife 2		
5		Muhammad Badr al-Din al-Houthi	
6		Hamid Badr al-Din al-Houthi	
	Wife 3		
7		Ibrahim Badr al-Din al-Houthi	
8		Amir al-Din Badr al-Din al-Houthi	
	Wife 4		A Sayyid woman from the Sittin family
9		Abdulmalik Badr al-Din al-Houthi	(YEi.004)
10		Abd al-Khaliq Badr al-Din al-Houthi	(YEi.001)
11		Najm al-Din Badr al-Din al-Houthi	
12		Abd al-Salam Badr al-Din al-Houthi	
13		Ali Badr al-Din al-Houthi	

¹ Husayn Badr al-Din al-Houthi married one of his daughters to a top lieutenant, Yusuf al-Madani, who continues to remain a key Houthi military commander to this day.

Annex 28: Houthi military districts and commanders

Table 28.1
Houthi military districts and commanders

<i>military district</i>	<i>Location</i>	<i>Name</i>	<i>Remarks</i>
1	Sayyun	No known Houthi commander	
2	Mukalla	No known Houthi commander	
3	Ma'rib	Mubarak Salih al-Mishin	
4	Aden	Abd al-Latif Hamud Mahdi	Appointed 25 April 2017
5	Hudaydah	Yusif al-Madani ¹	Married to daughter of Husayn Badr al-Din al-Houthi
6	Amran / Sa'dah	Muhammad Yahya al-Hawari ²	
7	Dhamar / Sana'a	Hamid al-Kharashi	

¹ Al-Madani is a trusted member of the Houthis, who was named Houthi commander of the 5th military district when a Saudi Arabia-led coalition attack on the port city of Hudaydah looked imminent.

² The Panel is now able to confirm that reports that major general Muhammad al-Hawari was killed in the Saudi Arabia-led coalition strike on the Community Hall in Sana'a on 8 October 2016 were incorrect.

Summary of reported PBIED and SVIED attacks (2017)

Table 29.1

Summary of reported PBIED and SVIED attacks (2017)

<i>Ser</i>	<i>Date</i>	<i>Location</i>	<i>Device Type</i>	<i>Target</i>	<i>Civilian Fatalities</i> ¹	<i>Military Fatalities</i>	<i>Civilians Injured</i>	<i>Military Injured</i>	<i>Claimed by</i>	<i>Remarks</i>
1	7 Jan 2017	Al-Wadea, Abyan	PBIED	Military checkpoint,		6		20	No claim	
2	11 Jan 2017	Loder, Abyan	PBIED			1		5	AQAP	
3	15 Feb. 2017	Bayda	SVIED		3		3		AQAP	
4	24 Feb 2017	Zinjibar	SVIED	Military Camp		8		11	AQAP	
5	29 Mar 2017	Al-Houta, Lahj	SVIED			6			AQAP	
6	9 Apr 2017	Aden	PBIED	CP						Failed attack
7	7 Jun 2017	Zanjibar	SVIED	Governor		2			AQAP	
8	12 Jun 2017	Da'wan	SVIED			2			AQAP	
9	8 Aug 2017	Lodor	SVIED	103 Brigade		3		6	AQAP	Arif Abd al-Hassan Habib
10	23 Oct 2017	Abyan	SVIED	CP		4		10	AQAP	
11	29 Oct 2017	Al Mahfad, Abyan	SVIED / PBIED			3			AQAP	
12	5 Nov 17	Khormaksar, Aden	SVIED			18			ISIL	SVIED and 4 x PBIED
13	14 Nov 17	Shiekh Othman, Aden	SVIED	Security Belt Operations Centre		6			ISIL	Abu Haga al-Adani

¹ Excluding the 'suicide' bomber. Named in Remarks column where published.

Figure 29.1
Summary of SVIED attacks (Quarterly 2016 - 2017)

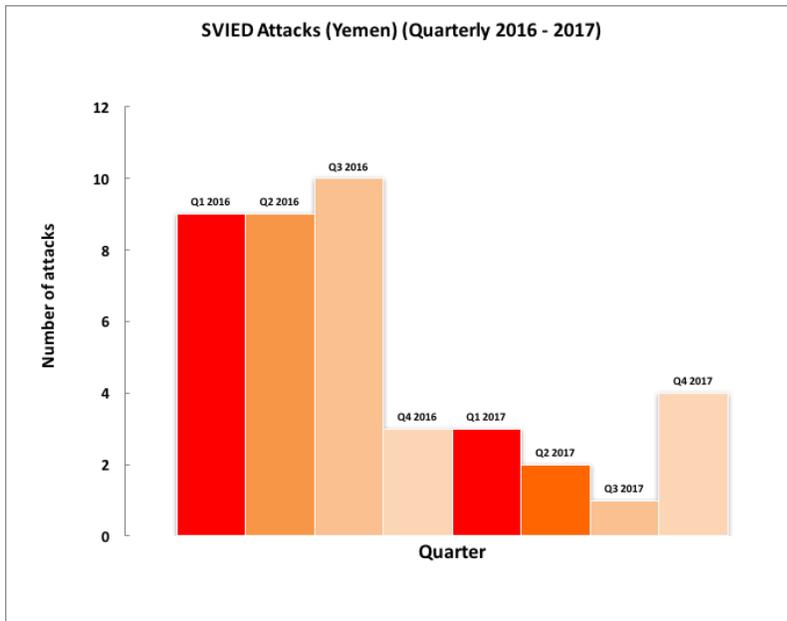
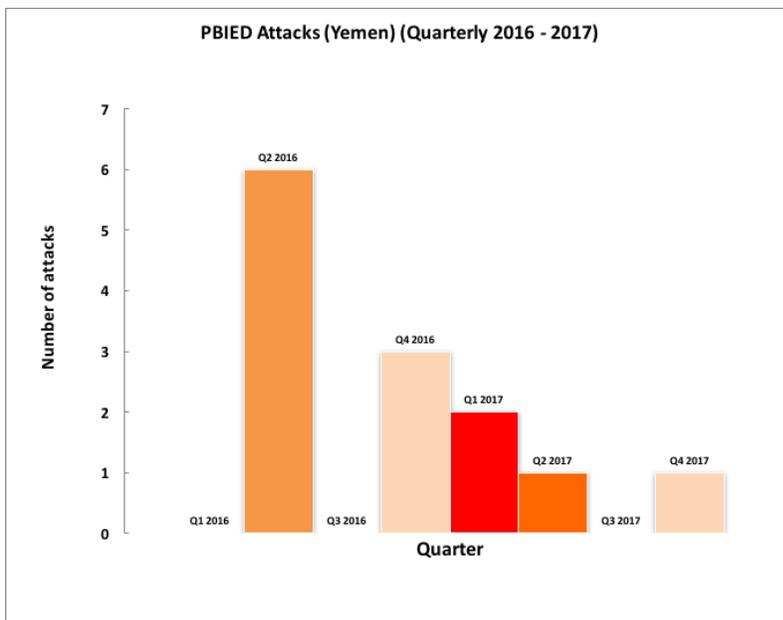


Figure 29.2
Summary of PBIED attacks (Quarterly 2016 - 2017)



AQAP linked persons of interest to the Panel¹

Figure 30.1
Prominent AQAP figures

<i>Ser</i>	<i>Name</i>	<i>Role</i>	<i>Remarks</i>
1	Qasim Yahya al-Raymi	Leader	(QDi.282) Yemeni
2	Ibrahim Asiri	Chief bomb maker	Saudi
3	Said Attif al-Awlaqi	Head of AQAP (Shabwah ²)	Yemeni
4	Muntasir Badi	Financier in Abyan	
5	Khaled Umar Batarfi	Battle commander	Yemeni
6	Khalid al-Daba	AQAP leader in Lahij	May be under arrest ³
7	Muhammad Abdullah Husayn Daramah	Judge on Shariah Council	
8	Muhammad Abd al-Karim al-Ghazali	Financial Head	Yemeni
9	Abu Yusif al-Lahji	Head of AQAP (Lahij)	Yemeni
10	Khamis Arfaj al-Marwani	Head of AQAP (Jawf)	Yemeni
11	Salim al-Najdi	Media figure	Saudi
12	Ibrahim al-Quso	Propagandist	Former Guantanamo detainee / Sudanese
13	Wa'il Sayf (Abu Salim al-Adani)	Head of AQAP (Aden)	Yemeni
14	Muhammad Umar	Military Commander Jawf	Yemeni
15	Nayif al-Qaysi ⁴	Financier	(QDi.402) Yemeni
16	Adil Abdu al-Dhubhani ⁵	Militia Leader Ta'izz	Yemeni, (a.k.a Abu al-Abbas)
17	Sayf Abd al-Rabb al-Hayashi ⁶	Weapons/Dealer Financier	Yemeni
18	Bilal Ali Muhammad al-Wafi ⁷	Commander in Ta'izz	Yemeni

¹ This table has been compiled from a variety of sources, including confidential sources, interviews with individuals inside and outside of Yemen, open sources, news reports and AQAP documents.

² On 20 June 2017 a US strike killed Abu Khattab al-Awlaqi, the deputy head of AQAP in Shabwah.

³ The Panel has received a report, which it has been unable to verify, that security forces loyal to President Hadi may have arrested Khalid al-Daba.

⁴ Nayif al-Qaysi is the former Governor of Bayda' for the legitimate Government. He was sanctioned by the UN ISIL (Da'esh) and Al-Qaida Sanctions Committee on 22 February 2017. He was removed from his post as Governor on 23 July 2017. He was sanctioned by the Terrorist Financing Target Center (TFCT) and its member States on 25 October 2017.

⁵ Adil Abdu al-Dhubhani, better known as Abu al-Abbas, is the most powerful militia leader in Ta'izz (see 2017 Panel Mid-term Update, paras. 28 – 33). He has received significant support in the past from the UAE. He was sanctioned by the TFCT on 25 October 2017.

⁶ Sayf al-Hayashi was sanctioned by the TFCT on 25 October 2017.

⁷ Bilal al-Wafi was sanctioned by the TFCT on 25 October 2017.

<i>Ser</i>	<i>Name</i>	<i>Role</i>	<i>Remarks</i>
19	Ghalib al-Zaidi ⁸	AQAP leader in Ma'rib	(QDi.401) Yemeni

⁸ On 22 February 2017 the ISIL (Da'esh) and Al-Qaida Sanctions Committee listed al-Zaidi (QDi.401).

AQAP and the tribes (and the 23 May 2017 US raid)

I. Introduction

1. This section includes a case study of the al-‘Idhal clan of the Murad tribe and the 23 May 2017 US raid.
2. Tribes in Yemen are not monolithic entities¹ that either decide to join or provide refuge to AQAP as a group.² Instead what tends to happen is that individual members of a particular tribe join AQAP and then welcome outside fighters into their village, effectively providing AQAP with an umbrella of tribal protection.
3. Such tribesmen have dual identities. They are AQAP members to al-Qaida, and tribesmen to their tribes. This means that while they are sometimes targeted and killed as AQAP members, they are often avenged as tribesmen.
4. This issue of dual identities is also at the centre of the US raid on a cluster of homes belonging to the al-‘Idhal clan of the Murad tribe³ in Ma’rib on 23 May 2017.⁴ The US carried out the raid on a target it had identified as AQAP, which was then defended on the ground as an attack on the tribe.

II. Background

5. In late April or early May 2017, approximately three weeks prior to the raid, one member of the clan, Muhammad Said al-‘Idhal, an AQAP member, was killed in a US armed unmanned aerial vehicle (AUAV) strike.⁵ Following his death, at least seven men from outside the clan moved in to his house.⁶ It was this very house that the United States then subsequently targeted on 23 May 2017.

III. The Raid

6. The night raid began at approximately 02:00 hours on 23 May 2017, with approximately 50 troops from the US Navy SEAL⁷ special forces descending on the village.⁸ Almost immediately the raiding party came under

¹ Many, although certainly not all, tribes in Yemen belong to two main tribal confederations, Hashid and Bakil. Each tribal confederation is led by a *shaykh ma-shaykh* (sheikh of sheikhs). The Hashid tribe is smaller than the Bakil tribe but, at least until recently, acted as a more cohesive whole. Neither tribal confederation, however, speaks with one voice on any given issue. Indeed, it is more helpful to think of each tribal confederation as an alliance of member states, each pursuing their own self-interests.

² In fact, the tribes of Yemen and AQAP are closer to natural enemies than they are to allies, as both groups seek to control and administer territory.

³ The Murad tribe has roughly 60,000 members.

⁴ This is the second US military raid against AQAP that the Panel has documented in 2017. The first, on 29 January 2017, included the use of UAE forces.

⁵ The US acknowledged a drone strike in Ma’rib on 18 April 2017. <http://www.centcom.mil/MEDIA/NEWS-ARTICLES/News-Article-View/Article/1162256/pentagon-spokesman-updates-iraq-syria-yemen-operations/>. Another drone strike in Ma’rib was reported on 29 April 2017, which killed an individual named Muhammad al-‘Idhal. <http://www.almasdaronline.com/article/90812>. The Panel has not been able to independently verify if this individual was Muhammad Said al-‘Idhal.

⁶ These appear to be the seven men the US targeted and killed during the raid as AQAP members. Confidential local source.

⁷ Sea, Air and Land.

⁸ Confidential local source, and <http://www.centcom.mil/MEDIA/PRESS-RELEASES/Press-Release-View/Article/1190002/us-forces-conduct-counter-terrorism-raid/>.

attack by the al-‘Idhal clan tribesmen, who seeing their village was under attack could not have been aware that only one particular house was being targeted.

7. Five tribesmen were killed, ranging in age from 15 – 80, and another five were wounded.⁹ Both AQAP and local Yemenis highlighted this fact in subsequent statements and accounts of the raid.¹⁰ The US troops also killed the seven individuals that they had targeted, who were staying in the house of the late Muhammad Said al-‘Idhal.¹¹

8. The US has not released the names of those seven individuals, and neither local Yemeni reporting nor the AQAP statement acknowledged their deaths.¹² AQAP members who survived the raid prevented villagers from entering Muhammad Said al-‘Idhal’s house after the raid, and over the next few days the seven bodies were removed from the village for burial in an unknown location.¹³

IV. The aftermath

9. The raid on the AQAP house in an al-‘Idhal clan village illustrates the complexities of fighting AQAP in the midst of the broader conflict in Yemen. Although the US achieved its target, by killing seven AQAP members, it also killed five tribesmen who were acting in self-defence. They were defending their village not to protect AQAP but rather because of the perception that their village was under attack by, to them, unknown armed men. Such actions can have unintended consequences. On one hand, armed UAV strikes and armed raids such as the one on 23 May 2017 can induce some clans and tribes to deny aid to AQAP. On the other hand, the death of tribesmen can act as a force-multiplier for AQAP, leading to more men joining AQAP in order to avenge their fallen relatives.¹⁴

10. AQAP is aware that it needs the tribes to operate in Yemen. If the tribes in Yemen were to turn against AQAP en masse, the terrorist organization would have no freedom to manoeuvre, no recruits and no future. AQAP is aware of this and has therefore developed a two-track approach to the tribes. Firstly, AQAP propaganda frequently stresses its desire for positive relations with various tribes; overtures that most tribes ignore.¹⁵ Secondly, it is actively working to recruit young tribesmen,¹⁶ not simply because it wants more fighters, but because these particular tribal fighters represent the entry into tribal society that AQAP so desires.

11. It is not the tribes of Yemen that are a problem when it comes to the war against AQAP. Indeed, the tribes’ could be a powerful ally against AQAP, providing some governance and structure in areas where AQAP would otherwise have a free hand. Instead, it is young, not quite fully integrated tribesmen who represent the greatest challenge. They are able to use their two identities as tribesmen and AQAP members to blur the lines and provide AQAP with protection and foothold they need to grow and thrive in Yemen.

12. The Panel believes that the dynamics outlined in this annex represent a threat to the peace, security, and

⁹ The names of the dead are: Nasser Ali Mahdi al-‘Idhal, Saleh Lutfaf al-‘Idhal, Yasser Lutfaf al-‘Idhal, Abdullah Said al-‘Idhal, and Abd al-Qadir Saleh al-‘Idhal.

¹⁰ See AQAP’s statement of 26 May 2017. https://azelin.files.wordpress.com/2017/05/al-qacc84_idah-in-the-arabian-peninsula-22about-the-american-landing-upon-the-muracc84d-tribe22.pdf. For Yemeni reporting see, for example: <http://www.almasdaronline.com/article/91432>.

¹¹ <http://www.centcom.mil/MEDIA/PRESS-RELEASES/Press-Release-View/Article/1190002/us-forces-conduct-counter-terrorism-raid/>.

¹² Similarly, the United States statement failed to acknowledge the five tribesmen killed in the raid.

¹³ Confidential local source.

¹⁴ The Panel has information suggesting that both trends are taking place within the al-‘Idhal clan.

¹⁵ For most tribes AQAP is a minor nuisance not a major concern.

¹⁶ Part of this recruiting process involves the payment of monthly salaries, which the Panel continues to investigate. Older tribesmen typically have little interest in joining AQAP as they are often more established men with families and positions of influence in the tribes and see AQAP as a threat.

stability of Yemen.

ISIL affiliated persons of interest to the Panel¹

Figure 32.1
Prominent ISIL figures

<i>Ser</i>	<i>Name</i>	<i>Role</i>	<i>Remarks</i>
1	Abu Sulayman al-Adani ²	Head of ISIL-Yemen	Yemeni
2	Nasir al-Ghaydani (Abu Bilal al-Harbi)	An ISIL leader	Deceased ³
3	Khaled Abdullah al-Marfadi	Military commander	Yemeni ⁴
4	Khaled Umar al-Marfadi	Financial official	Yemeni ⁵
5	(Abu Abd al-Rahman al-Muhajir) ⁶	Shariah official	
6	(Abu Saleh) ⁷	Military commander	
7	Radwan Muhammad al-Qanan ⁸	ISIL leader in Aden	Yemeni
8	Muhammad Said Umar Bawazir	An ISIL leader	
9	Nashwan al-Wali al-Yafa'i ⁹	Financier	Yemeni
10	Khalid Sa'id Ghabish al-Ubaydi ¹⁰	ISIL leader in Hadramawt	Yemeni

¹ This table has been compiled from a variety of sources, including confidential sources, interviews with individuals inside and outside of Yemen, open sources, and news reports.

² Abu Sulayman al-Adani was named by Terrorist Financing Target Center (TFCT) and its member states as the head of ISIL-Yemen and was sanctioned on 25 October 2017. See: <https://www.treasury.gov/press-center/press-releases/Pages/sm0187.aspx>.

³ The Panel can confirm that Abu Bilal al-Harbi has been killed. Following his death, ISIL in Yemen named a training camp in al-Baydha after him.

⁴ al-Marfadi is from Yafa'a. He was sanctioned by the TFCT on 25 October 2017.

⁵ Also from Yafa'a.

⁶ al-Muhajir reportedly also uses the *kunya*: Abu Muhammad al-Kanani.

⁷ Abu Saleh reportedly also uses the *kunya*: Abu Husayn.

⁸ Radwan Qanan was sanctioned by the TFCT on 25 October 2017.

⁹ Nashwan al-Yafa'i was sanctioned by the TFCT on 25 October 2017.

¹⁰ Khalid al-Ubaydi was sanctioned by the TFCT on 25 October 2017.

Arms supply routes to Houthi territory in Yemen

Table 33.1

Summary of arms supply routes to Houthi territory in Yemen

<i>Ser</i>	<i>Transport mode</i>	<i>Destination / Route</i>	<i>Status for arms supply</i>	<i>Remarks</i>
1	Air	Airports in Houthi controlled territory	Closed	<ul style="list-style-type: none"> ▪ Saudi Arabia-led coalition has air superiority. Air routes under constant airborne surveillance.
2	Air	Air delivery to improvised air strips or by air drops	Highly unlikely	<ul style="list-style-type: none"> ▪ Saudi Arabia-led coalition has air superiority. Air routes under constant airborne surveillance.
3	Sea Vessels > 300t ¹	Red Sea ports (e.g. Hudaydah)	Unlikely	<ul style="list-style-type: none"> ▪ All vessels require UNVIM clearance and are subject to random or planned inspection or interdiction by Saudi Arabia-led coalition naval forces. ▪ No seizures on this route since March 2017. ▪ Possible for non-explosive weapons in component form concealed in cargo, but land routes are a better option, as interdiction risks are lower.
4	Sea Vessels < 300t	Red Sea ports or across beaches	Unlikely	<ul style="list-style-type: none"> ▪ Small vessels risk interdiction by Saudi Arabia-led coalition or Combined Maritime Forces (CMF)² naval forces. ▪ No seizures on this route since March 2017.
5	Sea	Gulf of Aden ports or across beaches (west of Qishn)	Effectively closed	<ul style="list-style-type: none"> ▪ Ports in territory under control of legitimate government of Yemen. ▪ Vessels risk interdiction by Saudi Arabia-led coalition or CMF naval forces. ▪ Subsequent interdiction risk on land route. ▪ Evidence of vessels smuggling arms from Yemen to Somalia across beaches.³

¹ Regulation V/19 of SOLAS (International Convention for the Safety of Life at Sea, 1974) requires that automatic identification systems (AIS) be fitted and used on vessels of above 300 gross tonnes. The AIS may be switched off to hide a vessel's position if engaged in nefarious activity, but the vessel will still be visible to naval radar. Lack of an AIS signal would raise the immediate suspicions of Saudi Arabia-led coalition or CMF naval vessels.

² <https://combinedmaritimeforces.com>.

³ Paras. 103 - 110 to S/2017/925.

<i>Ser</i>	<i>Transport mode</i>	<i>Destination / Route</i>	<i>Status for arms supply</i>	<i>Remarks</i>
6	Sea	Arabian Sea ports or across beaches (east of Qishn)	Possible	<ul style="list-style-type: none"> ▪ Ports in territory (e.g. Ghaydah) not under effective control of legitimate government of Yemen. ▪ Vessels risk interdiction by Saudi Arabia-led coalition, CMF or Omani naval forces. ▪ Subsequent interdiction risks on land route. ▪ Interdiction risk at border control posts (BCP) if landed in Oman.
7	Land	From Oman	Possible	<ul style="list-style-type: none"> ▪ Initial interdiction dependent on effectiveness of control checks at busy BCP. ▪ Interdiction risks increase with proximity to Houthi controlled territory as checkpoints increase with proximity. ▪ Not suitable for larger calibre weapons, such as artillery, as concealment in vehicles difficult.
8	Land	Southern main supply route (MSR) from Al Ghaydah	Open	<ul style="list-style-type: none"> ▪ Interdiction risks increase with proximity to Houthi controlled territory as checkpoints increase with proximity. ▪ Not suitable for larger calibre weapons, such as artillery, as concealment in vehicles difficult.
9	Land	Northern MSR via Thamud	Open	<ul style="list-style-type: none"> ▪ Interdiction risks increase with proximity to Houthi controlled territory as checkpoints increase with proximity. ▪ Not suitable for larger calibre weapons, such as artillery, as concealment in vehicles difficult.
10	Land	From Saudi Arabia	Closed	<ul style="list-style-type: none"> ▪ Border is well patrolled.

Summary of Houthi-Saleh SRBM and FFR attacks against Saudi Arabia

1. Tables 34.1 to 34.4 contain summaries of Houthi-Saleh forces short-range ballistic missile (SRBM) or free flight rocket FFR attacks against Saudi Arabia during the conflict. The data was supplied by Saudi Arabia, and then compared against the media and Houthi-Saleh reported attacks in paragraphs 81 to 85 and annex 42 of [S/2017/81](#) and the consolidated tables below developed by the Panel.

2. Table 34.1 contains a summary of the total number of reported or confirmed launches.

Table 34.1

Summary of confirmed or reported Houthi-Saleh SRBM and FFR attacks against Saudi Arabia (2015 - 2017)

Year	SCUD B /C or Hwasong-5/6		Borkan -2 (SCUD ER) ¹ or Borkan-2H		Qaher-1 (S-75)		Zelzal-2/3		OTR-21 Tocka		Not Known		Totals	
	L ²	Intercepted ³	L	Intercepted	L	Intercepted	L	Intercepted	L	Intercepted	L	Intercepted	L	Intercepted
2015	3	1 (33%)			1	9 (50%)					2	1 (50%)	23	11 (48%)
				8										
2016 ⁴	6	1 (17%)	2	2 (100%)	2	12 (50%)	2	1 (50%)	2	2 (100%)	11	3 (27%)	47	21 (45%)
				4										
2017			9	4 (43%)	4	4 (100%)					1	14 (78%)	33	23 (73%)
											9			
Totals	9	2 (22%)	11	6 (58%)	4	25	2	1 (50%)	2	2 (100%)	3	18 (58%)	112	55 (49%)
					6						2			

¹ These are probably SCUD-B or Hwasong-5 or 6 SRBM modified for extended range by the Houthi-Saleh alliance.

² L = Launched.

³ Reported or confirmed as being intercepted and destroyed in flight by anti-missile systems. Probably PAC-3 Patriot.

⁴ Note corrected figures from annex 42 of [S/2017/81](#).

3. Table 34.2 contains a summary of missile and FFR launches that have been confirmed to the Panel by the Government of Saudi Arabia.

Table 34.2

Summary of Saudi Arabian government confirmed Houthi-Saleh SRBM and FFR attacks against Saudi Arabia (2015 - 2017)

Year	SCUD B/C or Hwasong-5/6		Borkan -2(SCUD ER) ⁵ or Borkan-2H		Qaher-1 (S-75)		Zelzal-2/3		OTR-21 Tocka		Not Known		Totals	
	L ⁶	Intercepted ⁷	L	Intercepted	L	Intercepted	L	Intercepted	L	Intercepted	L	Intercepted	L	Intercepted
2015	2	1 (50%)			7	5 (71%)					2	1 (50%)	11	7 (64%)
2016	1	1 (100%)	2	2 (100%)	1	10 (67%)					5	2 (40%)	23	15 (65%)
2017			7	3 (33%)	4	4 (100%)					1	12 (80%)	25	18 (72%)
Total	3	2 (67%)	9	5 (58%)	2	19 (73%)					2	15 (68%)	60	41 (70%)
s					6						2			

⁵ These are probably SCUD-B or Hwasong-5 or 6 SRBM modified for extended range by the Houthi-Saleh alliance.

⁶ L = Launched.

⁷ Intercepted and destroyed in flight by anti-missile systems. Probably PAC-3 Patriot.

4. Table 34.3 contains a summary of launches reported in open source media, but not confirmed by the Government of Saudi Arabia.

Table 34.3

Summary of other media reported Houthi-Saleh SRBM and FFR attacks against Saudi Arabia (2015 - 2017)

Year	SCUD B/C or Hwasong-5/6		Borkan -2(SCUD ER) ⁸ or Borkan-2H		Qaher-1 (S-75)		Zelzal-2/3		OTR-21 Tocka		Not Known		Totals	
	L ⁹	Intercepted ¹⁰	L	Intercepted	L	Intercepted	L	Intercepted	L	Intercepted	L	Intercepted	L	Intercepted
2015	1	0 (0%)			11	4 (36%)							12	4 (33%)
2016	5	0 (0%)			9	2 (22%)	2	1 (50%)	2	2 (100%)	6	1 (17%)	24	6 (25%)
2017			2	1 (50%)							4	3 (75%)	6	4 (60%)
Totals	6	0 (0%)	2	1 (50%)	2	6 (30%)	2	1 (50%)	2	2 (100%)	1	4 (40%)	42	14 (33%)
					0						0			

⁸ These are probably SCUD-B or Hwasong-5 or 6 SRBM modified for extended range by the Houthi-Saleh alliance.

⁹ L = Launched.

¹⁰ Intercepted and destroyed in flight by anti-missile systems. Probably PAC-3 Patriot.

5. Table 34.4 contains more details of SRBM missile and FFR attacks that have been confirmed by the government of Saudi Arabia (shown as a numerical serial),¹¹ and those reported in the media or claimed by the Houthi-Saleh alliance (shown as an alphabetical serial).

Table 34.4

Details of confirmed and reported Houthi missile and FFR attacks against Saudi Arabia (June 2015 – 18 December 2017)

<i>Serial</i>		<i>Coordinates (° ' ")</i>							
<i>KSA Confirmed¹²</i>	<i>Reported</i>	<i>Date</i>	<i>Likely missile type</i>	<i>Launch point</i>	<i>Patriot interception</i>	<i>Impact point</i>	<i>Probable target</i>	<i>Distance (km)</i>	<i>Location / Remarks</i>
1		6 Jun 2015		16 35 36N 43 43 06E	N 18 08 03 E 42 25 51		Khamis Mushayt	219	
2	A	29 Jun 2015	SCUD	16 32 50N 44 07 39E		19 11 15N 45 01 15E	Sulayvil base	308	
3	B	26 Aug 2015	Qaher-1	15 18 05N 44 12 54E	16 51 23N 42 41 22E		Jizan	238	Jazan
4	C	15 Oct 2015	SCUD	15 18 49N 44 12 52E		18 56 48N 42 41 58E	Khamis Mushayt	435	
	D	4 Dec 2015	Qaher-1			16 53 59N 44 35 01E	Jazan airport		Coordinates are centre of target and not impact point.
	E	9 Dec 2015	Qaher-1			16 53 57N 44 33 26E	Jazan		Coordinates are centre of target and not impact point.
	F	9 Dec 2015	Qaher-1			16 53 57N 44 33 26E	Jazan		Coordinates are centre of target and not impact point.
99	G	13 Dec 2015	Qaher-1	16 25 40N 44 08 08E		18 18 17N 42 43 54E	Khamis Mushayt		
5		14 Dec 2015		Unidentified		18 27 32N 42 41 58E	Khamis Mushayt		
	H	18 Dec 2015	Qaher-1			17 33 19N 44 14 33E	Najran		Impacted east of town
	I	19 Dec 2015	Qaher-1			17 33 19N 44 14 33E	Najran		Impacted near museum

¹¹ In either table 42.2 of [S/2017/81](#) or letter to the Panel dated 4 October 2017.

¹² The coordinates provided by the Saudi Arabian authorities are predominantly based on those from the Shared Early Warning System (SEWS) data.

Serial	KSA Confirmed ¹²	Reported	Date	Likely missile type	Coordinates (° ' ")			Probable target	Distance (km)	Location / Remarks
					Launch point	Patriot interception	Impact point			
	J		19 Dec 2015	Qaher-1	15 23 41N 44 10 10E		16 30 41N 42 58 24E	Al-Wahal BCP		Coordinates are centre of target and not impact point.
	K		20 Dec 2015	Qaher-1			18 18 19N 42 44 43E	Khamis Mushayt airport		Coordinates are centre of target and not impact point.
6	L		21 Dec 2015	Qaher-1	15 23 41N 44 10 10E	16 43 53N 42 44 22E		Jazan	213	
7	M		21 Dec 2015	Qaher-1	15 24 48N 44 13 05E	16 52 08N 42 41 01E		Jazan airport	230	
99	N		23 Dec 2015	Qaher-1	16 26 05N 44 03 55E	18 18 19N 42 43 43E		Jazan Aramco	?	
8			25 Dec 2015	Qaher-1	16 26 05N 44 03 55E		18 30 49N 42 49 31E	Jazan	266	Landed north of Khamis Mushayt town
O	O		26 Dec 2015	Qaher-1	15 15 48N 44 14 05E	Reported destroyed in flight		Najran		
9	P		27 Dec 2015	SCUD	15 54 20N 43 59 51E	17 54 38N 44 10 14E		Najran	226	Najran
	Q		27 Dec 2015	Qaher-1			16 53 47N 44 33 26E	Jazan		Coordinates are centre of target and not impact point.
	R		28 Dec 2015	Qaher-1		Reported destroyed in flight		Najran		
	S		30 Dec 2015	Qaher-1		Reported destroyed in flight				
10	T		31 Dec 2015	Qaher-1	N 15 19 42 E 44 04 33	N 17 00 06 E 43 02 06			217	Jazan
11	U		1 Jan 2016	Qaher-1	16 41 43N 43 51 51E		17 59 39N 42 49 26E	Khamis Mushayt	182	
12			7 Jan 2016	Qaher-1	15 00 08N 44 13 35E	16 50 16N 42 38 47E		Jazan	265	
13			28 Jan 2016	Qaher-1	14 59 08N 44 20 23E		17 34 51N 44 43 39E	Khamis Mushayt	292	Disappeared from radar screen

Serial	KSA Confirmed ¹²	Reported	Date	Likely missile type	Coordinates (° ' ")			Probable target	Distance (km)	Location / Remarks
					Launch point	Patriot interception	Impact point			
		V	8 Feb 2016	Qaher-1			18 18 19N 42 44 43E	Khamis Mushayt airport		Coordinates are centre of target and not impact point.
14		W	8 Feb 2016	Qaher-1	16 25 39N 44 08 34E	18 00 43N 42 52 06E		Abha	222	
15		X	9 Feb 2016	Qaher-1	15 20 50N 44 02 33E	16 59 28N 42 29 06E		Jazan	248	
16			11 Feb 2016	Qaher-1	15 22 55N 44 09 29E		17 02 45N 42 27 15E	Jazan	269	Exploded in the air
17		Y	13 Feb 2016	Qaher-1	16 24 23N 44 04 51E	18 05 56N 42 45 56E		Abha	234	
18		Z	9 May 2016		16 23 52N 44 05 01E	18 16 48N 42 55 50E		Khamis Mushayt	252	
19		AA	9 May 2016		16 40 05N 43 50 53E		18 20 43N 42 22 57E	Najran	243	Disappeared from radar screen
		AB	13 May 2016	Qaher-1			16 53 47N 44 33 26E	Jazan		Coordinates are centre of target and not impact point.
		AC	20 May 2016	Qaher-1			16 53 47N 44 33 26E	Jazan		Coordinates are centre of target and not impact point.
20		AD	30 May 2016	Qaher-1	15 29 57N 44 05 27E	17 00 53N 44 22 11E		Najran	171	
		AE	6 Jun 2016	SCUD		Reported destroyed in flight		King airbase		Khalid
21		AF	4 Jul 2016	Qaher-1	16 43 42N 43 50 27E	18 17 22N 42 39 55		Abha	214	
22		AG	23 Jul 2016	Qaher-1	Unidentified	17 34 34N 44 09 03E		Najran		
23			27 Jul 2016	Qaher-1	16 37 41N 43 50 44E		17 56 47N 43 15 23E	Khamis Mushayt	159	
24		AH	10 Aug 2016	Qaher-1	16 49 17N 43 48 21E	17 44 43N 43 02 57		Khamis Mushayt	135	
25		AI	10 Aug 2016	Qaher-1	16 46 44N 42 48 23E	17 39 06N 43 07 24		Abha	103	

Serial				Coordinates (° ' ")			Probable target	Distance (km)	Location / Remarks
	KSA Confirmed ¹²	Reported	Date	Likely missile type	Launch point	Patriot interception			
26			12 Aug 2016	Qaher-1	15 52 24N 43 05 57E		Unidentified	Jazan	
27			13 Aug 2016	Qaher-1	16 44 54N 43 46 29E	18 18 04N 42 40 48		Abha	208
	AJ		16 Aug 2016	Qaher-1			18 20 43N 42 22 57E	Najran	Seven reported civilian fatalities
	AK		19 Aug 2016	Qaher-1		Reported destroyed in flight		Khamis Mushayt	
28			25 Aug 2016		15 16 29N 44 03 45E	16 40 03N 42 45 50E		Jazan	208
	AL		26 Aug 2016	SCUD			16 52 55N 42 33 44E	Jizan Hamiyej Power Station	Coordinates are centre of target and not impact point.
29			30 Aug 2016		15 55 09N 43 11 19E		18 16 37N 42 19 20E	Landed in Aqabat al-Sima' (Abha)	278
	AM		31 Aug 2016	Zelzal-3			18 20 43N 42 22 57E	Najran	Coordinates are centre of target and not impact point.
	AN		2 Sep 2016	SCUD			21 28 58N 40 32 39E	King Fahid airbase	Coordinates are centre of target and not impact point.
	AO		10 Sep 2016	SCUD				Asir province	
	AP		10 Sep 2016	SCUD			17 39 46N 42 03 44E	Al Shqaigh water plant	
30			11 Sep 2016		15 56 01N 43 58 06E		16 48 34N 43 05 46E	Jazan	135
31	AQ		12 Sep 2016	SCUD	16 49 03N 43 43 56E	17 57 13N 43 00 18E		Khamis Mushayt	148
	AR		4 Oct 2016	Zelzal-3				Al Montazah	
	AS		8 Oct 2016	Qaher-1			18 18 17N 42 43 54E	Khamis Mushayt	Coordinates are centre of target and not impact point.
99	AT		9 Oct 2016		16 44 33N 43 49 10E	21 28 36N 40 27 18E		Ta'if	634
	AU		20 Oct 2016				16 53 47N 44 33 26E	Jazan	Coordinates are centre of target and not impact point.

Serial	Coordinates (° ' ")			Likely missile type	Patriot interception	Impact point	Probable target	Distance (km)	Location / Remarks
	KSA Confirmed ¹²	Reported	Date						
		AV	20 Oct 2016			18 20 43N 42 22 57E	Najran		Coordinates are centre of target and not impact point.
99	AW	27 Oct 2016			17 03 14N 43 23 33E	22 02 50N 39 52 14E	Khulays governorate, Ta'if	667	
	AX	1 Nov 2016				16 53 47N 44 33 26E	Jazan		Coordinates are centre of target and not impact point.
	AY	1 Nov 2016				18 20 43N 42 22 57E	Najran		Coordinates are centre of target and not impact point.
	AZ	1 Nov 2016					Asir province		
	BA	15 Nov 2016		OTK-21 Tochka	Reported destroyed in flight		Najran		
	BB	15 Nov 2016		OTK-21 Tochka	Reported destroyed in flight		Najran		2 nd FFR reported
	BC	26 Nov 2016			Reported destroyed in flight		Khamis Mushayt		
	BD	27 Jan 2017			Reported destroyed in flight		Najran		
	BE	30 Jan 2017				13 56 41N 42 45 36E	Zuqar Island		
99		5 Feb 2017		ER		17 07 09N 43 33 39E	24 20 32N 46 19 04E	Muzahimiyah	852
32		14 Feb 2017				16 35 35N 43 53 45E	18 10 55N 42 39 09E	Khamis Mushayt	221
33		18 Feb 2017				16 46 28N 43 48 48E	17 38 50N 42 08 20E	Abha	201
34		16 Mar 2017				14 52 29N 42 58 29E	16 37 11N 42 36 45E	Ta'if	198
35		19 Mar 2017				15 32 43N 44 10 17E	16 52 17N 43 02 28E	Jazan	191
36		27 Mar 2017				16 37 50N 43 52 20E	17 57 09N 43 26 43E	Khamis	154

Serial	KSA Confirmed ¹²	Reported	Date	Likely missile type	Coordinates (° ' ")			Probable target	Distance (km)	Location / Remarks
					Launch point	Patriot interception	Impact point			
37			27 Mar 2017		16 37 50N 43 52 20E	18 18 33N 43 30 28E		Najran	191	
38			27 Mar 2017		16 38 14N 43 51 25E	18 08 00N 42 54 00E		Najran	166	
39			19 May 2017		16 37 14N 43 51 28E	17 59 52N 43 19 28E		Najran	163	
40			4 Feb 2017		17 03 47N 43 36 29E	22 12 57N 45 37 55E		Khamis Mushayt		
41			14 Feb 2017		16 35 35N 43 53 45E	18 10 55N 42 39 09E		Khamis Mushayt	221	
42			18 Feb 2017		16 46 28N 43 48 48E		17 38 50N 42 08 20E	Shuqayq	203	
43			16 Mar 2017		14 52 29N 42 58 29E	16 37 11N 42 36 45E		Jazan	198	
44			19 Mar 2017		15 32 43N 44 10 17E	16 51 17N 43 02 28E		Jazan	189	
		BF	20 Mar 2017			Reported destroyed in flight		Najran		
45	BG		27 Mar 2017	Qaher-1	16 37 50N 43 52 20E	17 57 09N 43 26 43E		Khamis Mushayt	157	
46	BH		27 Mar 2017	Qaher-1	16 37 50N 43 52 20E	18 18 33N 43 30 28E		Khamis Mushayt	191	
47	BI		27 Mar 2017	Qaher-1	16 38 14N 43 51 25E	18 08 00N 42 54 00E		Abha	195	
48	BJ		27 Mar 2017	Qaher-1	16 37 14N 43 51 28E	17 59 52N 43 19 28E		Khamis	163	
49			19 May 2017	SCUD	17 03 47N 43 36 29E	22 12 57N 45 37 55E		Najran		
50	BK		19 May 2017	ER	17 07 10N 43 36 57E		24 03 54N 46 24 28E	Riyadh governorate	825	
51	BL		22 Jul 2017	Borkan-2H	17 04 04N 43 51 08E		23 58 55N 38 14 26E	Yanbu ^c	965	

Serial	KSA Confirmed ¹²	Reported	Date	Likely missile type	Coordinates (° ' ")			Probable target	Distance (km)	Location / Remarks
					Launch point	Patriot interception	Impact point			
52	BM	26 Jul 2017		SCUD-C type	16 23 36N 44 05 03E	21 23 46N 40 34 10E		Ta'if	668	Warhead is cluster munition type from a SCUD-C type.
53		7 Aug 2017			18 04 46N 45 00 02E		16 32 03N 42 48 33E	Jazan	289	
54		27 Aug 2017			18 04 46N 43 03 26E	18 13 80N 42 31 26E			58	
	BN	27 Oct 2017					22 12 57N 45 37 55E	Najran		
99	BO	4 Nov 2017		Borkan-2H	15 57 09N 43 48 13E	Reported destroyed in flight	24 56 27N 46 43 29E	Riyadh, King Khaled airbase	820+	
	BP	30 Nov 2017				Reported destroyed in flight		Khamis Mushayt		
100	BQ	19 Dec 2017		Borkan-2H				Riyadh	1,000+	

SCUD-C type modification programme

I. Background

1. The first time an SRBM was launched with an extended range (ER-SRBM) beyond that normally expected of the known missiles in the Houthi-Saleh inventory was on 9 October 2016. Since then there has been four confirmed launches of SRBM with a range slightly in excess of the known maximum range of 550km to 600km for this SRBM type (see table 35.1).

Table 35.1
Confirmed Houthi-Saleh SCUD-C launches (>600km)

Ser	Date	Target	Range (km)	Remarks
1	9 Oct 2016	Ta'if	634	▪ Reported as intercepted by Patriot MIM-104 system.
2	27 Oct 2016	Ta'if	667	▪
3	19 May 2017	Najran	611	▪ Reported as intercepted by Patriot MIM-104 system.
4	26 Jul 2017	Ta'if	668	▪ Warhead is a cluster munition type from SCUD-C type (see paragraph 6)

2. The Panel finds that it is almost certain that these particular missiles were not the ER-SRBM (at annex 36), but rather as a result of minor modifications being made to the SCUD-C type SRBM known to be in the possession of the Houthi-Saleh alliance prior to January 2015. It is possible that this is the missile the Houthis refer to as the Borkan-2 (see figure 35.1).

Figure 35.1
Houthi media image of Borkan-2



II. Technical options to extend range

3. The Panel assesses that the only realistic technical options to extend the range¹ of the SCUD-C type SRBM, are limited to:

- (a) Reducing the explosive weight within the warhead to virtually nil;
- (b) Reducing component weight;
- (c) Increasing the liquid bi-propellant capacity of an SRBM by adding additional fuel and oxidizer tanks; or
- (d) Increasing the liquid bi-propellant capacity of an SRBM by adding larger fuel and oxidizer tanks in place of the current tanks.

A. Reduction of warhead weight

4. The removal of the high explosive warhead would save, dependent on the SRBM type, approximately 600kg in weight. A significant proportion of the weight of the missile consists of the liquid bi-propellant (65%) and warhead (10% - 15%). The majority of the propellant expended launching the SRBM along the first phase of its trajectory in order to gain height above ground and counter the force of gravity; hence the missile is continually losing weight as the propellant burns. Therefore, in theory, a noticeable range increase could be achieved by the removal of the warhead weight, as this would be less weight that is needed to be lifted against the force of gravity. Even without a warhead, the damage caused entirely by the kinetic energy of the missile body impacting the ground would be localized, but significant.

5. As one of the aims of the Houthi-Saleh missile campaign is strategic propaganda, then the loss of any warhead damage is insignificant to them. Appendix 1 shows the weight of propellant and warheads for each of the SRBM in the possession of Houthi-Saleh forces at the outbreak of the conflict. This data supports the finding that extended range for these particular SRBM types may be being gained by removing the explosive from the warheads SCUD-C type missiles in their arsenal.²

6. Evidence of a programme to lighten the load of these SRBM in order to extend range is the use of a carrier warhead for sub-munitions, as identified by the Panel from the remnants of the launch against Ta'if on 26 July 2017 (figure 35.2).

¹ Due to the differential in altitude above sea level (ASL) a missile fired from the higher altitude of Yemen (approx. 2,250m ASL) against Riyadh (610m ASL) there would be a very limited range extension of only 1.4km.

² The removal of the warhead would alter the centre of gravity of the missile. Computational fluid dynamics (CFD) modeling may be required to confirm how much ballistic stability would be retained in flight, and what extended range could be expected.

Figure 35.2
 SCUD C type sub munition warhead (Ta'if, 26 July 2017)³



2. Reducing component weight

7. A reduction in the weight of components would result in an incremental, but small, increase in the theoretical maximum range of the missile system. This was certainly done in the case of the SRBM fired against Ta'if on 22 July 2017. Among the remnants of this SRBM the Panel identified that the compressed air bottles used to pressurise the fuel system were made of a composite material, rather than the steel of the standard SCUD-C type system (figures 35.3 and 35.4). The compressed air bottles used were modern and manufactured by a United States company, Mine Safety Appliances Incorporated,⁴ or one of their subsidiaries. The response from the manufacturer to a Panel tracing request for this component⁵ included a comment that the component was mass-produced and no serial numbers were allocated.

Figure 35.3
 MSA composite compressed air bottles



Figure 35.4
 MSA composite compressed air bottles



³ All imagery taken by Panel unless otherwise indicated. This image was from a confidential source.

⁴ <http://us.msasafety.com/Supplied-Air-Respirators-%28SCBA%29/SCBA-Parts-%26-Accessories/Air-Cylinders/p/000010000800002001>.

⁵ Panel letter dated 20 November 2017.

3. Increasing liquid propellant capacity (additional fuel and oxidiser tanks)

8. A small increase in the liquid bi-propellant capacity of an SRBM could be achieved by adding additional small fuel and oxidizer tanks in any free space within the missile body. Such free space is very limited though, and the installation of the necessary piping and valves to integrate with the designed fuel flow system would require a significant degree of engineering expertise to achieve in practice. The Panel has seen no evidence of this approach being taken.

4. Increasing liquid propellant capacity (larger fuel and oxidiser tanks)

9. A larger increase in the liquid bi-propellant capacity of an SRBM would be achieved by adding larger fuel and oxidizer tanks, in place of the current tanks. This would require a significant degree of engineering expertise to achieve as it would require cutting the missile in half to add the extended range tanks and additional pipe lengths and valves. It is part of the route taken by the Democratic People's Republic of North Korea (DPRK) in the development of the Hwasong-7 and Hwasong-9 extended range SCUD variants.⁶ Outside the DPRK only Syria has been reported to own such a system. The Panel finds that the Houthi has not taken this approach, as the dimensions of the liquid propellant tank remnant inspected from the Ta'if SRBM fall within those of the normal SCUD-C type SRBM.

III. IHL non-compliance

10. The Panel finds that in their use of SRBM, Houthi-Saleh forces failed to take account of the inherently indiscriminate nature of the weapon in that:

- (a) Since the blast and fragmentation danger areas are primarily based on the size and design of the explosive warhead, this missile's likely impact on civilians was foreseeable, especially when directed at civilian populated areas; and
- (c) As such weapons have a known Circular Error Probability (CEP)⁷ of up to 1,000m, they should not be used against targets within 1,000m of the civilian population.

IV. Panel findings

11. The Panel finds that:

- (a) The SRBM used for the attack against Ta'if, Saudi Arabia on 26 July 2017 was highly probably a SCUD-C / Hwasong-6 type SRBM with minor modifications to save weight, thus slightly increasing range;
- (b) Based on the ranges achieved, it is highly likely that the other attacks listed in table 35.1 were also locally modified SCUD-C / Hwasong-6 type SRBM and not the ER-SRBM covered at annex 36;
- (c) It is possible that the Houthi-Saleh missile engineers of the 5th and 6th missile brigade would have the technical capacity to make such minor modifications with little, or no, external assistance;
- (d) It is almost certain that the minor modifications made to the SCUD-C / Hwasong-6 type SRBM would not result in the necessary increase in range to target the Riyadh area.

⁶ <https://missilethreat.csis.org/missile/scud-er/>.

⁷ The CEP is a measure of a weapon system's precision. It is defined as the radius of a circle, centered on the mean, whose boundary is expected to include the landing points of 50% of the missiles fired.

Appendix A to Annex 35: Analysis of Houthi-Saleh SRBM weights versus extended range

Table A.35.1

Weight of liquid bi-propellant and explosive warheads in Houthi-Saleh SRBM

Item	Nomenclature	SCUD-B		SCUD-C		Hwasong-5		Hwasong-6	
		Tonnes	Litres	Tonnes	Litres	Tonnes	Litres	Tonnes	Litres
Fuel	Kerosene (TM-185) ⁸	1.31	1,617	1.81	2,235	1.31	1,617	1.81	2,235
Oxidiser	IRFNA ⁹ (AK-271)	2.45	1,815	2.53	1,874	2.45	1,815	2.53	1,874
Total	Bi-Propellant	3.76	3,432	4.34	4,109	3.76	3,432	4.34	4,109
Warhead		0.99		0.60		0.99		0.77	
Launch Weight ¹⁰		5.90		6.40		5.90		6.57 (est)	
% Weight Saving		16.7%		9.4%		16.7%		11.7%	
Design Range (km)		300		600		350		600	

⁸ JET A-1 could be used as a substitute. It is the standard aviation fuel for turbo engines and available in Yemen.

⁹ Inhibited Red Fuming Nitric Acid.

¹⁰ This is the weight of the bi-propellant, warhead and the missile components (e.g. rocket motor, guidance unit, missile body).

Extended Range (ER) Short Range Ballistic Missile (Borkan-2H)

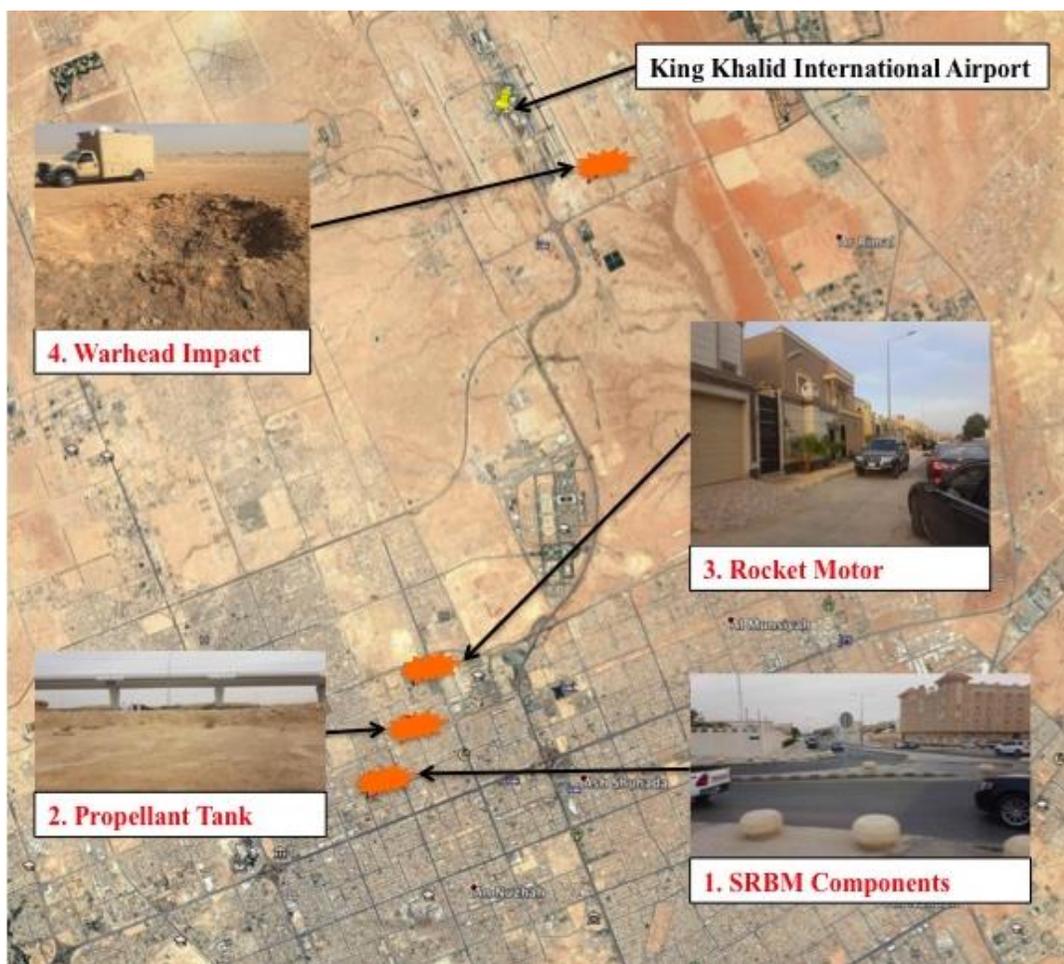
I. Introduction

1. The Panel travelled to Riyadh, Saudi Arabia from 17 to 21 November 2017 to inspect debris recovered from short-range ballistic missiles (SRBM) attacks launched against Saudi Arabia by Houthi-Saleh forces on 19 May, 22 July, 26 July and 4 November 2017. The Saudi Arabian authorities recovered all components unless otherwise indicated. The Panel also visited Saudi Arabia from 24 – 26 December 2017 to inspect remnants of a further SRBM attack on Riyadh on 19 December 2017.

2. The Panel visited two Saudi Arabian military bases where the authorities had gathered remnants from four SRBM attacks against Saudi Arabia. The Panel also visited four impact points from the 4 November 2017 attack, where other remnants of the SRBM were identified. These being inside Riyadh city and King Khalid International Airport (KKIA) (see figures 36.1 and 36.2).

Figure 36.1

Impact points of final ER-SRBM track (4 November 2017)¹



¹ All imagery taken by Panel unless otherwise indicated.

Figure 36.2
Remnants identified along final ER-SRBM track (4 November 2017)²



II. Initial observations

3. The launch and impact points are at table 36.1. The Panel made the following initial general observations on the condition of the SRBM remnants (table 36.2):

Table 36.1
Launch and impact points

<i>Attack date</i>	<i>Target</i>	<i>Launch point</i>	<i>Impact point</i>	<i>Remarks</i>
19 May 2017	Southern Riyadh Province	17 ⁰⁰ 3'47"N, 43 ⁰⁰ 26'29"E	24 ⁰⁰ 03'54"N, 46 ⁰⁰ 24'28"E	
22 Jul 2017	Yanbu	17 ⁰⁰ 04'04"N, 43 ⁰⁰ 51'08"E	23 ⁰⁰ 49'29"N, 38 ⁰⁰ 23'47"E	
26 Jul 2017	Taif	16 ⁰⁰ 23'36"N, 44 ⁰⁰ 05'03"E	21 ⁰⁰ 23'46"N, 40 ⁰⁰ 34'10"E	

² Images taken by Saudi Arabia security agencies immediately after attack.

<i>Attack date</i>	<i>Target</i>	<i>Launch point</i>	<i>Impact point</i>	<i>Remarks</i>
4 Nov 2017	Riyadh	15 ⁰ 57'59"N, 43 ⁰ 48'13"E	24 ⁰ 56'27"N, 46 ⁰ 43'29"E	Impact point of warhead. Launch point based on Patriot data.
19 Dec 2017	Riyadh	16 ⁰ 39'51"N, 43 ⁰ 52'13"E	24 ⁰ 35'43"N, 46 ⁰ 38'17"E ³	After intercept. Two impact points for Patriot intercept missile debris were identified. No ER-SRBM debris has yet been identified.

Table 36.2

General observations on all missile remnants inspected in Saudi Arabia by the Panel

<i>Attack date</i>	<i>Target</i>	<i>Approximate range (km)</i>	<i>Location of remnants inspected</i>	<i>General observations on SRBM remnants</i>
19 May 2017	Southern Riyadh Province	838	Military base, 100km from Riyadh	Partial inspection due to time constraints and inaccessibility of components. No conclusions made.
22 Jul 2017	Yanbu	942	Military base, Riyadh	Rear section, comprising elements of rocket motor, recovered from immersion in water by the Saudi authorities. Partial inspection only possible.
26 Jul 2017	Taif	668	Military base, 100km from Riyadh	Several components, including only remnant of warhead and guidance section recovered by the Saudi authorities. Subsequent Panel analysis identified this was not an ER-SRBM (see annex 35).
4 Nov 2017	Riyadh	1,043	Military base, Riyadh	The most complete SRBM with extensive and well-preserved remnants. Full inspection by Panel.
19 Dec 2017	Riyadh	965	Riyadh area	No ER-SRBM debris yet identified.

III. Analysis of SRBM tracks

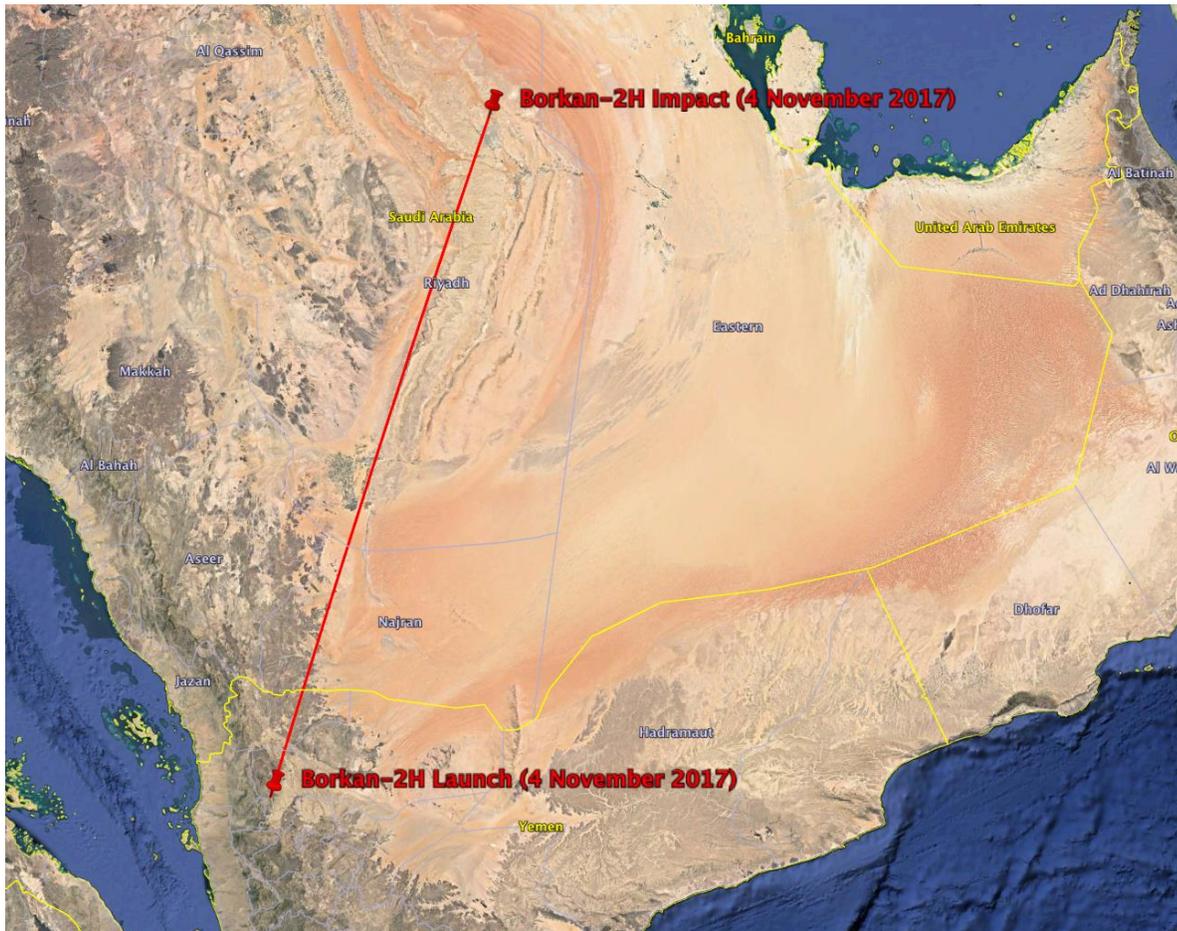
A. 4 November 2017 ER-SRBM against Riyadh

4. The Saudi Arabian authorities provided the Panel with the coordinates of the ER-SRBM flight path based on data from the target event report from the Patriot anti-missile system.⁴ The Panel confirmed the track of the ER-SRBM (figure 36.3) through extrapolation of the identified four points of debris impact. The track was assessed as being 017⁰ and which bisects the Saudi Arabian provided launch coordinates, which are for the settlement of al-Mayqa' in Amran governorate of Yemen. Based on the high intensity presence of Saudi Arabian armed forces along that track inside Saudi Arabian held territory within Yemen, the Panel finds it almost certain that the ER-SRBM for the 4 November 2017 attack could not have been covertly launched from a closer range within Saudi Arabian territory.

³ Other impact point at 24⁰33'45"N, 46⁰38'13"E.

⁴ The Shared Early Warning Systems (SEWS) data estimates a launch point one degree of longitude further North, which would mean a range of 937km.

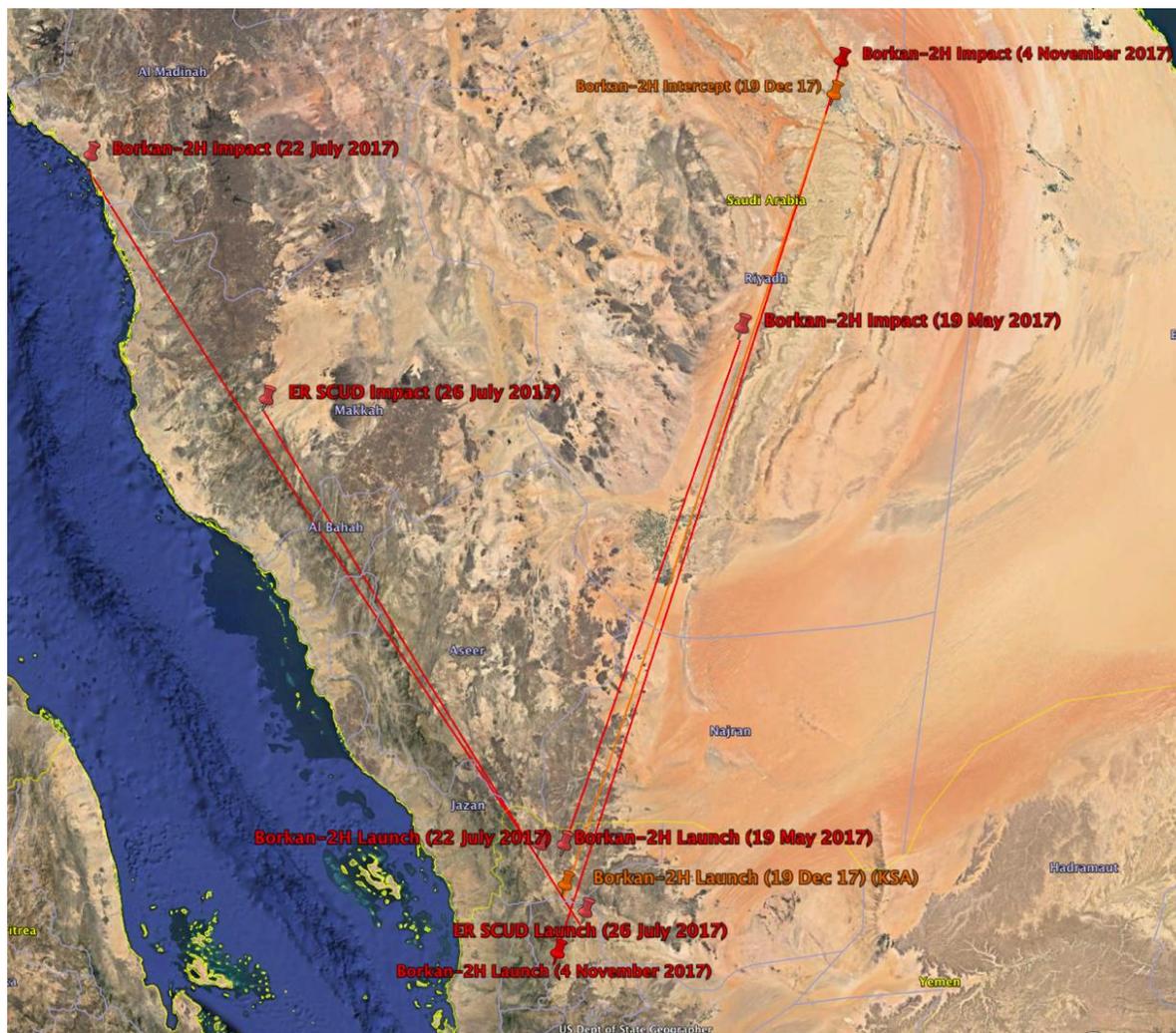
Figure 36.3
Estimated ER-SRBM track from launch to impact



B. Reported tracks for all ER-SRBM launches

6. The Panel was unable to independently verify the tracks of the other four ER-SRBM provided by the Saudi Arabian authorities. The Saudi Arabian authorities have reported them as being as shown in figure 36.5.

Figure 36.5
Reported tracks of other SRBM⁵



IV. Technical analysis of remnants

7. Table 36.3 summarises the technical observations of the Panel for the 4 November 2017 Riyadh ER-SRBM. This analysis will be further refined should any response to tracing requests be received. Supporting imagery and further explanation is at appendix A. Table 36.4 summarises the technical observations of the Panel for the 22 July 2017 Yanbu ER-SRBM. Confirmatory imagery from the 22 July Yanbu ER-SRBM is at appendix B.

⁵ The Panel found that the 26 July 2017 was not an ER-SRBM, but a slightly modified SCUD-C/Hwasong-6. See details at annex 35.

Table 36.3
Technical observations for the 4 November 2017 ER-SRBM

<i>Serial</i>	<i>Functional area</i>	<i>Component</i>	<i>General observations on ER-SRBM remnants</i>
1	Warhead	Warhead Cone	<ul style="list-style-type: none"> ▪ Fragments of the warhead were recovered, but neither the shape nor design could be determined from them. ▪ The explosive weight of the warhead could not be determined from the fragmentation, and it is possible a reduced weight warhead was used as a weight saving measure to extend range.
2	Guidance Unit	Electronics	<ul style="list-style-type: none"> ▪ One component had 2009 stamped on it, which is probably the year of manufacture of that component. ▪ The guidance unit is of a different, and more modern, design to that of the SCUD-C and Hwasong-6.
3	Missile Assembly (MMA)	Main Exterior skin	<ul style="list-style-type: none"> ▪ The exterior skin of the oxidiser tanks is made of 5000 series of between 1.8mm to 2.1mm thickness aluminium alloy, rather than steel, which is used on the SCUD C, Hwasong-6 and Qiam-1 missiles. ▪ The welding of the MMA exterior skin was typical of that to be expected in a manufacturing plant. ▪ The welding used to join the oxidiser and fuel sections together and to the guidance and tail units was of a low quality and was not applied by the original manufacturer. It was artisanal welding. ▪ The exterior skin had been over painted blue, with Borkan 2-H (in Arabic) added in white. The quality of the over paint did not match the quality of the original manufacturers paint, which could be observed on parts of the missile body. ▪ The over paint of the artisanal welds used to join the main components showed brush strokes, as opposed to the general original body paint that had been sprayed on.
4	Missile Assembly (MMA)	Main Liquid propellant tanks	<ul style="list-style-type: none"> ▪ The fuel tank is to the rear of the oxidiser tank, whereas in the SCUD and Hwasong-6 series of SRBM it is situated forward of the oxidiser tank. ▪ The oxidiser tank had internal aluminium alloy reinforcing ribs added to increase structural rigidity. ▪ The oxidizer tank was split in two internally to allow for the redistribution of oxidizer in flight to maintain a suitable centre of gravity, and hence ballistic stability. ▪ 6 valves were identified on the oxidiser tank sections. (<i>On the Yanbu 22 July 2017 SRBM three valves were identified on the fuel tank section</i>).⁶ A SCUD-C type missile only has 4 x Valves (1 x FFV, 1 x FDV, 1 x OFV and 1 x ODV). See appendix 3.
5	Tail unit	Rocket Motor	<ul style="list-style-type: none"> ▪ The rocket motor is typical in design of that to be found on the SCUD and Hwasong-6 series of SRBM. Further analysis is needed to identify if any modifications have been made to improve performance of the rocket motor.

⁶ The Panel's initial analysis is that for the complete missile system these may be 3 x Combined Drain and Fuel Filling Valves (DFFV), 3 x Vent Valves, 2 x Pressure Relief Valves (PRV) and 1 x Valve (purpose unknown). Panel investigations continue to determine the exact purpose of each valve.

<i>Serial</i>	<i>Functional area</i>	<i>Component</i>	<i>General observations on ER-SRBM remnants</i>
6	Tail unit	Jet vane housing internal control vanes	<ul style="list-style-type: none"> Three jet vane housings had a logo cast in the metal. The logo reported⁷ to be that of Shahid Bakeri Industries, Iran. A tracing request has been sent to the Islamic Republic of Iran.
7	Tail unit	Compressed air bottles	<ul style="list-style-type: none"> The compressed air bottles recovered were made of carbon fibre and not the steel bottles expected from a SCUD C. The Panel assesses this was a design change to save weight.⁸
8	Tail unit	Stabiliser fins	<ul style="list-style-type: none"> According to the Saudi authorities no stabiliser fins were recovered during their search. The Qiam-1 guidance system negates the need for stabiliser fins, which is also a weight saving measure.

Table 36.4
Technical observations for the 22 July 2017 ER-SRBM

<i>Serial</i>	<i>Functional area</i>	<i>Component</i>	<i>General observations on ER-SRBM remnants</i>
1	Missile Assembly (MMA)	Main Fuel tank	<ul style="list-style-type: none"> A pipe from the fuelling valve of the fuel tank is in place to allow for fuelling in the horizontal position only. This has tactical advantages, allowing the missile to be fuelled in buildings or caves before being erected into its vertical launch position. It would also have a secondary function as an anti-static measure during fuelling operations. The welding of the MMA exterior skin was typical of that to be expected in a manufacturing plant. The welding used to join the fuel tank to the tail section was of a low quality and was almost certainly not applied by the original manufacturer. It was artisanal welding. The exterior skin of the fuel tanks is made of 5000 series of between 1.8mm to 2.1mm thickness aluminium alloy, rather than steel, which is used on the SCUD C, Hwasong-6 and Qiam-1 missiles.
2	Tail unit	Rocket Motor	<ul style="list-style-type: none"> The rocket motor is typical in design of that to be found on the SCUD and Hwasong-6 series of SRBM. Further analysis is needed to identify if any modifications have been made to improve performance of the rocket motor.
3	Tail unit	Compressed air bottles	<ul style="list-style-type: none"> The compressed air bottles recovered were made of carbon fibre and not the steel bottles expected from a SCUD C. The Panel assesses this was a design change to save weight.

⁷ The logo is very similar to that on trade stand at <http://www.sns.co.ir/?p=327>. The Iranian response to a tracing request stated that this was not the Sahid Bagheri Industrial Group (SBIG) as initially thought by the Panel. A second tracing request relating to Shahid Bagheri (Bakeri) Industries has been sent and a response is awaited.

⁸ The composite bottles identified on the Ta'if SRBM (26 July 2017) were mass-produced by a US manufacturer. A tracing request was responded to by the US manufacturer who stated that the bottles were mass produced and that serial numbers were not allocated to each bottle produced.

<i>Serial</i>	<i>Functional area</i>	<i>Component</i>	<i>General observations on ER-SRBM remnants</i>
4	Tail Unit	Wind-bolts ⁹	<ul style="list-style-type: none"> The Wind-bolt housing identified had metal covering the location where the fin would normally be located. There was no evidence of a fin ever having been removed.
10	Tail unit	Stabiliser fins	<ul style="list-style-type: none"> No stabiliser fins were recovered. The Qiam-1 guidance system negates the need for stabiliser fins, which is also a weight saving measure.

8. There are significant design differences to this SRBM compared to the SCUD-C / Hwasong-6 series of SRBM known to be in Houthi-Saleh possession since the imposition of the targeted arms embargo on 14 April 2015. The technical differences of this SRBM are of such significance, and would require complex ballistic modelling, extensive test and evaluation, that they highly unlikely to be the result of upgrades to the SCUD-C / Hwasong-6 series. The use of an aluminium alloy body, lack of fins and use of lighter components, such as the carbon fibre air bottles, all indicate design changes specifically made to save weight. The reversal of the positioning of the fuel and oxidizer tanks in the main missile assembly is most likely related to ensuring the centre of gravity is in a position to ensure stable flight. Table 36.5 summarises the design features and characteristics of the SCUD-C / Hwasong-6 versus Qiam-1 versus the Borkan-2H. These are illustrated at figure 36.6.

Table 36.5
Design feature comparison

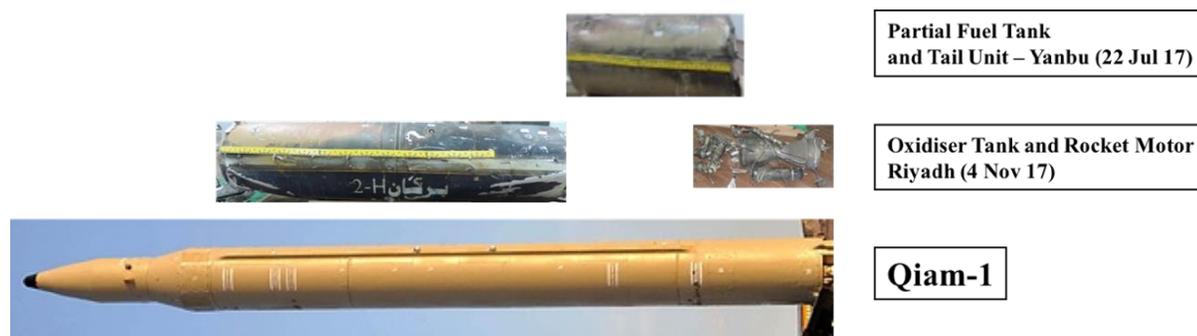
<i>Serial</i>	<i>Functional area</i>	<i>Design Feature</i>	<i>SCUD C</i>	<i>Hwasong-6</i>	<i>Qiam-1</i>	<i>Borkan-2H</i>
1	Warhead	Triconic warhead shape	X ¹⁰	✓	✓	✓
2	Guidance Unit	Advanced guidance system	X	X	✓	✓
3A	Missile Assembly (MMA) Main	Steel airframe	✓	✓	✓	X
3B	Missile Assembly (MMA) Main	Aluminium alloy airframe	X	X	X	✓
3C	Missile Assembly (MMA) Main	Oxidiser tank (Front)	X	X	✓	✓
3D	Missile Assembly (MMA) Main	Fuel tank (Rear)	X	X	✓	✓
3E	Missile Assembly (MMA) Main	Horizontal fuelling capability pipe	X	X	✓	✓
3F	Missile Assembly (MMA) Main	Internal reinforcing aluminium alloy ribs	X	X	Not known	✓
3G	Missile Assembly (MMA) Main	Factory quality welding all over	✓	✓	✓	X
3H	Missile Assembly (MMA) Main	Artisan welding	X	X	X	✓

⁹ Four wind-bolts are used to secure the base of the missile to the launch platform to keep the missile secure during elevation and prior to firing. It is highly probable that these are explosively cut during the missile firing sequence immediately prior to launch.

¹⁰ X = Not Present.

Serial	Functional area	Design Feature	SCUD C	Hwasong-6	Qiam-1	Borkan-2H
3I	Missile Main Assembly (MMA)	4 x liquid bi-propellant Filling/Draining Valves	✓	✓	X	X
3J	Missile Main Assembly (MMA)	9 x liquid bi-propellant Filling/Draining Valves, Pressure Relief valves (PRV) and other valves TBC. ¹¹	X	X	✓	✓
4A	Tail unit	Rocket Motor	✓	✓	✓	✓
4B	Tail unit	Actuator for internal graphite control vanes	✓	✓	✓	✓
4C	Tail unit	Composite compressed air bottles	X	X	Not known	✓
4D	Tail unit	Wind-bolt housings covered	X	X	✓	✓
4E	Tail unit	Stabiliser fins	✓	✓	X	X

Figure 36.6
Major components and their relative position compared to a Qiam-1 SRBM¹²



9. Based on the components seen by the Panel and the design of the ER-SRBM, the Panel finds that SCUD C / Hwasong-6 missiles are not being modified into the Borkan-2H. The Panel does not discount the option that some components from these missile types are being used in the Borkan-2H though.

V. Estimation of warhead size

10. The crater size at KKIA (figure 36.7) for the 4 November 2017 Borkan-2H attack was estimated by photogrammetry as being 3.18m in diameter and 0.67m in depth. Explosive engineering software¹³ predicts that an explosive mass of 45kg (TNT equivalent) (+/- 20%) would be required for the formation of a crater of these dimensions. Open source information states that the warhead size for the Qiam-1 is 750kg, so a reduction in warhead size has very probably been made as a further weight saving measure to increase range.

¹¹ See appendix 3 for comparison of valve layouts on missiles.

¹² Qiam-1 missile image from <http://3.bp.blogspot.com/-qsK7VV6oZfc/Tq1ET0NyVdI/AAAAAAAAADo/NGlhWpeJTsw/s1600/Qiam-1.jpg>.

¹³ Explosive Engineers Toolbox. OnePoint4 Limited.

Figure 36.7
4 November 2017 crater at KKIA



VI. Source of the Borkan-2H

10. The Panel considers that it is unlikely that the Government of Yemen obtained any new extended range (ER) SRBM during the final years of Ali Abdullah Saleh's (YEi.003) presidency, which ended on 25 February 2012. His relationship with Iran was such that Iranian military support in terms of advanced ER-SRBM technology, particularly of a missile that had only just entered Iranian operational service during 2010, would almost certainly not be forthcoming. There is also no evidence of the supply of any advanced ER-SRBM technology to Yemen between the assumption of the Presidency by Abdrabbuh Mansur Hadi and 20 January 2015 when the Houthis took control.

11. During 20 January to 26 March 2015 there would have been a short window of opportunity to ship complete ER-SRBM to the Houthi-Saleh forces prior to the commencement of the Saudi Arabia-led coalition air campaign. This is also assessed as unlikely as: 1) the first launch of an ER-SRBM was not until either 9 October 2016, when a missile flew 634km,¹⁴ or 5 February 2017 when an ER-SRBM impacted on Muzahimiyah (a flight of 852km); and 2) there would be no need to weld the missile sections together with artisanal welding. Furthermore, had the Houthi-Saleh forces access to ER-SRBM technology when the Saudi Arabia-led coalition air campaign started on 26 March 2015, then it is highly likely they would have used them in retaliatory attacks at that time. If this narrow window of opportunity was exploited then it is more likely that the Borkan-2H would have been shipped as complete missiles, negating the requirement to

¹⁴ This was the first reported impact of a SRBM beyond the maximum range of 600km for the SCUD-C or Hwasong-6.

assemble them in Yemen in less than ideal conditions. The Panel thus considers that the component sections for these ER-SRBM were almost certainly shipped to Yemen in violation of the targeted arms embargo of 14 April 2015. The Panel does not yet have prima facie evidence as to the identity of the supplier.

12. The Panel still considers it unlikely that complete ER-SRBM have been smuggled into Yemen post the implementation of the targeted arms embargo on 14 April 2015. Their size, being 12m x 1m when packed in a wooden crate, would have made them vulnerable to interdiction by Saudi Arabia-led coalition ground and naval forces. Whereas, if smuggled in main section form,¹⁵ the largest section would be approximately 4m x 1m when packed in a wooden crate, which is a much more manageable and concealable size. The missile is not modular by design but the main sections could be shipped after manufacture by the factory for later assembly. The Houthi-Saleh missile engineers then assemble them into complete missiles and functionality test the systems to ensure reliability on launch. Evidence for this option includes the difference in weld quality between the main components themselves (factory quality) and the joints between the main components (poor quality), and the poor over paint quality in places. The missile when assembled is then referred to as the Borkan-2H by the Houthi-Saleh alliance. The Panel has not yet seen any evidence of external missile specialists working in Yemen in support of the Houthi-Saleh engineers.

13. The Panel thus finds that the Borkan-2H is not a missile type known to have been in the possession of the Yemeni Armed Forces prior to 2015. The design features (at table 36.5 above), technical characteristics and dimensions are consistent with those reported for the Iranian designed Qiam-1 missile (illustrated at figure X.6). Notwithstanding this, a major design difference between the Qiam-1 and the Borkan-2H is that the Qiam-1 is constructed of steel, compared to the aluminium alloy of the Borkan-2H. The Panel therefore finds that the Borkan-2H is an advanced derivative of the Iranian Qiam-1 specially designed with weight saving measures by the designers of the Qiam-1 to achieve the range of 1000+km. A standard Qiam-1 has a declared operational range of 750km.

14. Further evidence of Iranian manufacture of the Borkan-2H components is provided by two components inspected by the Panel:

(a) Three jet vane housings for the internal graphite control surface vanes are marked with a logo similar to that of Shahid Bagheri Industries.¹⁶ This organization a subsidiary of the Iranian Aerospace Industries Organization (IAIO) (figures 36.8 to 36.10). The Panel has sent a tracing request to the Islamic Republic of Iran and is waiting for a response; and

(b) A printed circuit board (PCB) in a relay box marked SHIG 6081. The Panel believes SHIG is the abbreviation for the Shahid Hemat Industrial Group. It is a subsidiary of the Iranian Aerospace Industries Organization. The Panel has sent a tracing request to the Islamic Republic of Iran and is waiting for a response.

¹⁵ Those sections being a warhead, a guidance unit, a fuel tank, an oxidiser tank and a tail unit.

¹⁶ Also known as the Shahid Bagheri Industrial Group (SBIG) and Shahid Bakeri Industries.

Figure 36.8
Jet vane housing with Shahid Bakeri Industries logo markings



Figure 36.9
Shahid Bagheri Industries trade stand with logo¹⁷



Figure 36.10
Jet vane housing with Shahid Bagheri Industries logo markings



VII. Likely trafficking routes

15. The Panel thus considers there are now only likely to be three trafficking routes that explain the availability of this advanced ER-SRBM technology used in the Borkan-2H SRBM:

- (a) Along the land route from the Omani border, or Ghaydah and Nishtun in Mahrah governorate after ship to shore transshipment to small dhows. A route that has already seen limited seizures of anti-

¹⁷ Source: <http://www.sns.co.ir/?p=327>.

tank guided weapons and also of liquid bi-propellant oxidiser field storage tanks (see appendix D). The Panel considers this route as the most likely option;

(b) Through a Red Sea port in shipping containers, via a third country port and not on a vessel direct from the supplier, or as loose crates using false bills of lading, referring to, for example, agricultural machinery. This option carries a high risk of interdiction as all containers are now cross-loaded at either Jeddah or King Abdullah Port and are subjected to inspection by the Saudi Arabian authorities.¹⁸ Prior to January 2017 Djibouti and Salalah, Oman were used as transshipment ports for containers, and only 25% were subjected to more detailed inspection.¹⁹ It is possible shipments of ER-SBRM main sections were successfully shipped using this route prior to its closure. The Djibouti to Hudaydah container route is now effectively closed as subsequent delays to shipping due to frequent Saudi Arabia-led coalition re-inspections in the Coalition Holding Area (CHA) resulted in a significant increase in shipping costs;²⁰ or unlikely;

(c) Through a Red Sea port concealed within a bulk cargo carrier or even a fuel tanker. This route carries a high risk of detection by a Saudi Arabia-led coalition inspection in the CHA. In addition it would require that the illicit cargo be loaded onto a vessel with no recent calls at Iranian ports, or with Iranian connections, as such vessels are subjected to additional clearance research by UNVIM and the Saudi Arabia-led coalition naval vessels in the Coalition Holding Area (CHA).

16. The use of small fishing dhows being used across Red Sea beaches is not considered a very likely option due to the heavy naval presence of the Saudi Arabia-led coalition and Combined Maritime Forces (CMF) in the Red Sea and Gulf of Aden. No illicit arms shipments to Yemen have been detected on this route since 20 March 2016, and those detected have been assessed as being destined for Somalia.²¹

17. The detection of missile component shipments presents major challenges;

(a) The metal and carbon fibre composition of the components means that arms and explosive search (AES) dogs would not indicate that the component containers, likely wooden crates, were suspicious. Other than the warhead, which could be sent unfilled, there are no explosive or gun oil scents for the dogs to detect; and

(b) The x-ray profile of the ER-SRBM main sections may not be recognizable to all x-ray operators, although the warhead should raise suspicions. For example, the fuel and oxidizer tanks would appear similar to other commercial storage tanks.

VII. IHL aspects

20. In respect of the missiles fired at Saudi Arabia, the Panel cannot conclude that Abdulmalik al-Houthi (YEi.004) consented to each individual missile strike against Saudi Arabia. However, the Panel finds without a reasonable doubt that it is the policy adopted by the Houthi leadership that allows for the continued use of these missiles against Saudi Arabia. Given the foreseeable political and military repercussions, it is unlikely that the missile launched on 4 November 2017 at King Khalid International Airport, could have taken place without the knowledge and prior consent of Abdulmalik al-Houthi (YEi.004). The Panel has concluded that

¹⁸ Source: UNVIM.

¹⁹ Ibid.

²⁰ Pacific International Lines (PIL) were the only major shipper using this route and other shippers prefer now using Jeddah to avoid delays at sea.

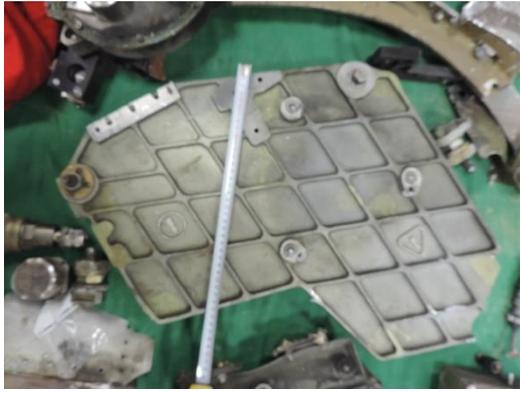
²¹ 2017 Panel 2017 Midterm Update and SEMG S/2017/924 (paras. 115 - 118).

this missile strike violated IHL, in that it targeted a civilian airport, and constitutes a threat to peace, security and stability of Yemen. (See more detailed IHL analysis at annex 64).

Appendix A to Annex 36: Imagery supporting technical analysis for 4 November Riyadh Borkan-2H

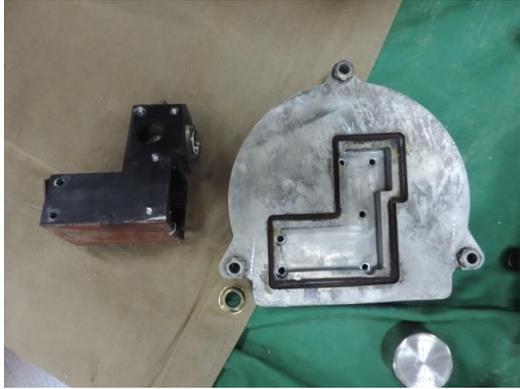
Table A.36.1

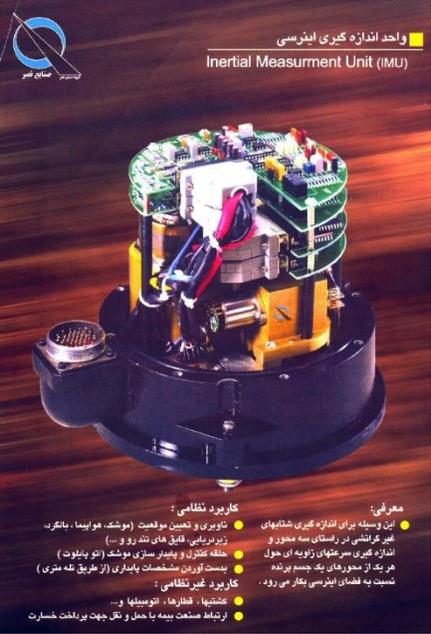
Imagery design characteristics of SCUD-C/Hwasong-6 SRBM versus Borkan-2H SRBM²²

<i>Serial 23</i>	<i>Component</i>	<i>Remarks</i>	<i>Image</i>
1	Warhead	Fragmentation recovered suggests warhead detonation may have occurred.	
2	Advanced guidance system	Mounting plate for inertial navigation system (INS). Not seen on SCUD-C. Arrows used to identify the direction of component mounting.	
2	Advanced guidance system	Relay unit (may be common to SCUD-C)	

²² The Panel has a comprehensive set of imagery of the remnants of three of the four SRBM strikes covered in this annex. Only those that illustrate a design feature difference between the SCUD-C / Hwasong-6 and the Borkan-2H have been included.

²³ Cross references to serial number in table 36.3.

Serial 23	Component	guidance	Remarks	Image
2	Advanced system	guidance	Relay unit (Panel removed cover)	
2	Advanced system	guidance	<p>Relay unit. Contains printed circuit board (PCB) marked SHIG 6081.</p> <p>The Panel believes SHIG is the abbreviation for the Shahid Hemat Industrial Group. It is a subsidiary of the Iranian Aerospace Industries Organization.</p>	
2	Advanced system	guidance	Three-point mounting plate for inertial measurement unit (IMU).	
2	Advanced system	guidance	<p>Reverse of three-point mounting plate for IMU.</p> <p>Similar in design to that of a IMU used on larger Iranian rockets.</p>	

Serial 23	Component	Remarks	Remarks	Image
2	Advanced guidance system	guidance	Open source ²⁴ image of IMU mounting plate used on larger Iranian rockets. Shows very similar mounting plate design.	 <p>واحد اندازه گیری اینرسی Inertial Measurement Unit (IMU)</p> <p>معرفی: <ul style="list-style-type: none"> این وسیله برای اندازه گیری شتابهای غیر گرانشی در راستای سه محور و اندازه گیری سرشکای زاویه ای حول هر یک از محورهای یک جسم پرنده نسبت به فضای اینرسی بکار می رود. </p> <p>کاربرد نظامی: <ul style="list-style-type: none"> تأویر و تعیین موقعیت (موشک، هواپیما، ماکتد، زیردریایی، قایق های تند رو و ...) حلقه کنترل و پیچید سازی موشک (تو پانگوت) پهلوست آیرین مستحکمان پایداری (از طریق سه متری) کاربرد غیر نظامی: <ul style="list-style-type: none"> مختصیا: قطارها، اتوبسها و ... ارتباط صنعت بیمه با حمل و نقل جهت پرداخت خسارت </p>
3B	Aluminium airframe	alloy	1.8mm	
3C	Oxidiser tanks forward	Oxidiser tank. Tanks join just to right of the "H".		

²⁴ Supplied by confidential source.

Serial 23	Component	Remarks	Image
3C	Oxidiser tank forward	Oxidiser Vent Valve	
3D	Horizontal filling capability pipe		
3E	Internal reinforcing aluminium alloy ribs		
3F	Factory welding	quality Factory weld on left and artisanal weld on right.	

<i>Serial</i> 23	<i>Component</i>	<i>Remarks</i>	<i>Image</i>
3G	Artisan welding	Artisanal welding used to join main sections of missile together.	
3H	Artisan welding	Note factory quality weld at right angles to artisanal weld.	
4A	Rocket Motor	Further analysis required to identify any differences from SCUD-C rocket motor.	

<i>Serial</i> 23	<i>Component</i>	<i>Remarks</i>	<i>Image</i>
4B	Jet vane housing for internal graphite control vanes	Metallurgical examination of the graphite may provide more evidence of manufacturer. Three were recovered.	
4C	Composite compressed air bottles	Identical in size, material and shape to the ones recovered from the 26 July 2017 Yanbu Borkan-2H. ²⁵	
4D	Stabiliser fins	No remnants identified.	

²⁵ Similar composite air bottles were recovered from the SRBM remnants of the 26 July 2017 Ta'if attack, from which the manufacturer was identified. The response from the manufacturer to a Panel tracing request for this component included a comment that the component was mass-produced and no serial numbers were allocated.

Appendix B to Annex 36: Imagery supporting technical analysis from 22 July 2017 Yanbu Borkan-2H

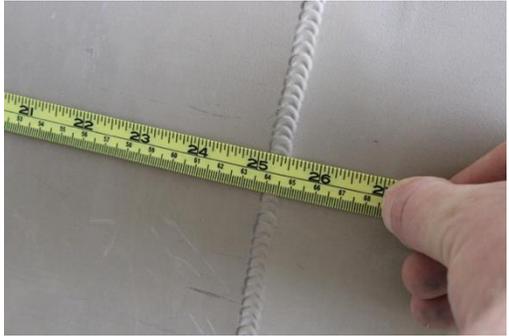
Table B.36.1

Imagery design characteristics of SCUD-C/Hwasong-6 SRBM versus Borkan-2H SRBM²⁶

<i>Serial 27</i>	<i>Component</i>	<i>Remarks</i>	<i>Image</i>
3B	Aluminium alloy airframe	1.8mm	
3D	Fuel tank to rear	Fuel Valve. Note use of yellow paint, a common identifier for fuel ports.	
3E	Horizontal filling capability pipe		

²⁶ The Panel has a comprehensive set of imagery of the remnants of the three of the four SRBM strikes covered in this annex. Only those that illustrate a design feature difference between the SCUD-C / Hwasong-6 and the Borkan-2H have been included.

²⁷ Cross references to serial number in table 36.4.

Serial 27	Component	Remarks	Image
3F	Internal reinforcing aluminium alloy ribs		
3F	Artisan welding	<p>Artisanal welding used to join main sections of missile together.</p> <p>Rust was evident on the artisanal welding on remnants of the Yanbu SRBM that was recovered from water by the Saudi authorities, whilst the factory welds on the same remnant were rust free.</p>	
4A	Rocket Motor	Remnants of propellant supply piping visible.	
4B	Composite compressed air bottles	<p>Damaged but recognisable as composite air bottles.</p>	

Appendix C to Annex 36: Comparison of layout of filling, drainage and pressure valves for SCUD-C type SRBM and the Borkan-2H

1. The schematic at figure C.36.1 of the SCUD-C type SRBM design is based on a wide range of both open and confidential sources.

Figure C.36.1
Schematic of SCUD-C type SRBM design²⁸

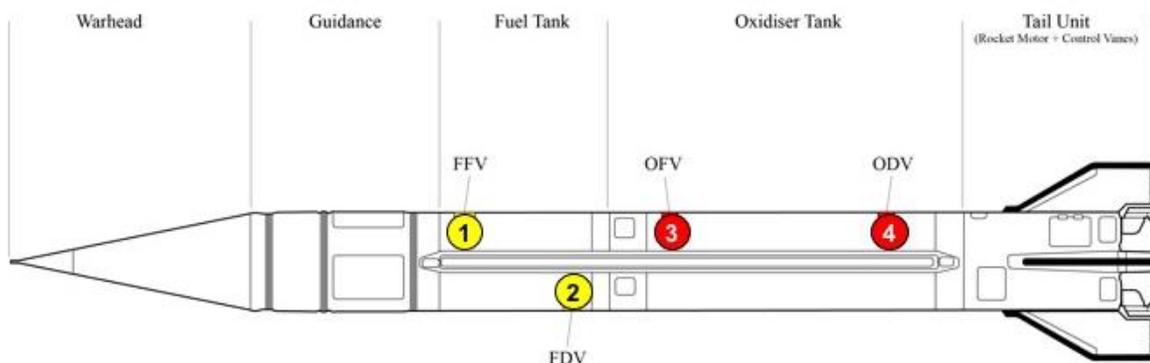


Table C.36.1
Layout of filling, drainage and pressure valves for SCUD-C type²⁹

Valve Number	Component	Remarks
1	Fuel Filling Valve (FFV)	Position is at forward end of fuel tank, meaning the SRBM can only be fuelled efficiently to maximum capacity when in the vertical launch position.
2	Fuel Drainage Valve (FDV)	
3	Oxidiser Filling Valve (OFV)	
4	Oxidiser Drainage Valve (ODV)	

2. The Panel has compiled the illustration at figure C.36.2 from their examination of the remnants of both the 22 July 2017 Yanbu ER-SRBM and the 4 November 2017 Riyadh ER-SRBM. The triconic warhead is for illustrative purposes only, as the shape could not be defined from recovered fragments. It is included as all open source imagery shows the Qiam-1 with a triconic warhead.

²⁸ Panel diagram. Not to scale. Valves are shown larger proportionally than on real missile to assist in identification.

²⁹ The section is still under Panel analysis.

Figure C.36.2
Schematic of Borkan-2H ER-SRBM design³⁰

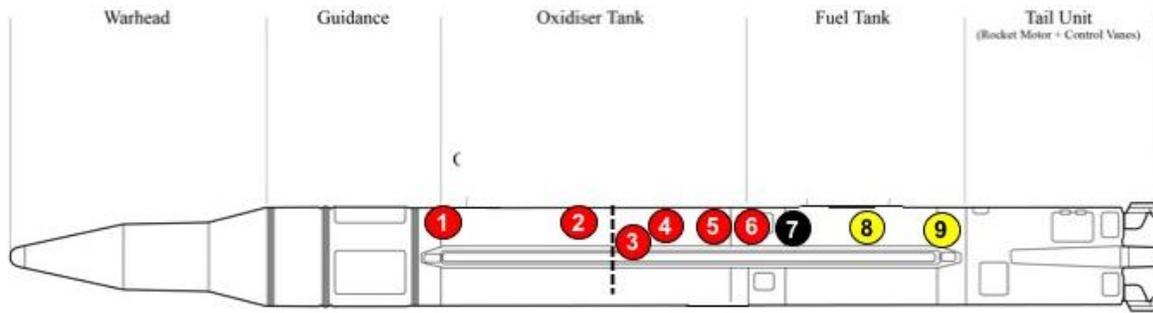
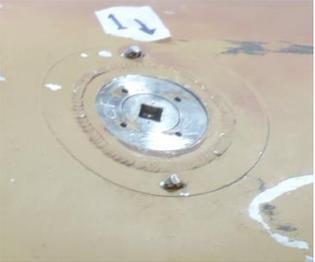


Table C.36.2
Layout of filling, drainage and pressure valves for Borkan-2H ER-SRBM design³¹

Valve Number	Component	Marking on missile ³²	Image
1	Oxidiser Valve (Probable Filling and Drainage) (4 November 2017 ER-SRBM)		
2	Oxidiser Filling and Drainage Valve (4 November 2017 ER-SRBM)	FILLING DRAIN-O	
3	Oxidiser Valve (Probable Pressure Relief Valve) (4 November 2017 ER-SRBM)		

³⁰ Panel diagram. Not to scale. Valves are shown larger proportionally than on real missile to assist in identification.

³¹ The section is still under Panel analysis.

³² All the markings were in English.

Valve Number	Component	Marking on missile ³²	Image
4	Oxidiser Filling and Drainage Valve (4 November 2017 ER-SRBM)	FILLING DRAIN-O	
5	Oxidiser Valve (Probable Pressure Relief Valve) (4 November 2017 ER-SRBM)	VENT-O	
6	Oxidiser related Valve (4 November 2017 ER-SRBM)		
7	TBC		
8	Fuel Vent Valve (22 July 2017 ER-SRBM)	VENT-F	
9	Fuel Filling and Drainage Valve (22 July 2017 ER-SRBM)	FILLING DRAIN-F	

Appendix D to Annex 36: Suspect process equipment for liquid bi-propellant oxidizer

1. A consignment of components was captured by UAE forces operating near Mar'ib in Yemen during January 2017. Imagery was made available by the UAE for Panel analysis.
2. The consignment contained individual items of process equipment, such as pumps, tanks, drums and vessels, some of which appear to be of specific design for particular purposes:
 - (a) A stainless-steel vessel housing with two mixing impellers (figures C.36.1 and C.36.2);
 - (b) A large mixing or transfer vessel (figures C.36.3 and C.36.4);
 - (c) A horizontal vessel with a dished (and hinged) end-piece that is rated for elevated temperatures and pressures, which appears to be fitted with particular level instrumentation, and has a pressure relief valve (figures C.36.5, C.36.6 and C.36.7);
 - (d) A heating vessel (figure C.36.8); and
 - (e) Two vessels (figures C.36.9 and C.36.10), which are virtually identical in design, configuration and size to the liquid bi-propellant oxidiser storage tanks known to be used for the SCUD missile system (figures C.36.11 and C.36.12 for comparison).
3. The consignment also contained the conventional electrical equipment such as switchgear, control panels, electrical cabinets, drives and motors, cabling and instrumentation necessary to provide the power and control systems. There is some labelling in Farsi, suggesting Iranian origin.
4. Although most of the equipment can be considered standard for the chemical, food or similar industries, some items show artisanal crafting such as unusual welding connectors (pipelines and flanges) and other improvised engineering features. This confirms adaptation for a purpose other than initially designed for.

Figure D.36.1
Mixing impellers³³

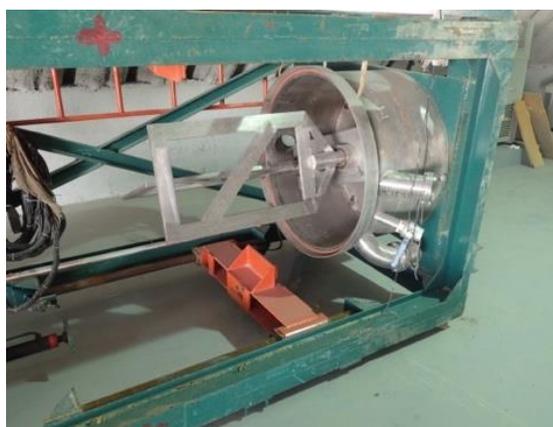
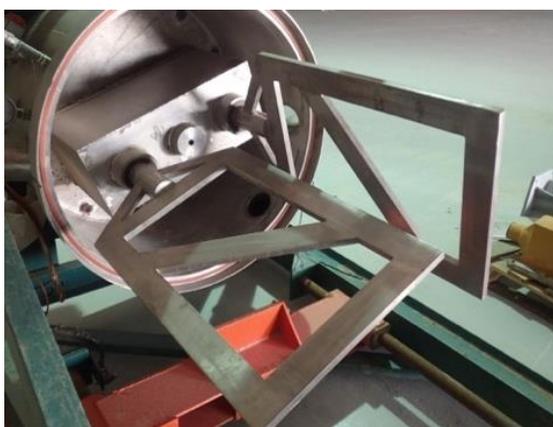


Figure D.36.2
Mixing impellers



³³ Imagery courtesy of a Member State and confidential sources.

Figure D.36.3
Storage or transfer vessel



Figure D.36.4
Storage or transfer vessel



Figure D.36.5
Pressure vessel



Figure D.36.6
Pressure vessel



Figure D.36.7
Pressure vessel



Figure D.36.8
Heating vessel



Figure D.36.9
Field storage tanks for liquid bi-propellant oxidiser



Figure D.36.10
Field storage tanks for liquid bi-propellant oxidiser



Figure D.36.11
Liquid bi-propellant oxidiser field storage tank³⁴



Figure D.36.12
Liquid bi-propellant oxidiser field storage tank³⁵



³⁴ Stored at Gharyan Air Defence base, Libya (2017). Confidential source.

³⁵ http://www.gulflink.osd.mil/envs/scud_irfna.htm.

Table D.36.1
Origin and destination of mixing unit components

Serial	Component	Serial / Lot number OR Markings	Manufacturer			Supplied to		
			Company	Country / entity		Date	Company	Country / entity
1	Component TGC-63X 150-S	RKV0604001	Ningbo Manufacturing Company (STNC)	Sono China			Not supplied directly to Yemen	
2	Model YS90S@ Light Duty Multi-Stage Pump	S/N 14040993	Tianjin Electromotor Company (Steam) ¹	China			Company merged and not manufacturing	
3	Compact NSX 100B Surge Protective Device	15/14 GNVAK	Schneider Electric Industries SAS ²	France				
4	M3KP 224 SMb 4 Motor	S/N E856237200 ABB Oy Motors ³	Probably counterfeit					
5	Hydraulic Pump	VDE05Z0	Hanning Electro- Werke GmbH ⁴	Germany			Not traced	
6	PM80 Pump	V-109	Pentax Industries SPA ⁵	Italy	2013		Inconclusive	
7	120000UF 15V Capacitor	5796393	Phillips NV ⁶	Netherlands				
8	PU 12x8 Pneumatic Hose	W3B4L097	Jisehan Hosetech, Tanhay Corporation ⁷	Republic of Korea	Feb 2015	Noavar Limited ⁸	Hava Iran	

¹ <http://www.steampumps.com>.

² <http://www.schnieder-electric.com>.

³ <http://www.abb.com>. The company has informed the Panel that the recovered motor was a fake.

⁴ <http://www.hanning-hew.de>.

⁵ <http://www.pentax-pumps.it>.

⁶ <http://www.phillips.com>.

⁷ <http://www.tanhay.com>.

⁸ <http://noavarhava.com/>.

Serial	Component	Serial / Lot number OR Markings	Manufacturer		Supplied to		
			Company	Country / entity	Date	Company	Country / entity
9	Transformer	JS90565-1	Alfa Technic Limited	Iran			
10	Moulded Case Circuit Breaker		Pars Fanal ⁹	Iran		Alfa Technic Limited	Iran
11	ECT 8472 Industrial Pressure Transmitter	513487-046	Trafag AG	Member State	Aug 2014	Noran Daryaye Chalous Company ¹⁰	Iran
12	Solenoid Valves Models 4V21008 and 4V110-15		AirTac International Group ¹¹	Entity			
13	Hydraulic Unit	0729212	Hid-Tek Limited ¹²	Turkey	May 2015	Araz Fakh Azar Limited Company ¹³	Iran
14	L404F 'Pressuretrol' Controller	97-3667D L404F 1102 3	Honeywell Incorporated ¹⁴	USA			
15	KBR-14 Pressure Gauges	15 Apr 22 15 Apr 23 DN25PN16	KBR Incorporated ¹⁵	USA			
16	Series 150SJ Low Water Cut-Off/Pump Generator	160J	ITT McDonnell and Miller ¹⁶	USA			

⁹ www.parsfanal.com.

¹⁰ 257 South Lalehazar Street, 11447, Tehran, Iran.

¹¹ http://en2.airtac.com/us.aspx?c_kind=6andc_kind2=141.

¹² <http://www.hid-tek.com.tr>.

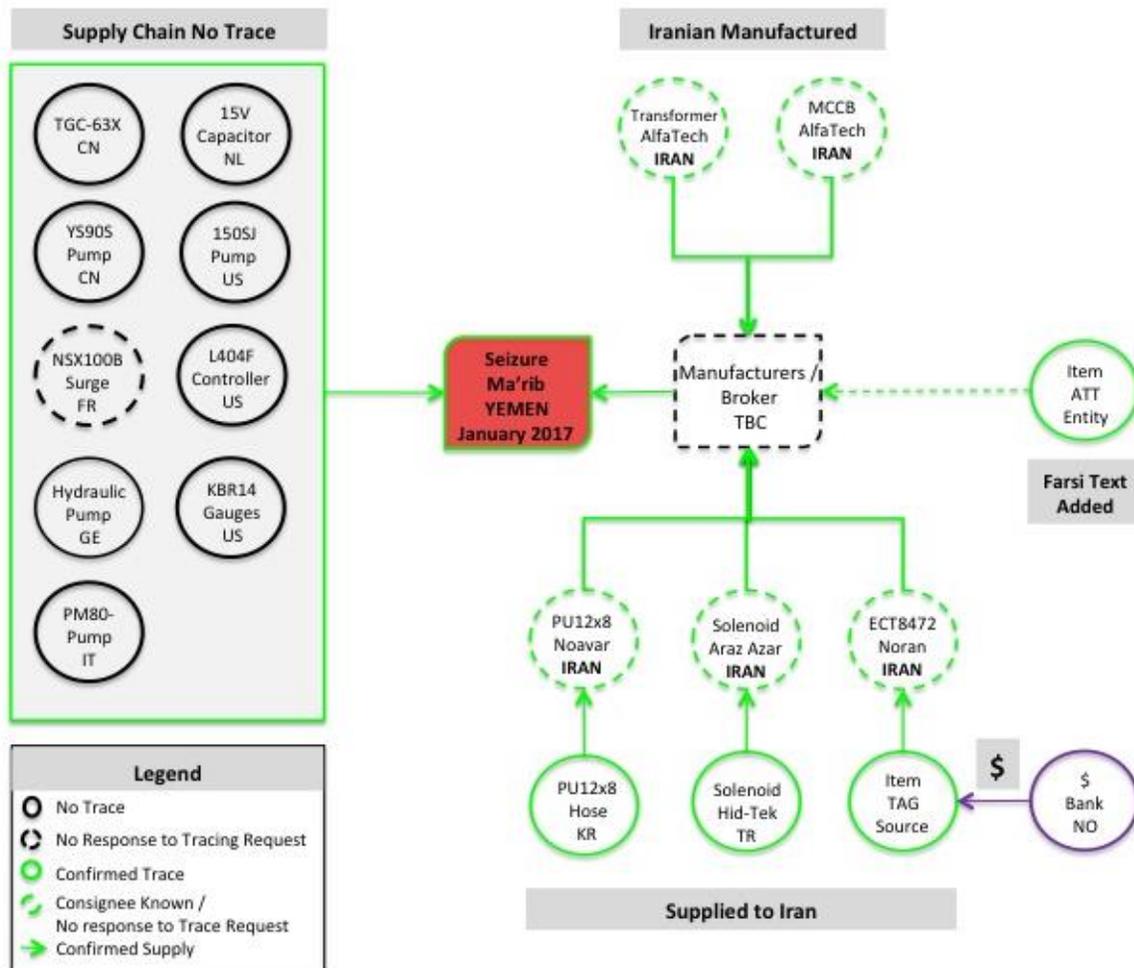
¹³ <http://www.arazfakhrazar.com>.

¹⁴ <http://www.honeywell.com>.

¹⁵ <http://www.kbr.com>.

¹⁶ www.xylem.com. ITT is a subsidiary company.

Figure D.36.13
Supply chain diagram



6. The following images are of equipment and components for the tracing requests listed in table C.36.1 above.

Figure D.36.14

Component TGC-63X 150-S

Figure D.36.15

Model YS90S@ Light Duty Multi-Stage Pump

Figure D.36.16

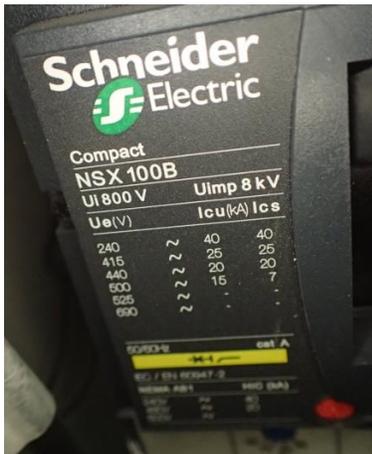
Compact NSX 100B Surge Protective Device

Figure D.36.17

M3KP 224 SMb 4 Motor

Figure D.36.18

Hydraulic Pump

Figure D.36.19

120000UF 15V Capacitor

Figure D.36.20
PU 12x8 Pneumatic Hose
 (Traced: KR > IR)



Figure D.36.21
Transformer
 (Traced: Manufactured in IR)



Figure D.36.22
Moulded Case Circuit Breaker
 (Traced: Manufactured in IR)



Figure D.36.23
ECT 8472 Industrial Pressure Transmitter
 (Traced: Member State > IR)



Figure D.36.24
Solenoid Valves Models 4V210-08 / 4V110-15
 (Partial Traced: > IR)



Figure D.36.25
Hydraulic Unit
 (Traced: TR > IR)



Figure D.36.26
'Pressuretrol' Controller



Figure D.36.27
KBR-14 Pressure Gauges

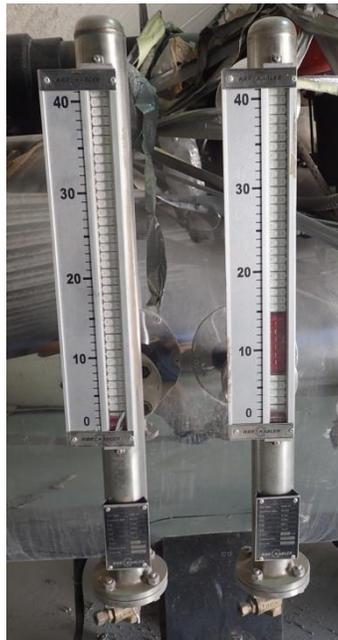


Figure D.36.28
**Series 150SJ Low Water Cut-Off/Pump
Generator**



Appendix E to Annex 36: Response of Islamic Republic of Iran



Permanent Mission of the Islamic Republic of Iran to the United Nations

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In the name of God, the most Compassionate, the most Merciful

No. 100379

22 January 2018

Excellency,

Upon instruction from my Government, and with regard to the final report of Panel of Experts on Yemen established pursuant to Security Council Resolution 2140 (2014), requested under paragraph 6 of the UN Security Council Resolution 2342 (2017), I have honor to bring the following points to the attention of the members of the Committee:

1- The Islamic Republic of Iran reiterates its principled position on the necessity of an early, all-inclusive Yemeni led peaceful settlement to put an end to the Yemen crisis. In this regard, we re-emphasize the need for the immediate and unconditional cessation of the military aggression conducted by the Saudi-led Coalition, the elimination of the air, sea and land blockade on Yemen and the unimpeded urgent humanitarian aid and medical assistance to the Yemeni people.

2- My Government also re-emphasizes the imperative of according priority to addressing the threat posed by growing terrorism and violent extremism, including the presence of al-Qaida in the Arabian Peninsula (AQAP) and future potential growth of the Islamic State in Iraq and Levant (ISIL, also known as Da'esh) affiliates in Yemen which continues to constitute a threat to international peace and security.

3- The Saudi Arabian regime, misusing certain provisions of UN Security Council Resolution 2216 (2015), continues its relentless aggression in Yemen that has devastated the lives of millions of people while, at the same time, aims to distract the attention of the international community through libeling baseless allegations against other UN Member States.

4- Despite the fact that the UNSC Resolution 2216 (2015) is not a balanced document and fails to acknowledge the realities in Yemen, the Islamic Republic of Iran has undertaken to implement its provisions and to continue its compliance. In this regard, certain directives have been issued to the relative authorities, including those responsible for trade control.

5- In accordance with its longstanding position, my Government has actively engaged in cooperation with different international mechanisms, including the UN Secretary General Special Envoy for Yemen, the UN Office for the Coordination of Humanitarian Affairs, and the Panel of Experts established pursuant to resolution 2140 (2014). In this regard, despite our reservations and critical points



Permanent Mission of the Islamic Republic of Iran to the United Nations

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about some of the Panel's assessments in its report, the Panel was received in Tehran on 15-16 January 2018, During which different aspects of the Yemen crisis as well as the main findings and assessments contained in the Panel's report were discussed in meetings with relevant Iranian authorities.

6- Unfortunately, the report contains accusations against my Government based on fabricated evidence provided by Saudi Arabia. Seemingly, the initial assessment of the Panel is based on such evidence.

7- The Panel, based on fabricated evidence provided by the Saudi Arabia and citing some non-exclusive apparent features belong to 2 of 82 missiles, allegedly launched from Yemeni territories targeting the Saudi Arabia, has tried to link these two missiles and Iran's Qiam-1 short range ballistic missile. In this regard, almost all other references to the non-apparent characteristics of the Qiam-1, including those related to the effective range, warhead weight, internal design features, internal fueling system, navigation system and etc., are erroneous. Meanwhile, the Panel has failed to provide its reliable sources of these speculations. It is worthy to note that evidence projected by the violations of international law have no probative value. All other claims, including similarities between logos found on components and trademark belongs to certain military industries in Iran, are inaccurate and flawed.

8- In each and every claim, including the alleged transfer of missile components to Yemen, in addition to "technical matching of components", substantiated information regarding "the exact time of transfer" and "the available routes" must be clearly furnished. In this context, the assessments by the Panel lack logical merit. Due to the imposed all-round blockade and given the sensitivity, heavyweight and large size of the parts (including the launcher, oxidizer's tank and, etc.), technical difficulty of re-aligning and coaxializing disassembled parts, there are serious uncertainties about the possibility of external origins for the missiles as well as the related component and feasibility to supply with unconventional routes.

9- Based on open source information, prior to the onset of hostilities and adoption of UN Security Council Resolution 2216 (2015), the Yemeni Government had considerable potentials in the field of ballistic missiles and notable stockpiles of SRBMs including SCUD B, C, Hwasong 5, 6, Borkan-1, Ghaheer-1, and etc. that could have been utilized by its local expertise as the technical bases for further upgrades.

10- There are also conflicts and contradictions between statements and positions provided by the Saudi Arabian authorities and those put out by the Panel with regard to strike or interception of missiles. The qualities of the retrieved missile



Permanent Mission of the Islamic Republic of Iran to the United Nations

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components contradict the assertion about intercepting the missile by defense systems which is an issue that should be clarified.

11- There is serious doubt regarding the authenticity and credibility of the Panel's assessment. In general, the Panel has failed to fully comply with the relevant fact-finding requirements. It is a well-established rule of international law that such a claim against a sovereign State requires a degree of certainty that the Panel failed to reach. Particularly, the Panel's report even fails to comply with the Methodological Standards elaborated in different phrases in the Annex of UNSC document S/2006/997, inter alia, paragraph 21, 22, 23, 25, 27, and 28. The Islamic Republic of Iran firmly believes that, in this case, the Panel should have considered the admissibility of the evidence from State that is party to the conflict as a preliminary step. Moreover, the reliability and probative values of the evidence are questionable on many reasonable grounds, including those enumerated above. The liberal approach taken by the Panel vis-à-vis the allegations would encourage more fabrications of allegation for political purposes. Accordingly, not only did the Panel not help restoring peace and security in the region, but would also hurdle the possibility of any political solution in the future.

12- The Islamic Republic of Iran categorically rejects those baseless allegations contained in the Panel's report and reiterates that it has no policy to transfer to or manufacture arms in Yemen. It is incumbent upon the Panel to revise and correct its assessments on the implementation of Arms Embargo imposed by UN Security Council Resolution 2216 (2015).

I should appreciate if you would have this letter included as an Annex to the Final Report of the Panel of Expert pursuant to the Security Council Resolution 2140 (2014).

Eshagh A1-Habib
Ambassador
Charge d'Affaires, a.i.

Ahmed Himmiche
Coordinator
Panel of Experts on Yemen
Security Council resolution 2342 (2017)
to the United Nations, New York

Reported UAV attacks on UAE forces in Yemen (2016 - 2017)

1. The UAE have reported eleven attacks against their ground forces by attack UAVs and one crashed UAV (table 37.1) to the Panel.¹

Table 37.1

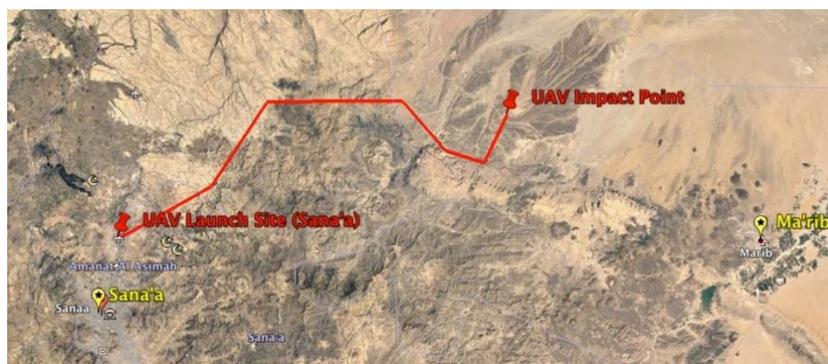
UAV attacks against UAE ground forces

Serial	Date	Time (GMT)	Location	Remarks
1	19 Sep 2016		Sharurah, Ma'rib	Crashed UAV (Serial Number: 22-17-28) (See annex 38)
2	1 Dec 2016	17:17	Ma'rib	
3	1 Dec 2106	17:50	Ma'rib	
4	1 Dec 2016	18:20	Ma'rib	
5	3 Dec 2016	09:46	Ma'rib	
6	13 Dec 2016	19:20	Ma'rib	
7	13 Dec 2016	20:00	Ma'rib	
8	2 Jan 2017	17:17	Al Mandab	
9	7 Jan 2017	18:20	Al Mandab	
10	8 Jan 2017	23:15	Al Mandab	
11	9 Jan 2017	00:50	Ma'rib	
12	17 Jan 2017	20:20	Al Mandab	

2. On 19 September 2016 a Qasef-1 UAV, launched from Sana'a airport area, crashed in the Sharurah Area near Ma'rib governorate. The UAV had travelled for approximately 100km at an average flight speed of 150kph for 40 minutes (figure 37.1).

Figure 37.1

UAV Track (19 September 2016)²



¹ Letter to Panel on 26 January 2017 from Permanent Mission.

² Panel diagram based on a Member State's information.

Houthi-Saleh ‘Qasef-1’ unmanned aerial vehicles (UAV)

A. Seizures

1. On 27 November 2016, a Dubai registered truck (Dubai/13933) was intercepted at the Almeel checkpoint near Ma’rib and was found to contain components for at least six complete Qasef-1 UAV and some components for up to another 24 UAV.¹ Components were also recovered by UAE forces from crashed UAV in Ma’rib (19 September 2016)² and Aden Airport (16 November 2016).³

2. The medium sized Qasef-1 (Striker-1) UAV (figures 38.1 and 38.2) is virtually identical in design and capability to that of the Ababil-T⁴ UAV (figures 38.3 and 38.4) manufactured by the Iran Aircraft Manufacturing Industries (HESA).⁵ The Ababil-T is a short to medium range attack UAV with the capability of delivering a 30 to 45kg warhead up to 150km.

Figure 38.1

Houthi image of UAV Qasef 1 (Striker 1)⁶



Figure 38.2

Crashed UAV Qasef 1⁷



Figure 38.3

Iranian Ababil-T UAV⁸

Figure 38.4

Iranian Ababil-T UAV⁹

¹ Letter from Member State. Including Qasef-1 Serial Numbers 22-122-33, 22-122-34, 22-122-38, 22-1721-39, 22-1721-?, 22,1721-0 and 22-1722-9.

² Letter from Member State. Qasef-1 Serial Numbers 22-1728.

³ Qasef-1 Serial Numbers 22-122-39.

⁴ Source. Identified from Janes' www.janes.his.com database.

⁵ HESA is a subsidiary of the government owned Iran Aircraft Industries Organization (AIO), located in Isfahan, Iran. AIO is itself part of the Defence Industries Organization (DIO) conglomerate.

⁶ Sources. 1) <https://mobile.almasdarnews.com/article/photos-hourhis-reveal-new-types-surveillance-attack-drones>; and 2) <https://www.youtube.com/watch?feature=youtu.be&v=YfsV6C4W8b4&app=desktop> (at 29 – 41 seconds).

⁷ Source. Conflict Armament Research. Other information also derived from, or cross checked with, Conflict Armament Research, *Iranian Technology Transfers to Iran*, March 2017. http://www.conflictarm.com/download-file/?report_id=2465&file_id=246.

⁸ Image courtesy of Janes' www.janes.his.com database.

⁹ Ibid.



B. Design and manufacture standards

5. The design and manufacture standards for the Qasef-1 UAV are not of a high quality. Table 38.1 summarises some of these issues.

Table 38.1
Qasef-1 UAV design issues

<i>Serial</i>	<i>Component / Issue</i>	<i>Comment</i>	<i>Operational limitation</i>
1	Li-Ion Battery	Only one battery is fitted to the UAV. It powers the servos for the ailerons and the GPS.	There is no built-in redundancy, so a battery failure will lead to immediate flight termination.
2	DC Output Converter	This is fitted to step down the voltage from 11.1V for the aileron servos to 3V for the GPS.	
3	Circuit Boards	Silicone has been used as a form of crude insulation.	This may melt at high operating temperatures leading to electrical failures.
4	Circuit Boards	Metal bolts have been used to secure the circuit boards to the UAV.	These may cause short circuits and electrical failures.
5	Li-Ion Battery (2,680mAh)	Wrapped in red tape.	There is no rationale for this, other than possibly to try and disguise manufacturer and hence source.
6	GPS	GPS is the sole means of inputting target data.	Once the UAV reaches the target the GPS will switch off the power and the UAV will “glide” to the target. Target accuracy can thus only be within +/- 25m, dependent on the cruising altitude set by the operator. It is not a precision weapon.

C. Tracing and sources

6. The Panel initiated tracing requests for those components that had markings in order to identify the manufacturer and supply chain for the Qasef-1 UAV (see summary and diagram at appendix A).

7. One component, the Titanium Gear Servo HS-7955TC, was traced from the manufacturer to Tehran Hobby¹⁰ in Iran. The payment was made by Succor Trading through Emirates Islamic Bank (account number: 370XXXXXX6102). The component was supplied to Tehran Hobby limited in mid-2015, subsequent to the implementation of the targeted arms embargo on 14 April 2015.

8. One component, the DC Output Converter, was traced from the manufacturer to Arman Optimized Systems¹¹ in Iran. Initially Arman Optimized Systems paid for the components from an Iranian Bank and components were delivered directly, but commencing in August 2015 the company requested delivery to a logistics company¹² in Hong Kong and payment was made from a Hong Kong bank.¹³

9. The Panel has also identified that in 2012 another component type, the L78 Voltage regulator, was supplied by the manufacturer to one of three other companies in China. The subsequent movement of this component could not be traced.

10. A Model V-10 Gyroscope is identical in design to one recovered from an Iranian manufactured Ababil-3 UAV in Iraq. The serial number of one of the Qasef-1 V-10 gyroscopes is a 4-digit serial number (S/N 2218) and only 83 serial numbers different from the Ababil-3 UAV (S/N 2301) recovered in Iran. These both very possibly being from the same source.¹⁴

D. Panel findings

11. The components necessary to assemble Ababil-T UAV have been supplied to the Houthi-Saleh alliance. Although Houthi-aligned media announced that the Sana'a-based ministry of defence manufactured the UAV, in reality they are assembled from components supplied by an outside source and shipped into Yemen.

12. The Panel finds that, based on: 1) the design, dimensions and characteristics of the UAV; and 2) the identification and tracing of component parts, the material necessary to assemble the Qasef-1 UAVs, emanated from Iran. The assembled UAV are then virtually identical to the ABABIL-T manufactured by the Iran Aircraft Manufacturing Industries (HESA).¹⁵ The Panel finds that the Ababil-T UAV has been designed and produced specifically for the military purposes of remote explosive attack or ISTAR.

13. The Panel finds that as the Islamic Republic of Iran has not provided any information to the Panel of any change of custody of the Qasef-1 or the components, the Islamic Republic of Iran is in non-compliance with paragraph 14 of resolution 2216 (2015) in that it failed to take the necessary measures to prevent the direct or indirect supply, sale or transfer of military related equipment to the Houthi-Saleh forces, an entity acting at the direction of listed individuals.

¹⁰ Tehran Hobby, Eastern Suite, 1st Floor, No.1 Espinas Building, Mirzababaei Blvd, Pounak Square, Tehran, Iran. <http://tehranhobby.com/>.

¹¹ Arman Optimized Systems, 5th Floor, 111 Ebne Yamin Street, North Sohrevardi Avenue, Tehran, Iran. +98 21 8850 1327. Source: Confidential.

¹² Part supplied via Turn Key International Logistics Company Limited, Flat D. G/F Roxy Industrial Centre, 41 – 49 Kwai Cheong Road, Hong Kong, China. +852 9219 8927 / +852 6382 1975. Source: Confidential.

¹³ Industrial and Commercial Bank of China (Asia) Limited, Hong Kong, China. (SWIFT: UBHKHKHH). Account Number: 86XXXXXX4237. Account Name: Ginseng Global Company Limited.

¹⁴ Iranian Technology Transfers to Yemen, Conflict Armament Research Limited, London, March 2017.

¹⁵ HESA is a subsidiary of the government owned Iran Aircraft Industries Organization (AIO), located in Isfahan, Iran. AIO is itself part of the Defence Industries Organization (DIO) conglomerate.

Appendix A to Annex 38: QASEF-1 component tracing

Table A.38.1

Origin and destination of UAV components

Ser	Component	Serial number	Lot	Image reference ¹⁶	Manufacturer		Supplied to		
					Company	Country / entity	Date	Company	Country / entity
1	Sail Propeller 22x18	Y-A		IMG_2997	Sail Aviation Propeller ¹⁷	China		No response to tracing request	
2	Titanium Gear Servo HS-7955TC			IMG_2998	Hitec ¹⁸	Republic of Korea	Mid 2015	Tehran Hobby Limited ¹⁹	Iran
3	DC Output Converter MIW 3021			IMG_3029	Minmax	Entity	Post Aug 2015	Arman Optimised Systems ²⁰	Iran
4	NAVIOR Satellite Compass NC144_02		58013428	IMG_3028	NAVIS Ukraine ²¹	Ukraine	2009	Anshuai Electronics ²²	India
5	Voltage Regulator	L78		P2020160	ST Microelectronics	Member State	2002	WT Microelectronics, ²³ Willas-Array Electronics, ²⁴ or Selcom Electronics ²⁵	Hong Kong, China Hong Kong, China

¹⁶ Sources: Conflict Armament Research and Confidential Sources. Images at appendix 2.

¹⁷ Sail Aviation Propeller, Audio Supplies Company Limited, Kaiyuan City, Liaoning Province, China. Email: <mailto:2284001479@qq.com>.

¹⁸ HITEC RCD Korea, Ochang, Cheongwon-gun, Chungcheongbuk-do, Republic of Korea. <http://www.hitecrkd.co.kr/new/>. Possibly manufactured in China though by Hitec-Multiplex China Incorporated, 3F of Hong Li Building 1, 24W Jinfeng Road, Jindig Industrial Park, Tanglia, Zhuhai, China. <http://www.hitecrkd-china.com>.

¹⁹ Tehran Hobby, Eastern Suite, 1st Floor, No.1 Espinas Building, Mirzababaei Blvd, Pounak Square, Tehran, Iran. <http://tehranhobby.com/>.

²⁰ Arman Optimized Systems, 5th Floor, 111 Ebne Yamin Street, North Sohrevardi Avenue, Tehran, Iran. +98 21 8850 1327. Part supplied via Turn Key International Logistics Company Limited, Flat D. G/F Roxy Industrial Centre, 41 – 49 Kwai Cheong Road, Hong Kong, China. +852 9219 8927.

²¹ NAVIS Ukraine LLC, Smela Street, Mazur 14, Cherkasy Region, Ukraine 20704. <http://www.navis-ukraine.com.ua>.

²² Anshuai Electronics, Plot 21, Venkateshwara Colony, Ecil Post, Hyderabad – 500062, Andhra Pradesh, India. Although NAVIS state they supplied to Anshuai, this company states they did not receive that particular serial number. Panel investigations continue.

²³ WT Microelectronics Limited, Lot 3719, H DD 104, Hong Kong, China. <http://www.wtmec.com/WT/?lang=en>.

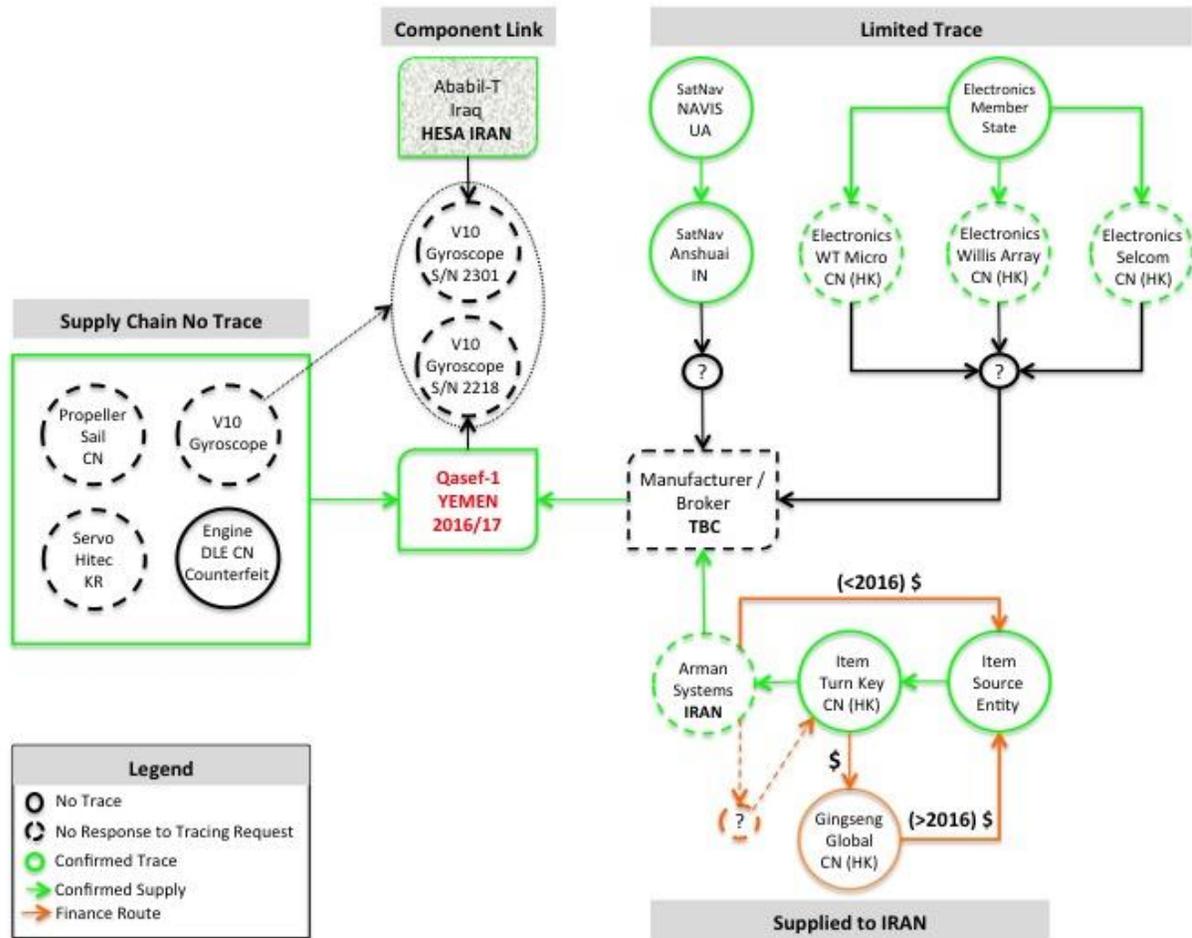
²⁴ Willis-Array Electronics, 24/F, Wyler Centre, Phase 2, 200 Tai Lin Pai Road, Kwai Chung, New Territories, Hong Kong, China. <http://www.willas-array.com/index.php?lang=en>.

²⁵ Selcom Group S.p.A., Via A. Grandi, 5, 40013 Castel Maggiore (BO), Italy. Manufactured by Selcom Electronics Limited, A7/A24 Workshop, No 5399, Waiqingsong Road, Waiqingsong H, Shanghai, 201707, China. <http://www.selcomgroup.com/contacts/>.

Ser	Component	Serial / Lot number	Image reference	Manufacturer		Supplied to		
				Company	Country / entity	Date	Company	Country / entity
6	DLE-111 Engine	Petrol	IMG_2995	Mile Hao Xing Technology Company ²⁶	China			<i>Company claims a counterfeit</i>
7	Full Duplex Multi-Frequency Data Link	FKAR-D94-1018	IMG_3009	Not identified				
8	Li-Ion Battery	2212230	IMG_3006	Not identified				
9	Vertical Gyroscopes V10	1233, 1768, 2076, 2099, 2109, 2216 and 2218	IMG_3047	Not identified				<i>S/N 2301 seen on an Iranian Ababil-3 recovered in Iraq</i>

²⁶ Mile Hao Xiang Technology Co. Ltd, located in the Chinese Yunnan Honghe Hani Autonomous Prefecture of Maitreya. (<http://www.dlengine.com>).

Figure A.38.1
Supply chain diagram



Appendix B to Annex 38: QASEF-1 component imagery²⁷

Figure B.38.1
IMG-2997: Sail Propeller



Figure B.38.2
IMG-2998: Titanium Gear Servo HS-7955TC

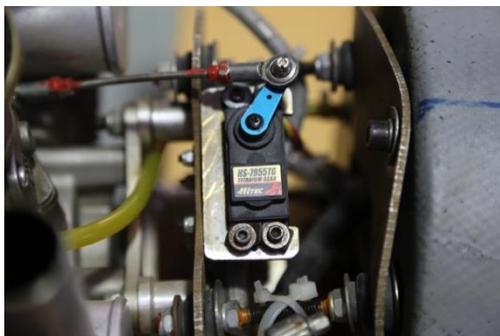


Figure B.38.3
IMG-3029: DC Output Converter MIW 3021



Figure B.38.4
IMG-3028 NAVIOR Satellite Compass NAVIS NC144_02



Figure B.38.5
P2020160: L78 Voltage Regulator

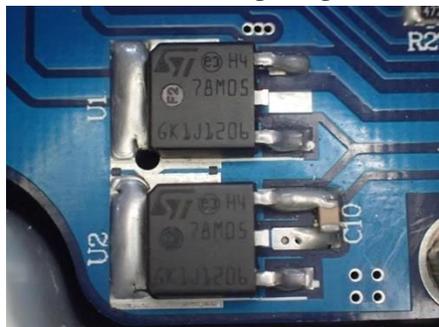


Figure B.38.6
IMG-2995: DLE-111 Petrol Engine



²⁷ Imagery from Conflict Armament Research.

Figure B.38.7
IMG-3009: Full Duplex Multi-Frequency Data Link



Figure B.38.8
IMG-3006: Li-Ion Battery



Figure B.38.9
IMG-3047: Vertical Gyroscope V10



Figure B.38.10
IMG-3053: Li-Ion Battery Unknown Make



Houthi-Saleh ‘Rased’ unmanned aerial vehicles (UAV)

A. Seizures

1. The Saudi Arabia-led coalition has seized a number of crashed or downed ‘Rased’ UAV in 2017; 1) Nihm (25 March 2017); 2) Sana’a (20 September 2017); and Kirsh, Lahij (20 September 2017) (see figures 39.1 to 39.3).¹

Figure 39.1
Downed ‘Rased’ UAV
Nihm (25 March 2017)



Figure 39.2
Downed ‘Rased’ UAV
Sana’a (20 September 2017)



Figure 39.3
Downed ‘Rased’ UAV
Kirsch, Lahij (20 September 2017)



B. Design

2. The Panel is almost certain that the ‘Rased’ UAV is actually the commercially available Skywalker-8 manufactured by Skywalker Technology Limited of China (www.skywalker-model.com). The common design and characteristics between the two UAV are shown at figures 39.4 and 39.5.

¹ Twitter: @JoshuaKoontz_1.

Figure 39.4
'Rased' v Skywalker-8 type indicators 1



Type Indicators 1

1. Winglet shape and size.
2. Tail profile.
3. Nose profile.
4. Wing area and shape.

X-8 Skywalker Imagery from www.img.banggood.com.

Figure 39.5
'Rased' v Skywalker-8 type indicators 2



Type Indicators 2

1. Aileron position and size.
2. Access panel.



X-8 Skywalker Imagery from www.img.banggood.com.

3. Dimensional analysis by photogrammetry provides a further indicator that the two UAV are the same. Photogrammetry was used to estimate the dimensions of an X-8 Skywalker to compare it to the declared Houthi dimensions (figure 39.6). The Houthi declared dimensions of a wingspan of 2.2m and a length of 1.0m. Photogrammetry derived dimensions of an X-8 Skywalker produce a wing span tip to tip of 2.24m and a length from nose tip to rear of wing tip of 1.1m. When allowing for error due to parallax these are virtually identical to the Houthi declared data.

Figure 39.6

'Rased' versus Skywalker-8 type dimensional analysis by photogrammetry

KNOWN OBJECT PHOTOGAMMETRY		Image	20150711101811-3964.jpg
Known Dimensions	mm	On Screen	Scale
X-8 Wing Span (Foil)	2122	270	0.1272
Estimated Dimensions	mm	On Screen	Scale
Wing Span (Tips)	2240	285	0.1272

KNOWN OBJECT PHOTOGAMMETRY		Image	20150711101844-9760.jpeg
Known Dimensions	mm	On Screen	Scale
Main Body Length	790	80	0.1013
Estimated Dimensions	mm	On Screen	Scale
Length (Nose to Tail)	1086	110	0.1013

C. Supply options

4. The X-8 Skywalker is widely available commercially (see table 39.1). The Panel has also identified that the X-8 Skywalker is unique in its design, and that no other comparable UAV is available in commercial markets.

Table 39.1
Commercial availability of Skywalker X-8

Ser	Company	Country	Remarks
1	Airelectronics ²	Spain	
2	Aerosystems West ³	USA	
3	Banggood ⁴	China (Hong Kong)	Shipped from Hong Kong, China
4	DH Gate.com ⁵	Global	Shipped direct from China

² <http://www.airelectronics.es/products/solutions/x8/>.

³ <https://www.aerosystemswest.com/product-page/skywalker-x8-flying-wing>.

⁴ https://www.banggood.com/es/Skywalker-X8-X-8-Black-White-FPV-Flying-Wing-2122mm-EPO-RC-Airplane-KIT-p-1104501.html?utm_source=google&utm_medium=cpc_ods&utm_content=ana&utm_campaign=es-Splan-ds-feed-planeandgclid=EAIaIQobChMI9LH7hPvW1gIV7rvtCh3wtAiYEAAYASAAEgLVpvD_BwE.

⁵ <https://www.dhgate.com/uk/skywalker-x8-uk.html>.

<i>Ser</i>	<i>Company</i>	<i>Country</i>	<i>Remarks</i>
5	E-Bay ⁶	UK	Shipped direct from Hong Kong, China
6	Flitetest.com ⁷	USA	Reviewed by USA consumer
7	FPVModel.com ⁸	China	Shipped direct from China.
8	Porcupine RC ⁹	USA	Shipped direct from Hong Kong, China
9	UAV Systems International ¹⁰	USA	Sold as part of a full UAV surveillance system in USA
10	UuuStore.com ¹¹	China	Shipped direct from China.

⁶ <http://www.ebay.co.uk/itm/SkyWalker-2120mm-X8-RC-Plane-White-KIT-No-Electronics-/171816307772>.

⁷ <https://www.flitetest.com/articles/skywalker-x-8>.

⁸ https://www.fpvmodel.com/skywalker-white-x8-airplane-fpv-flying-wing_g27.html.

⁹ http://www.porcupinerc.com/SkyWalker-2120mm-X8-FPV-RC-Plane-KIT-Black-No-Electronics_p_534.html.

¹⁰ <http://www.uavsystemsinternational.com/product/x8-long-range-surveillance-drone/>.

¹¹ <http://www.uuustore.com/skywalker-x8-epo-white-uav-flying-wing-2120mm-big-fpv-necessary-airplane-p-1830.html>.

Chronology of reported sea mine incidents in Red Sea (2017)

Table 40.1
Summary of sea mines warnings, seizures or deployments (2017 to date)

<i>Ser</i>	<i>Date</i>	<i>Mine Type</i>	<i>Incident type</i>	<i>Location near</i>	<i>Geo-location</i>	<i>Remarks</i>
1	Nov 2016	Improvised	Find	Hudaydah		Reported to Panel by a confidential source.
2	4 Feb 2017	Not Known	Threat	Mukha		US MARAD ¹ warns of sea mines near entrance to Mukha harbour. ²
3	7 Mar 2017	Improvised	Explosion	Hudaydah	13°16.64'N, 43°10.96'E	Mine strike against A54 Qatari launch.
4	7 Mar 2017	Not Known	Explosion	Mukha	13°13.00'N, 43°13.50'E	Mine strike against the Yemen Coastguard vessel, YN Safwan al-Ozavbi. ³
5	23 Mar 2017	Improvised	Find, Rendered Safe	Midi	16°15.00'N, 42°48.00'E	Recovered off beach.
6	25 Mar 2017	Improvised	Detonated during Render Safe Procedure (RSP)	Hudaydah	16°20.48'N, 42°45.01'E	Mine detonated when attempt made by private maritime security team to detach electrical conductor to isolate the detonator.
7	25 Mar 2017	Improvised	Find, Rendered Safe	Mukha	13°20.00'N, 43°14.00'E	
8	15 Apr 2017	Improvised x 4	Find, Rendered Safe		16°20.38'N, 42°45.39'E	One detonated during tow to disposal site.
9	15 Apr 2017	Improvised	Find, Rendered Safe		16°20.43'N, 42°44.35'E	Detonated during tow to disposal site.
10	24 Apr 2017	Improvised	Detonated during Render Safe Procedure (RSP)			Location not provided.
11	30 Apr 2017	Improvised	Detonated during Render Safe Procedure (RSP)		16°19.82'N, 42°45.90'E	

¹ Maritime Administration (United States Department of Transport).

² <https://www.marad.dot.gov/msci/alert/2017/22863/>.

³ Also reported by MARAD. <https://www.marad.dot.gov/msci/alert/2017/23275/>.

<i>Ser</i>	<i>Date</i>	<i>Mine Type</i>	<i>Incident type</i>		<i>Location near</i>	<i>Geo-location</i>	<i>Remarks</i>
12	1 May 2017	Not Known	Explosion		Hudaydah	16°15.00'N, 42°48.00'E	Reported to have being detonated by local fishermen.
13	27 May 2017	Improvised x 2	Find, Safe	Rendered	Thwaq Island ⁴	16°18.37'N, 42°45.94'E	Reported to Committee by Saudi Arabia on 30 September 2017.
14	5 Jun 2017	Improvised	Find, Safe	Rendered		13°19.26'N, 43°10.09'E	
15	5 Jun 2017	Improvised	Find, Safe	Rendered		13°19.35'N, 43°10.07'E	
16	6 Jun 2017	Improvised	Find, Safe	Rendered by demolition		13°19.17'N, 43°09.87'E	
17	6 Jun 2017	Improvised	Find, Safe	Rendered		13°18.56'N, 40°39.93'E	
18	6 Jun 2017	Improvised	Find, Safe	Rendered		13°18.39'N, 43°09.21'E	
19	7 Jun 2017	Improvised	Find, Safe	Rendered by demolition		13°19.43'N, 43°09.78'E	
20	7 Jun 2017	Improvised	Find, Safe	Rendered		13°19.90'N, 43°09.80'E	
21	7 Jun 2017	Improvised	Find, Safe	Rendered		13°19.54'N, 43°09.63'E	
22	7 Jun 2017	Improvised x 2	Find, Safe	Rendered		16°20.44'N, 42°44.75'E	
23	8 Jun 2017	Improvised	Find, Safe	Rendered by demolition		13°18.62'N, 43°09.47'E	
24	8 Jun 2017	Improvised	Find, Safe	Rendered by demolition		13°18.21'N, 43°09.35'E	
25	8 Jun 2017	Improvised	Find, Safe	Rendered by demolition		13°19.08'N, 43°09.80'E	
26	8 Jun 2017	Improvised	Find, Safe	Rendered		13°19.55'N, 43°09.63'E	

⁴ 16°18'42.61"N, 42°41'10.77"E.

<i>Ser</i>	<i>Date</i>	<i>Mine Type</i>	<i>Incident type</i>	<i>Location near</i>	<i>Geo-location</i>	<i>Remarks</i>
27	8 Jun 2017	Improvised	Find, Safe	Rendered	13 ⁰ 19.50'N, 43 ⁰ 09.73'E	
28	10 Jul 2017	1 x Improvised	Find	Midi	16 ⁰ 15.00'N, 42 ⁰ 47.00'E	Reported to be recovered South-West of Port and rendered safe by Yemeni military.
29	14 Sep 2017	Improvised	Find	Ghurab Island		Unconfirmed media reports.
30	20 Sep 2017	Improvised	Find, Safe	Rendered	16 ⁰ 16.56'N, 42 ⁰ 45.36'E	
31	25 Sep 2017	Improvised	Detonated during Render Safe Procedure (RSP)		16 ⁰ 16.56'N, 42 ⁰ 45.52'E	
32	25 Sep 2017	Improvised	Detonated during Render Safe Procedure (RSP)		16 ⁰ 16.05'N, 42 ⁰ 45.45'E	
33	25 Sep 2017	Improvised	Find, Safe	Rendered	16 ⁰ 17.01'N, 42 ⁰ 43.97'E	Detonated during tow to disposal site.

Analysis of improvised sea mines

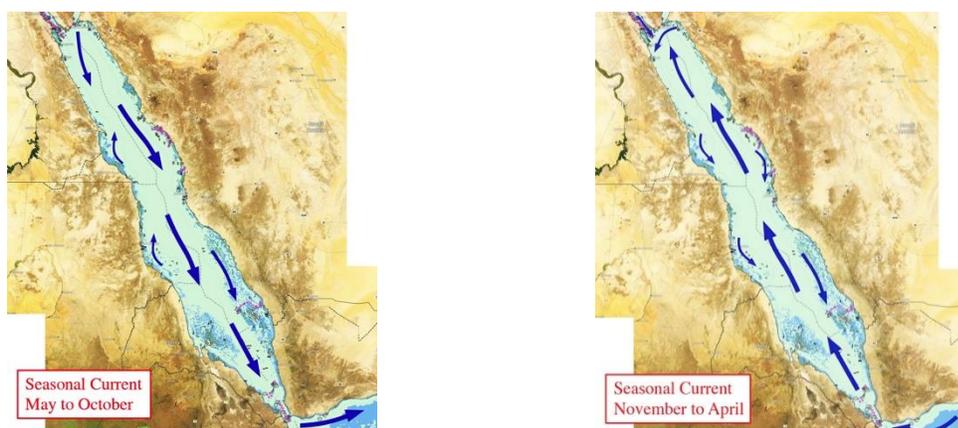
A. Threat

1. Sea mines are low cost, easy to deploy, tactically very effective, difficult to detect and thus are a potent threat to both naval and commercial vessels. Relatively small quantities present a threat out of proportion to their numbers. The now confirmed possession, and probable use in the Red Sea area of sea mines by Houthi-Saleh forces adds another dimension to the maritime security environment. The deployment of these improvised sea mines now threatens the delivery of humanitarian assistance should they drift into the vital sea lines of communication (SLOC) or the approaches to the Red Sea ports. There is also the possibility of a merchant vessel being struck by a sea mine due to the volume of traffic and relatively constrained area of the Red Sea. The spatial density (mines/nm²) of these sea mines will be a major contributory factor as to whether a vessel is hit. The last time when sea mines were sown in the Red Sea was 1984 resulting in 19 vessels being struck over a period of months. Only a single mine was detected, disarmed and recovered.¹

2. The direction of drift of any sea mines within the Red Sea is seasonally dependent. From May to November 2017 the mines will have drifted down the Red Sea until they join the predominantly Southern summer current and reach the Strait of Bab al-Mandab, or drift ashore back on the Yemeni coast or coastal islands (as indicated by the recovery from Thwaaq Island). It is possible that they will then drift through the Strait of Bab al-Mandab into the Eastern Indian Ocean.

3. In November 2017 the currents changed direction. Any remaining improvised sea mines will continue to drift down the coast with the Eastern Boundary Current until they reach Mukha and the Strait of Bab al-Mandab, where they will be drawn into the predominantly Northern winter current, reverse direction and drift up the central channel of the Red Sea near or in the major shipping lanes towards the Suez Canal area (figure 41.1).

Figure 41.1
Seasonal sea mine drift in Red Sea²



B. Technical analysis

4. The recovered improvised sea mines are similar in design and concept to mid-20th century sea mines. They are locally manufactured and contain approximately 21 kg of high explosive. Table 41.1 contains data on

¹ www.washingtonpost.com/archive/politics/1984/09/18/british-moving-possible-mine-from-red-sea/a5f41b34-8f7b-4fa3-990c-dc1dee3648c6/?utm_term=.9a199f7b0232 and www.csmonitor.com/1984/0808/080817.html.

² Information on seasonal currents from http://www.hisutton.com/Houthi_mines_in_Red_Sea.html.

the mine design and dimensions.

Table 41.1

Design and dimensions of Houthi-Saleh improvised sea mines

<i>Ser</i>	<i>Area</i>	<i>Data</i>	<i>Remarks</i>
1	Dimensions	0.72m (L) x 0.397m (D)	
2	Initiation system (switch)	4 x Contact Horns	
3	Initiator	Commercial electric detonator	
4	Booster explosive charge	RDX (0.7kg)	Probably harvested military explosive from abandoned explosive ordnance (AXO)
5	Main explosive charge	Ammonium Nitrate / Aluminium (20.3kg)	Improvised Ammonal Velocity of Detonation = 4,000m/s+
6	Power Source	16 x AA Batteries	
7	Container type	Ferrous cylinder	

5. The “Thwaq” mines were reported as being of sound construction, with a degree of standardization between the mines, which includes quick connectors to the wiring harness. The mines are assessed as being watertight, meaning that it should not be expected that they would leak and subsequently sink.

6. There are a number of features of the “Midi” mine that challenge its design integrity. These are discussed in table 41.2, which refers to figure 41.2.

7. **WARNING.** At least 4 of the 25 improvised mines (16%) encountered by the Saudi Arabia-led coalition to date have initiated during the render safe procedure, or when being towed to a safe disposal site.

Figure 41.2

The “Midi” improvised sea mine³

³ Widely reported in media. e.g. Covert Shores, 25 March 2017.

Table 41.2
Design and dimensions of Houthi-Saleh improvised sea mines

<i>Red Circle</i>	<i>Generic</i>	<i>Analysis</i>	<i>Remarks</i>
1	Horns	No rust on horns so probably plastic	Presence of AA batteries means not chemical as there is no requirement for an electrolyte to charge a battery.
2	Mooring wire	Based on the cable diameter and rim size, the cable is no more than 30m.	
3	Cradle	Assuming the steel is one inch angle iron means that could be too small to overcome the buoyancy of the mine on its own and would require a sinker attached to it. From known mine dimensions the cradle is assessed as being approximately 0.45m (L) x 0.4m (W). From density calculations it is estimated that the mass of the cradle plus 30m of mooring wire is approximately 26kg.	No sinkers identified.
4	Mooring wire	Approximately 30m of possible 10mm steel cable.	
5	Dissolving Arming Disc		There is no mine release mechanism on the cradle, which would be required if the mine were to be armed hydrostatically.
6	Unknown vessel		
7	Container	Based on the dimensions of the “Thwaq” mine, the container is 0.72m long by 0.397m diameter. Assuming 10mm thickness steel, the approximate container weight is 87kg.	

7. There are slight design differences between the “Midi” mine and the “Thwaq” mines, namely the positioning of the Dissolving Arming Disc, which is central on the “Midi” mine and offset on the “Thwaq” mine.

8. The buoyancy of an object can be calculated by comparing the Buoyancy Force (Newtons (N)) against the Gravity Force (N).

$$\text{Buoyancy Force} = \text{Volume (m}^3\text{)} \times \text{Density of Water (kg/m}^3\text{)} \times \text{Force of Gravity (g) (m/s}^2\text{)}$$

$$\text{Gravity Force} = \text{Mass (kg)} \times \text{g (m/s}^2\text{)}$$

9. If the buoyancy force is greater than the gravity force then the improvised mine will float. In this case the steel thickness of the improvised mine body will be the determining factor as to whether the improvised mines float or sink. For these improvised sea mines if the steel is thicker than 7mm the improvised mines will sink.

Technical analysis of ATGW 9M133 ‘Kornet’ versus ‘Dehleyvah’

1. Tables 42.1 and 42.2 show the location of the markings and other “identifiers”. Supporting imagery is at figures 42.1 to 42.4.

Table 42.1

Identifiers for ATGM type (9M133 ‘Kornet’ v ‘Dehleyvah’)

Serial	Identifier or markings	9M133 ‘Kornet’	‘Dehleyvah’	Remarks
1	End Cap Chamfer	Minimal	Pronounced	
2	Tube Code	Yes	None	K (K) = Warhead Type H (N) = Warhead Code
3	Warhead Filling and Date	Yes	None	
4	Load Condition	Yes	None	OK CHAP means Fuzed
5	Missile Type Code	Numerical only	Numerical and text	M (M) = Missile Code
6	Lot / Batch Number	02 - 08	LOT: 07 DATE: 2015	
7	ATGM Serial Number	Numerical only	S/N: then Numerical	
8	Temperature Limitations	None	-20 ⁰ C to +50 ⁰ C	
9	Body Colour	Sandy Green	Olive Green	
10	Tube Material	Wrapped GRP	Extruded	
11	Font for Markings	Stencil type	Block type	

Table 42.2

Identifiers for ATGM type (9M133-1 ‘Kornet’ (Export Version) v ‘Dehleyvah’)

Serial	Identifier or markings	9M133 ‘Kornet’	‘Dehleyvah’	Remarks
1	End Cap Chamfer	Minimal	Pronounced	
2	Tube Code	Yes	None	K (K) = Warhead Type H (N) = Warhead Code
3	Load Condition	Yes	None	FULLY LOADED means Fuzed
4	Missile Type Code	Numerical only	Numerical and text	M (M) = Missile Code
5	Lot / Batch Number	02 - 08	LOT: 07 DATE: 2015	
6	ATGM Serial Number	Numerical only	S/N: then Numerical	
7	Temperature Limitations	None	-20 ⁰ C to +50 ⁰ C	
8	Body Colour	Sand	Olive Green	
9	Tube Material	Wrapped GRP	Extruded	
10	Font for Markings	Stencil type	Block type	

Figure 42.1
9M133 'Kornet' ATGM¹



Figure 42.2
9M133 'Kornet' ATGM (Export Version)²

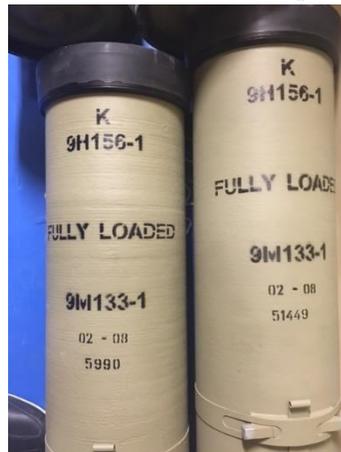


Figure 42.3
'Dehleyvah' ATGM³



Figure 42.3
'Dehleyvah' ATGM markings⁴



¹ Panel image.

² Ibid.

³ Confidential source.

⁴ Ibid.

Summary of black market small arms ammunition prices¹

Figure 43.1
Graph of Black Market prices (Yemen) (2015 – 2017)

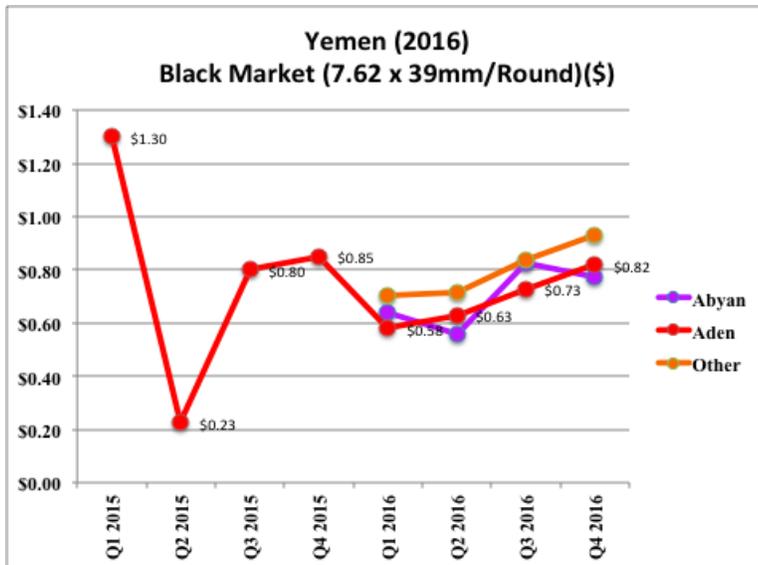
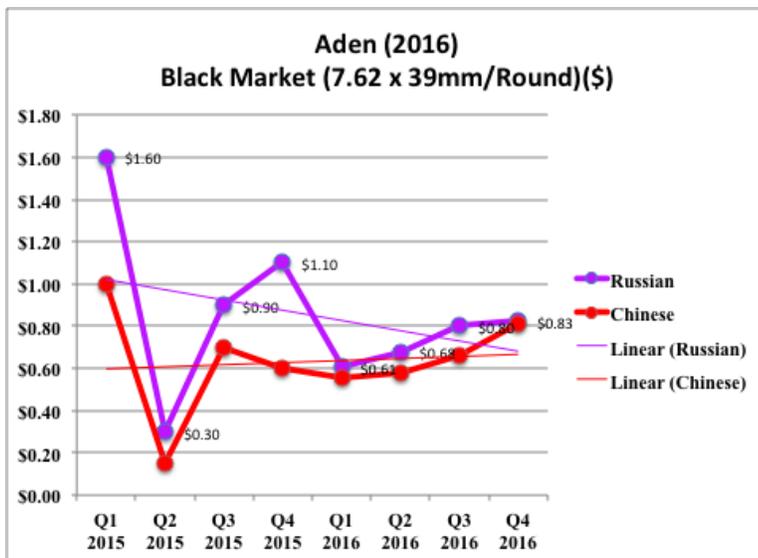


Figure 43.2
Graph of Black Market prices (Aden) (2015 - 2017)



¹ Data sourced from a UN agency in Yemen.

Figure 43.3
Graph of Black Market prices (Abyan) (2016 - 2017)

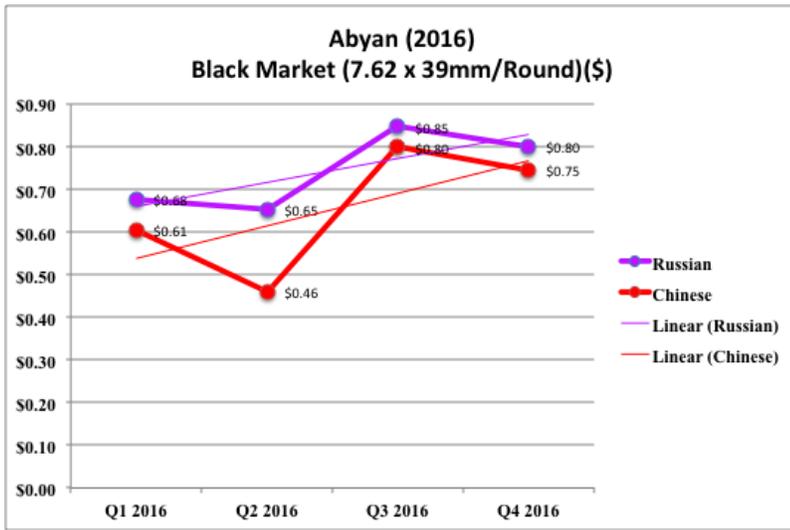
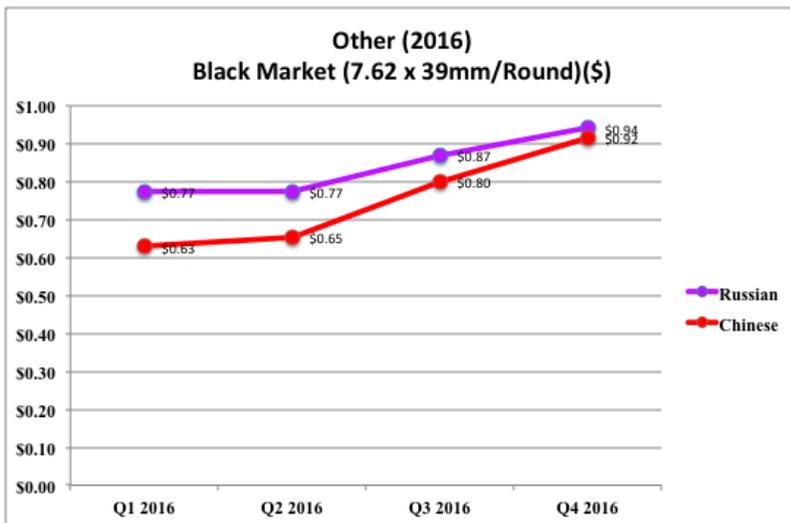
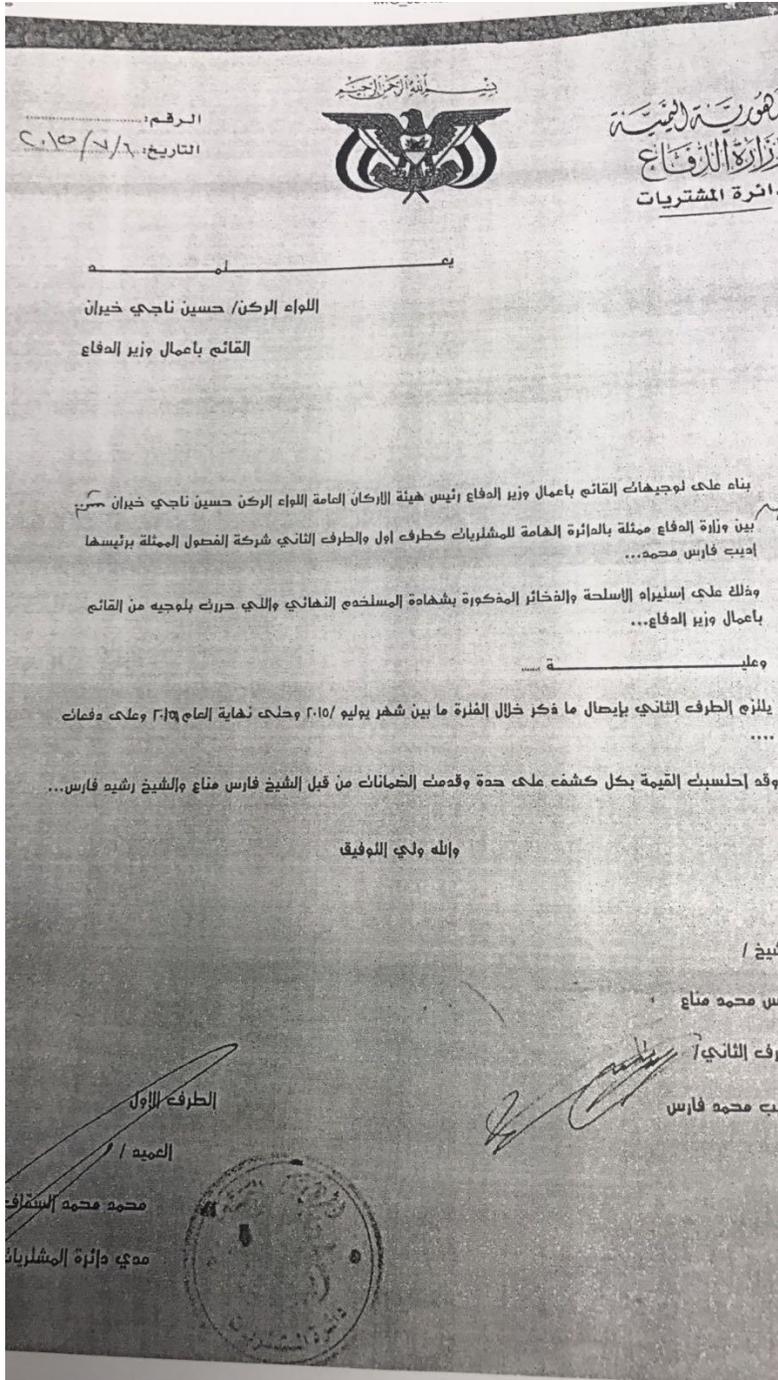


Figure 43.4
Graph of Black Market prices (Other) (2016 - 2017)



End User Certificates

Figure 44.1
EUC related letter from Houthi-Saleh administration



UN official translation from Arabic ¹

Republic of Yemen
Ministry of Defence
Procurement Office

No. ...

Date: 1 July 2015

Major General Husayn Najiy Khayran
Acting Minister of Defence

On the instructions of the acting Minister of Defence and Chief of the General Staff, Major General Husayn Najiy Khayran, [handwritten addition, illegible] between the Ministry of Defence, represented by the Procurement Office, being the first party, and the Fusul corporation, represented by its director, Mr. Adib Fares Mohammed, being the second party, for the importation of the arms and ammunition mentioned in the end user certificate that was drafted on the instructions of the acting Minister of Defence.

Accordingly, the second party undertakes to deliver in instalments the above-mentioned in the period between July 2015 and the end of 2016.

The value was calculated on the basis of each invoice individually and guarantees were offered by Mr. Fares Mana'a and Mr. Rashid Fares.

Mr. Fares Mohammed Mana'a

Second party

(Signed) Mr. Adib Mohammed Fares

First party

[stamped] (Signed) Colonel Muhammad Muhammad al-Saqqaf

Director, Procurement Office

¹ 1702089E dated 13 February 2017.

Figure 4.2
 EUC to support possible attempt to procure arms from Bulgaria

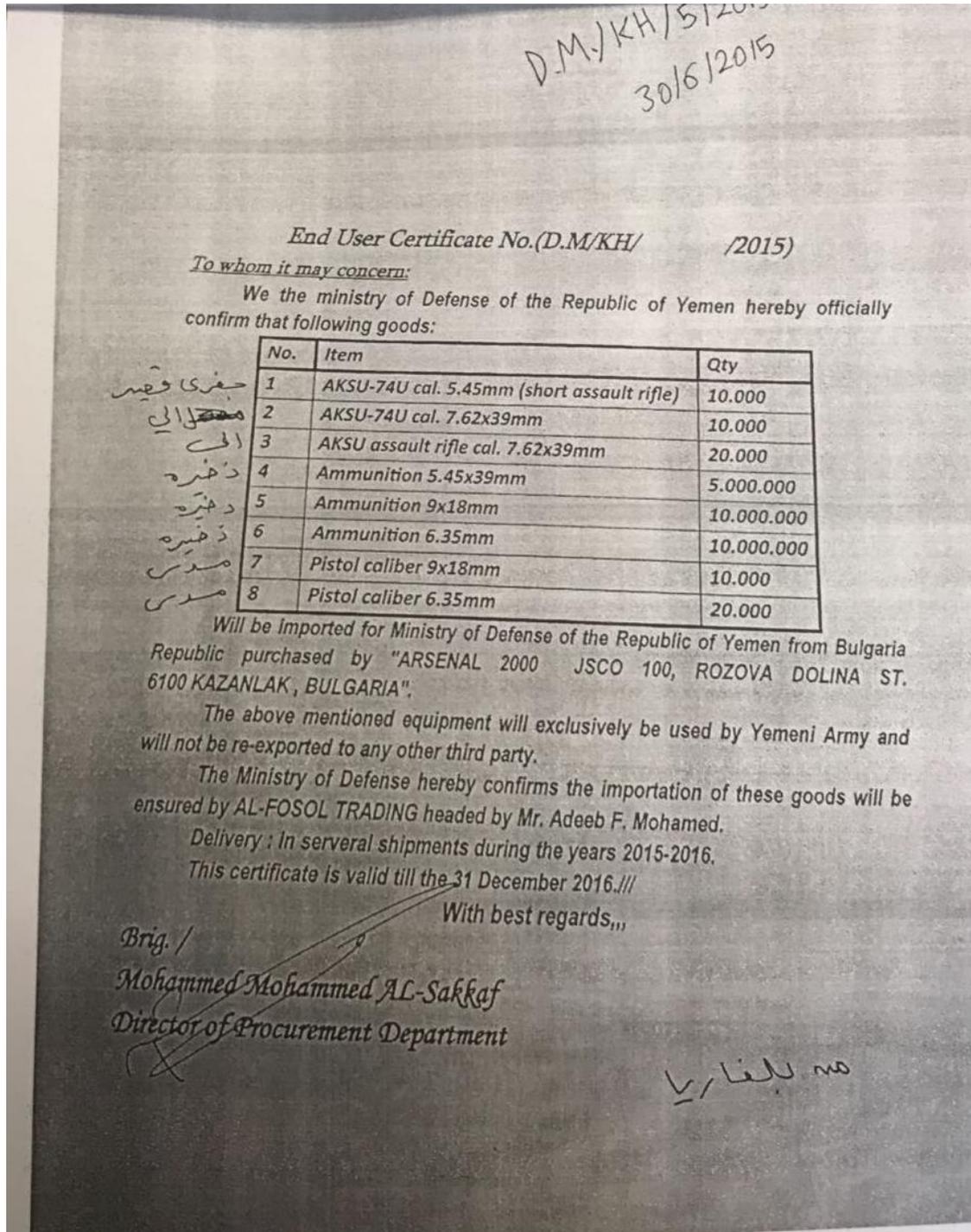


Figure 44.3

EUC to support possible attempt to procure arms from China, Iran, Serbia and Slovak Republic

ence
Departement

No. : D.M/KH/9/2015
Date: 30/6/2015

الجمهورية اليمنية
وزارة الدفاع
دائرة المشتريات

رقم :
تاريخ :

End User Certificate No.(D.M/KH/9/2015)

To whom it may concern:
We the ministry of Defense of the Republic of Yemen hereby officially confirm that following goods:

No.	Item	Qty
1	Machine gun cal. 7.62x54mm	5.000
2	Sniper cal. 7.62x54mm	5.000
3	Sniper cal. 12.7mm	2.000
4	AKS cal. 7.62x39mm	100.000
5	AR/AGS-17	5.000
6	RPG-7	5.000
7	RPG-7 missiles	100.000
8	M-79	5.000

معدل
فناصه
فناصه
بنفسه الى
معدل قصير
اربي قبي
مطارق اربي قبي
قازق ضابل

Will be imported for Ministry of Defense of the Republic of Yemen from the Serbia Republic , Slovak Republic , Republic of Iran and China Republic.
The above mentioned equipment will exclusively be used by Yemeni Army and will not be re-exported to any other third party.
The Ministry of Defense hereby confirms the importation of these goods will be ensured by AL-FOSOL TRADING headed by Mr. Adeeb F. Mohamed.
Delivery : in several shipments during the years 2015-2016.
This certificate is valid till the 31 December 2016.///

With best regards,,,

Brig. /
Mohammed Mohammed AL-Sakkaf
Director of Procurement Department

جمهورية لوفاكيا

Figure 44.4
Second EUC to support possible attempt to procure arms from Iran

D.M/KH/ 30/6/2015

End User Certificate No. (D.M/KH/ /2015)

To whom it may concern:
We the ministry of Defense of the Republic of Yemen hereby officially confirm that following goods:

No.	Item	Qty
1	AKSU-74U rifle cal. 5.45x39mm (short assault rifle)	10.000
2	AKSU-74U rifle cal. 7.62x39mm	10.000
3	AKSU-47 assault rifle cal. 7.62x39mm	150.000
4	Ammunition cal. 5.45x39mm	10.000.000
5	Ammunition cal. 7.62x39mm	100.000.000
6	Machine gun cal. 7.62x54mm	2.500
7	Sniper rifle cal. 7.62x54mm	1.500
8	Ammunition cal. 7.62x54mm	20.000.000
9	Machine gun G3 cal. 7.62x51mm	20.000
10	Ammunition cal. 7.62x51mm	10.000.000
11	Machine gun G3 cal. 7.62x51mm	10.000.000
12	Ammunition cal. 7.62x25mm	60.000
13	Pistol Tokarev TT cal. 7.62x25mm	15.000.000
14	Ammunition cal. 7.62x25mm	20.000
15	Pistol Makarov cal. 9x18mm	10.000.000
16	Ammunition cal. 9x18mm	20.000
17	Pistol cal. 6.35mm	5.000.000
18	Ammunition cal. 6.35mm	20.000
19	Pistol cal. 7.65mm (32 auto)	5.000.000
20	Ammunition 7.65mm (32 auto)	20.000
21	Pistol cal. 9mm	10.000.000
22	Ammunition cal. 9x19mm	20.000
23	Pistol cal. 22LR	30.000.000
24	Ammunition cal. 22LR	5.000
25	MP5 machine gun cal. 9x19mm	10.000
26	Rifle M16 cal. 5.56mm	10.000.000
27	Ammunition cal. 5.56mm	

Will be imported for Ministry of Defense of the Republic of Yemen from the Republic of Iran purchased by "DEFENSE INDUSTRIES ORGANIZATION IRAN".
The above mentioned equipment will exclusively be used by Yemeni Army and will not be re-exported to any other third party.
The Ministry of Defense hereby confirms the importation of these goods will be ensured by AL-FOSOL TRADING headed by Mr. Adeb F. Mohamed.
Delivery : in several shipments during the years 2015-2016.
This certificate is valid till the 31 December 2016.///
With best regards,,,

Brig. /
Mohammed Mohammed AL-Sakkaf
Director of Procurement Department

ص ايران

Figure 44.5

EUC to support possible attempt to procure arms from the Philippines

D.M./KH /4/2015

End User Certificate No.(D.M/KH/ /2015)

To whom it may concern:

We the Ministry of Defense of the Republic of Yemen hereby officially confirm that following goods:

NO.	DESCRIPTION	QTY
1	Hunting rifle cal. 22LR	30.000
2	Ammunition cal. 22LR	60.000.000
3	Pistols cal. 22LR	30.000

بنزفیه حید
ذخیرہ بنزوم حید
مسدس عیار 22 آر آل

Will be imported for Ministry of Defense of the Republic of Yemen from Philippine Republic purchased by "ARMSCOR PRECISION, INC".

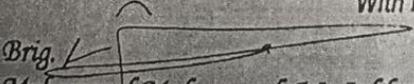
The above mentioned equipment will exclusively be used by Yemeni Army and will not be re-exported to any other third party.

The Ministry of Defense hereby confirms the importation of these goods will be ensured by AL-FOSOL TRADING headed by Mr. Adeb F. Mohamed.

Delivery : In several shipments during the years 2015-2016.

This certificate is valid till the 31 December 2016.//

With best regards,,

Brig. 
Mohammed Mohammed AL-Sakkaf
Director of Procurement Department

ص الفلبین

Figure 44.6
 Second EUC to support possible attempt to procure arms from Serbia

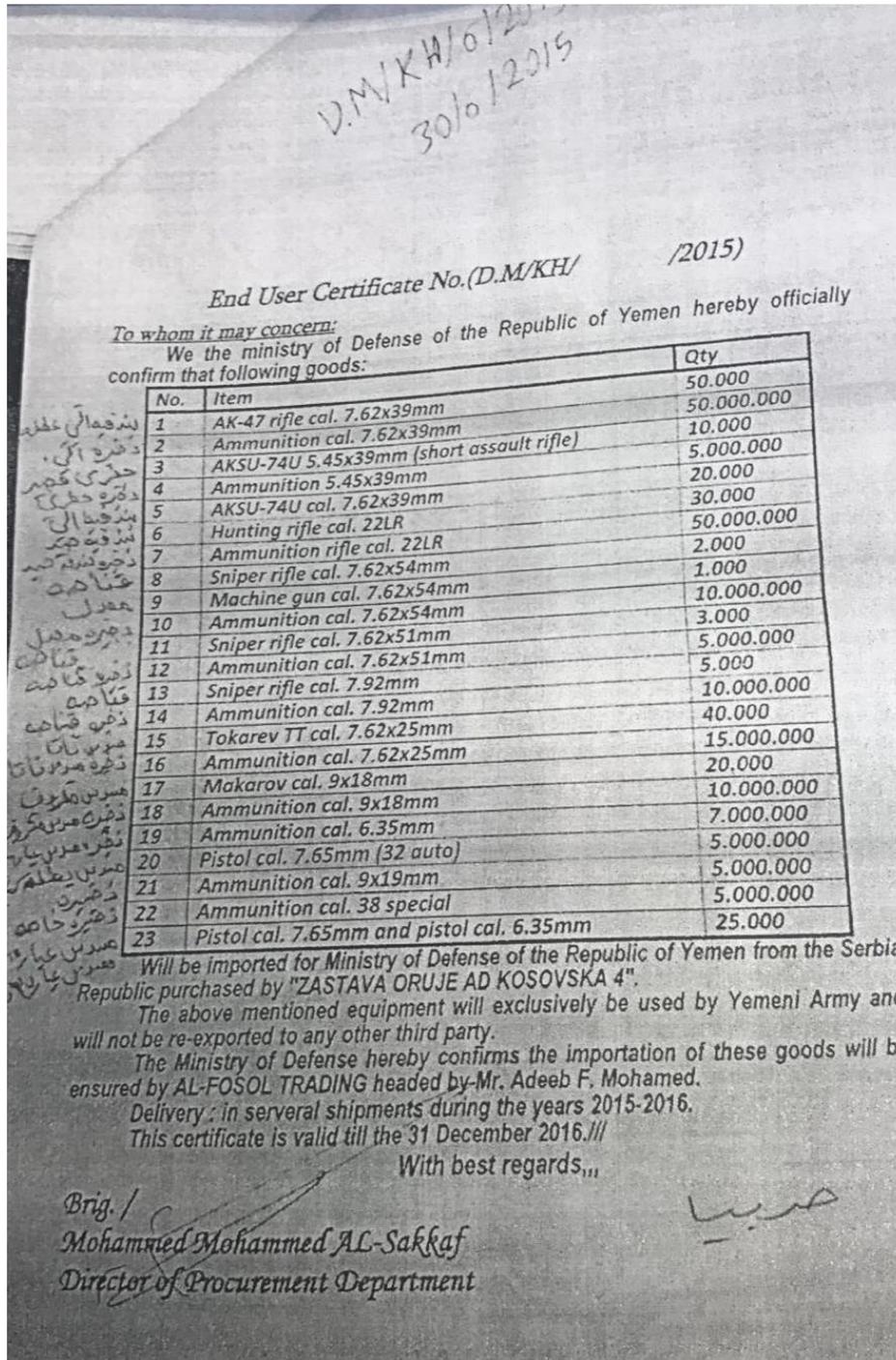
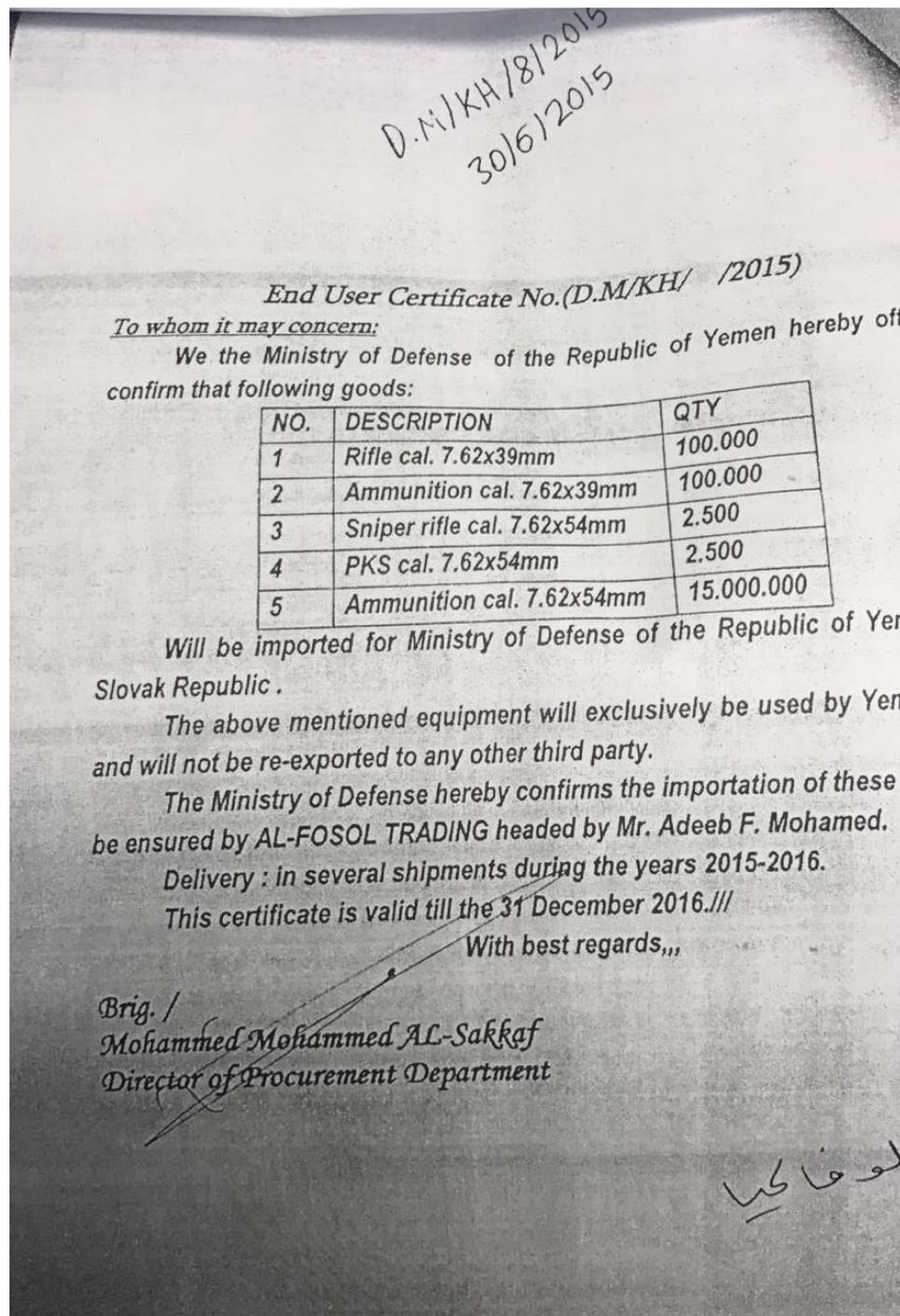


Figure 44.7

Second, third and fourth EUC to support possible attempt to procure arms from the Slovak Republic





جمهورية اليمن
وزارة الدفاع
دائرة المشتريات

الرقم: _____
التاريخ: _____

No. : **D.M/KH/10/2015**
Date: **30/12/2015**

End User Certificate No.(D.M/KH/10/2015)

To whom it may concern:
We the ministry of Defense of the Republic of Yemen hereby officially confirm that following goods:

No.	Item	Qty
1	AK-47 rifle cal. 7.62x39mm	200.000
2	Ammunition cal. 7.62x39mm	100.000.000
3	Sniper rifle cal. 7.62x54mm	5.000
4	PKS cal. 7.62x54mm	2.500
5	Ammunition cal. 7.62x54mm	15.000.000
6	AKSU-74U cal. 7.62x39mm	20.000
7	AKSU-74U cal. 5.45x39mm (short assault rifle)	10.000
8	Ammunition 5.45x39mm	5.000.000
9	Hunting rifle cal. 22LR	30.000
10	Ammunition rifle cal. 22LR	50.000.000
11	Pistol cal. 22LR	20.000
12	Tokarev TT cal. 7.62x25mm	50.000
13	Ammunition cal. 7.62x25mm	5.000.000
14	Makarov cal. 9x18mm	15.000
15	Ammunition cal. 9x18mm	5.000.000
16	Pistol cal. 6.35mm	30.000
17	Ammunition cal. 6.35mm	7.000.000
18	Pistol cal. 7.65mm (32 auto)	20.000
19	Ammunition 7.65mm (32 auto)	5.000.000
20	Pistol cal. 9mm	15.000
21	Ammunition cal. 9x19mm	5.000.000
22	Ammunition cal. 38 special	5.000.000
23	Machine gun M16 cal. 5.56mm	10.000
24	Ammunition M16 cal. 5.56mm	10.000.000

Will be imported for Ministry of Defense of the Republic of Yemen from the Slovak Republic purchased by "VERSOR, S.R.O KARADZHICHOVA STEET 8, SLOVAKIA".
The above mentioned equipment will exclusively be used by Yemeni Army and will not be re-exported to any other third party.
The Ministry of Defense hereby confirms the importation of these goods will be ensured by AL-FOSOL TRADING headed by Mr. Adeeb F. Mohamed.
Delivery : in several shipments during the years 2015-2016.
This certificate is valid till the 31 December 2016.//

With best regards,
محمد بن سفيان

Brig. / *محمد بن سفيان*
Mohammed Mohammed AL-Sakkaf
Director of Procurement Department

D.M/1414
15/7/2015

End User Certificate No.(D.M/KH/14/2015)

To whom it may concern:

We the ministry of Defense of the Republic of Yemen hereby officially confirm that following goods:

No.	Item	Qty
1	AKSU-74U cal. 5.45mm (short assault rifle)	20.000
2	AKSU-74U cal. 7.62x39mm	20.000
3	AKSU assault rifle cal. 7.62x39mm	20.000
4	Ammunition 5.45x39mm	10.000.000
5	Ammunition 7.62x39mm	20.000.000
6	Ammunition 9x18mm	20.000.000
7	Ammunition 6.35mm	20.000.000
8	Pistol caliber 9x18mm	20.000
9	Pistol caliber 6.35mm	20.000

حفي فصر
الى لطنه
الى تشيلر
ذقرو جفري
ذقرو اليا
ذقرو مرس
مس
مدرس
مدرس

Will be imported for Ministry of Defense of the Republic of Yemen from the Slovak Republic.

The above mentioned equipment will exclusively be used by Yemeni Army and will not be re-exported to any other third party.

The Ministry of Defense hereby confirms the importation of these goods will be ensured by AL-TAWAFOQ AL-ARABY headed by Mr. Khalid Abdullah.

Delivery : in several shipments during the years 2015-2016.

This certificate is valid till the 31 December 2016.///

With best regards,,

Brig. /

Mohammed Mohammed AL-Sakkaf

Director of Procurement Department

جمهورية لوفاكيا

Estimated revenue available to groups based on 2011 CBY budget

Table 45.1
2011 Budget estimated revenues (YER Million)

<i>Budget item</i>	<i>Designation</i>	<i>Central authorities</i>	<i>Local authorities</i>	<i>Current control</i>
1	Tax	363,837	16,929	
1.1	Zakat		11,588	Houthi
1.1.1.1	Zakat agriculture		397	Houthi
1.1.1.2	Zakat qat		837	Houthi
1.1.1.3	Zakat vegetables		234	Houthi
1.1.1.4	Zakat animals		33	Houthi
1.1.1.5	Zakat public companies		2,137	Houthi
1.1.1.6	Zakat private companies		4,883	Houthi
1.1.1.7	Zakat individuals		1,404	Houthi
1.1.1.8	Zakat fitra ¹		1,053	Houthi
1.1.1.9	Other zakat		605	Houthi
1.2	Tax on revenues	170,067	1,653	
1.2.1.1	Tax state salaries	73,996		Houthi
1.2.1.2	Tax salaries joint companies	17,175		Houthi
1.2.1.3	Tax salaries private companies	19,148		Houthi
1.2.1.4	Liberal professions		462	Houthi
1.2.1.5	Estate rent tax		1,190	Houthi
1.2.1.6	Estate sale tax	1,797		Houthi
1.2.2.	Corporate income tax	56,797		Houthi
1.2.3.1	Tax penalties	1,146		Houthi
1.5	Commodities and services	137,403		
1.5.1.1	Fuel	22,215		Houthi
1.5.1.3	Cigarettes	31,999		Houthi
1.5.1.4	Qat		2,321	Houthi
1.5.1.5	Others	12,462		Houthi
1.5.1.11	Tax construction products	46,389		Both
1.5.1.12	Other commodities	52,674		
1.5.1.13	Services and cell phones	11,376		Houthi
1.5.1.16	Other services	56,318		
1.5.4.14	Tax telecommunications	2,899		Houthi
1.6.1.	Customs	52,979		

¹ Zakat given by all Muslims after the completion of the fasting month of Ramadan

<i>Budget item</i>	<i>Designation</i>	<i>Central authorities</i>	<i>Local authorities</i>	<i>Current control</i>
1.6.1.1	Vehicles	6,124		Import, reduced ²
1.6.1.2	Electric equipment	1,725		Import, reduced
1.6.1.3	Medical	2,657		Houthi
1.6.1.7	Customs others	42,470		
2	Foreign Assistance	36,278		Government
2.1.x.x	Foreign government donors	17,823		
2.2.x.x	International organizations donors	18,455		
3	Revenues Public Ownership	1,318,793		Houthi
3.1.2.2	Industrial revenues	1,754		Severely reduced
3.1.2.3	Telecom revenues	14,945		Houthi
3.1.2.5	Financial revenues	17,203		Severely reduced
3.1.2.6	Public extractive revenues	11,076		Government, reduced
3.1.4.1	Oil exports	728,287		Government, reduced
3.1.4.2	Oil internal consumption	393,051		Government, reduced
3.1.4.3	Natural gas exports	38,474		Government, reduced
3.1.4.4	Natural gas internal consumption	26,195		Government, reduced
3.1.4.7	Licences mineral exploitation	20,743		Government, reduced
3.1.4.8	Tax oil companies	2,993		Government, reduced
3.1.4.14	Others	22,526		
3.2.1.3	Fisheries revenues	456		Government, reduced
3.2.1.4	Vehicle registration	165		Houthi, reduced
3.2.1.5	Book sales revenues	31		Houthi
3.2.2.3	Registrar revenues	197		Houthi
3.2.2.6	Legal registrations	26		Houthi, reduced
3.2.2.11	Passports		516	Houthi reduced
3.2.2.14	Consular	2,273		Government
3.2.2.15	Identification cards		279	Houthi, reduced
3.2.2.16	Birth registration		7	Houthi
3.2.2.17	Drivers licence		127	Houthi reduced
3.2.2.18	Well digging licence		9	Houthi, reduced
3.2.2.19	Market place		30	Houthi, reduced
3.2.2.20	Central butcheries		12	Houthi, reduced
3.2.3	Non-market institutions	6,125		
3.2.3.3	Printed forms	2,675		
3.2.3.6	Universities	72		Houthi, reduced

² The term reduced means that the revenue available now is reduced from that available in 2011 due to the conflict.

<i>Budget item</i>	<i>Designation</i>	<i>Central authorities</i>	<i>Local authorities</i>	<i>Current control</i>
3.2.3.23	Others	3,370		
3.3	Penalties	541		Houthi, reduced
3.5.1	Others	30,071		
3.5.1.1	Funds	7,473		
3.5.1.3	Waste	254		
3.5.1.4	Remaining non-executed budget	17,218		
3.5.1.5	Others	7,114		
5.4.2.1	Long term securities	14,980		
	Totals	2,818,623	978	

Table 45.2

Main budget items likely available to the Houthis (YER Millions)

<i>Budget item</i>	<i>Designation</i>	<i>Central authorities</i>	<i>Local authorities</i>	<i>Under Houthi control</i>
1	Tax	363,837	16,929	Yes
2	Foreign Assistance	0		No
3	Revenues Public Ownership	43,649	980	Small portion
	Totals	407,486	17,909	

Annex 46: Customs extortion of traders

1. The Panel gathered evidence indicating that Yahya Mohamed Abdullah al-Osta, the acting head of the Sana'a based Yemen customs authority ('YCA'), appointed by Mohamed Ali Al Houthi on 28 May 2016¹, played a major role in establishing mechanisms with the aim of applying additional customs taxes outside the legal framework. This facilitated the extortion of traders.
2. As the mechanisms did not have any legal basis, al-Osta coerced selected members of the chamber of commerce in Sana'a to sign an agreement allowing inspection and fees associated with them.
3. In early 2017 random customs checks were instigated in the Sana'a area, which targeted traders not affiliated with the Houthis for false customs declaration at the ports. Extortion and customs clearance delays led to discontent within the Sana'a based chamber of commerce, with traders vehemently complaining about the new procedures after the shooting of a trader at a customs check point on 1 March 2017.² On 3 March and 8 April 2017, the 'YCA' agreed to conduct checks outside the port, although the agreement was coerced and not legal. It was denounced and cancelled publicly by the same chamber on 13 August 2017.
4. Since then Yahya Mohamed Abdullah al-Osta has overseen the implementation of illegal mechanisms for the collection of customs duties for the benefit of Houthi armed groups acting on behalf and under the control of Abdulmalik al-Houthi (YEi 004).
5. On 4 April 2017, the Sana'a based ministry of finance established new permanent customs posts at the Amran and Dhamar checkpoints,³ designed to exploit the additional taxes as a result of the decrease of traffic from Hodaydah port.

¹Mohamed Abdullah al-Osta was a mid-level staff member working as a legal advisor within the ministry of finance.

² Chamber of Commerce meeting on 1 March 2017, confirmed to the Panel by members of the chamber, <https://www.youtube.com/watch?v=LhFKR7R3Tk>, authenticity confirmed to the Panel by members of the chamber.

³ Decision 138 of 2017, see http://customs.gov.ye/news_show_ar.php?id=132.

Appendix A to Annex 46: Coercion of the chamber of commerce and industry (meeting on 4 March 2017)

REPUBLIC OF YEMEN
MINISTRY OF FINANCE
YEMEN CUSTOMS

جمهورية اليمن
وزارة المالية
مصلحة الجمارك
الجمهورية اليمنية

المستشارية العامة للجمارك
رقم: ٢٠١٧/٣/٤
تاريخ: ٠٤/٠٣/٢٠١٧
بمقام:

محضر إجتماع

بشأن التنسيق المشترك بين مصلحة الجمارك والغرف التجارية الصناعية بأمانة العاصمة ومحافظة صنعاء

إنه في تمام الساعة التاسعة صباحاً من يوم السبت الموافق ٢٠١٧/٣/٤م عقد إجتماع مشترك بين قيادة مصلحة الجمارك وقيادة الغرف التجارية الصناعية بأمانة العاصمة ومحافظة صنعاء وذلك بشأن التنسيق المشترك بين مصلحة الجمارك ممثلة بالأستاذ/ يحيى محمد الأسطى القائم بأعمال رئيس مصلحة الجمارك - وكيل المصلحة والغرفة التجارية الصناعية بأمانة العاصمة ممثلة بالأستاذ/ محمد محمد صلاح نائب رئيس الغرفة التجارية الصناعية بالأمانة والغرفة التجارية الصناعية بمحافظة صنعاء ممثلة بالأستاذ/ حسين محمد السوارى رئيس الغرفة وحضر الإجتماع كل من:

مصلحة الجمارك

يحيى شرف الكبسي - الوكيل المساعد للشؤون الفنية
مجاهد الطهيف - الوكيل المساعد لشؤون الضابطة
عبدالله المهدي - مستشار المصلحة
نور الدين البذح - مدير عام الضابطة
علي حسين حميد - مدير عام جمرک رقابة صنعاء
محمد حسين العابد - نائب مدير عام الرقابة
مستشار المشام راجح - مسئول غرفة العمليات

الغرفة التجارية

محمد شارب - عضو مجلس إدارة الغرفة
محمد الأنسي - مستشار الغرفة التجارية

وبعد طرح بعض النقاط خرج المتكلمون بالإجماع على الآتي

١. عدم دخول البضائع الواردة من الحديد والصليف
٢. بالنسبة للبضائع الواردة بموجب الاتفاقية العربية القائمة المستثناءة والاتفاقية اليمنية السعودية يقدم التاجر أقرار بموجب البيان الجمركي ويسدد الفارق حسب الاحتساب من القيمة بواقع ٤٨% ويقوم الجمرك بمعينة عينة من الحمولة بنسبة ٢٠% كون تلك البضائع خاضعة للأثر المالي وفي حالة إكتشاف ما يخالف ذلك يتم التوسع في عملية التفتيش .
٣. بالنسبة للبضائع الواردة من عدن تخضع للمعينة وبنسبة من ١٠% إلى ٢٠% وتخضع للتفتيش في حالة وجود المخالفات وإذا لم يوجد أي مخالفات تفرج فوراً بدون أي مصاريف سوى عشرون الف أجور إضافية .
٤. البضائع غير المنشأ العربي ذات المقاسات القائمة وعلى سبيل المثال :

- الزيوت - الصابون	- زيوت الطبخ	- الحديد + الخشب
- المعلبات - الحلويات	- الدجاج المجمد	- الأسمنت غير العربي
- شراب الطاقة - المواد الخام للصناعة وغيرها		

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REPUBLIC OF YEMEN
MINISTRY OF FINANCE
YEMEN CUSTOMS



جمهورية اليمن
وزارة المالية
الجمارك
شؤون الجمارك
بالتعاون مع
السلطة العامة للصناعة

تاريخ: ٢٠١٧/٤/٤
رقم القرار: (٤٠٧/٤١٨)

- يسرى عليها المعاينة بمطابقتها بالعينة مع البيان الجمركي .
٥. أي واردات لا تحمل بيانات جمركية تعامل وفقاً لأحكام التهريب وبموجب قانون الجمارك .
٦. الإلتزام بقرارات رئيس الوزراء لعام ٢٠١٦م المتعلقة بمكافحة التهريب .
- وفقاً لذلك تم الإتفاق بين كل من الغرفة التجارية بأمانة العاصمة والغرفة التجارية بمحافظة صنعاء من جهة ومصصلحة الجمارك من جهة أخرى وعلى الجمارك إبلاغ الأمن المركزي والمفتش العام بوزارة الداخلية بضرورة منع الملاحظات في الشوارع وسط العاصمة .
٧. بالنسبة للواردات من منفذ الوديعة والشحن يتم تقديم أقرار من التاجر باي فارق بالبضاعة ويساعد في جزء من الغرامة في حالة عدم وجود أي فارق بعد ذلك .
- وعلى الجميع أتباع أساليب حضارية في التوعية والتواصل المستمر والتعاون عملاً بمبدأ الشراكة القائمة بين الجمارك والقطاع التجاري .
- وأقفل المحضر في تمام الساعة العاشرة والنصف صباحاً من نفس اليوم السبت الموافق ٢٠١٧/٣/٤م وتم التوقيع بين الطرفين في جو من الود والإخاء .
- والله الموفق ،،،

مقرر الإجتماع
فيصل محمد العزير العوامي

ممثل مصصلحة الجمارك			ممثل الغرفة التجارية		
الاسم	الصفة	التوقيع	الاسم	الصفة	التوقيع
يحيى شرف الكبسي	الوكيل المساعد للشؤون الفنية		محمد شارب	عضو مجلس إدارة الغرفة بأمانة العاصمة	
مجاهد الطهيف	الوكيل المساعد لشؤون الضابطة		محمد عبدالله الأنسي	مستشار الغرفة التجارية بالأمانة	
عبدالله المهدي	مستشار المصلحة				
نور الدين البديح	مدير عام الضابطة				
علي حسين حميد	مدير عام جمارك رقابة صنعاء				
محمد حسين العابد	مفتش عام الرقابة				
هشام راجح	مسئول غرفة العمليات				

بمقتضى

القائم بأعمال رئيس مصصلحة الجمارك
وكيل المصلحة
أ/ يحيى محمد الأنسي

رئيس الغرفة التجارية الصناعية
بمحافظة صنعاء
أ/ حسين محمد السواري

نائب رئيس الغرفة التجارية الصناعية
بأمانة العاصمة
أ/ محمد محمد صلاح

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UN official translation from Arabic

Date: 9 April 2017

Minutes of the meeting on joint coordination between the customs authority and the chambers of commerce and industry of the capital governorate and Sana'a governorate

At 0900 hours on the morning of Saturday, 4 March 2017, a joint meeting was held between the leadership of the customs authority and the leaderships of the chambers of commerce and industry of the capital governorate and Sana'a governorate. The subject was joint coordination between, on the one hand, the customs authority, represented by Yahya Muhammad al-Osta, Chargé d'affaires a.i. and deputy chief of the customs authority, and, on the other hand, the chamber of commerce and industry of the capital governorate, represented by Muhammad Muhammad Salah, deputy head of the chamber of commerce and industry of that governorate, and the chamber of commerce and industry of Sana'a governorate, represented by Husayn Muhammad al-Suwari, Head of the Chamber.

The meeting was attended by the following:

The chamber of commerce

Muhammad Sharib – member of the board of directors of the chamber
Muhammad al-Insi – counsel to the chamber of commerce

The customs authority

Yahya Sharaf al-Kibsi – assistant deputy for technical affairs
Mujahid al-Tahif – assistant deputy for control affairs
Abdullah al-Mahdi - counsel to the authority
Nur al-Din al-Badah - director-general of control, Sana'a
Ali Husayn Hamid - director-general of customs inspection
Muhammad Husayn al-Abid- assistant director-general of inspection
Hisham Rajih- operations room official

[*Handwritten:*] Authentic copy, Director of the Office of the Deputy (*Illegible signature*)

After discussing various issues, the attendees agreed on the following:

1. Goods coming from Hodaydah and Salif would not be granted entry.
2. For incoming goods exempted under the existing Arab agreement and the Yemeni-Saudi agreement, the merchant shall provide a customs declaration and pay any discrepancy based on a calculation of 48 per cent. Customs will conduct a spot check of 20 per cent of any shipment to determine if they are subject to financial payment. If any are found to be in violation, the inspection will be widened.
3. Goods coming from Aden will be subject to a 10 to 20 per cent check, and will be subject to inspection if violations are found. If no violations are found, they will be released immediately without any payment other than 20,000 in additional charges.
4. Goods not of Arab origin meeting existing specifications include the following:

Olives – soap Cooking oils Metal and wood
Canned goods - sweets Frozen chicken Non-Arab cement
Energy drinks – raw materials for manufacturing, etc.

Such goods will be subject to checks to make sure they match the customs declaration precisely.

5. Any imports not accompanied by a customs declaration will be treated under provisions for smuggling and the Customs Act.

6. The Prime Minister's 2016 decision on combating smuggling will be complied with.

In accordance with the preceding, an agreement was reached between, on the one hand, the chamber of commerce of the capital governorate and the chamber of commerce of Sana'a governorate, and, on the other hand, the customs authority. The customs authority committed to informing central security and the Inspector-General of the Ministry of the Interior of the need to prohibit raids in the streets inside the capital.

7. For imports at the Wadi'ah and Shahn crossing points, the merchant will submit a declaration of any discrepancy in the goods. He will be assisted in paying part of the fine, provided no additional discrepancy is found.

All parties committed to keep each other informed and to engage in cordial communication and cooperation under the principle of partnership between Customs and the private sector.

The meeting ended at 1030 hours on that day, Saturday 4 March 2017. The two sides signed in a spirit of friendship and brotherhood.

May God grant success.

(Signed) Faysal Abdulaziz **al-Awwami**

Appendix B to Annex 46: Coercion of the chamber of commerce and industry (meeting 8 April 2017)

REPUBLIC OF YEMEN
MINISTRY OF FINANCE
YEMEN CUSTOMS

الجمهورية اليمنية
وزارة المالية
صناعة الجمارك

محضر إجتماع تنسيق بين مصلحة الجمارك والغرفة التجارية

اجتمعت الغرفة التجارية الصناعية بأمانة العاصمة صنعاء مع مصلحة الجمارك في يوم السبت الموافق ٢٠١٧/٤/٨م وتم استعراض المحضر السابق وإقرار ما ورد به وفي نفس الوقت تم المناقشة لمختلف الأوضاع القائمة وتوصل المجتمعون إلى الآتي :

(١) فيما يخص الغرامة في حالة أن يكون المستورد أو التاجر قدم أقرار صحيحاً سليماً من حيث الكمية والسعر الناقد فإن المصلحة توافق على إلغاء الغرامة بحيث يكون الإقرار قبل فتح وسيلة النقل .

(٢) التنسيق المستمر بين الغرفة والمصلحة في كل القضايا الناشئة والتي تهم الطرفين .

(٣) التوقف عن التصعيد الإعلامي ويتحمل كلا مسؤوليته في هذا الجانب .

(٤) تسهيل الإجراءات لكل تاجر أو مستورد ملتزم متعاون مع الدائرة الجمركية وفي إطار القانون .

(٥) الإقرار من الجميع أن الرقابة الجمركية التي فتحتها مصلحة الجمارك حالياً بالمحافظات هي نتيجة لما تقتضيه الضرورة كما ورد بالمادة رقم (٦٧) من قانون الجمارك رقم (١٤) لسنة ١٩٩٠م وتعديلاته .

أقر الجميع ما ورد وتم التوقيع على المحضر .

ممثلتي مصلحة الجمارك			ممثلتي الغرفة التجارية		
التوقيع	الصفة	الاسم	التوقيع	الصفة	الاسم
	مدير عام الضابطة	نور الدين البديح		عضو مجلي إدارة الغرفة	محمد محمد شارب
	مدير عام الإيرادات	محمد علي المحفدي		مستشار رئيس مجلس الإدارة	محمد عبدالله الأنسي
	مستشار لشئون الرقابة والتفتيش	علي محمد القباطي		مدير عام الغرفة التجارية	خالد علي العلفي
	مدير إدارة الإعلام	عصام الكبيسي			

يعتمد

القائم بأعمال رئيس مصلحة الجمارك
وكيل المصلحة
أ/ يحيى محمد الطبق الجمارك

رئيس الغرفة التجارية
الصناعية بأمانة العاصمة
أ/ محمد محمد العلفي

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لسب الأثري

UN official translation from Arabic

Minutes of the coordination meeting between the customs authority and the chamber of commerce

The chamber of commerce and industry at the capital governorate Sana'a met with the customs authority on Saturday, 8 April 2017. The previous minutes were reviewed and adopted. At the same time, various outstanding matters were discussed and those present agreed on the following:

1. With regard to the fee in cases where the importer or merchant has submitted an accurate declaration of the quantity and prevailing price, the authority agrees to waive the fee where the declaration is prior to the opening of the means of transport.
2. There would be ongoing coordination between the chamber and the authority on any emerging issues of concern to both parties.
3. Media escalation would cease, and both parties would take responsibility in that regard.
4. Procedures would be facilitated for any merchant or importer in compliance who cooperated with the Authority within the law.
5. All present declared that the customs supervision currently being inaugurated in the governorates was as needed in accordance with article 67 of the customs act (No. 14 of 1990, as amended).

Appendix C to Annex 46: Letter of 13 August 2017 from the chambers of commerce and industry to the customs authority cancelling the agreement of 4 March 2017

جمهورية اليمن
 Republic of Yemen
 Chamber of Commerce & Industry
 Capital Secretariat

أمانة العاصمة
 غرفة التجارة الصناعية
 أمانة العاصمة
 الغرفة التجارية الصناعية بأمانة العاصمة - صنعاء
 سكرتارية مجلس الإدارة
 التصانير المصمم

رقم /
 تاريخ /
 الرقم /
 التاريخ /
 التوقيع /

No.
 Date:

عناية الأخ / يحيى محمد الأسطى

المحترم
 القائم بأعمال رئيس مصلحة الجمارك

الموضوع / إشعار رسمي بإلغاء الاتفاقات الأخيرة بين الغرفة التجارية ومصلحة الجمارك

تهنيكم الغرفة التجارية الصناعية بأمانة العاصمة أطيب التحية والتقدير متمنية لكم مزيداً من التقدم في المجال العملي .

وإشارة إلى الموضوع أعلاه ، وإلى الاتفاقات الموقعة مع مصلحة الجمارك بتاريخ ٢٠١٧/٤/ ٢٠،٤٤٣ م ، وبرغم الإجحاف في حق القطاع الخاص في بعض بنود تلك الاتفاقات إلا أن الغرفة أرادت أن تحول دون حدوث انسداد في العلاقة بين القطاع الخاص ومصلحة الجمارك، فوقعتنا على تلك الاتفاقية المجحفة مع مصلحة الجمارك أملاً في تطبيع العلاقة بين المصلحة والقطاع الخاص، التي ساءت كثيراً بسبب المعاملة المهينة للقطاع الخاص من قبل إدارة وموظفي الجمارك، واستحداث آليات وقرارات مخالفة لقانون الجمارك والنصوص القانونية ذات الصلة، واستحداث دوائر جمركية في كل من نمار عمران و... الخ، وإعادة جميع الإجراءات والوثائق الجمركية الرسمية التي تمت في الدوائر الجمركية الواقعة على المنافذ البرية والبحرية للجمهورية اليمنية .

إلا أن مصلحة الجمارك استمرت وتستمر كل يوم في عرقلة الحركة التجارية وابتكار وسائل وإجراءات لتضييق الخناق على التاجر اليمني بكل ما تحمله الكلمة من معنى.

إذ تقوم مصلحة الجمارك بفرض رسوم غير مبررة على البضائع الواردة من عدن عوضاً عن خضوعها للتفتيش والمعينة مرة أخرى ودفع رسوم وغرامات ورغم وجود بيانات جمركية صحيحة لتلك البضائع، كما أن البضائع الواردة من ميناء الحديدة والصليف تتعرض هي الأخرى للتأخير والابتزاز والغرامات، وكذلك البضائع الواردة من الوديعة والمكلا والشحن.. الخ. وبموجب العديد من الشكاوى التي تعكس أنين ومعاناة كافة القطاع

Republic of Yemen

Chamber of Commerce & Industry

Capital Secretariat

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



الجمهورية اليمنية
غرفة التجارة الصناعية
أمانة العاصمة

No.
Date:

رقم /
تاريخ /

كما أن مصلحة الجمارك تصر على توريد الرسوم الجمركية (نقداً)، وهذا الإجراء كارثة كبيرة على القطاع الخاص، بسبب أزمة السيولة التي تواجهها بلادنا حالياً وامتناع البنك المركزي عن تزويد البنوك التجارية بالعملة الوطنية، ناهيك عن المخاطر الكبيرة لنقل السيولة من مكان لآخر في مثل هذه الأوضاع.

ولا ننسى الغرامات الباهظة التي يتحفظنا بها موظفو الجمارك والتعسف في تأخير الإجراءات وغيرها من المضايقات والتعسفات التي يعاني منها القطاع الخاص كل يوم، حتى باتت الإجراءات الجمركية في المناطق الشمالية هاجساً يُنقل كاهل جميع التجار بلا استثناء.

وبدلاً من أن تكون الاتفاقية الموقعة بين القطاع الخاص ممثلاً بالغرفة التجارية بأمانة العاصمة صنعاء ومصلحة الجمارك وسيلة لتخفيف الحمل على التجار إذا بمصلحة الجمارك تسيء استعمال تلك الاتفاقية وتشرعن لإجراءاتها وابتزازها للقطاع الخاص أكثر من ذي قبل، وما يجده التجار من عنت وضرر من مصلحة الجمارك تضاعف أكثر بعد تلك الاتفاقية.

لذلك:

فإن الغرفة التجارية الصناعية بأمانة العاصمة صنعاء وبناء على الكم الكبير من الشكاوى المقدمة من جميع شرائح ومكونات القطاع الخاص والتي تطالب بإلغاء هذه الاتفاقيات التي تضمر الاقتصاد الوطني بشكل كلي، ونشعركم رسمياً بإلغاء الاتفاقية الموقعة بين المصلحة والغرفة حتى إشعار آخر.

والله الموفق ،،،

محمد محمد صلاح
نائب رئيس الغرفة
CCI

صورة مع التحية لـ:

- قلادة الأخ / رئيس المجلس النيابي حفظه الله .
- عطية الأخ / رئيس مجلس النواب .
- دولة الأخ / رئيس مجلس الوزراء .
- عطية الأخ / وزير المالية .

UN official translation from Arabic

Date: 12 August 2017

Subject: Official notice of cancellation of recent agreements between the chamber of commerce and the customs authority

The chamber of commerce and industry of the capital governorate presents its compliments and wishes you continued progress in your work.

I write in reference to the above subject and agreements that we signed with the customs authority on 3, 4 and 20 April 2017. Even though some of their provisions were prejudicial to the private sector, the chamber was trying to prevent any sources of friction in relations between the private sector and the customs authority, and we signed those unfair agreements with the customs authority in the hope of normalizing relations between the Authority and the private sector. Those relations had deteriorated considerably owing to abusive treatment of the private sector by the customs administration and officials, the introduction of mechanisms and decisions contrary to the customs act and other relevant legal provisions, the creation of customs departments in Dhamar, Amran, and so on. We had hoped for the restoration of all the official customs procedures and documentation used in customs departments at land and sea border points in the Republic of Yemen.

Unfortunately, the customs authority has continued to persist daily in impeding commercial activity and inventing new procedures that strangle Yemeni merchants, in every sense of the word.

The customs authority imposes unjustified duties on goods coming from Aden. It subjects them to additional inspections, checks, duties and fees even when those goods have valid customs declarations. Goods coming from the ports of Hudaydah and Salif are also subject to delays, theft and fees, as are goods coming from Wadi'ah, Mukalla and Shahn. There have been numerous complaints coming from all over of the commercial and private sectors. Merchants, importers, owners, investors and businessmen are all complaining about arbitrary customs practices and procedures, and are demanding the cancellation of these unfair agreements.

The Customs Authority is also insisting on the payment of customs duties in cash. That is a disaster for the private sector, given the liquidity crisis currently faced by our country and the refusal by the Central Bank to supply commercial banks with national currency, not mention the increased risk of liquid assets being diverted from one location to another under such conditions.

That is not even to mention the exorbitant fees being charged by customs officials and the arbitrary delays, procedures and other inconveniences suffered by the private sector every day. In the northern regions, customs procedures remain a burden on the shoulders of all merchants without exception.

The agreement signed between the private sector – represented by the chamber of commerce and industry in the capital governorate Sana'a – and the customs authority was supposed to lighten the burden on merchants. Instead, the customs authority is abusing that agreement, misapplying its procedures, and fleecing the private sector more than ever before. Merchants have found that the hardship and damage inflicted on them by the customs authority has only been compounded by the agreement.

Therefore, given the enormous volume of complaints submitted by all parts of the private sector demanding the cancellation of these agreements, and the damage these agreements are doing to the overall national economy, the chamber of commerce and industry at the capital governorate Sana'a hereby notifies you officially of the cancellation of the agreements signed between the authority and the chamber until further notice.

(Signed) Muhammad Muhammad **Salah**

Deputy Head of the Chamber

Annex 47: Houthi revenue from black market sales of oil products

Table 47.1

Estimates of oil distribution and sale costs¹

<i>Item</i>	<i>YER (Market Rate)</i>	²	<i>YER (CBY Rate)</i>	³	<i>US\$⁴</i>	<i>Remarks</i>
1. Total cost with delivery in Sana'a (Diesel per L)		184				
2. Total cost with delivery in Sana'a (Petrol per L)		196				
<i>a. Delivery cost to Red Sea ports (diesel/L)</i>		135		93	0.37	US\$446/Ton (1,200L)
<i>b. Delivery cost to Red Sea ports (petrol/L)</i>		140		96	0.38	US\$520/Ton (1,350L)
<i>c. Transport cost to Sana'a</i>		6		5	0.02	Private transport
<i>d. YPC Fees/(Diesel per L)</i>		43		29.5 / 34.2	0.12 / 0.14	Collected by Houthis
<i>e. YPC Fees/(Petrol per L)</i>		50		29.5 / 34.2	0.12 / 0.14	Collected by Houthis
3. Official sale price (Sana'a)		215		147	0.59	
3a. Black Market price (Sana'a) (Diesel per L)		240 ⁵		164 / 171	0.66 / 0.68	Houthi affiliate
3b. Black Market price (Sana'a) (Petrol per L)		250 ⁶		164 / 171	0.66 / 0.68	Houthi affiliate
4. Houthi Margin/L (Sales) (Diesel/Petrol)		56 / 54				On Sales
5. Total Houthi Margin/L (Diesel/Petrol)		99 / 104				Including YPC fee

¹ Confidential sources in the oil and gas industry in Yemen.

² At unofficial exchange rate of USD\$ 1 = YER 365.

³ CBY rate is YER 250 to US\$1.00.

⁴ At CBY rate.

⁵ Current price per liter for diesel and petrol. The price reached YER 280 throughout 2016 and early 2017. See statement of the acting chief of customs http://customs.gov.ye/news_show_ar.php?id=130.

⁶ Ibid.

Table 47.2
Estimates of potential oil revenue for the Houthis (5 May 2016 – 30 July 2017)⁷.

<i>Item</i>	<i>Delivered (MT)</i>	<i>Delivered (L)</i>	<i>Houthi margins</i>	
			<i>YER (Market)⁸</i>	<i>US\$ (CNY Rate)⁹</i>
Total fuel deliveries to Red Sea ports (MT)	2,031,609			
Total if all Petrol (L)		2,742,672,15	0	1,273,849,200
Total if all Diesel (L)		2,437,930,80	0	1,077,872,400

⁷ The Panel could not estimate the costs after July 2017 as: 1) exchange rate stopped to be fixed to YER 250 for 1 USD\$; and 2) cost of fuel increased continuously since July and reached 25% in December 2017 compared to July 2017. http://www.bunkerindex.com/prices/bixfree_1709.php?priceindex_id=4.

⁸ At unofficial exchange rate of USD\$ 1 = YER 365. The fuel is sold on the black market so this rate applies.

⁹ Official exchange rate used in this case as that is the value the Houthis would acquire if exchanged on international market.

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Annex 48: List of consignees for fuel import in Red Sea ports

Table X.2
Number of tankers for consignees for fuel import in Red Sea ports before and after 1 March 2017

<i>Ser</i>	<i>Consignees</i>	<i>Number of tankers before</i>	<i>Number of tankers after</i>
1	Abha Global Trading	2	
2	Aggreko Yemen for Agricultural Products	2	
3	az-Zahraa Establishment for Trading and Agencies	2	
4	Bin Dowal for Iron Steel Co. Mukalla, Yemen	2	
5	Dynasty Trading Yemen	2	
6	Mok Corporation for Trading and Oil Services	2	
7	Oil Premier Oil Services and Trading	2	
8	Matrixoil Import, Yemen	3	
9	Middle East Shipping	3	
10	Ahmed Mohammed Saleh Albaidhani for Trading	4	
11	Nama'a Power Oil Services and Importing	4	
12	Elaf for Import Oil Derivatives	5	
13	Albarakah Republic Trading Company	1	1
14	Golden Oil FZC, Sharjah, UAE	1	1
15	Yemen Company for Industrial Investment	1	2
16	Balad al Khairat for Import Petroleum	1	7
17	Yemen Petroleum Company	3	1
18	Deema Yemen for Trading and Agencies	3	9
19	Climax for Import	4	2
20	Sam Oil Company for Trade and Oil Services	7	20
21	Tamco Petroleum	7	14
22	Atico Trading and Industry	10	11
23	Yahya Oseily Export Company Limited	11	17
24	Begad International for Import	13	

25	al Attas for Trade and Marketing	4
26	al Hutheily General Trading	3
27	Alchemist Energy Trading DMCC	3
28	al Emteaz International for Importing	3
29	Falcon Shipping and Marine Services	3
30	Waqood for Investment	3
31	al Zahra Trading and Agencies Establishment	2
32	Hamady for Trade and Cold Store	2
33	MOPC for Oil and Gas Services	2
34	Vamoil International	2

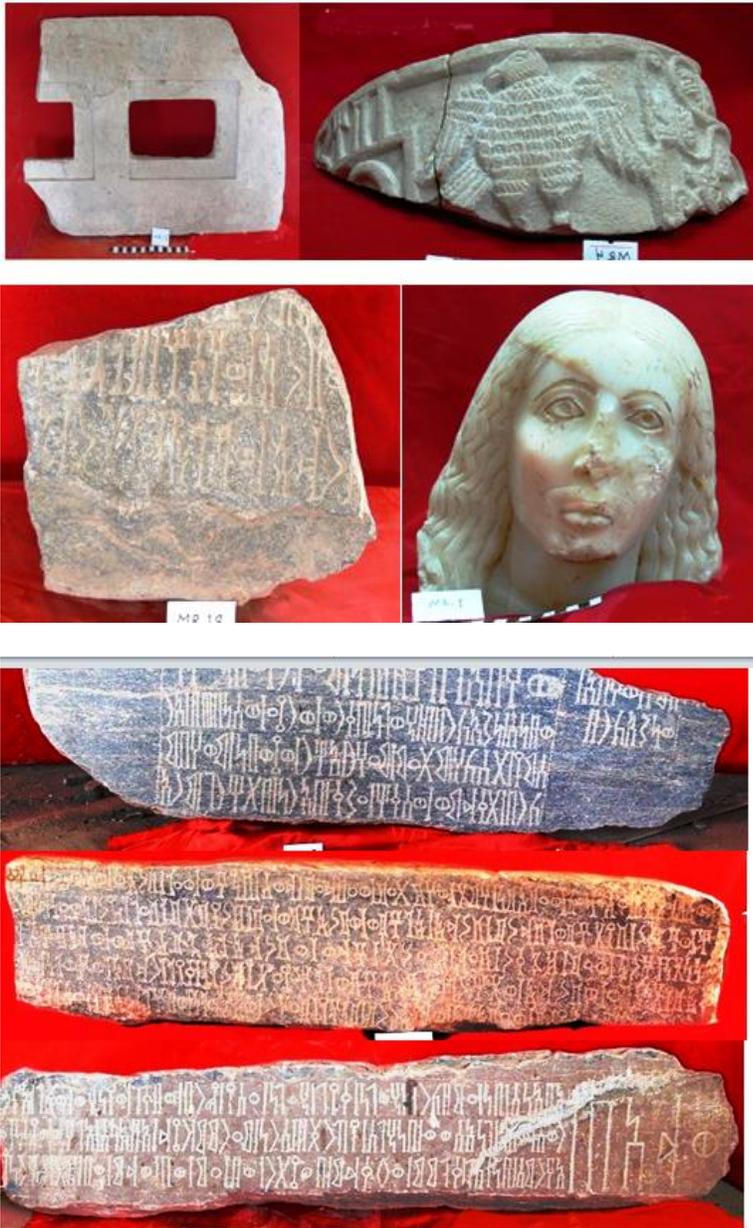
Annex 49: Risks of looting and trafficking of antiquities and cultural objects

Figure 49.1

Example of artefacts seized in Geneva

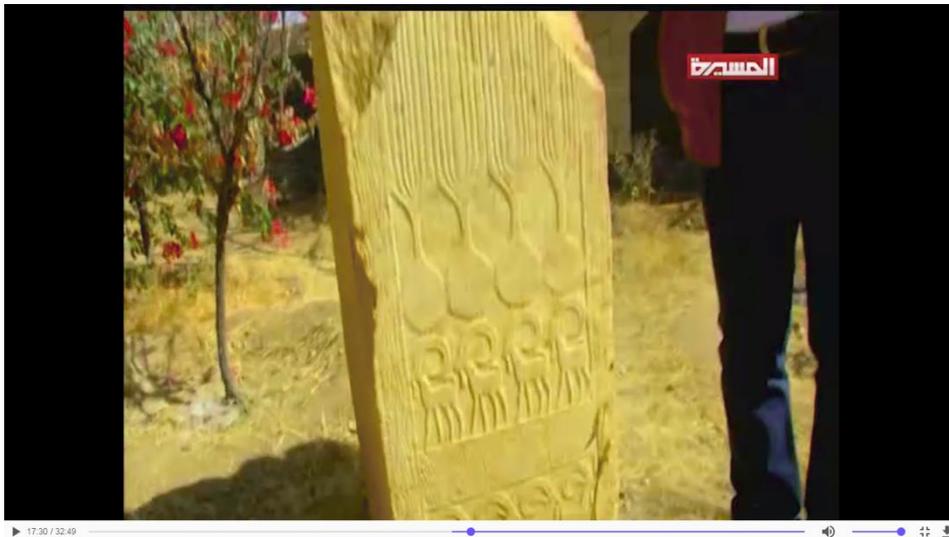
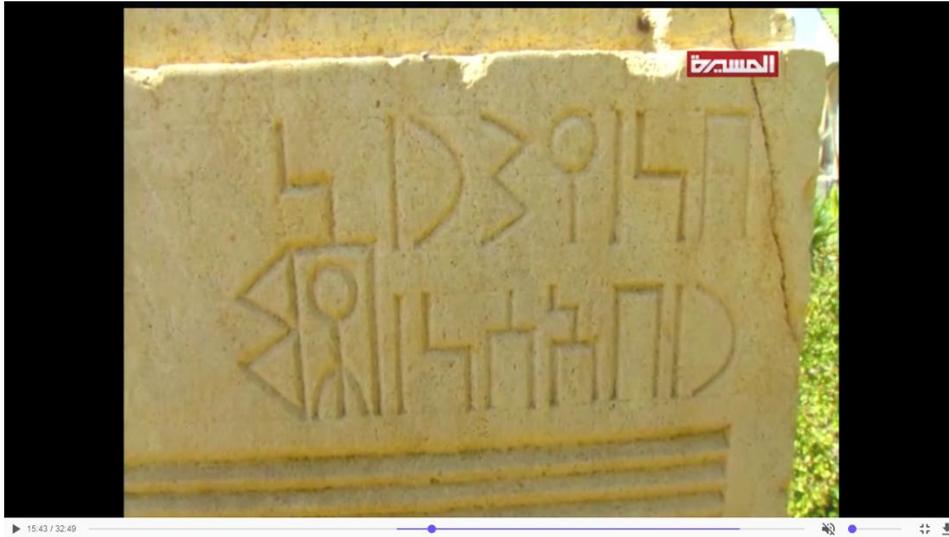


Figure 49.2
Artefacts observed in Lahij¹



¹ Sources: Yafa News, August 2017, <http://www.yafa-news.net/archives/263955>. Interview with the director of archaeology at al-Dad district, Lahij (November 2017).

Figure 49.3
Artefacts observed in in Tebbat Tawfiq Saleh Sourg of Sana'a²



² http://almasirah.net/gallery/preview.php?file_id=10481#.Wiifxroebms.whatsapp.

Figure 49.4

Artefacts observed in Ta'izz under the control of resistance forces (Museum al-Ardi in Ta'izz)



A resistance fighter inspects the damage to the Ta'izz National Museum, Yemen.
Photo: AHMAD AL-BASHA/AFP/Getty Images.³

³ <https://news.artnet.com/art-world/taiz-national-museum-destroyed-419792>.

Banks and finance institutions in Yemen

Table 50.1

Yemeni banks and financial institutions

<i>Ser</i>	<i>Bank</i>	<i>Capital YER Billion</i>	<i>Branch(s)</i>	<i>Government stake %</i>	<i>Other stake %</i>	<i>Founded</i>	<i>Remarks</i>
1	Central Bank of Yemen (CBY)	6.0	21	100		1971	
2	Yemen Bank for Reconstruction and Development	15.0	44	51	P ¹ 49	1962	Shareholder in Kamaran (KIIC)
3	National Bank of Yemen	10.0	27	100		1969	Known as Al Ahli Bank, owned by the Government, the only bank with head office in Aden
4	Arab Bank	6.0	9		F100%	1972	
5	United Bank Limited	6.0	3		F100%	1972	
6	Housing Bank	0.2	1	97%	P3%	1977	
7	International Bank of Yemen	15.0	23		P85%, F15%	1979	Associated with Shahir Abdulhaq Bishr
8	Yemen Kuwait Bank for Trade and Investment	6.0	12		P100%	1979	Associated with Alsonidar family
9	Cooperative and Agricultural Credit Bank	14.9	51	100		1982	Owns branches in Djibouti and in Bosaso, Puntland, Somalia
10	Al-Rafidayn Bank	6.5	1		F100%	1982	
11	Yemen Commercial Bank	7.9	14	10	P90%	1993	Associated with al-Rowayshan family

¹ P = Private Investor stake and F = Foreign Investor state.

<i>Ser</i>	<i>Bank</i>	<i>Capital YER Billion</i>	<i>Branch(s)</i>	<i>Government stake %</i>	<i>Other stake %</i>	<i>Founded</i>	<i>Remarks</i>
12	Islamic Bank of Yemen for Finance and Investment	4.4	6	4.5	P73.5%, F22%	1995	Associated with Al-Aswadi family
13	Tadhamon International Islamic Bank	20.0	21		P96.7%, F3.3%	1996	Associated with Hayel Saeed family
14	Saba Islamic Bank	16.0	16		P85%, F15%	1997	Associated with Al Ahmar family and Dubai Islamic Bank
15	Yemen Gulf Bank	1.3	2	1%	P77%, F22%	2001	
16	Shamil Bank of Yemen and Bahrain	6.0	9		P57%, F43%	2002	
17	Qatar National Bank (QNB)	6.0	1		F100%	2007	
18	Al-Amal Microfinance Bank	3.8	18	45%	P20%, F35%	2008	
19	Al-Kuraimi Islamic Microfinance Bank	10.0	23		P100%	2010	Associated with the Al-Kuraimi family

Table 50.1
Money exchangers operating in Yemen

<i>Ser</i>	<i>Name</i>	<i>Arabic Name</i>	<i>Used by traders</i>	<i>Presence in Sana'a</i>	<i>Presence in Ta'izz</i>
1	Abd al-Aawi al-Amri Exchange	عبد القوي العامري للصرافة			Yes
2	Abdellah Meftah Exchange	عبدالله مفتاح للصرافة		Yes	
3	Abdullah Al Amri Exchange	عبد الله العامري للصرافة	Yes		
4	Abu Adel Exchange	ابو عادل للصرافة		Yes	
5	Abu Hisham Exchange	ابو هشام للصرافة		Yes	
6	Abu Meftah Exchange	أبو مفتاح للصرافة	Yes		
7	Abu Murad Exchange	ابو مراد للصرافة		Yes	
8	Abu Taha Athur Exchange	ابو طه الثور للصرافة		Yes	
9	Ahmed al Amri Exchange	احمد العامري للصرافة		Yes	Yes
10	Ahmed Al Amri Exchange	أحمد العامري للصرافة	Yes		
11	Al Akwa'a Exchange	الأكوع للصرافة	Yes		
12	Al Arabiya Exchange	العربية للصرافة		Yes	
13	Al Atiri Exchange	العطيري للصرافة		Yes	
14	Al Aydarus Exchange	العيدروس للصرافة	Yes	Yes	
15	Al Azzi Exchange	العزي للصرافة			Yes
16	Al Baidani Exchange	البيضان للصرافة	Yes		
17	Al Barq Exchange	البرق للصرافة	Yes	Yes	
18	Al Busairi Exchange	البيسيري للصرافة	Yes		
19	Al Faqih Exchange	الفقيه للصرافة			Yes
20	Al Gharassi Exchange	الغراسي للصرافة	Yes		
21	Al Hajri Exchange	الحجري للصرافة	Yes	Yes	
22	Al Hatha'a Exchange	الحطاء للصرافة		Yes	
23	Al Hattar Exchange	الهتار للصرافة		Yes	
24	Al Hazmi Exchange	الحزمي للصرافة	Yes		
25	Al Jazeera Exchange	الجزيرة اخوان	Yes	Yes	Yes

<i>Ser</i>	<i>Name</i>	<i>Arabic Name</i>	<i>Used by traders</i>	<i>Presence in Sana'a</i>	<i>Presence in Ta'izz</i>
26	Al Kabus Exchange	الكبوس للصرافة		Yes	
27	Al Khaleej Exchange	الخليج للصرافة		Yes	
28	Al Khulaidi Exchange	الخليدي للصرافة			Yes
29	Al Mahraqi Exchange	المحرق للصرافة	Yes		
30	Al Majrabi Exchange	المجربي للصرافة	Yes		
31	Al Marah Exchange	المرح للصرافة		Yes	
32	Al Marry Exchange	المرى للصرافة	Yes		
33	Al Mesbahi Exchange	المصباحي للصرافة		Yes	
34	Al Mihdar Exchange	المحضار للصرافة	Yes		
35	Al Muhajeer Exchange	المهاجر للصرافة	Yes		
36	Al Muttahida Exchange	المتحدة للصرافة	Yes		
37	Al Omgui Exchange	العمقي للصرافة	Yes		
38	Al Qasmi Exchange	القاسمي للصرافة		Yes	
39	Al Qutaibi Exchange	القطيبي للصرافة	Yes		
40	Al Yabani Exchange	البياني للصرافة	Yes		
41	Al Yemeni Exchange	اليمني للصرافة	Yes		
42	Alamari Exchange	مؤسسة المرى للصرافة		Yes	
43	Amran Exchange	عمران للصرافة	Yes		
44	Annajm Exchange	النجم للصرافة	Yes		
45	Annasser Exchange	الناصر للصرافة	Yes		Yes
46	Annuman Exchange	النعمان للصرافة	Yes	Yes	
47	Ashahdi Exchange	الشاحدي للصرافة	Yes		
48	Assaeed Exchange	السعيد للصرافة	Yes		
49	Assaifi Exchange	الصيفي للصرافة	Yes		
50	Assuraimi Exchange	الصريمي للصرافة	Yes		
51	Athur Exchange	الثور للصرافة	Yes		
52	Attadamun Exchange	التضامن للصرافة	Yes		

<i>Ser</i>	<i>Name</i>	<i>Arabic Name</i>	<i>Used by traders</i>	<i>Presence in Sana'a</i>	<i>Presence in Ta'izz</i>
53	Azzubairi Exchange	الزبيري للصرافة	Yes		
54	Ba Wazeer Exchange	باوزير للصرافة	Yes		
55	Bakhash Exchange	بخاش للصرافة	Yes		
56	Behyan Exchange	بهيان للصرافة	Yes		
57	Ben Amer Exchange	بن عامر للصرافة	Yes		
58	Dahhan Exchange	دحان مفتاح للصرافة		Yes	
59	Exchange	الحظاء للصرافة	Yes		
60	Hamood Ahmed Yuseef Exchange	حمود احمد يوسف للصرافة			Yes
61	Heza'a Meftah Exchange	هزاع مفتاح للصرافة		Yes	
62	Mahfuth al-M'abari Exchange	محفوظ المعبري للصرافة			Yes
63	Masood Exchange	مسعود للصرافة	Yes		
64	Mathna Exchange	مثنى للصرافة	Yes		
65	Muhamed Abdulmalik Athur Exchange	محمد عبدالمك الشور للصرافة		Yes	
66	Muhsein Shrhan Exchange	محسن شرهان للصرافة		Yes	
67	Munawar Lotf Exchange	منور لطف للصرافة			Yes
68	Naguib Radif Exchange	نجيب رضيف للصرافة			Yes
69	Nahshal Exchange	نهشل للصرافة	Yes		
70	Sabra Exchange	صبيرة للصرافة	Yes	Yes	
71	Saleh Al Arwi Exchange	صالح العروي للصرافة		Yes	
72	Shar'ab Arruna Ben Lotf Exchange	شرعب الرونة بن لطف للصرافة			Yes
73	Suwaid and Sons Exchange	سويد واولاده للصرافة		Yes	
74	Suwaid Exchange	سويد للصرافة	Yes		

Annex 51: Money supply M0² of YER (1999 to present)

Table 51.1

Value (YER Million) by banknote denomination

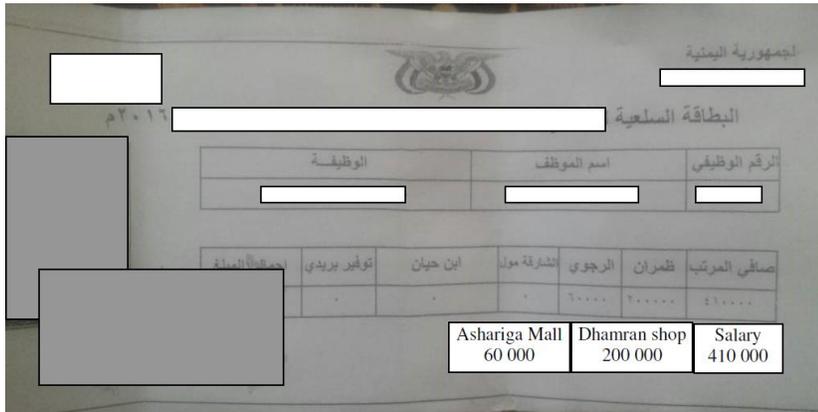
<i>Value (YER Million) for each banknote denomination</i>											
<i>Year</i>	<i>1</i>	<i>5</i>	<i>10</i>	<i>20</i>	<i>50</i>	<i>100</i>	<i>200</i>	<i>250</i>	<i>500</i>	<i>1000</i>	<i>Coins</i>
1999	123	247	649	1,556	12,842	48,589	40,819		30,469	33,770	19
2000	123	289	679	1,156	11,492	50,540	43,235		31,439.0	62,469.0	19
2001	123	327	807	1,083	9,840	49,760	42,287		39,113	72,236.8	19
2002	122	376	829	1,047	9,155	53,354	40,919		58,802	79,151	19
2003	124	390	920	994	9,727	53,271	41,618		75,255	91,954	19
2004	124	425	1,081	902	10,134	49,159	39,990		87,782	113,181	19
2005	127	457	1,165	908	6,404	31,083	36,793		100,209	160,359	19
2006	127	474	1,250	965	4,570	21,591	32,897		102,518	254,934	19
2007	127	483	1,315	1,089	4,184	17,939	27,205		111,758	279,873	19
2008	128	532	1,399	1,227	4,289	15,415	21,961		129,336	316,196	19
2009	128	551	1,461	1,325	4,528	14,810	10,087	10,563	158,597	349,650	19
2010	128	557	1,536	1,417	4,085	13,079	5,125	16,650	141,553	387,249	19
2011	128	559	1,613	1,502	3,357	12,208	3,967	19,787	151,882	605,263	19
2012	128	584	1,845	1,775	2,892	14,556	3,124	11,235	109,260	687,378	19
2013	128	614	1,934	2,110	2,755	15,056	2,724	9,000	79,022	708,532	19
2014	129	675	1,936	2,412	2,409	14,373	2,397	10,833	73,578	746,123	19
2017									600,000	400,000	

² M0 is a measure of the money supply, which combines any liquid or cash assets held within a central bank and the amount of physical currency circulating in the economy.

Vouchers issued by Abu Nabil Al Qaramani

1. Voucher card indicating that an employee with a salary YER 410,000 was to receive vouchers worth YER 200,000 and YER 60,000 to be used respectively in Dhamran market and Ashariga market

Figure 52.1
Al Qaramani voucher ID card to be used with voucher¹



2. Allocation of YER 5,000 and YER 10,000 vouchers to one administrative service

Figure 52.2
Al Qaramani vouchers (YER 20,000 and YER 30,000)



¹ Source: Employee with identity masked.

Money laundering of new (counterfeit) YER 5,000 promissory notes¹

Figure 53.1
Seized counterfeit YER 5,000 denomination promissory notes and blanks passport



Figure 53.2
Packaged counterfeit YER 5,000 denomination promissory notes



¹ Images from confidential source and Jawf press.

Figures 53.3 and 54.4

Subsequent seizure en-route in Houthi controlled areas



53.3: Seizure by Houthis in Ibb



53.4 Seizure by legitimate Government in Ma'rib

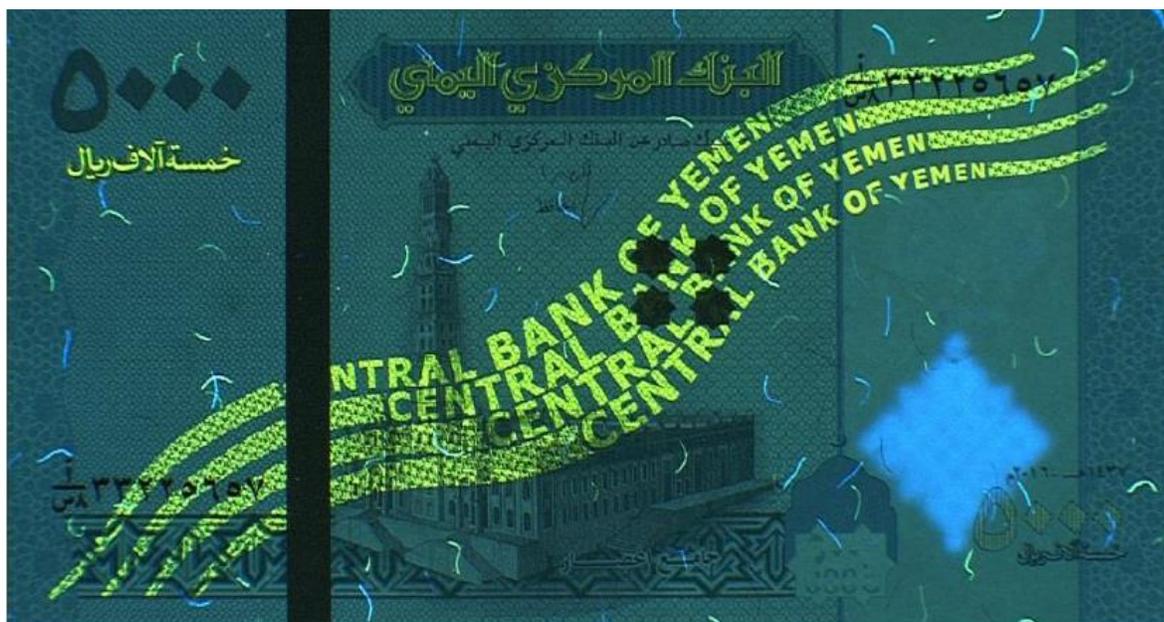
Figure 53.5

Detailed image of counterfeit YER 5,000 denomination promissory note received by the Panel used in forensic analysis



Figure 53.6

Detailed image of counterfeit YER 5,000 promissory note received by the Panel used in forensic analysis



I. Technical analysis

1. There is a noticeable absence of a watermark, a security thread in the substrate or security features which are present in a majority of banknotes produced on paper substrate, including 500 YER and 1,000 YER notes.
2. There is a noticeable absence of intaglio print, a printing technique typically utilised on banknotes and passports.
3. The front of the note is protected by: 1) yellow green fluorescent ink (it contains fluorescent substance in addition to visible colour pigments - Arabic script in yellow green); and 2) the fluorescent overprint (image which is invisible under white light and it fluoresces under UV light – wavy decorative and textual elements in Latin script in yellow green).
4. The serial number is printed ink-jet by propelling small droplets of liquid ink directly onto the substrate, a technique that is not usually utilised on banknotes.
5. Poor adhesion of the stripe onto the substrate, with some fragments of the holographic stripe missing. These defects suggest that the applied holographic foil choice is inadequate and is likely that the foil would not withstand well a typical banknote lifecycle / circulation.
6. The colour shifting security feature depicting four eight-pointed stars is printed utilising colour shifting ink that is not widely available and only from a limited number of suppliers.
7. Semantic difference with notes issued by the CBY found in the second line of text on the front of notes, just under the line: Central Bank of Yemen. On the YER 1,000 note the text reads: Issued by virtue of the Central Bank of Yemen Law, while on the YER 5,000 note the text reads: Cheque issued by the Central Bank of Yemen.

8. The words in the sequence Five Hundreds Riyals (**خمسمائة ريال** in Arabic) under the numeric 500 are separated by one spaces in the YER 500 note while the words in the sequence Five Thousand Riyals (**خمس الاف ريال** in Arabic)are stuck together, to appear as FiveThousandRiyals. The spaces which are seen in Yemeni and most Arabic notes with varying width are not seen in notes with Arabic characters such as from Jordan, Iran and KSA.
9. The serial number on genuine YER 500 and YER 1,000 notes is a seven digit number, while on the counterfeit YER 5,000 note it is an eight digit number.
10. The banknote serial number on the YER 1,000 note appears in two positions, in a vertical and a horizontal direction, whilst the serial number on the YER 5,000 note appears twice, only in a horizontal direction.
11. The lack of intaglio printing, watermark and / or a security thread due to budgetary constraints are usually those of lower denominations and extremely rarely of higher denomination
12. The poor fit could be caused by the utilisation of inadequate printing equipment, poor process control or both - suggesting that the questioned note was not printed by a company ordinarily involved in banknote manufacturing.
13. Simulation of a security print feature is usually expected to be seen on counterfeit notes.
14. The manufacturer of the questionable YER 5,000 note appears to have access to equipment and materials that are available to a commercial printing company.
15. The ability to source and successfully utilise colour shifting and fluorescent inks is an indication that the manufacturer of the 5000 YER note is a security printing company generally specialised in printing of cheques, tax stamps or other security documents such as gift vouchers.

Figure 53.7

Semantic comparison between 5 000 YER note (middle) with 500 YER (top) and 1000 YER bottom



II. Conclusions

16. Following a thorough comparative evaluation, and due to a number of observed deficiencies, most notably the absence of: 1) intaglio printing; 2) letterpress numbering; 3) watermark; and 4) a security thread, the note does not meet the standards of a contemporary, counterfeit-resilient banknote.

17. The see-through feature on the note exhibits poor registration between front and reverse of the note, where blue and green segments of the numerals should be joined to give perfect or near-perfect fit between print on the front and reverse. This fault might appear only on a small number of banknotes. If the fault appears on a large number of banknotes it would indicate that the printer is not able to control the process well. One of the most unexpected characteristics of the questioned banknote is not the absence of a split duct printing, but its simulation, which only gives the appearance of the smooth merging of inks into each other. One other plausible explanation would be that the feature was deliberately sacrificed in order to ensure more economical use of a substrate.

Annex 54: Cases of seizure of the non-authorized export of banknotes and gold bars through Shehen, Mahrah

I. Banknotes and gold bars seized in Shehen, Mahrah on 9 May 2017

1. The Panel is investigating a potential case of trafficking of finance assets potentially for the benefit of listed individuals following the seizure on 9 May 2017 at the Shehen border crossing point (BCP) with Oman. A pickup truck was inspected by Yemeni local authorities and found to contain the equivalent of US\$ 3.42 Million in mixed foreign currency and gold.¹ The customs service proceeded the same day with the arrest of the two individuals, seizure of the vehicle, the deposit of the shipment at the CBY branch and the submission of the case to the prosecutor.

2. On 15 May 2017, the prosecutor, Naji Said Mohamed Kadah, ordered the customs to release the two individuals and the vehicle, and to handover the shipment to a third person presented as the owner. As the Head of Customs refused, the Governor himself ordered him to comply informing him that he was in contact with President Hadi on the subject. The Panel has not received any confirmation as to the current custody of the shipment. The individuals involved are:

- (a) Mohamed Mohamed Saleh al-Addah from Shabwah, arrested at the BCP as the custodian of the shipment;
- (b) Saleh Saed Ahmed Judhaib from Ma'rib, arrested at the BCP; and
- (c) Saleh Yahya Mohamed Abdullah al-Haddad, owner of the Yahya Mohamed al-Haddad company for trade and entrepreneurship, presented documentation claiming that he was the owner of the shipment.

3. This case is an illustration of the smuggling activity in Mahrah as well as the involvement of local authorities in the trafficking.

Figure 54.1

Cash and gold bars seized at Shehen BCP, Mahrah on 9 May 2017²

¹ GBP 5,425, AED 150,000, SAR 8,726,106, QAR 107,429, US\$ 178,850 and 19.04 kg of gold (“at US\$39 per gram”).

² Source: <https://www.al-omana.com/news56507.html>, 9 May 2017. Corroborated by local customs and judiciary authorities.



Figure 54.2
 Customs receipt for GBP 5,425 cash seized at Shehen BCP, Mahrah on 9 May 2017

إدارة المالية
 خزانة توريد نقدية إلى البنك المركزي اليمني المركزي الرئيسي الفرع

رقم: 71
 التاريخ: 10/19
 نوع المورد: محلي

المصدر: المالحة
 المبلغ: 5425

بيان نوع المورد	نوع	بند	فصل	باب	المبلغ ريال
بيان - يشكر رقم وتاريخ أول وآخر قسيمة متحصلة					5425
أعطى بالي/ محمد محمد صالح العبد					

Figure X54.3
 Customs receipt for AED 150,000 cash seized at Shehen BCP, Mahrah on 9 May 2017

١١١ ط
 رقم 367
 لصلح بوزد: ١٩٥٨/١٩٦٦
 التاريخ: ١٩٥٩
 نوع المورد: مركزي / محلي / مهتر
 مكتب

وزارة / جهلا
 مصلحة / هيئة
 محافظة

الجمهورية العربية السورية
 وزارة المالية
 منطقة توريد تلبية إلى البنك المركزي الليبي المركزي الرئيسي

بيان - ينكر رقم وتاريخ و مبلغ أول وأخر نسبية متحصلات	بيان نوع المورد	نوع	بند	فصل	باب	المبلغ ريال
	أوراق					١٥٠٠
	١٤/٢٠٠٠					

Figure 54.6
Customs receipt for 7 x 19.04kg gold bars seized at Shehen BCP, Mahrah on 9 May 2017

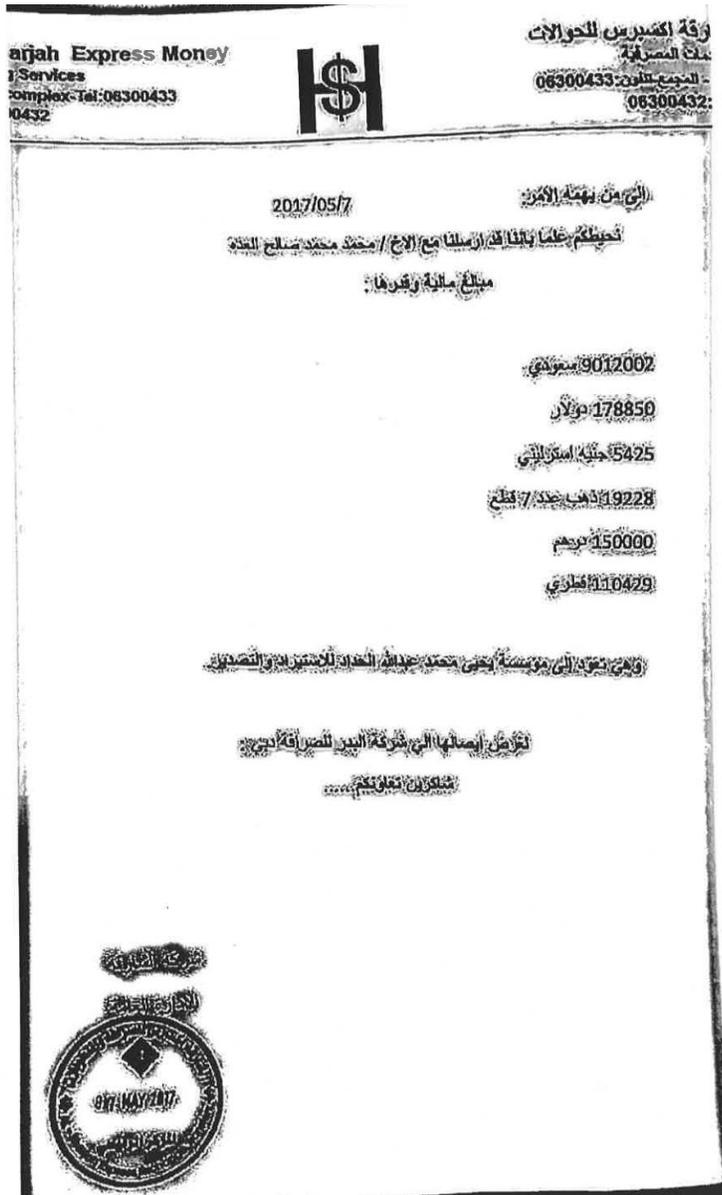
٢٠١٦ / ٥
رقم 445372
التاريخ ١٧ / ٥ / ٢٠١٦
نوع المورد: مشترك / مشترك
مكتب

وزارة المالية
مصلحة / مصلحة
محافظة

الجهة الموردة
وزارة / جهاز
مصلحة / هيئة
محافظة

المبلغ ريال	باب	فصل	بند	نوع	بيان نوع المورد	بيان - يتكرر رقم وتاريخ ومبلغ قول وآخر حسبية ملحقات
١٩٠٤						

Figure 54.7
Declaration for funds deposited in Dubai



NOTE: Declaration that the funds were handed over to Mohamed Mohamed Saleh al-Addah for deposit at the Al Bader Exchange in Dubai,

Figure 54.8
Yahya Mohamed al-Haddad Institute for Trade and Enterprise registration documents (4 September 2013)



NOTE: Registration document for “Yahya Mohamed al-Haddad Institute for Trade and Enterprises” under the name of Yahya Mohamed Abdullah al-Haddad on 4 September 2013.

Figure 54.9
Identity document of Saleh Saed Ahmed Judhaib



Figure 54.10
Identity document of Mohamed Mohamed Saleh al-Addah



Figure 54.11
Vehicle licence plate of truck seized at Shehen BCP, Mahrah on 8 May 17



B. Banknotes and gold bars seized at Shehen BCP, Mahrah on 17 July 2017

1. The Panel is investigating two additional potential cases of trafficking of finance assets potentially for the benefit of listed individuals:
 - (a) Seizure on 17 July 2017 at Shehen BCP of 7,174,700 Saudi Riyal (SAR); and
 - (b) Seizure on 27 July 2017 at Shehen BCP of 300,000 SAR and 42 gold bars.
2. On 9 May 2017 at the Shehen BCP with Oman, a pickup truck was inspected by Yemeni local authorities and found to contain the equivalent of US\$ 3.42 Million in mixed foreign currency and gold.³ The customs service proceeded the same day with the arrest of the two individuals, seizure of the vehicle, the deposit of the shipment at the CBY branch and the submission of the case to the prosecutor.
3. The Panel has shared the information with the Government of Yemen and is still awaiting a reply to its information requests.

³ GBP 5,425, AED 150,000, SAR 8,726,106, QAR 107,429, US\$ 178,850 and 19.04 kg of gold (“at US\$39 per gram”).

CONFIDENTIAL ANNEX NOT FOR PUBLIC DISSEMINATION

Annex 55: Confiscation of MV Androussa (IMO 9101182)

: **Houthi order to seizure assets owned by their opponents**

Figure X56.1

Order to the Sana'a based CBY by "the committee for the identification and the confiscation of assets owned by traitors" to freeze assets of 1223 individuals¹



¹ The order was posted in several media. The Panel confirmed its authenticity with confidential financial sources in Sana'a. The Panel is analyzing the list comprising the 1,223 names.

Panel's unofficial translation from Arabic

Republic of Yemen
supreme political council
committee for identification and seizure of assets owned by traitors

23/12/2017

to the governor of the central bank

Based on the order of the special criminal prosecutor number 4376 dated 17 November 2017 which mandated us to take measures for the provisional seizure of assets owned by traitors whose names are in the attached list comprising of 1,223 names starting by Ebtahaj Abdullah al-Kamel and ending by Yussef Hussein Mahdi.

In this regard and in order to implement the special criminal prosecutor's order, we trust you could issue a circular to all banks for the provisional seizure of all bank accounts owned by traitors whose assets are seized and whose names are in the attached list

signed

major general Abdelhakim Hashem al Khewani
deputy minister of interior
head of the committee for identification and seizure of assets owned by traitors

END OF TRANSLATION

Annex 57: Saleh financial network

Table 57.1

List of individuals and entities of Saleh financial network

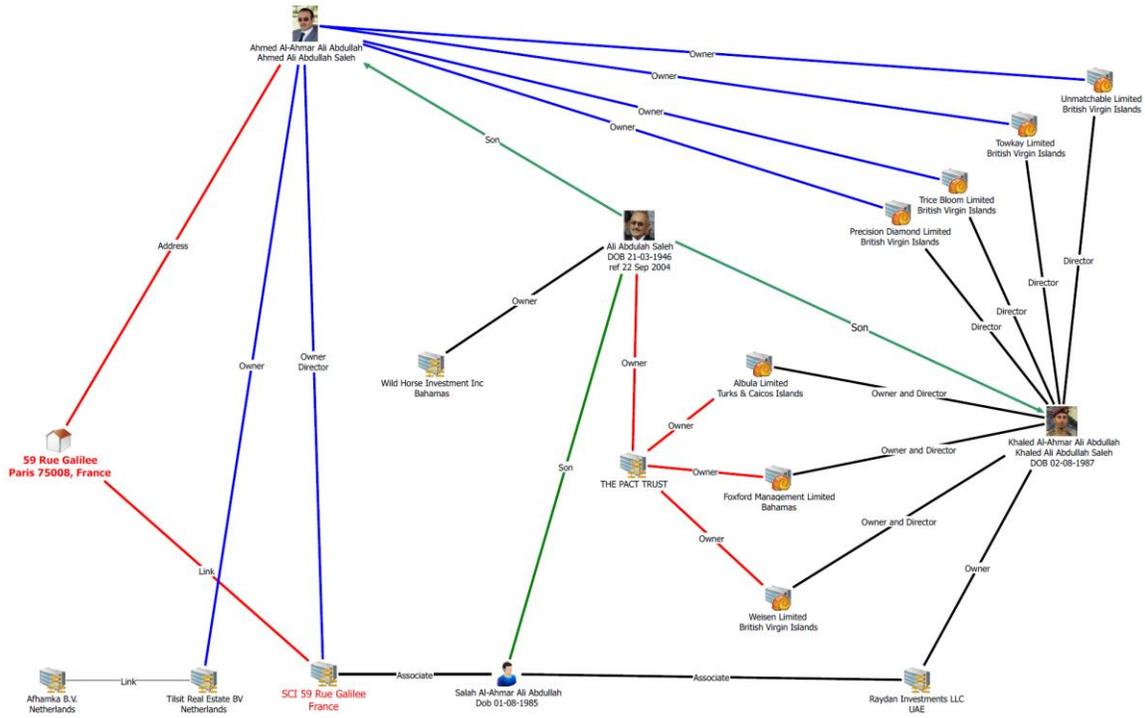
<i>Ser</i>	<i>Identity</i>	<i>Type</i>
1	Ali Abdulah Saleh (Yei.003) (Deceased on 4 November 2017)	Person
2	Ahmed Ali Abdullah Saleh (Yei.005) (a.k.a Ahmed Al-Ahmar Ali Abdullah)	Person
3	Khaled Ali Abdullah Saleh (a.k.a. Khaled Al-Ahmar Ali Abdullah)	Person
21	Towkay Limited British Virgin Islands	Company
22	Trice Bloom Limited, British Virgin Islands	Company
23	Precision Diamond Limited, British Virgin Islands	Company
24	Unmatchable Limited, British Virgin Islands	Company
25	Albula Limited, Turks and Caicos Islands	Company
26	Foxford Management Limited, Bahamas	Company
27	Weisen Limited, British Virgin Islands	Company
28	M-S Ansan Wikfs Hadramawt Limited, Cayman Islands	Company
29	SCI 59 Rue Galilee, France	Company
31	M-S ANSAN Wikfs Limited, Cayman Islands	Company
32	Ansan Wikfs Darfur (for Gold), Cayman Islands	Company
35	Afhamka B.V. Netherlands	Company
36	Wild Horse Investment Inc, Bahamas	Company
37	Raydan Investments LLC, UAE	Company
38	Tilsit Real Estate BV, Netherlands	Company
41	The Pact Trust	Company
43	59 Rue Galilee, Paris 75008, France	Address

Table 57.2
Raydan Investment Holdings Limited transfers in UAE¹

<i>Date</i>	<i>AED</i>	<i>US\$</i>	<i>Investment / Transfer in UAE</i>
Jan to Apr 2014	5,173,301	1,407,865	Ecostar International Holdings Limited
Feb to Apr 2014	25,560,000	6,955,910	Al Ramz Securities LLC bank account number AEXXXXXXXXXXXXX58492164, National Bank
9 Jun 2014	44,085,680	12,000,000	Staroil Operating Company bank account number AEXXXXXXXXXXXXX89601, Abu Dhabi Islamic Bank
25 Jun 2014	963,685	262,300	Select Global Development LLC account number AEXXXXXXXXXXXXX09693, Mashreq Bank
23 Mar 2015	1,237,789	336,906	EMAAR Properties PJSC Opera Grand account number AEXXXXXXXXXXXXX54615, Commercial Bank of Dubai
22 Apr 2015	103,385	28,140	Eversheds LLP bank account number AEXXXXXXXXXXXXX39001, HSBC Bank Middle East for oil concession payment
Totals	77,123,860	20,891,121	

¹ The currency of transfer is in normal bold text. All exchange rates from www.xe.com on 3 July 2017. US\$ 1 = AED 3.67.

Figure 57.1
Saleh financial network



Annex 58: Case studies of air strikes in Yemen (2017)

1. The Panel initiated investigations on ten air strikes against civilian targets in Yemen during 2017. Full case studies for four of these air strikes are included as shown in table 58.1.¹

2. The Panel arrived at its findings and conclusions based on its own investigations and information available in the public domain. If the Saudi Arabia-led coalition can provide verifiable information on the military objectives sought to be achieved that may counter the Panel's conclusions and findings, the Panel stands ready to review them.

3. Saudi Arabia, on behalf of the Saudi Arabia led-coalition has refused to engage with the Panel, stating that "the coalition's activities" fall outside the mandate of the Panel of Experts.² The Panel reaffirms that violations of IHL, including those that are committed by the Saudi Arabia-led coalition, as a party to the conflict in Yemen, fall within the Panel's mandate and that those individuals responsible for planning, deciding on and/or executing air strikes³ that disproportionately affect civilians and civilian infrastructure may fall under the designation criteria contained in paragraphs 17 and 18 of resolution 2140 (2014). The Saudi Arabia-led coalition, as the military entity carrying out these air strikes, can also fall within paragraphs 17 and 18 of resolution 2216 (2015) (see paragraph 8).

Table 58.1

Full case studies of air strikes against civilian targets

<i>Date</i>	<i>Location</i>	<i>Incident and target</i>	<i>Type of ordnance</i>	<i>Civilian casualties</i>	<i>Case study in Appx</i>
16 Mar 2017	Red Sea	Maritime helicopter attack against Somali migrant boat.	Small arms ammunition	42 dead 34 injured	A
25 Aug 2017	Sana'a	Air delivered ordnance against a civilian residence	High explosive (HE) aircraft (a/c) bomb	16 dead 17 injured	B
2 Sep 2017	Hajjah	Air delivered ordnance against a civilian residence	HE a/c bomb	3 dead 13 injured	C
1 Nov 2017	Sa'dah	Air delivered ordnance against a night market	HE a/c bomb fitted with Paveway guidance unit.	31 dead 26 injured	D

¹ The Panel selects its cases accordance with its IHL methodology in Annex 1, primarily based on the availability of requisite high standard of evidence.

² Letter from the Kingdom of Saudi Arabia dated 10 October 2017.

³ Regarding those executing attacks, it is possible that the pilot of the aircraft may fire his or her weapons in reliance of the accuracy of the information that may have been previously provided to him or her. In these cases, the Panel finds that it is those commanders who plan and decide upon the air strikes, who have at their disposal the relevant information from a variety of sources, who have the responsibility to ensure compliance with international humanitarian law. See also William Boothby and Michael N. Schmitt, *The Law of Targeting* (Oxford University Press, 2012).

4. In the ten incidents investigated the Panel finds that:
- (a) The use of precision-guided weapons⁴ is a strong indicator that the intended targets were either the objects or the individuals affected by the air strikes;
 - (b) In all cases investigated, there was no demonstrable evidence that the civilians in, or near these objects, who are *prima facie* immune from attack, had lost their civilian protection;
 - (c) Even if in some of the below mentioned cases, the Saudi Arabia-led coalition had targeted legitimate military objectives, the Panel finds, based on its investigations, that it is highly unlikely that the IHL principles of proportionality and precautions in attack were respected in these incidents;
 - (d) The cumulative effect on civilians and the civilian objects demonstrates that even if precautionary measures were taken, they were largely inadequate and ineffective; and
 - (e) In respect of the individual case studies, the Panel finds that:
 - (i) Except for case study 1, the only military entity capable of carrying out these airstrikes is the Saudi Arabia-led coalition. In case study 1, it is highly unlikely that an entity other than the Saudi Arabia-led coalition could have carried out the attack;
 - (ii) Except for cases 2 and 4, the Saudi Arabia-led coalition has not acknowledged its involvement in any of the attacks, nor clarified, in the public domain, the military objective sought to be achieved. In cases 2 and 4, the Panel is unable to concur with the justifications provided by the Saudi Arabia-led coalition.
 - (iii) In case study 4, an attack on a night market, even if there was a Houthi gathering as claimed by the Saudi Arabia-led coalition, evidence strongly demonstrates that the Saudi Arabia-led coalition did not meet IHL requirements of proportionality and precautions in attack. This also applies to case summary 7;
 - (iv) Except for case summary 10, where Saudi Arabia-led coalition targeted the 22nd Armoured Brigade of the legitimate Government, there is no demonstrable evidence that all those affected were deprived of the protection afforded to civilians; and
 - (v) In the cases where air strikes targeted residential buildings, over half of those affected were children. The Panel finds that measures taken in the Saudi Arabia-led coalition in its targeting process to minimize child casualties, if any, remain largely ineffective.⁵

⁴ Precision-guided weapons systems have low percentage failure rates.

⁵ For measures reportedly taken by the Saudi Arabia-led coalition to reduce child casualties, see paragraph 200 of the Secretary General's Report on Children in Armed Conflict, [S/2017/821](#), 24 August 2017. The report notes that "the United Nations was informed of measures taken by the Saudi Arabia-led coalition in 2016 to reduce the impact of conflict on children, including through their rules of engagement and the establishment of a joint incident assessment team mandated to review all incidents involving civilian casualties and identify corrective action". Yet, of the 43 incidents examined by the Joint Incident Assessment Team (JIAT), made available to the Panel, in only two incidents did it find that the Saudi Arabia-led coalition violated IHL. The Panel also notes that there is no transparency in the implementation of the recommendations of the JIAT by the Saudi Arabia-led coalition.

5. In the absence of any verifiable information from the Saudi Arabia-led coalition, the Panel concludes that the evidence strongly demonstrates that these air strikes violated the IHL obligations of individual member States of the Saudi Arabia-led coalition. All States whose forces engage in, or otherwise participate in military operations on behalf of the coalition are responsible for “all acts committed by persons forming part of its armed forces”.⁶ These States “may not evade their obligations by placing their contingents at the disposal of an ad hoc coalition”.⁷ All Saudi Arabia-led coalition member States and their allies⁸ also have an obligation to take appropriate measures to ensure respect for IHL by the Saudi Arabia-led coalition.⁹ This obligation is especially incumbent upon the Government of Yemen, upon whose request and with whose consent the air strikes are being conducted (see S/2015/217). The Panel stands ready to provide the Committee with further information if requested, but in the interest of brevity, provides only summaries of the cases in table 58.2 below.

Table 58.2
Other air strikes against civilian targets

<i>Appx to Annex 58</i>	<i>Date</i>	<i>Location</i>	<i>Incident and target</i>	<i>Type of ordnance</i>	<i>Civilian casualties</i>	
D	9 Jun 2017	Sana’a	Air delivered against residential building	EO residential	Mk 82 or 84 HE bomb / Paveway	4 dead 8 wounded
E	4 Aug 2017	Sa’dah	Air delivered against a residence	EO a civilian	Mk 84 2000lb aircraft bomb	9 dead 3 injured
F	23 Aug 2017	Arhab	Air delivered against hotel	EO	Mk 82 or 84 HE bomb / Paveway	33 dead 25 injured ¹⁰
G	16 Sep 2017	Ma’rib	Air delivered against civilian vehicle	EO	HE a/c bomb or air to ground missile (AGM)	12 dead

⁶ See updated [commentary to common article 1 of the Geneva Conventions of 12 August 1949](#). See also article 3 of The [Hague Convention respecting the Laws and Customs of War on Land of 1907](#).

⁷ See updated [commentary to common article 1 of the Geneva Conventions](#).

⁸ Based on the updated [commentary to common article 1](#), “allies” may include those States that engage in “financing, equipping, arming or training” of the coalition armed forces for their engagement in Yemen and/or those States that plan, carry out and debrief operations jointly with the coalition. For the specific States that are involved, see para. 30.

⁹ This obligation to respect and ensure respect under common article 1 of the [Geneva Conventions of 12 August 1949](#) is not limited to those coalition States that actively participated in this air strike as stated in the updated commentary. “The duty to ensure respect ... is particularly strong in the case of a partner in a joint operation, even more so as this case is [closely](#) related to the negative duty neither to encourage nor to aid or assist in violations of the Conventions. The fact, for example, that a High Contracting Party participates in the financing, equipping, arming or training of the armed forces of a Party to a conflict, or even plans, carries out and debriefs operations jointly with such forces, places it in a unique position to influence the behaviour of those forces, and thus to ensure respect for the Conventions”.

¹⁰ UN figures. See “[Press briefing note on Yemen, Cambodia and Guatemala](#)”. Media and witnesses reported that 60 people died, and 13 were injured. In accordance with Panel methodology in annex 2, the Panel relies on UN data when the casualty figure is above ten. The Panel has requested, and is awaiting, an update on the figures from the UN OHCHR.

<i>Appx to Annex 58</i>	<i>Date</i>	<i>Location</i>	<i>Incident and target</i>	<i>Type of ordnance</i>	<i>Civilian casualties</i>
H	10 Nov 2017	Sa'dah	Air delivered EO against residential building	Mk 82 or 84 HE bomb / Paveway	4 dead 4 injured
I	14 Nov 2017	Ta'izz	Air delivered ordnance against legitimate Government of Yemen forces on Saber mountain	Mk 82 or 84 HE bomb / Paveway	3 dead 5 injured

6. The Panel also takes note of the JIAT findings that differ from Panel findings in 2016, on the case study summaries contained in serials 5, 7, 8, and 9 of [S/2017/81](#). The Panel, after evaluating the information provided by the JIAT in the public domain, attaches the full case studies of those incidents in annex 60. The Panel, in contrast to the JIAT findings, confirms that: 1) the Saudi Arabia-led coalition was responsible for those air strikes; and 2) in the absence of any credible evidence to the contrary including the military objectives, which can only be provided by the Saudi Arabia-led coalition, evidence still strongly demonstrates that the Saudi Arabia-led coalition violated IHL in those incidents.

7. IHL requires military commanders and those responsible for planning, authorizing and executing decisions regarding attacks to take all feasible precautions to avoid, and in any event to minimize, incidental loss of civilian life, injury to civilians and damage to civilian objects. Air strikes that disproportionately affect civilians and civilian infrastructure are veritable threats to the peace, security and stability of Yemen.

Appendix A to Annex 58: Maritime attack against Somali migrant boat, Hudaydah on 16 March 2017¹¹

I. Introduction

1. This case study aims at identifying acts considered by the Panel as potential violations of IHL. This annex includes the Panel's findings on the incident relating to an attack on a boat carrying civilian migrants that occurred on 16 March 2017, within 60 nautical miles (nm) off the Yemeni Red Sea coast.¹²

2. This incident took place in a maritime area where there has been a recent escalation of hostilities. All the available evidence points to the incident being directly linked to the Yemen conflict. Given that no Member State or organization has so far accepted responsibility for the incident, the Panel is currently discounting the possibility that the incident was a result of a legitimate law enforcement operation permitted under Article 73 of the United Nations Convention on the Law of the Sea, unless further evidence to the contrary is found.

II. Background¹³

3. On the night of 16 March 2017,¹⁴ a small vessel carrying approximately 146 passengers¹⁵ was attacked in the Red Sea off the coast of Yemen. There were at least 42 fatalities, which included 11 Somali women,¹⁶ and 34 Somalis, including eight children, were injured.¹⁷ The vessel, which contained predominantly Somali nationals, was sailing away from Yemen when the incident occurred.¹⁸ Sources state that some of the migrants

¹¹ This case study was included in the mid-term update submitted to the Committee on 28 July 2017. An updated version is included here.

¹² Some accounts state that the vessel was between 30 - 55 nm off the coast of Yemen when the incident occurred. As far as the Panel is aware, there were no distress call made to the shore and there is no open source record of the geo-location of the incident. The Government of Yemen claims a territorial sea out to 12 nm from their coast, a contiguous zone of 24 nm and an exclusive economic zone out to 200nm. This is in accordance with the United Nations Convention on the Law of the Sea (UNCLOS) www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf, which Yemen ratified on 21 July 1997 and acceded to the subsequent Agreement that amended the original convention on 13 October 2014.

¹³ For media coverage on the issue, see <http://ca.reuters.com/article/topNews/idCAKBN1600UI-OCATP>, <http://www.euronews.com/2017/03/17/dozens-of-somali-refugees-killed-in-airstrike-off-yemen>, <https://ethiocritical.com/2017/06/06/saudi-chopper-massacre-analysis-of-the-deaths-of-42-somali-refugees-at-sea-and-why-justice-is-beyond-them/amp/>. For the Government of Somalia's initial response, see <http://www.independent.co.uk/news/world/middle-east/saudi-arabia-led-coalition-blamed-somalia-deadly-attack-boat-refugees-fleeing-yemen-a7637456.html>.

¹⁴ Some witnesses stated that the attack occurred after around 21.00 hours.

¹⁵ This included four Yemenis.

¹⁶ In Yemen, women are not considered likely to engage in hostilities. Under IHL, women, like children are afforded special protection.

¹⁷ OHCHR. See also <http://www.unhcr.org/news/press/2017/3/58cc01754/news-comment-unhcrs-spokesperson-william-spindler-attack-refugee-boat-yemen.html>. UNHCR reports that at least 42 were killed in the incident, www.unhcr.org/news/press/2017/3/58cfe9824/unhcr-condemns-refugee-deaths-yemen-calls-inquiry.html.

¹⁸ Source: UN.

had left al-Kharaz camp in Ras al-Ara in Lahij Governorate in Yemen and that the boat was destined for Sudan.¹⁹ Survivors state that late in the night of 16 March 2017, a large vessel approached the boat and ordered the boat to stop. When the boat proceeded without stopping, rockets were fired that did not impact on the boat. The helicopter, highly likely to have come from the large vessel, fired on the boat for five minutes and then circled the boat and fired again from another direction resulting in the damage and injuries documented in this case study.²⁰ The helicopter then left, as did the vessel. After 30 minutes²¹ the boat proceeded to shore, without encountering further resistance or any assistance.

4. The Panel has not obtained any evidence that demonstrates the presence of any fighters, weapons or military equipment in the vessel that would have made the vessel a legitimate military target, nor had any party to the conflict alleged the boat to be a military target (see paragraph 20). The Panel's request to visit the site to interview survivors and inspect the boat was denied by the Houthi-Saleh alliance.²²

Figure A.58.1
Migrant boat in port after attack (17 March 2017)²³



III. Technical analysis²⁴

A. Wound ballistics and calibre

5. The Panel analysed imagery from a range of sources that was taken on 17 and 22 March 2017. From the immediate post-incident imagery of 17 March 2017, which included human remains still on the vessel, wounds

¹⁹ UN. Some sources stated that the boat stopped at many unspecified locations along the path to pick up migrants who joined the journey.

²⁰ Testimony from Panel sources, testimonies shared by two organizations, interviews with UN agencies, and international organizations, Somali diaspora, information/ reports provided by four international organizations, and open source documentation. There were no reports of the shots being fired from the vessel.

²¹ Sources informed the Panel that those alive hid themselves beneath the bodies of the dead and remained motionless for approximately 30 minutes to avoid further attack.

²² Letter to Panel dated 23 March 2017.

²³ Photos contained in this case study were obtained from three confidential sources who collected the imagery independently of each other and these photos were verified against multiple different open source imagery.

²⁴ The Panel has consulted with an independent ballistic forensic scientist Mr. Philip Boyce BSc, MSc, who agrees with the technical analysis of the Panel.

were identified that had all the characteristics of the penetrating and perforated trauma²⁵ typical of that caused by the impact of a high velocity small arms round. It is almost certain²⁶ that the wounds had been caused by small arms fire from a weapon of a calibre of no more than 7.62mm.

B. Location of firing point

6. The circumstances surrounding the incident mean that only the perpetrator themselves can confirm the exact geo-coordinates the weapon was fired from. All forensic evidence from the firing point would remain on the firing platform or be lost to the sea. Notwithstanding this, examination of physical forensic evidence on the small vessel itself provides indicators as to the direction and altitude of the firing point.

7. Examination of the imagery taken on 22 March 2017 and obtained by the Panel identified a bullet strike from a small calibre high velocity round of between 5.56mm to 7.62mm in one of the blue barrels on the deck of the vessel (figures A.58.2 to A.58.5). The bullet has perforated the top of the barrel and the kinetic energy of impact has caused plastic deformation to the barrel material in the area immediately surrounding the bullet strike. Figure 1.X.5 shows the damage to the hull of the vessel caused by a bullet perforating the hull from the inside to outside. Larger calibre bullets (12.7mm and above), or cannon rounds (20mm and above) would have caused substantially more damage than that shown in the imagery.

²⁵ Penetrating trauma occurs when the bullet remains within the human body. Perforating trauma occurs when the bullet passes through the human body. In the case of perforating trauma from a high velocity projectile the exit will typically be larger than the entry wound.

Figure A.58.2
Bullet strike on blue barrel²⁷



Figure A.58.3
Bullet strike on blue barrel



Figure A.58.4
Bullet strike on blue barrel



Figure A.58.5
Bullet strike on hull²⁸



8. Closer examination of figures A.58.3 to A.58.5 also clearly shows a directional impact strike indicating that the round was fired from a direction forward of the vessel. This direction correlates with the training given to armed forces that are taught that the ideal firing position from a moving platform to a moving target is generally with the target moving directly towards you. This reduces the need for lateral deflection²⁹

²⁷ Image source: Confidential.

²⁸ Source: <https://www.youtube.com/watch?v=-DI4SnO59D8>.

²⁹ Deflection is a technique used for effectively firing a projectile at a moving target, which is also known as "leading the target". It means shooting ahead of a moving target so that the target and projectile will collide.

when aiming, and also makes best use of the 'beaten zone' of a machine gun as it means the target is moving into the impact zone and not out of it.

9. The beaten zone of a machine gun is the elliptical pattern formed by the rounds striking the ground or the target. The size and shape of this beaten zone changes when the range to the target changes or when the machine gun is fired from differing altitudes. On uniformly sloping or level terrain, the beaten zone is long and narrow. As the altitude of the machine gun increases, its attitude to the target changes and the relative beaten zone becomes shorter and slightly wider. Figures A.58.6 to A.58.8 illustrate how the beaten zone of a machine gun will change dependent on its platform. In this case: 1) normal land; 2) the deck of a ship; and 3) from an aerial platform such as a helicopter.

Figure A.58.6
Beaten Zone (MG on Ground)

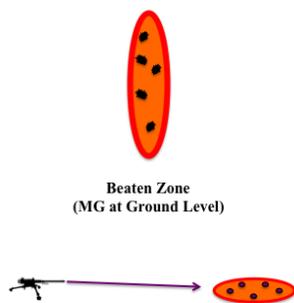


Figure A.58.7
Beaten Zone (MG on Deck of Ship)

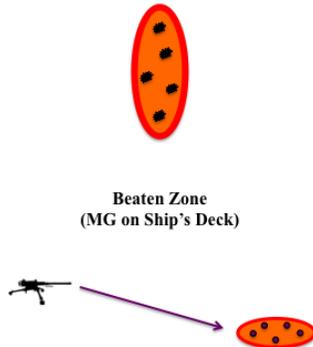
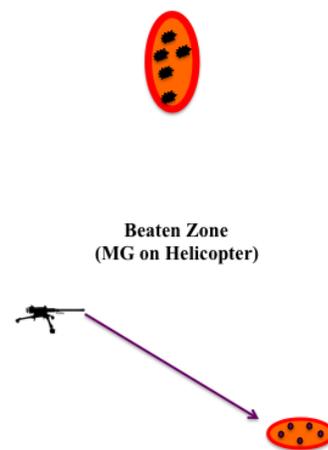


Figure A.58.8
Beaten Zone (MG on Helicopter)



10. The Panel finds it highly unlikely that a surface attack from another small vessel took place as: 1) the gunshot damage on the blue barrel (figures A.58.3 and A.58.4) was not from low angle trajectory high velocity fire; and 2) the humans on the vessel would have shielded the blue barrel from low angle trajectory high velocity fire.

Figure A.59.9
Bullet trajectory analysis (side view)

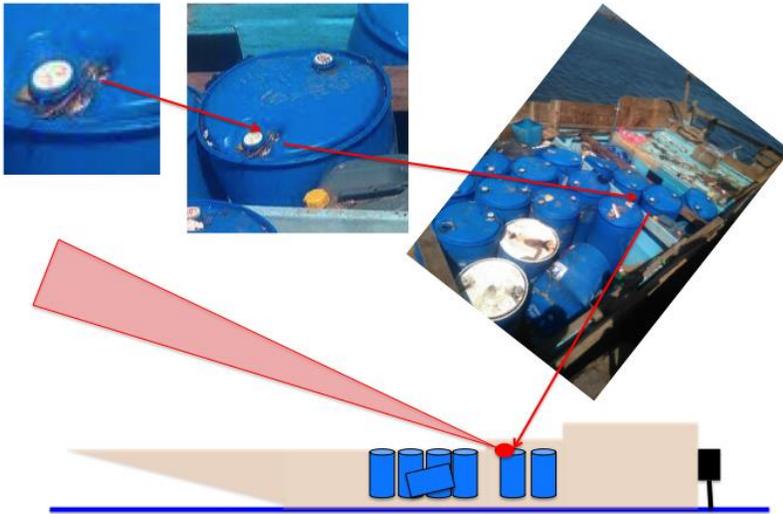
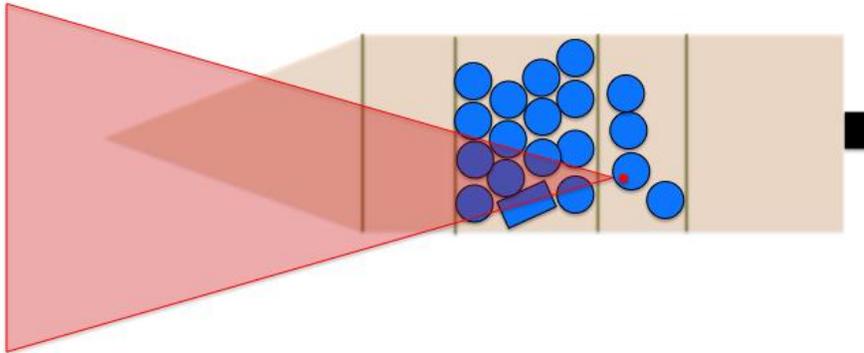


Figure A.58.10
Bullet trajectory analysis (plan view)



11. The Panel finds it unlikely that a surface attack from a weapon mounted on a naval vessel was the cause of the attack based on the analysis of the attack angle estimated in paragraph 8 above, but cannot discount the possibility of a naval vessel being present in the local area. Table A.58.1 shows the distances at which various vessel types would have to have been located for rounds from a weapon on their deck to hit the migrant boat based on the attack angle established in figure A.58.9.

Table A.58.1
Bullet trajectory analysis

Ser	Vessel type	Height (m)	Trajectory angle		Range (m)	Trajectory angle		Range (m)
			Degrees	TAN		Degrees	TAN	
1	Corvette (Deck)	4.2	15	0.268	15.7	20	0.36	11.5
2	Corvette (Bridge roof)	13.1	15	0.268	48.9	20	0.36	36.0
3	Frigate (Deck)	9.4	15	0.268	35.1	20	0.36	25.8
4	Frigate (Bridge roof)	16.3	15	0.268	60.8	20	0.36	44.8
5	Destroyer (Deck)	6.8	15	0.268	25.4	20	0.36	18.7
6	Destroyer (Bridge roof)	14.9	15	0.268	55.6	20	0.36	40.9
7	Aircraft Carrier (Flight deck)	16.5	15	0.268	16.5	20	0.36	45.3
8	Aircraft Carrier (Bridge)	31.7	15	0.268	31.7	20	0.36	87.1
9	VLCC ³⁰ (Deck)	17.1	15	0.268	17.1	20	0.36	47.0
10	VLCC (Bridge wing)	46.4	15	0.268	46.4	20	0.36	127.7

12. This analysis clearly shows that any attack from another vessel would have to have been so close that the passengers could hardly fail to notice it was firing at them.

13. Similarly, the analysis also clearly shows that the shots could not have been fired from the land because the boat would have to have been so close to land (island or coast) that the passengers could not fail to notice their proximity to the land. In this case it is probable that they would have grounded the boat before being shot at based

³⁰ Very Large Crude Carrier.

on the firing angle analysis, unless fired at from tall cliffs.

14. The distance/height parameters do allow for an AK47 attack from within the boat, but the Panel has found no evidence of this possibility to date.

15. The Panel thus concludes that the attack was from an aerial platform based on the trajectory of the bullet strike as shown in figures A.58.9 and A.58.10 and the analysis of attack angles in table A.58.1.

C. Weapon type

16. The Panel has discounted the impact of an explosive weapon (including rockets) on the vessel, as there is no indication in any of the imagery of any explosive effects such as fragmentation, deformation or metal shear, on materials.³¹ Similarly there is no photographic evidence of traumatic amputation on the casualties, which would be expected if it were an explosive attack.

17. The calibre of the bullet (5.56mm to 7.62mm) indicates that only the following generic weapon types could have been used for this attack: 1) assault rifle; 2) light machine gun; 3) medium machine gun; or 4) minigun.³² There have been media reports³³ that an AH64 Apache attack helicopter³⁴ was used for the attack. However the Panel has discounted the Apache as an attack platform as that particular helicopter only carries: 1) 30mm M230 Chain Gun;³⁵ 2) 70mm Hydra,³⁶ CRV 7³⁷ or APKWS³⁸ air to ground rockets; 3) AIM-92 Stinger;³⁹ and/or 4) Hellfire⁴⁰ anti-tank guided missiles as its weapon systems. It does not mount weapons of

³¹ It is possible that if rockets were used, as reported by an eyewitness, they missed the target and impacted in the sea. The Panel considers this unlikely due to the size of the vessel and the accuracy of close range rocket systems.

³² The M134D 7.62mm Minigun manufactured by www.dillonaero.com. This system is in service with Saudi-Arabia-led coalition members; 1) Saudi Arabia and 2) Yemen. The system is also in service with the following members of the Combined Maritime Force; 1) Australia; 2) Canada; 3) Iraq; 4) Italy; 5) Jordan; 6) Republic of Korea; 7) Malaysia; 8) Norway; 9) Pakistan; 10) The Philippines; 12) Spain; 13) Thailand; 14) Turkey; 15) United Kingdom; and 16) United States.

³³ For example: 1) www.theguardian.com/world/2017/mar/17/somali-refugees-killed-helicopter-attack-off-yemen-coast; 2) <http://www.independent.co.uk/news/world/middle-east/yemen-refugees-killed-helicopter-attack-on-ship-somali-injured-government-houthi-rebel-unhcr-women-a7634751.html>; and 3) www.middleeasteye.net/news/dozens-somali-refugees-killed-yemen-helicopter-attacks-boat-1163813622.

³⁴ www.boeing.com/defense/ah-64-apache/.

³⁵ www.orbitalatk.com/defense-systems/armament-systems/automatic-cannons-chain-guns/docs/109493_10_M230LF_Chain_Gun.pdf.

³⁶ Air Intercept Missile. www.gd-ots.com/armament_systems/rw_hydra.html.

³⁷ Canadian Rocket Vehicle. www.magellan.aero/product/rockets/.

³⁸ Advanced Precision Kill Weapon System. www.baesystems.com/en-us/product/apkws-laser-guided-rocket.

³⁹ www.raytheon.com/capabilities/products/stinger/.

⁴⁰ www.lockheedmartin.com/content/dam/lockheed/data/mfc/pc/longbow-fcr-and-longbow-hellfire-missile/mfc-longbow-fcr-pc.pdf.

5.56mm to 7.62mm calibre. ⁴¹

18. It is unlikely that an assault rifle (5.56mm or 7.62mm) was the weapon system used, as the inherent instability of the aerial platform would make accuracy difficult. Light machine guns are rarely pintle mounted⁴² on airframes, thus the Panel finds it most likely that either a pintle mounted⁴³ medium machine gun or minigun was the weapon system used. These are commonly mounted on virtually all naval helicopters, and examples of pintle mounts are shown in figures A.58.11 and A.58.12.

⁴¹ 1) Major General Ahmed al-Asiri, during a visit to London on 30 March 2017, distanced Saudi Arabia as a potential perpetrator by claiming that Saudi helicopters “did not hold the ammunition found at the site”. www.theguardian.com/world/2017/mar/31/saudi-arabia-yemen-military-campaign-general-ahmed-aisir-clashes-with-critics. 2) This statement was in relation to the initial reports that an AH64 Apache was the attack platform. At no point did Major General Ahmed al-Asiri specifically deny that the attack platform belonged to another member State of the Saudi Arabia-led coalition. Source: Attendee at the press conference.

⁴² A pintle mount is a fixed mount that allows the gun to be freely traversed and/or elevated while keeping the gun in one fixed position.

⁴³ There are also Moveable Weapons Mounts (MWMS) that clamp to the doorframe of a helicopter.

Figure A.58.11
Example of a pintle mount (minigun)⁴⁴



Figure A.58.12
Example of a pintle mount (7.62mm MMG)⁴⁵



19. Based on the analysis above the Panel concludes that the damage caused in this attack was highly likely a result of rounds fired from a medium machine gun or minigun of 7.62mm calibre mounted on a helicopter. It is likely that this was a naval helicopter operating off a warship as: 1) the potential position of the targeted vessel in the Red Sea at the time of the attack means that it is highly unlikely that land based assets were used; and 2) there were reports of sightings of a large vessel in the immediate area at the time of the attack (see paragraph 3). The only party directly engaged in the conflict in Yemen that has this capability is the Saudi Arabia-led coalition, although many of the warships operating in the Red Sea as part of the Combined Maritime Forces (CMF), or independently, would also have armed naval air assets.

IV. Analysis of violations of international humanitarian law⁴⁶

A. Violation of principle of distinction

20. IHL requires that a party carrying out an attack distinguish between civilians and fighters, and civilian objects and military objectives.⁴⁷ Parties are prohibited from directing attacks against civilians.⁴⁸ None of the parties to the conflict have advanced any claims that the vessel or its occupants had become legitimate military targets. The UAE state media has quoted an UAE official as saying that the UAE recognized the civilian nature of this boat prior to the incident.⁴⁹

22. At the time of the incident, the vessel was carrying over 140 individuals, including women and children,

⁴⁴ www.ytimg.com/vi/HWjQnXlvwa0/maxresdefault.jpg. Included for illustrative purposes only.

⁴⁵ Credit. Taken by Technical Sergeant Dennis J. Henry Jr, USAF. © USAF. Released to public domain for fair use as ID 121129-F-PM120-898. Included for illustrative purposes only.

⁴⁶ Yemen and all members of the Saudi Arabia-led coalition who have contributed air assets to military operations in Yemen are parties to the Geneva Conventions of 1949, the Protocol Additional to the Geneva Conventions of 12 August 1949 and relating to the Protection of Victims of International Armed Conflicts (Additional Protocol I), and Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Additional Protocol II) of 8 June 1977. Customary IHL is binding on all parties to the conflict in Yemen. See www.icrc.org for the ratification status of treaties by parties to the conflict.

⁴⁷ Common Article 3 (CA3) to the Geneva Conventions of 1949 (GC 1949), Article 13 to the Additional Protocol II (AP II) and ICRC Customary IHL Rules 1 – 10.

⁴⁸ CA3 to GC 49, Article 13 to the AP II and ICRC Customary IHL Rules 1 and 7.

⁴⁹ www.wam.ae/en/details/1395302603973.

and some of whom the UNHCR had classified as refugees.⁵⁰ The Panel has found no evidence as of yet to demonstrate that these individuals, or the vessel, had lost its immunity from direct attack at the time of the incident. Yet, the fact that the gunfire was repeatedly and directly aimed at the vessel and its passengers, demonstrate that this vessel and its occupants were indeed the direct target of the attack.

23. Thus, given that: 1) there is no demonstrable evidence that the vessel or the occupants had lost their civilian protection; and 2) the attack was clearly directed against the vessel and the occupants, there are very strong indications that the party that carried out the attack violated the IHL principles relating to distinction.

B. Violation of principles relation to precautions and proportionality

24. IHL requires that military commanders and those responsible for planning and executing decisions regarding attacks take all feasible precautions to avoid, and in any event to minimize, incidental loss of civilian life, injury to civilians and damage to civilian objects.⁵¹ IHL also imposes an obligation on parties to the conflict to cancel or suspend an attack if it becomes clear that its attack is likely to cause excessive civilian damage.⁵²

26. It is not clear if and what effective advance precautionary measures were taken to minimize civilian casualties or damage to civilian objects. It is highly likely that the vessel requested the boat to stop, and when it failed to do so, fired rockets in its direction. It is not clear if these rockets were fired as warning shots, or were intended to destroy the boat. However, evidence collected thus far demonstrates that the gunfire was directed deliberately at the occupants of the boat as demonstrated in the deaths of nearly one third of the vessel's passengers, and serious injuries to others.

27. The Panel has found readily available public information that demonstrates that the area around the Yemeni 'Red Sea' ports are regular migration routes for many migrants and refugees in the region. For example, 967 migrants from Ethiopia and Somalia arrived at the Red Sea coast in January 2017 and 1,135 in February 2017 by similar boats.⁵³ It is reasonable to presume that the parties engaged in the conflict in Yemen were aware of these migratory patterns and should have, thus, taken extra precautions to ensure that harm to these individuals was minimized.

28. Additionally, the fact that the vessel was headed away from Yemen, and was full of passengers, also significantly lessens the likelihood that the vessel was carrying weapons or fighters towards Yemen. Even if it was suspected that this specific vessel, or vessels of this size or nature, had previously engaged in arms smuggling into Yemen, the attack on the vessel, at the time and in circumstances where the boat was filled with passengers, including women and children, was extremely unlikely to be proportionate response. The Panel also highlights that even if the vessel were engaged in human smuggling at the time of the incident,⁵⁴ this would not absolve the parties involved in the conflict from their IHL obligations.

29. The Panel takes full cognizance of the recent maritime security incidents experienced by Saudi Arabia-led coalition and United States' naval vessels in the Strait of Bab al Mandab and Red Sea. Yet, this would not exempt any party to the conflict in Yemen, from their obligations under IHL to ensure that a target is a legitimate

⁵⁰ www.unhcr.org/news/press/2017/3/58cfe9824/unhcr-condemns-refugee-deaths-yemen-calls-inquiry.html.

⁵¹ Rules 15 and 18 of the ICRC Customary Study.

⁵² Rule 19 of ICRC Customary Study.

⁵³ Report of the Danish Refugee Council, [www.reliefweb.int/sites/reliefweb.int/files/resources/RMMS Mixed Migration Monthly Summary February 2017.pdf](http://www.reliefweb.int/sites/reliefweb.int/files/resources/RMMS_Mixed_Migration_Monthly_Summary_February_2017.pdf).

⁵⁴ The Panel understands that at least one crew-member was arrested for human smuggling following the incident.

military objective prior to attack.

C. Violations of obligations relating to those wounded at sea

30. IHL requires that “whenever circumstances permit, and particularly after an engagement, each party to the conflict must, without delay, take all possible measures to search for, collect and evacuate the wounded, sick and shipwrecked without adverse distinction”.⁵⁵ It also requires that those wounded at sea must receive medical care “to the fullest extent practicable” and “with the least possible delay”.⁵⁶

31. While there is some evidence to suggest that the party conducting the attack, desisted from further attacks, after the civilian nature of the vessel became evident,⁵⁷ there is no demonstrable evidence to suggest that they took any measures to assist the dead or wounded. There were no distress calls made on behalf of the vessel, nor was there any attempt to rescue the wounded. According to witnesses, it took the targeted vessel at least another six hours to reach a safe port with the wounded after the incident.

32. The Panel notes a report published in the UAE state news agency.⁵⁸ The statement is attributed to a UAE official who stated that the UAE “clearly recognized the non-military nature of the boat which was carrying a large number of civilians... in the light of this information, the UAE Armed Forces adhered to the strict engagement rules preventing them from targeting any non-military targets”. This statement, if accurate, indicates that the UAE had naval assets with a surveillance capability in the area and thus either visual or radar visibility of the vessel around the time of, or prior to, the incident. It is therefore, highly unlikely, that UAE naval assets in the vicinity remained unaware of the incident.⁵⁹ It is thus possible that they would have been in a position to assist the wounded and even more likely that they could have evidence as to the perpetrators of the incident. The Panel has engaged with the UAE to obtain further information surrounding the event, including if any attempts were made to rescue those wounded at sea, but has not received a response.

V. Obligation to investigate the incident

33. UAE state media has reported that the UAE has launched an investigation into this incident. The article stated, “investigations indicate the possibility that the boat was targeted by the Houthi rebel forces operating in the region”.⁶⁰ The Panel does not discount the possibility of another vessel being involved in the incident, but given the technical and forensic evidence documenting the almost certain involvement of air assets in this incident, it is highly unlikely that the Houthi-Saleh forces were responsible for this incident. This is because 1) Houthi-Saleh forces do not have the technical capacity to launch small arms attacks from the air, 2) there is no evidence, thus far,

⁵⁵ Emphasis added. ICRC Customary Law Study, Rule 109. See also CA3 to the Geneva Conventions and Article 8 of AP II.

⁵⁶ ICRC Customary Law Study, Rule 110. See also CA 3 to the Geneva Conventions and Articles 7 - 8 of AP II.

⁵⁷ Some reports from eyewitnesses indicate that the firing stopped after they shone the lights of the vessel on themselves to show that they were civilians.

⁵⁸ <http://wam.ae/en/details/1395302603973>, <http://gulfnews.com/news/uae/government/uae-denies-targeting-boat-carrying-somali-refugees-1.1997104>, <http://www.emiratesnews247.com/uae-not-target-somali-refugee-boat-off-coast-yemen/>. This is the only statement from the UAE on the incident. The Panel is not aware if the UAE government has refuted this statement.

⁵⁹ The Panel notes recent media statements that the UAE is leading the operations on behalf of the Saudi Arabia-led coalition in and around Hodaydah port. <http://english.alarabiya.net/en/News/gulf/2017/03/27/White-House-considering-potential-attack-to-liberate-al-Hodaydah-port.html>.

⁶⁰ www.wam.ae/en/details/1395302603973.

of external parties with such air assets, using those air assets in support of the Houthi-Saleh alliance; and 3) the only forces with such a capability are those opposing the Houthi-Saleh forces.

34. Given the allegations that the incident may amount to a war crime,⁶¹ parties have an obligation under international humanitarian law to investigate.⁶² This obligation is particularly incumbent upon the Government of Yemen. Saudi Arabia,⁶³ the UAE,⁶⁴ and the United States⁶⁵ have all independently denied their involvement in the incident. The Panel notes that other Member States also have the right to vest universal jurisdiction in their national courts over alleged war crimes.⁶⁶ There are no requirements that the identity of the offender be known to initiate an investigation, only that there is reliable and credible information that a violation may have happened.⁶⁷

VI. Attribution of responsibility

35. The Panel finds that the perpetrators could have only come from Member States that have the capability to operate armed helicopters in the area, highly probably from naval assets. The Panel does not consider it a coincidence that three vessels were reportedly attacked on 16 and 17 March 2017 off the coast of Hudaydah, all allegedly being subject to helicopter gunfire or attacks from a naval vessel. A fourth boat also disappeared on 16 March 2017, with debris found subsequently and all ten on board were missing (see table 1.X.2).

36. The Panel finds it is extremely unlikely that an unidentified naval vessel and a military aircraft could enter the Bab al-Mandab strait without triggering the radar systems of the naval entities that conduct surveillance of the strait. It is also extremely unlikely that such a military vessel and helicopter would be able to launch an assault without triggering the same radar systems. The Member States that have these capabilities in the area include those belonging to the Saudi Arabia led-coalition and the Combined Maritime Forces (CMF).

37. The Panel regrets that the UAE, the Saudi Arabia-led coalition, and the CMF have not cooperated with the Panel and responded to Panel requests for information. It also regrets that the Houthi-Saleh alliance, which has attributed responsibility for this attack to the Saudi Arabia-led coalition, denied the Panel access to Hudaydah to investigate this incident.⁶⁸

E. Similar attacks

38. The Panel notes that this incident was only one of several incidents reported in that period that occurred off the coast of Hudaydah. Five of these incidents were recorded by the UN and Mwatana Organization. The following incidents in table A.58.2 are presented for information purposes only, as the Panel did not independently verify the same:

Table A.58.2
Incidents of fishing vessels (FV) being attacked

⁶¹ www.hrw.org/news/2017/03/26/yemen-attack-refugee-boat-likely-war-crime.

⁶² See in particular, Article 158 of the ICRC Customary IHL Study.

⁶³ <http://uk.reuters.com/article/uk-yemen-security-refugees-idUKKBN17112I?il=0>.

⁶⁴ www.wam.ae/en/details/1395302603973.

⁶⁵ <http://uk.reuters.com/article/uk-yemen-security-refugees-idUKKBN17112I?il=0>.

⁶⁶ ICRC Customary IHL Rule 157.

⁶⁷ Schmitt, M. "Investigating Violations of International Law in Armed Conflict", p.39 Volume 2 Harvard National Security Journal 2011.

⁶⁸ Letter dated 23 March 2017.

<i>Ser</i>	<i>Date</i>	<i>Coastal Location</i>	<i>Alleged Incident</i>	<i>Comments</i>
1	3 Feb 2017	Island off the coast of Hudaydah	A helicopter fired on the tents and boats of fishermen gathered on the Island.	Killed six and injuring seven individuals.
2	15 Mar 2017	Al-Durayhimi. (15 miles off Turfah Island)	A helicopter seen taking off from a warship, shot at the occupants of the FV without warning.	Killed two and injured five individuals. The injured remained afloat on the fishing boat at sea until late afternoon on 16 March 2017 when volunteers pulled them to a fishing port in Hudaydah. No notice was issued by any party prohibiting access to this fishing area.
3	15 Mar 2017	Al-Durayhimi. (15 miles off Turfah Island)	A FV was struck by a warship missile almost immediately after the above attack.	Killed five and injured three individuals. The occupants witnessed the previous boat (serial 2) being shot by a helicopter. The survivors stated that there were no indications that they had entered a restricted zone.
4	16 Mar 2017	North of Hudaydah	Ten fishermen were reported as missing.	Parts of the boat were found burned 20 miles away from Al Teir Mount, west to the Eritrean waters.
5	5 Apr 2017	Off the coast of Hudaydah	Fishing boat was shot by helicopter gunfire.	Four killed.

VII. Humanitarian considerations

39. Immediately after the incident, most survivors were accommodated by the local authorities in the Hudaydah prison because, it was said that there was no other facility in Hudaydah where they could be accommodated. While the authorities confirmed to the UN that the survivors were not in detention in the true sense of the word, the survivors were not allowed to leave the prison. In May 2017, the authorities transferred the survivors from the Hudaydah Central Prison to the Immigration, Passports and Naturalization Authority detention center in Sana'a. As at November 2017, some of those affected in this incident returned to Somalia, while some others sought refugee status in Aden.

Appendix B to Annex 58: Air strike on civilian residential area in Faj Attan, Sana'a (25 August 2017)

I. Background

1. At approximately 02:00 hours on 25 August 2017, explosive ordnance dropped from a military aircraft detonated on several residential buildings in Faj Attan in Sana'a.⁶⁹ The explosions killed 16 individuals, including seven children and injured 17 other individuals, which included eight children.⁷⁰ The Saudi Arabia-led coalition claimed that the strike was a result of a "technical mistake". This was the third time that explosive ordnance has been delivered to this area, the delivery of which is attributed to the Saudi Arabia-led coalition, and that affected some of the same buildings.⁷¹

II. Technical Analysis

2. Post blast analysis of the image at figure B.58.1 to B.58.4 shows damage that is typically characteristic of the detonation of a significant quantity of high explosive, and is fully consistent with the blast damage resulting from air strikes using high explosive aircraft bombs.

Figure B.58.1

Post-blast damage⁷²



Figure B.58.2

Post-blast damage



⁶⁹ Approximate location: 15°19'18.04"N, 44°10'42.4"E.

⁷⁰ Information provided by sources on the ground and verified through media reports. See "Yemen: Hiding Behind Coalition's Unlawful Attacks" <https://www.hrw.org/news/2017/09/08/yemen-hiding-behind-coalitions-unlawful-attacks>. In one incident, eight members of the same family died with the only survivor being a 6-year-old child. One of the residential buildings destroyed had no occupants, as they had left following a previous air strike on that building (see paragraph 2). The other building had four families, some of whom were displaced persons from Ta'izz.

⁷¹ These strikes on 28 January 2016 and 20 April 2015 in Faj Attan documented by (S/2016/73), p 153 (recorded 25 deaths and 400 injuries in April 2015), and Human Rights Watch Report, "Yemen: War Crimes Not Addressed" recorded six deaths in January 2016.

⁷² Photos contained in this case study were obtained from two confidential sources in the area.

Figure B.58.3
Post-blast damage



Figure B.58.4
Post-blast damage



III. Response of the Saudi Arabia-led coalition

3. Following the incident, the Saudi Arabia-led coalition spokesperson stated that a “*technical mistake*” had resulted in the incident, without providing further substantive or convincing details. He added that “... *all procedures (related to operational planning and implementation) were correct... there was no direct targeting of the alleged house*”.⁷³ The target point (TP) was an alleged Houthi-Saleh Command, Control and Communication (C3) centre at Faj Attan, Sana’a.⁷⁴ Media released imagery,⁷⁵ attributed to the Saudi Arabia-led coalition, provided further details on the TP (figure B.58.5). Panel imagery is at figure B.58.6 to B.58.9.

Figure B.58.5
Imagery attributed to the Saudi Arabia-led coalition⁷⁶

⁷³ <http://www.arabnews.com/node/1151086/middle-east>.

⁷⁴ Around the vicinity of 15°19’20.50”N, 44°10’53.08”E.

⁷⁵ <http://www.arabnews.com/node/1151086/middle-east>, <https://uk.reuters.com/article/uk-yemen-security-strike/saudi-led-force-admits-strike-in-yemens-capital-hit-civilians-idUKKCN1B60L8>. The Panel requested the Saudi Arabia-led coalition to confirm the authenticity of the image on September 2017; the Saudi Arabia-led coalition declined to respond. Letter from the Kingdom of Saudi Arabia dated 10 October 2017.

⁷⁶ <http://www.arabnews.com/node/1151086/middle-east>.



Figure B.58.6
Imagery on 18 August 2017⁷⁷



⁷⁷ Satellite imagery obtained by Panel.

Figure B.58.7
Imagery on 27 August 2017⁷⁸



⁷⁸ Ibid.

Figure B.58.8 and B.58.9

Enhanced imagery of the TP before and after the strike⁷⁹**IV. Analysis of violations of international humanitarian law (IHL)**

4. In the absence of a response from the Saudi Arabia-led coalition, the Panel analyzed the applicable law in relation to this incident based on facts gathered through its own independent investigations.⁸⁰

5. The Panel finds that in respect of the stated “technical mistake”,

(a) While it is possible for precision guided munitions to malfunction resulting in a target error, the Saudi Arabia-led coalition has refused to provide sufficient technical detail to enable such a judgement to be independently reached, reiterating that “*Coalition forces are committed to implementing...international humanitarian law*” and that “*the coalition’s activities fall outside the scope of that (Panel of Expert’s) mandate*”.⁸¹

(b) The Panel finds that by refusing to respond the Saudi Arabia-led coalition is effectively denying the opportunity for an independent confirmation of the Saudi Arabia-led coalition’s position that a “technical malfunction” resulted in the deaths of 17 civilians. An independent assessment is particularly relevant considering that the TP in satellite imagery demonstrates a broken-down wall, which remained undisturbed post-strike.

⁷⁹ Source: Ibid. At the TP the presence of a damaged man-made wall type structure with debris is observed. The visual changes as seen before and after the air strikes for the TP is mainly due to satellite camera view angle difference when the images were taken, which can be observed from the different appearance of the high-rise building in the images. There are no major changes observed for the TP from the two images.

⁸⁰ This included photos and videos obtained from three sources, multiple open source imagery, statements of five sources, which included eyewitnesses; satellite imagery, and other documentation including death certificates.

⁸¹ Letter to Panel dated 10 October 2017.

6. In the media, the Saudi Arabia-led coalition spokesperson, Colonel Turki al-Maliki, defended the strike as having “*a legitimate military target*”, which he said was a Houthi command and control centre (C3). Satellite imagery shows a “damaged man-made wall type structure with debris” at the TP⁸² (see figures B.58.6 - B.58.9).

7. The Panel continues to welcome any information from the Saudi Arabia-led coalition that can be used to independently verify that the TP was a C3 centre and further detailed information on the nature of the technical mistake that resulted in the civilian deaths and damage to civilian infrastructure.

⁸² UN.

Appendix C to Annex 58: Air strike on residential buildings (al-Maqadhi house) in Farah Village, Washa, Hajjah (2 September 2017)

I. Background

1. At approximately 13:30 hours on 2 September 2017, two items of explosive ordnance dropped from a military aircraft detonated within three minutes of each other. The EO hit several residential buildings of the al-Maqadhi tribe⁸³ in Washa, Hijjah Governorate.⁸⁴ The first explosion affected residential buildings, but did not cause any casualties. The second explosion killed two women and one child and injured 13 others, which included one woman and ten young children. Witnesses informed the Panel that the reason that 14 of the 16 affected were women and children was because after the first strike, the men and the older children managed to flee to safety. The second strike did not leave enough time for the women and the young children to escape. The casualties were also high because 2 September 2017 was the second day of Eid - the annual day of gathering for the al- Maqadhi tribe for celebrations and resolution of tribal conflicts.

Figure C.58.1

Remote location of the al-Maqadhi houses⁸⁵



⁸³ The residents in this complex belong to the Al Maqhdhi tribe. They are led by Sheif Mohamah Yahyah Maqhdhi and Sheik Ali Yahyah Maqhdhi. They are said to be aligned to the legitimate Government.

⁸⁴ At approximately 16°19'39.7"N, 43°25'10.1"E.

⁸⁵ Google Earth Pro imagery of 29 January 2017.

II. Technical analysis of physical evidence

2. The imagery at figure C.58.2 to C.58.5 shows damage that is highly indicative of the detonation of precision-guided aircraft bombs on structures.

Figure C.58.2⁸⁶
Paveway tail fin



Figure C.58.3
Crater al-Maqadhi houses (first strike)



Figure C.58.4
Damage to al-Maqadhi houses (second strike)



Figure C.58.5
Damage to al-Maqadhi houses



3. The Panel finds that:

- (a) Technical analysis of imagery (figure C.58.2) of the fragment recovered from the explosion indicates that one explosive device was fitted with a Paveway guidance unit for a high explosive (HE) aircraft bomb. The fragment is the remnants of the rear fin from a Paveway guidance unit;
- (b) Photogrammetry of the imagery at figure C.58.3 estimates that the crater diameter was 3.4 m in sandy soil, and thus from crater analysis the explosive mass is estimated to be in the region of 940kg (TNT equivalent). This equates to the explosive content of a Mark 84 2000lb aircraft bomb;

⁸⁶ All images in this annex were obtained from residents in the complex or human rights investigators who visited in the aftermath.

(c) The only military entity operating the type of aircraft in the area that has the capability to aerially deliver such precision-guided munitions is the Saudi Arabia-led coalition; and

(d) The Panel is concerned that the damage to the top of the building shown in figure C.58.4 may be an entry point (hole) initially caused by the kinetic energy from a third unexploded aircraft bombs. These bombs have hardened weapons grade steel cases, which would have easily penetrated the thin-skinned roofs before it should have detonated on the floor of the building. The lack of damage the rest of the building is an indicator that there may be an unexploded bomb (UXO) under the floor of that building. The Saudi Arabia-led coalition has been asked if they would respond on humanitarian grounds to confirm, or otherwise, whether a third aircraft bomb was used in this strike.

IV. Response of the Saudi Arabia-led coalition

4. The Saudi Arabia-led coalition was provided the opportunity to respond, but chose not to citing that “the coalition’s activities” fall outside the mandate of the Panel of Experts.⁸⁷

V. Analysis of violations of international humanitarian law (IHL)

5. In the absence of a response from the Saudi Arabia-led coalition, the Panel analysed the applicable law in relation to this incident based on facts obtained during its own independent investigations.⁸⁸ The Panel finds that:

(a) Based on the use of precision-guided weapons, the remote location of the target site, and the repeated strikes, the al-Maqadhi residential complex was almost certainly the intended target of the two air strikes;

(b) The Panel found no explanation in the public domain as to why this residential area, which is *prima facie* a civilian object immune from direct attack, was considered by the Saudi Arabia-led coalition to be a legitimate military objective;

(c) The Panel also found no demonstrable evidence that the occupants of the house, who as civilians were *prima facie* immune from attack, had lost their civilian protection;

(d) While the Panel is not convinced that the Saudi Arabia-led coalition directed its air strike against a legitimate military target,⁸⁹ even if it had, the Panel finds that there are serious concerns whether it respected IHL principles of proportionality and precautions in attack given that 14 of the 16 affected were women and children. Any proportionality assessment should have taken into consideration that given the celebrations of the day there was a high likelihood that civilians, including women and children would be in the complex; and

(e) The cumulative effect on civilians and the civilian object also demonstrates that if precautionary measures were taken, they were largely inadequate and ineffective. If precautionary measures were not taken, it is incumbent on the Saudi Arabia-led coalition to demonstrate why in

⁸⁷ Letter to Panel dated 10 October 2017.

⁸⁸ This included photographs obtained from two sources, statements of four sources, and an investigation report issued by the National Commission of Inquiry of Yemen (document with Panel).

⁸⁹ See Article 13 (1) and (2) of [Protocol II Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts \(AP II\)](#) and Article 13 (3) on the loss of protection. See also CIHLR 1, 5 and 6. [Prosecutor v Dario Kordic and Mario Cerkez \(2005\)](#), para. 54.

those circumstances, such precautionary measures were not feasible.⁹⁰

⁹⁰ For example, if the target were some of the male occupants or guests, it is possible that they could have been targeted outside this highly residential area.

Appendix D to Annex 58: Air Strike on a night market, Sa'dah (1 November 2017)

I. Background to Events

1. At approximately 02:00 hours on 1 November 2017, explosive ordnance dropped from a military aircraft detonated in or close to a hotel in the busy night market in Saher district of Sa'dah governorate.⁹¹ The explosion resulted in 31 deaths and 26 injured in Sahar district, Sa'dah governorate, and of these at least eight were children.⁹²
2. The Saudi Arabia-led coalition admitted striking the market and stated that "*the target was the gathering point for some armed Houthi militants*".⁹³
3. One witness informed the Panel, that while there is was a regular presence of two vehicles belonging to Houthi fighters, approximately 1,000m from the market, all sources confirmed that the market was civilian in nature, composing of hotels, restaurants, and coffee shops. The hotel that was affected by the airstrike was identified as an overnight lodging used by Qat farmers and their families who regularly visited the market.

II. Technical Analysis

4. The imagery at figure D.58.1 to D.58.2 shows damage that is highly indicative of the detonation of precision-guided aircraft bombs.

Figure D.58.1
Post strike damage in outer night market area⁹⁴

Figure D.58.2
Post strike damage in outer night market area⁹⁵

⁹¹ United Nations, See <https://reliefweb.int/report/yemen/statement-humanitarian-coordinator-yemen-jamie-mcgoldrick-continued-violence-affecting>.

⁹² A local hospital informed the Panel that it received 29 dead and 26 injured: 2 children were recorded as having died, and six others were injured. Three bodies were burnt beyond recognition.

⁹³ The Saudi Arabia-led coalition says that the strike hit a legitimate target in Yemen, see <https://www.reuters.com/article/us-saudi-yemen/saudi-led-coalition-says-strike-hit-a-legitimate-target-in-yemen-idUSKBN1D40OE>. Initial statement on the incident: "Coalition to Restore Legitimate Government of Yemen: We closely follow up media outlets' allegations on targeting market in Sa'dah" <http://www.spa.gov.sa/viewfullstory.php?lang=enandnewsid=1683445>.

⁹⁴ Confidential source.

⁹⁵ Confidential source.



Figure D.58.3
EO impact crater⁹⁶



3. The Panel finds from photogrammetry of the imagery at figure D.58.3 that the crater diameter was approximately 3.6 m in sandy soil, and thus from crater analysis the explosive mass is estimated to be in the region of 940kg (TNT equivalent). This equates to the explosive content of a Mark 84 2,000lb aircraft bomb.

4. The only military entity operating the type of aircraft in the area that has the capability to aeri ally deliver such precision-guided munitions is the Saudi Arabia-led coalition.

III. Response of the Saudi Arabia-led coalition

5. The Saudi-led coalition accepted responsibility for this airstrike, but justified it as a “gathering point” for Houthi fighters (see paragraph 2 above).

IV. Analysis of violations of international humanitarian law (IHL)

⁹⁶ Credit: Naif Rahma, Reuters.

6. In the absence of a timely response from the Saudi Arabia-led coalition to the Panel, the Panel analyzed the applicable law in relation to this incident based on facts obtained during its own independent investigations.⁹⁷

7. It is possible that some individual fighters may have been present amongst civilians, as Houthi fighters frequent the market to buy Qat and other commodities. However, there was no information on the public domain or from witnesses that supported a finding that the market was a “gathering point” for Houthi fighters at the time of the air strike, but a gathering point for civilians.

8. Even if the Saudi Arabia-led coalition targeted Houthi fighters, the Panel is not convinced that the Saudi Arabia-led coalition respected relevant principles of IHL, including those relating to proportionality,⁹⁸ for the following reasons:

(a) There is no evidence to support a finding that:

(i) There were Houthi-Saleh fighters in the market; and

(ii) Those fighters were of sufficient military value to justify collateral damage to the civilians and civilian objects and consequently, the Saudi Arabia-led coalition met its obligations relating to proportionality.

(b) The Saudi Arabia-led coalition did not provide the Panel with information that demonstrated that a significant number of those who died or injured were Houthi fighters or that the effects on civilians and civilian objects were not excessive in relation to the concrete and direct military advantage anticipated.

(c) This likelihood of excessive harm to civilians and civilian objects could have reasonably been anticipated in the circumstances because:

(i) The market place was a civilian object *prima facie* immune from attack;

(ii) It was also a civilian gathering point;

(iii) The market was functional on the night of the air strike; and

(iv) The timing of the attack would be such as to cause a disproportionately high number of civilian casualties given that it was a night market.

9. IHL requires military commanders and those responsible for planning and executing decisions regarding attacks to take all feasible precautions to avoid, and in any event to minimize, incidental loss of civilian life, injury to civilians and damage to civilian objects. The fact that the Saudi Arabia-led coalition knew that this was a market place and thus a civilian location where there would ordinarily be a congregation of civilians, meant that they should have been particularly vigilant when undertaking a proportionality assessment and making use of all feasible precautionary measures to minimize the incidental loss of civilian

⁹⁷ This included photographs obtained from two sources, interviews with three sources, and a report issued by a local hospital. Open source images were verified by witnesses. Information from the UN.

⁹⁸ Under IHL “launching an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, *which would be excessive in relation to the concrete and direct military advantage anticipated*, is prohibited”. (Emphasis added). See [CIHLR 14](#).

life and damage to civilian property.⁹⁹ It is reasonable to expect that the Saudi Arabia-led coalition should have taken into account these factors given that the fact that information that the target location was a civilian night market was readily available.¹⁰⁰

10. The Panel remains concerned that the Saudi Arabia-led coalition continues to justify air strikes in civilian gathering areas by referring to it as “Houthi gatherings”, without providing any further information that may assist an independent verification if the relevant IHL principles were met (see also [S/2017/81](#) for Khamees Mustaba market).

⁹⁹ See [commentary to CIHLR 14](#), and the [United States Department of Defense Law of War Manual \(2015\)](#), p.1033, which requires combatants to assess in good faith the information that is available to them, when conducting attacks.

¹⁰⁰ See [CIHLR 14](#).

Joint Incident Assessment Team findings and recommendations

1. The establishment of JIAT is a positive step given that it is possibly the only entity outside the Joint Force Command that has access to sensitive information on military operations. Yet, the Panel finds that there is a lack of transparency in the implementation of JIAT recommendations, which may undermine JIAT's credibility.
2. The JIAT found that of the 43 air strikes that were attributed to the Saudi Arabia-led coalition¹:
 - (a) 11 air strikes did not take place against the identified targets;
 - (b) In 30 incidents, the Saudi Arabia-led coalition did not violate IHL; and
 - (d) In two incidents, the Saudi Arabia-led coalition violated IHL.
3. The Panel has, based on public information and its investigations, observed that there needs to be a further examination of some of these cases to eliminate any doubts relating to violations of IHL by the Saudi Arabia-led coalition. In this context, the Panel highlights the different findings of the Panel and JIAT and the contradictions between statements of the Saudi Arabia-led coalition and the JIAT on the Saudi Arabia-led coalition's responsibility and rationale for some air strikes.

Table X.1
JIAT and Panel findings on the same investigations

<i>Date</i>	<i>Location</i>	<i>JIAT findings²</i>	<i>Panel findings</i>
15 Mar 2016	Khamis Market, Hijjah	Intelligence indicated a large gathering of Houthi recruits near the market. Market has no activity except on Thursday. Strike was on Tuesday. The gathering was 34 km from the Saudi border.	This Panel concluded in S/2016/81 that the market was active on that date and while it was possible that some fighters (10) were present, it was unconvinced that IHL on proportionality and precautionary measures were respected.
9 Aug 2016	Al Aqil Food factory, Sana'a.	The factory was not targeted on 9 August 2016. The closest target point was 7 km from the factory	The Panel concluded in S/2016/81 that an HE bomb delivered from air caused the damage. It concluded that the only known entity capable of carrying out the air strike was the Saudi Arabia-led coalition.
15 Aug 2016	Abs Hospital, Hajjah	Pilot followed a vehicle, which had left a site of an air strike and struck it next to a building that does not bear any marks that would indicate before the strike that it is a hospital. The vehicle was a legitimate military target.	The Panel concluded in S/2016/81 that there were 43 casualties, while JIAT concluded 20. The Panel concluded that the vehicle was a civilian vehicle carrying a wounded civilian, MSF shared hospital coordinates and coalition was aware of the hospital's location and that it violated IHL.

¹ The press released related to the 43 air strikes were provided by JIAT to the Panel.

² JIAT findings are summarized in this annex. Full press releases have been shared by JIAT with the Panel for 41 of the 43 cases.

<i>Date</i>	<i>Location</i>	<i>JIAT findings²</i>	<i>Panel findings</i>
13 and 22 Sep 2016	Alsonidar Complex	Between 4 – 23 September 2016, six ballistic missiles were launched towards Saudi Arabia from northern Sana'a. Three trucks and an armed military vehicle entered factory complex. Targeted complex because of continued use of the complex "in supporting the war effort".	The coalition spokesperson stated that the complex "is now becoming a military manufacturing unit specialized in producing pipes Houthis use to assemble local-made missiles... " ³ The Panel reviewed evidence but could not find evidence to support the conclusions of JIAT.
24 Sep 2016	Ibb residential house	The actual target, a military HQ, was 1070 meters from the residential complex. The coalition did not strike the residential complex.	The Panel concluded in S/2016/81 that the factory complex was targeted using a precision-guided HE aircraft bomb and only party to the conflict with the known capability to deliver precision guided HE aircraft bombs is the Saudi Arabia-led coalition.
8 Oct 2016	Funeral Hall, Sana'a	The Air Operations Centre in Yemen did not operate in accordance with Coalition command and control regulations, nor rules of engagement and procedures. The coalition aircraft wrongly targeted the location, resulting in civilian deaths and injuries.	The Panel found in S/2016/81 that the Saudi Arabia-led coalition violated several principles of IHL, including those protecting hors de combat, in this double tap attack. The Panel has requested, but not received, information on the measures taken to implement JIAT's recommendations.

Table X.2
JIAT and Saudi Arabia-led coalition's findings on the same incidents

<i>Date</i>	<i>Location</i>	<i>JIAT findings</i>	<i>Coalition statements in the immediate aftermath of the incident</i>
30 Aug 2015	Al-Sham Water Factory	The Saudi Arabia-led coalition executed a (close air support mission), on an anti-air artillery (AAA), stationed in proximity to the factory. Due to weather effect and clouds over the target, the bomb deflected from its path and hit warehouse of the factory, destroying it and resulting in some deaths and injuries.	On 30 August 2015, the "Coalition spokesman Brigadier General Ahmed Asseri denied the strike had hit a civilian target, saying it was a location used by the Houthis to make IEDs and to train African migrants whom they had forced to take up arms." ⁴
6 Oct 2015	Wedding, Dhammar	There were no air operations on the said date, but on 7 October 2015, the Saudi Arabia-led coalition targeted a group of armed vehicles in the same area.	On 08 Oct 2015, the Saudi Arabia-led coalition stated that it did not conduct any air strikes in Dammar. ⁵

³ <http://www.reuters.com/article/us-yemen-security-idUSKCN11J27V>.

⁴ <https://www.reuters.com/article/us-yemen-security/saudi-led-coalition-air-strike-kills-36-yemeni-civilians-residents-idUSKCN0QZ09P20150830>.

⁵ "Death toll from air strike on Yemen wedding party rises above 130: medics" at <https://www.reuters.com/article/us-yemen-security/death-toll-from-air-strike-on-yemen-wedding-party-rises-above-130-medics-idUSKCN0RT0XT20150929>, and <http://www.aljazeera.com/news/2015/10/deadly-air-strike-reported-yemen-wedding-party-151008073704528.html>.

<i>Date</i>	<i>Location</i>	<i>JMAT findings</i>	<i>Coalition statements in the immediate aftermath of the incident</i>
26 Oct 2015	Haydan Hospital, Sa'dah	The building was a medical facility used as a military shelter. MSF should have been informed of the withdrawal of protection.	The coalition denied hitting the hospital. ⁶
2 Dec 2015	Mobile Clinic, Ta'izz	High value military target close to clinic. The clinic should have been removed "so as not to be exposed to any incidental effects."	MSF informed Saudi Arabia of the location. One hour before the strike, Saudi Arabia stated, "be sure that we will not approach those locations and your team has to stay there for the time being". ⁷
13 Aug 2016	Al Fadhil school, Sa'dah	The school was not targeted. The closest targets that day were "warehouses and weapons' storage" located 10 km from the school.	On 14 August 2016, the Saudi Arabia-led coalition spokesman stated that the strikes hit a Houthi training camp, killing militia fighters, including the leader Yehya Munassar Abu Rabua; " <i>The site that was bombed... is a major training camp for militia... Why would children be at a training camp?</i> ", " <i>When jets target training camps, they cannot distinguish between ages</i> " and that Yemen's government had confirmed to the coalition that " <i>there is no school in this area</i> ". ⁸ UNICEF confirmed that 7 children were killed and 21 injured, who were studying at the school during the strike. ⁹ The other recorded strike that day was a house of a head of a school.

<http://www.gulf-times.com/story/457994/Air-strike-kills-13-at-Yemen-wedding-coalition-den>.

⁶ "Yemeni MSF hospital bombed, Saudi-led coalition denies responsibility" at <http://www.reuters.com/article/us-yemen-security/yemeni-msf-hospital-bombed-saudi-led-coalition-denies-responsibility-idUSKCN0SL0VK20151027>.

⁷ MSF, "MSF incident report: airstrike on the Ta'izz health clinic, Houban District, Taiz City, Yemen, 2 December 2015" at https://reliefweb.int/sites/reliefweb.int/files/resources/Yemen_Taiz_investigation_summary_final.pdf.

⁸ "Saudi-led coalition strikes militant training camp in Yemen" <https://www.saudiembassy.net/press-release/saudi-led-coalition-strikes-militant-training-camp-yemen>, "At least 10 children have been killed in an airstrike on school in Yemen" at <http://www.thejournal.ie/yemen-airstrike-children-killed-2927896-Aug2016/>, "Coalition says strike hit militant training camp in Yemen" <http://gulfnews.com/news/gulf/yemen/coalition-says-strike-hit-militant-training-camp-in-yemen-1.1878902>, "Saudi-led coalition strikes militant training camp in Yemen" <https://www.saudiembassy.net/press-release/saudi-led-coalition-strikes-militant-training-camp-yemen>.

⁹ "UNICEF Statement on the killings of children in Sa'dah, Northern Yemen" at https://www.unicef.org/media/media_92095.html.

Annex 60: Case studies of airstrikes documented by the Panel in 2016 and the JIAT findings

1. The Panel takes note of the Joint Incident Assessment Team (JIAT) findings that differ from Panel findings in 2016 on the case study summaries contained in serials 5, 7, 8, and 9 of [S/2017/81](#). The Panel, after evaluating the information placed by the JIAT in the public domain, attaches the full case studies of those incidents in the following appendices to enable an independent assessment of the IHL violations attributed to the Saudi Arabia-led coalition. The case studies were not included in [S/2017/81](#) to maintain brevity of that report. After careful consideration of the findings of JIAT, the Panel continues to find that:

- (a) The Saudi Arabia-led coalition was responsible for the following air strikes; and
- (b) The evidence strongly demonstrates that the Saudi Arabia-led coalition violated IHL.

Table 60.1

Air strikes affecting civilians and civilian infrastructure documented in 2016

<i>Appx</i>	<i>Date</i>	<i>Location</i>	<i>Type of EO</i>	<i>Civilian fatalities</i>	<i>Civilian injured</i>	<i>Effect on civilian objects</i>
A	9 Aug 2016	Nahda, Sana'a	High Explosive (HE) aircraft bomb	10	13	Snack factory destroyed.
B	13 Sep 2016	Ban Hareth, Sana'a	Mk 82 HE bomb / Paveway IV	0	0	Alsonidar factory complex severely damaged.
C	22 Sep 2016	Ban Hareth, Sana'a	GBU-24 / Paveway IV	0	0	Alsonidar factory complex severely damaged.
D	24 Sep 2016	Mafraq Jiblah, Ibb	Mk 82 HE bomb / Paveway	9	7	Civilian house destroyed.

2. The Panel will also provide in brief its findings in two further investigations in 2016 that were also not enclosed in full in [S/2017/81](#) to enable full disclosure of the Panel's findings and to assist further independent investigations into these incidents.

Table 60.2

Air strikes affecting civilians and civilian infrastructure documented in 2016

<i>Appx</i>	<i>Date</i>	<i>Location</i>	<i>Type of EO</i>	<i>Civilian fatalities</i>	<i>Civilian injured</i>	<i>Effect on civilian objects</i>
E	25 Mar 2016	T'baisha, Ta'izz	Not confirmed	10	0	Civilian house destroyed.
F	25 May 2016	Mahala, Lahj	Mk 82 HE bomb / Paveway	0	2	Water bottling factory destroyed.

Appendix A to Annex 60: Al Aqil Factories, Nahda District, Sana'a (Food Snack Factories) (9 August 2016)

1. The JIAT concluded that the Saudi Arabia-led coalition did not target the Al Aqil factory complex.¹
2. The Panel finds that a technical analysis of evidence demonstrates beyond a reasonable doubt that the factory complex was targeted using a precision-guided high explosive (HE) aircraft bomb. The only party to the conflict with the known capability to deliver such precision guided HE aircraft bombs is the Saudi Arabia-led coalition. This case study contains the Panel's findings of 2016.

I. Background

3. On 9 August 2016, at approximately 10:00 hours, explosive ordnance dropped from a military aircraft detonated on a factory complex that produces food snacks in Nahda District, Sana'a.² The explosion and the resultant fire killed ten civilians and injured 13, and destroyed the factory and the production equipment.³ There was a military maintenance centre adjacent to the factory (figure A.60.1), yet it was not affected by air strikes that day.⁴

4. On 19 January 2016, another factory in the same complex was damaged by an air strike (see image A.60.3).⁵

Figure A.60.1
Locations of the military maintenance camp (red outline) and the factory complex (green outline)



Figure A.60.2
Pre-air strike factory complex (10 January 2016)



¹ Press release with Panel.

² Around 15°23'42.0"N, 44°11'41.9"E.

³ For example, see video at "Saudi-Led Coalition Resumes Bombing of Yemeni Capital After Talks Collapse" at http://www.nytimes.com/2016/08/10/world/middleeast/yemen-sana-airstrikes.html?_r=0.

⁴ Google Earth.

⁵ Owner stated that a subsidiary branch of the factory in Damrah was also hit by air strikes on 25 January 2016.

Figure A.60.3
First strike damage (29 February 2016)



Figure A.60.4
Second strike damage (Post August 2016)



II. Technical analysis of physical evidence

5. The damage to the factory was indicative of that caused by the detonation of a large quantity of high explosive. There was clear evidence of the destruction of structural components of the building that equate to the damage to be expected from the shockwave of an explosion. The entry points (holes) (figures A.60.5 and A.60.6) and the damage to the concrete floor at the impact point of the explosive ordnance were both caused by the kinetic energy from the EO, which have hardened weapons grade steel cases. The aircraft bombs easily penetrated the thin-skinned roofs before detonating on the concrete floor of the factories.

Figure A.60.5
Damage at impact point of EO⁶



Figure A.60.6
Damage at impact point of EO



6. The only party to the conflict with the known capability to deliver precision-guided HE aircraft bombs is the Saudi Arabia-led coalition.

III. Response of the Saudi Arabia-led coalition

7. On 8 December 2016, the JIAT denied the involvement of the Saudi Arabia-led coalition. It stated:

“The Embassy of the Kingdom of Sweden has claimed that the food factory of Swedish honorary consul

⁶ All imagery was obtained from individuals working in the factory.

Mr. Abdullah Ahmed al-Aqil in (Sana'a) city suffered aerial bombardment on 9 August 2016 resulting in the death of 16 workers. Having investigated the facts and circumstances of the claim, (JIAT) found that, the coalition forces have struck two targets that day; the first target is a telecommunication antenna used for military purposes in (Ayban) mountain, western (Sana'a), 7 km away from the subject factory. The second target is a cave used for military purposes in eastern (al-Nahdyan) mountain, southern Sana'a, 10 kilometers away from the subject factory. Thus, the said two locations are considered legitimate military targets according to the rules of engagement and the rules of the international humanitarian law. In light of that, (JIAT) did not find evidence that the coalition forces struck the said factory. Thus, the coalition forces are not responsible for the alleged attack on the factory".⁷

8. The Panel has not yet received a response to a request for information made to the Saudi Arabia-led coalition.⁸

IV. Analysis of violations of IHL

9. The Panel finds that the Saudi Arabia-led coalition was responsible for this air strike (paragraphs 5 and 6), and that the use of precision-guided weapons demonstrates that the factory complex was the intended target of these air strikes. In 2016, the Panel found that there was no evidence to support a finding that the complex had become a legitimate military objective.

10. Thus, the Panel concludes that the factory complex was *prima facie* a civilian object, immune from direct attack and that individuals within the factory had not lost their civilian protection.⁹ Therefore, unless the Saudi Arabia-led coalition provides information to the contrary, evidence strongly demonstrates that the Saudi Arabia-led coalition violated IHL principles, including those relating to distinction, proportionality,¹⁰ and precautions in attack.¹¹

11. The Panel will continue to welcome a clarification from the Saudi Arabia-led coalition.

⁷ Press statement with Panel. Minor spelling mistakes were corrected. See also Saudi Arabia coalition spokesperson's response here, "14 killed at food factory in first Saudi strikes on Yemen in three months" at <http://www.middleeasteye.net/news/14-dead-saudi-led-strikes-yemen-factory-medics-1702399607>.

⁸ Letter dated 21 November 2016.

⁹ IHL requires that the civilian population, as well as individual civilians, shall not be the object of attack. Article 13(2) of the [Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts \(Protocol II\), 8 June 1977 \(AP II\)](#) and ICRC Customary International Humanitarian Law Study Rule (CIHLR) 1.

¹⁰ An attack is disproportionate if it may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.

¹¹ IHL requires that all feasible precautions must be taken to avoid, and in any event to minimize, incidental loss of civilian life, injury to civilians and damage to civilian objects. Article 13(1) of AP II. CIHLR 15. This obligation is particularly incumbent on those who plan and decide on the air strikes. See William Boothby, "The Law of Targeting", OUP (2012), p. 72.

Appendix B to Annex 60: Alsonidar Factory complex, Ban al-Hareth District, Sana (13 September 2016)

1. In November 2017, the JIAT provided the following justification in November 2017 for the two air strikes. It found that:

“... during 4 – 23 September 2016, six ballistic missiles were launched towards Saudi Arabia from northern Sana’a. The coalition forces carried out Aerial Surveillance and Reconnaissance Missions on these areas. A convoy consist(ing) of three trucks accompanied by an armed military vehicle were spotted and tracked until they entered Al Senidar (sic) factory complex located north of Sana’a city. Coalition forces targeted the warehouses inside the complex on 12 September 2016 and were targeted again on 22 September 2016 because of continued use of the complex in supporting the war effort, which is considered a legitimate military target.”¹²

2. The Panel reexamined and solicited further evidence¹³ and continues to solicit further information from the Saudi Arabia-led coalition that supports JIAT’s conclusions. The JIAT statement is disjointed in that it makes three separate points without direct attribution:

(a) From 4 – 23 September 2017 six ballistic missiles were fired launched from northern Sana’a to Saudi Arabia. Note that the only link in this respect made to the factory is that the factory is located in northern Sana’a;

(b) The JIAT finds that the coalition forces carried out surveillance in these areas (northern Sana’a) and tracked a convoy of three trucks accompanied by an armed military vehicle until they entered the factory complex. In the statement, there is no information on what was suspected to be in the trucks. It is not clear if the possibility was considered that the trucks were carrying production material for the functioning factory within the complex.¹⁴ It is also not clear as to whether the armed vehicle that is said to have been accompanying the vehicle also entered the factory, a fact that the factory owners contest, or indeed if the armed vehicle is another vehicle that was taking the same path – given that the capital Sana’a is full of these types of armed vehicles. In any event, at the time of the air strikes there were no evidence of the presence of any trucks or military vehicles in the compound; and

(c) The JIAT’s third point is that the factories were targeted because of “the continued use of the complex in the war effort”, without any articulation of what that might be.

3. Previously, the Saudi Arabia-led coalition justified the strikes on the basis that the complex “is now becoming a military manufacturing unit specialized in producing pipes Houthis use to assemble local-made missiles”. In January 2017, the Panel provided evidence to the Committee as to the reasons that it believed that the factory was incapable of specializing in producing pipes to assemble missiles. The Panel continues to welcome verifiable information that demonstrates the military advantage sought to be achieved in these strikes.

4. The Panel declassifies and updates its findings in 2016 to enable an independent assessment to be made in view of the JIAT’s findings.

¹² Press statement by the JIAT on Coalition forces targeted Alsonidar complex in Sana’a. Document with Panel.

¹³ The Panel requested, and received, 18 videos, some taken in the immediate aftermath of the two incidents.

¹⁴ The factory employees informed the Panel that regular deliveries of raw materials are made to the factory. The provided the Panel with information, including invoices, supplier information, and shipping details of raw and auxiliary material transportation that was ordered and that entered the factory in September 2016.

I. Background

5. On 13 September 2016, at around 12:45 hours, military aircraft dropped four items of explosive ordnance on the Alsonidar factory complex in the Ban al-Hareth District of Sana'a.¹⁵ This complex contains the Caprari Water Pump factory, the Alsonidar Steel Pipe factory, and the Alsonidar Red Brick factory. The explosive ordnance impacted on all three factories.¹⁶ There were no civilian casualties. The water pump factory was salvageable after the first strike, but the other two factories were destroyed.

6. At the time of the attack, only the water pump factory was functional. Those producing bricks and steel pipes were not operational.¹⁷ The Panel found no evidence to suggest that there were military personnel or equipment in, or in the vicinity of the strike, immediately before, or during the strike. There was a second strike on 22 September 2016, which is examined in more detail in the case study at appendix C to annex 60.

Figure B.60.1

Alsonidar complex (15 May 2015) prior to attack¹⁸

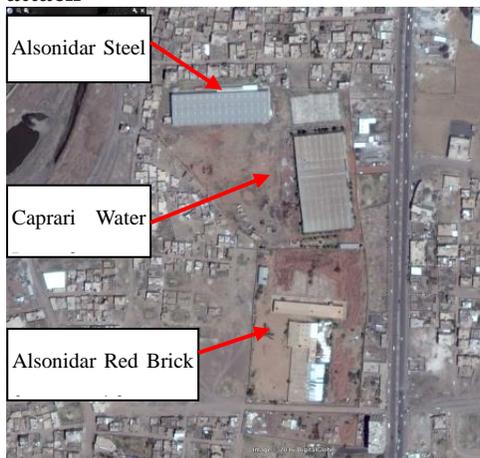


Figure B.60.3

Steel and Water Pump factories (3 October 2016) post attack

Figure B.60.2

Alsonidar complex (3 October 2016) post attack



Figure B.60.4

Red Brick factory (3 October 2016) post attack

¹⁵ 15°27'05.09"N 44°13'36.9"E.

¹⁶ Sources informed that a fourth factory, the Alsonidar Galvanizing Plant, which was being installed inside the pipe factory, was also affected.

¹⁷ The Brick Factory has been non-operational for approximately the last 20 years and the Steel Factory, since 2014.

¹⁸ Source: Google Earth, as are all other aerial images in this appendix.



II. Technical analysis of physical evidence

7. Panel finds that:

- (a) Technical analysis of imagery of fragmentation recovered from the explosion indicates that one explosive device was fitted with a Paveway IV laser guidance unit for a high Mark 82 explosive (HE) aircraft bomb (figures B.60.5 and B.60.6).

Figure B.60.5

Component from a Paveway laser guidance system fin¹⁹

Figure B.60.6

Paveway IV laser guidance fin²⁰



- (b) At least one of the bombs used to destroy part of the Alsonidar factory complex was a Mark 82 HE aircraft bomb fitted with a Paveway IV GPS/INS and laser guidance unit;
- (c) The crater at figure 2.X.7 is highly indicative of that cause by the detonation of a significant quantity of high explosives on impacting with a concrete floor; and

¹⁹ Images in this annex were provided by those working in the factory.

²⁰ The Commercial and Government Equipment (CAGE) Code displayed on the part means that it was manufactured by EDO MBM Technology Limited, UK. The parent company is the Harris Corporation, <https://www.harris.com>.

(d) The only party to the conflict with the known capability to deliver the Mark 82 HE aircraft bomb with the Paveway IV GPS/INS is the Saudi Arabia led coalition.

Figure 2.X.7

Crater from explosion of A/C bomb



III. Response of the Saudi Arabia led coalition

8. The Saudi Arabia led coalition stated in the media that it targeted the Alsonidar factory complex because it:

"is now becoming a military manufacturing unit specialized in producing pipes Houthis use to assemble local-made missiles... This strike was necessary to protect Saudi border cities and eliminate the use of such missiles in Houthis attacks against the Yemeni national army and Yemeni citizens... The coalition takes its responsibilities under international humanitarian law seriously, and is committed to the protection of civilians in Yemen".²¹

9. The Panel has not yet received a response to a request for information made to the Saudi Arabia-led coalition.²²

10. In January 2017, the Panel provided evidence to the Committee as to the reasons that it believed that the factory was incapable of specializing in producing pipes to assemble missiles.

IV. Panel findings on Saudi Arabia-led coalition's justification relating to the air strikes

A. Technical observations

11. The Saudi Arabia-led coalition argues that it targeted the Alsonidar complex because it "is now becoming... specialized in producing pipes Houthis use to assemble local-made missiles".²³ The Panel, based on available information,²⁴ finds this rationale unconvincing as:

(a) The Caprari Water Pump factory had machine tools installed to make relatively short lengths of 3" and 4" flanged pipes. Such pipes would require considerable reverse engineering to remove the flanges to make plain hollow pipes suitable for main missile bodies. The Panel finds that they would be unsuitable for use as main missile bodies due to the piping being too short and the degree of reverse engineering required to remove the flanges;

(b) The Alsonidar Steel Pipe factory was still in the development and commissioning phase and had only produced test samples of 50mm and 75mm diameter steel pipes with a wall thickness of 2.9mm. The Italian contractors left before the factory could become operational, and thus mass production would not be possible. The factory has been effectively closed since late 2014;

(c) The type of steel pipes the factory was designed to produce would not be ideal for use as the main missile bodies²⁵ of a free flight rocket (FFR), although it would be theoretically possible. The wall thickness would make them heavy for a missile main body (at 1.74 and 2.45 kg/m²), requiring a significant amount of propellant to just launch the missiles, let alone give them any credible range;

²¹ <http://www.reuters.com/article/us-yemen-security-idUSKCN11J27V>.

²² Letter dated 21 November 2016.

²³ <http://www.reuters.com/article/us-yemen-security-idUSKCN11J27V>.

²⁴ The Panel had access to video and imagery of the steel pipe factory taken prior to and after the airstrikes, installation manuals, investigators who visited the site after the incident, and other documentation, including letters from the Caprari Company dated 7 October 2016, Addar Fer, Italy dated 7 October 2016 and the Yemen Chamber of Commerce dated 14 September 2016.

²⁵ A main missile body being effectively a long, very thin pipe made of an appropriate material such as steel or composite materials.

- (d) The factory does not have the machine tools necessary to manufacture the fins that FFR require for stability in flight, although these could be manufactured in a light engineering facility elsewhere and then taken to an assembly and filling facility;
- (e) The factory does not have the machine tools necessary to manufacture the specialist nozzles that FFR rockets require to direct the propellant gases to produce thrust, although these could be manufactured in a light engineering facility elsewhere and then taken to an assembly and filling facility;
- (f) The Panel has seen no evidence of any explosive manufacturing capability in Yemen to manufacture the double-based tubular propellant normally used in FFR. A single based propellant, such as black powder, could be used to produce a very crude FFR system similar to a large firework;
- (g) Improvised FFR would still require fuzes to initiate them on impact. Use of fuzes from the artillery or mortar ammunition currently known to be available to Houthi or Saleh forces would not work as: 1) the calibres of the ammunition are different from the pipes produced in the factory; 2) the forces induced by the firing of artillery or mortar ammunition are different to those induced by a FFR, meaning that many fuze types would not arm; and 3) there would be a degradation in operational capability in taking fuzes from more effective purpose designed ammunition to use on much less effective improvised weapons;
- (h) The only evidence seen by the Panel of the use of improvised FFR by the Houthi showed missile main bodies of different diameters to the piping manufactured in these factories;
- (i) Saudi Arabia led coalition has not produced any evidence of the use of improvised FFR to the Panel;
- (j) The Houthi or Saleh forces probably still have access to sufficient quantities of 107mm Type 63 and 122mm BM-21 GRAD FFR from the old Yemen Army stockpiles for their current operational needs; and
- (k) If the Houthi or Saleh forces were producing improvised FFR they would need an assembly and filling facility. Such a facility would be the more natural target as it would contain all of the equipment and materials²⁶ necessary for the manufacture of improvised FFR.

12. The Panel finds that, even if the factory had been at the production stage, whilst the pipes manufactured at the Alsonidar Steel Pipe factory could theoretically be used as a crude main missile body for an improvised FFR, consideration of all the other factors make such a use extremely unlikely.

B. Legal observations

13. There is insufficient evidence to support the Saudi Arabia-led coalition's justification that the factory complex was a military objective because it "is now becoming a military manufacturing unit":

- (a) A military objective is limited to those objects which by *their nature, location, purpose or use* make an effective contribution to military action and whose partial or total destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.²⁷ The

²⁶ Such materials being: 1) main missile bodies; 2) nozzles; 3) fins; 4) propellant; 5) high explosive for the warhead; and 6) fuzes.

²⁷ CIHLR 8.

“purpose” in these criteria relates to a future use, while “use”, to its current functions.²⁸ The Saudi Arabia-led coalition’s justification appears to be purpose-based;

(b) The common view is that in using the purpose-based criteria there must be a certain reasonable probability the object may be used for a military purpose²⁹ and an attack should not be based on mere speculation.³⁰ It is not possible to base an attack of an otherwise entirely civilian object merely “on the intention to deny its potential use to an adversely.”³¹ Yet, as demonstrated in the technical analysis above, it is extremely unlikely that the factory, which was not functional, could have been converted into a “military unit” producing the type of weapons that the Saudi Arabia-led coalition alleges; and

(c) The Panel finds it difficult to accept the Saudi Arabia-led coalition’s justification on the basis on which this factory complex became a military objective.³²

V. Panel conclusions in 2016 on violations of IHL

14. The Panel finds that the use of precision guided weapons and repeated strikes, both on 13 and 22 September 2016, suggests that the factory complex was the intended target of these air strikes. This is further supported by the statement of the Saudi Arabia-led coalition.

15. There is insufficient evidence to demonstrate that the factory complex was a legitimate military objective, as elaborated above.

16. Thus, the Panel is unconvinced that the Saudi Arabia-led coalition complied with IHL principles relating to distinction.³³ It is also not convinced that it respected principles relating to distinction when it targeted the factory complex as a single military unit - there is no demonstrable evidence to suggest the Water Pump and Red Brick factories could manufacture the pipes specified.³⁴

17. The Panel further finds that any reasonable intelligence review undertaken by the Saudi Arabia led

²⁸ Commentary to Article 52 of Protocol Additional to the Geneva Conventions of 12 August 1949 and relating to the Protection of Victims of International Armed Conflicts (Protocol 1) of 08 June 1977 at <https://ihl-databases.icrc.org/applic/ihl/ihl.nsf/1a13044f3bbb5b8ec12563fb0066f226/5f27276ce1bbb79dc12563cd00434969>.

²⁹ Report on the Expert Meeting “Targeting Military Objectives”, University Centre for International Humanitarian Law, Geneva (2005) p. 7 - 8.

³⁰ Yoram Dinstein, “The Conduct of Hostilities under the Law of International Armed Conflict” (2010), Cambridge University Press, p. 100.

³¹ William Boothby’ “Law of Targeting”, (2012), Oxford University Press, pp. 103-105.

³² The Panel reiterates that in situations where more than one inference may be drawn from military intelligence, purpose should be “predicated on intentions known to guide the adversary, and not those figured hypothetically in contingency plans based on a worst case scenario.” Yoram Dinstein, “The Conduct of Hostilities under the Law of International Armed Conflict”, p. 100.

³³ CIHLR 7. The Panel reiterates that while the pipes that the Alsonidar Steel Pipe factory is designed to produce, could theoretically be used as main missile bodies, this is highly unlikely considering the technical and tactical factors set out above. The Alsonidar Steel Pipe factory has not been operational since 2014.

³⁴ The red brick factory was not operational since 1995.

coalition, prior to the air strike, should have taken into consideration that: 1) two of the three factories were not functional at the time of the air strike; 2) that two of these factories lacked the technical capacity to manufacture the specific pipes; 3) that the only factory with the technical capacity, the Alsonidar steel factory, was not functional since 2014; and 4) even if it were to become functional, it would have been highly unlikely to produce the type of pipes specified (see technical analysis).³⁵

18. Even if the steel factory had become a legitimate military objective for reasons unknown to, or shared with, the Panel, the Panel is unconvinced that the Saudi Arabia-led coalition complied with the relevant IHL principles relating to proportionality. Two of the factories that were also subjected to air strikes had no technical capacity to produce or contribute to the production of the types of weapons specified.

19. The Panel finds that the Saudi Arabia-led coalition took some measures to minimize civilian casualties by undertaking the air strike in early morning hours when the water pumps factory was not operational. There were no reported civilian casualties.

³⁵ IHL requires that in case of doubt whether a civilian object is a military objective, a careful assessment has to be made as to whether there are sufficient indications to warrant an air strike. CIHLR 10.

Appendix C to Annex 60: Alsonidar Factory complex, Ban al-Hareth District, Sana (22 September 2016)

I. Background

1. On 22 September 2016, at around 01:00 hours, a military aircraft dropped explosive ordnance on the Alsonidar factory complex in Ban al-Hareth District, Sana.³⁶ The air strikes completely destroyed the Caprari Water Pump factory, the Alsonidar Steel Pipe factory, and the Alsonidar Red Brick factory.³⁷ There were no civilian injuries or deaths. Air strikes first targeted the complex on 13 September 2016.

2. At the time of the attack, none of the factories were functional partly due to the first air strike.

Figure C.60.1
Alsonidar complex (15 May 2015) prior to attack³⁸

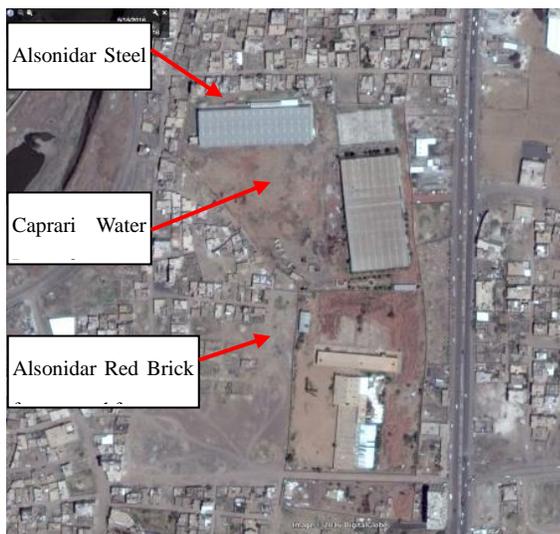


Figure C.60.2
Alsonidar complex (3 October 2016) post attack



Figure C.60.3
Steel and Water Pumps Factories (3 October 2016) post attack

Figure C.60.4
Red Brick factory (3 October 2016) post attack

³⁶ 15°27'05.09"N 44°13'36.9"E.

³⁷ Sources informed the Panel that a fourth factory - Alsonidar Galvanizing Plant, which was being installed inside the pipe factory, was also affected.

³⁸ Source: Google Earth, as are all other aerial images in this appendix.



II. Technical analysis of physical evidence

4. The Panel finds that:

- (a) Technical analysis of imagery of fragmentation recovered from the explosion indicates that one explosive device was certainly fitted with a Paveway IV laser guidance unit for a high Mark 82 explosive (HE) aircraft bomb (figures C.60.5 and C.60.6);

Figure C.60.5

Component from a Paveway laser guidance system wing



Figure C.60.6

Paveway IV laser guidance fin³⁹



- (b) At least one of the bombs used to destroy the Alsonidar factory complex was a Mark 82 HE aircraft bomb fitted with a Paveway IV GPS/INS and laser guidance unit;

- (c) The entry points (holes) into the factories⁴⁰ were initially caused by the kinetic energy from aircraft bombs, which have hardened weapons grade steel cases. The aircraft bombs easily

³⁹ The Commercial and Government Equipment (CAGE) Code displayed on the part means that it was manufactured by EDO MBM Technology Ltd, UK. The parent company is the Harris Corporation, <https://www.harris.com>.

⁴⁰ See imagery at Appendix B.

penetrated the thin-skinned roofs before detonating on the concrete floor of the factories; and

(d) The only party to the conflict with the known capability to deliver the Mark 82 HE aircraft bomb with the Paveway IV GPS/INS is the Saudi Arabia-led coalition.

III. Response of the Saudi Arabia-led coalition

5. The Saudi Arabia-led coalition made no public statements on the second set of airstrikes. It made a statement on 19 September 2016 after the first air strikes on the factory claiming responsibility for the strikes (see Annex 1). The JIAT also referred to this air strike in its statement above mentioned.

6. The Panel has not yet received a response to a request for information made to the Saudi Arabia-led coalition.⁴¹

IV. Analysis of violations of IHL

7. The Panel finds that the use of precision guided weapons and repeated strikes, both on 13 and 22 September 2016, suggests that the factory complex was the intended target of these air strikes. This is further supported by the statement of the Saudi Arabia-led coalition on 19 September 2016 (see appendix B to annex 60).

8. There is insufficient evidence to demonstrate that the factory complex had become a legitimate military objective or that the Saudi Arabia-led coalition complied with IHL principles relating to distinction for the reasons specified in appendix B to annex 60.

10. The Panel further finds that any intelligence review undertaken by the Saudi Arabia-led coalition, prior to the air strike, should have taken into consideration that: 1) the facts mentioned in appendix B to annex 50; and 2) that the only factory that was not destroyed beyond immediate repair by the airstrikes was the water pump factory, which did not have the technical capacity to produce the types of pipes specified. It is reasonable to expect that intelligence gathered prior to the strike would have covered these aspects.⁴²

11. Even if the steel factory had become a legitimate military objective for reasons unknown to the Panel, the Panel is unconvinced that the Saudi Arabia-led coalition complied with the relevant IHL principles relating to proportionality. It was the water pump factory that was destroyed beyond immediate repair during this second strike.

15. The Panel finds that the Saudi Arabia-led coalition took some measures to minimize civilian casualties by undertaking the air strike in early morning hours when the water pumps factory was not operational. There were no reported civilian casualties.

⁴¹ Letter dated 21 November 2016.

⁴² IHL requires that in case of doubt whether a civilian object is a military objective, a careful assessment has to be made as to whether there are sufficient indications to warrant an air strike. CIHLR 10.

Appendix D to Annex 60: Residential complex, Mafrak Jiblah, Ibb (24 September 2016)

1. The JIAT concluded that the Saudi Arabia-led coalition did not target the residential complex on 24 September 2016.⁴³
2. The Panel finds that technical analysis of evidence demonstrates beyond a reasonable doubt that the residential complex was targeted using a Mark 82 high explosive aircraft bomb fitted with a Paveway laser guidance system. The only party to the conflict with the known capability to deliver precision guided HE aircraft bombs is the Saudi Arabia-led coalition.

I. Background

3. At approximately 22:00 hours on 24 September 2016, explosive ordnance dropped from a military aircraft detonated on the top floor of a three-story residential apartment complex in the Mafrak Giblah area, Ibb.⁴⁴ The residents of the complex consisted of nine families.⁴⁵ The explosion killed nine occupants, which included seven women and children, and injured, at least, seven others, mostly women and children.⁴⁶ The complex was located within a heavily congested residential area.⁴⁷ Thus, the air strike partially destroyed this complex and seriously damaged several adjacent residential buildings.⁴⁸ It also destroyed several civilian vehicles.⁴⁹
4. At the time of the air strikes, there was an armed “locality defence team” composed of civilians in the area.⁵⁰ This team usually assembles following air strikes to prevent opportunistic looting and vandalism.⁵¹ Some witnesses stated that the intended target of the air strikes may have been a civilian technical training centre located 46m from the residential complex.⁵²

⁴³ Press release with Panel.

⁴⁴ 13°56'42.47"N, 44°10'34.59"E

⁴⁵ The heads of households of the nine families consisted of 1 teacher, 1 veterinarian, 1 doctor, 1 medical assistant, 1 manager of the building, 1 widow, 1 administrative officer, 1 nurse and 1 woman whose husband was abroad.

⁴⁶ The Panel found it difficult to verify the number of injured persons as: 1) families in the building had scattered following the air strikes; and 2) it was not possible to obtain comprehensive numbers of those injured in other buildings. Death certificates with Panel.

⁴⁷ Imagery available with Panel.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Civilians are protected from direct attack unless and for such time as they take a direct part in hostilities. Article 13 of AP I.

⁵¹ There were reports of some air strikes in the area preceding the attack on the Ibb house.

⁵² Some stated that they felt that the training centre was a target because they knew that the Saudi Arabia led coalition targeted these institutions. Others stated that they felt it would be targeted because it was guarded by armed men. A majority denied that the institute was used in any way to contribute to military action. The website of the technical institute is <http://t.oasyemen.net/portal/index.php>.

Figure D.60.1
Relative locations of apartment complex and training centre ⁵³



II. Technical analysis of physical evidence

5. Technical analysis of imagery of fragmentation recovered from the explosion at the civilian house finds that:
 - (a) The explosive device was almost certainly fitted with a Paveway laser guidance unit. Such units are usually designed to be paired with Mark 82 high explosive aircraft bombs (figures D.60.2 and D.60.3);

⁵³ Google Earth. (12 July 2016).

Figure D.60.2
Post-explosion guidance wing from a Paveway laser guidance system



Figure D.60.3
Post-explosion adapter flange from a Paveway laser guidance system



(b) The damage to civilian apartment complex was highly indicative of that caused by the detonation of a large quantity of high explosive. There was clear evidence of the destruction of structural components of the building that equate to the damage to be expected from the shock and blast waves of an explosion (figures D.60.4 and D.60.5);

Figure D.60.4
Civilian apartment complex post blast



Figure D.60.5
Civilian apartment complex post blast



(c) The civilian apartment complex was almost certainly destroyed by a Mark 82 high explosive aircraft bomb fitted with a Paveway laser guidance system; and

(d) The only military entity operating the type of aircraft in the area that has the capability to deliver high explosive ordnance of this type is the Saudi Arabia-led coalition.

III. Response of the Saudi Arabia led coalition and findings of the JIAT

6. The Panel has not yet received a response to a request for information made to the Saudi Arabia led coalition.⁵⁴

7. The JIAT stated in November 2017 that the Saudi Arabia-led coalition did not target this residential complex. It stated:

“on 24 September 2016 Coalition forces targeted a building at bin Laden resort in Ibb governorate which was used as a military headquarters by the Armed Houthi Militia, which represents a legitimate military target, the target is located at a distance of 1070 meters from the claimed residential building. *JIAT concludes that the Coalition did not target the residential building*” (emphasis added).⁵⁵

IV. Analysis of violations of IHL⁵⁶

8. The Panel finds that the Saudi Arabia-led coalition was responsible for this air strike (paragraph 4) and that the use of precision-guided weapons demonstrates that the residential complex was the intended target of these air strikes. In 2016, the Panel found that there was no evidence to support a finding that the complex had become a legitimate military objective.

9. The Panel concluded that the residential complex was a *prima facie* civilian object, immune from direct attack and that the occupants had not lost their civilian protection.⁵⁷ Therefore, unless the Saudi Arabia-led coalition provides information to the contrary, evidence strongly demonstrates that the Saudi Arabia-led coalition violated principles of IHL, including those relating to distinction, proportionality and precautions in attack.

10. The Panel will continue to welcome a clarification from the Saudi Arabia-led coalition.

Appendix E to Annex 60: Civilian house, T’baisha’, Jebel Habshi, Ta’izz (25 March 2016)

I. Background to events

1. At approximately 07:00 hours on 25 March 2016, explosive ordnance dropped from a military aircraft

⁵⁴ Letter dated 21 November 2016.

⁵⁵ Press statement by the JIAT, Coalition forces claim to bomb residential building in Ibb governorate (document with Panel).

⁵⁶ In the absence of a response from the Saudi Arabia led coalition, the Panel analyzed the applicable IHL law in relation to this incident on the basis of its own independent investigations including: 1) witness testimonies; 2) technical analysis of weapon fragments; 3) satellite imagery; 4) examination of investigation reports of international and non-international organizations; 5) examination of medical reports; and 6) open source imagery and documentation. For open sources see “Raids kill nine in central Yemen - medical official, residents” <http://www.reuters.com/article/us-yemen-security-idUSKCN11V04U>, “Arab coalition airstrikes kill 10 civilians in Yemen’s Ibb city” http://news.xinhuanet.com/english/2016-09/25/c_135712446.htm, “Gulf of Aden Security Review - September 26, 2016” <http://www.criticalthreats.org/gulf-aden-security-review/gulf-aden-security-review-september-26-2016>, “Yemen – Conflict (Health Cluster, media) (ECHO Daily Flash of 26 September 2016)”, <http://reliefweb.int/report/yemen/yemen-conflict-health-cluster-media-echo-daily-flash-26-september-2016>.

⁵⁷ IHL requires that the civilian population, as well as individual civilians, shall not be the object of attack. Article 13(2) of AP II. and CIHLR 1.

detonated on a civilian two story house in the village of T'baisha', Ta'izz.⁵⁸ The blast and fragmentation from the explosion killed all ten occupants of the house, which included three women and five children from the same family. The closest military location was a Houthi base located on a mountain, which was a significant distance from the village. There was no reported presence of armed fighters near the house.

Figure E.60.1
Remote location of house ⁵⁹



Figure E.60.2
Post blast damage



II. Technical analysis of physical evidence

4. The Panel finds that post blast analysis of imagery of the explosion is highly indicative of damage consistent with the detonation of a high explosive aircraft bomb (figure E.60.2). This is corroborated by eye-witness statements that report the presence of a military aircraft preceding the explosion and a document issued by the ministry of justice stating the same;⁶⁰

5. The steel strengthening bars within the concrete have been sheared, due to the power of the shock wave close to an explosion, whereas further away from the point of explosion the steel strengthening bars have been deformed due to the power of the blast wave. Such damage mechanisms are highly indicative of that typically caused by the detonation of high explosives; a gas explosion, for example, would not have the power to shear steel strengthening bars; and

6. The only military entity operating the type of aircraft in the area that has the capability to deliver high explosive ordnance of this type is the Saudi-led coalition.

7. The house was highly likely to be the intended target of the air strike. The Panel is not convinced that the Saudi Arabia led coalition directed its air strike against a legitimate military target. Yet, even if it had, the Panel is not convinced that the forces respected IHL principles relating to proportionality and precautions in attack.

⁵⁸ 13°33'56.2"N, 43°54'03.4"E.

⁵⁹ Google Earth.

⁶⁰ Document with Panel.

Appendix F to Annex 60: Radfan Mineral Water-Bottling Factory, al-Mahala, Lahj (25 May 2016)

I. Background to events

1. At around 04:00 hours, on 25 May 2016 military aircraft dropped multiple items of explosive ordnance on a water bottling plant in al-Mahala, Lahj.⁶¹ There were no civilian fatalities reported.⁶² The factory employed over 300 people at the time of the air strikes.⁶³

2. The Panel found no evidence to suggest that there were fighters or their equipment in or in the vicinity of the factory preceding or at the time of the air strikes. The closest military installation is a base under the control of the Hadi-led government of Yemen, which is located 15.3 km northwest of the factory. In the two weeks preceding the air strike, soldiers from this base had twice entered the water bottling plant.⁶⁴

Figure F.60.1

Radfan Factory (27 October 2013) prior to attack⁶⁵



Figure 6.X.2

Radfan Factory (8 June 2016) post attack⁶⁶



⁶¹ 13°05'09.07"N, 44°51'54.83"E.

⁶² At the time of the attacks, there were approximately ten civilians guarding the factory.

⁶³ Owner of the factory. See also <http://reliefweb.int/report/yemen/bombing-businesses-saudi-coalition-airstrikes-yemen-s-civilian-economic-structures-enar>.

⁶⁴ The Yemen armed forces conducted search operations and forcefully removed and relocated several factory on the basis that they were “Northerners”. See S/2017/81 para 153 for reference to this forced removal.

⁶⁵ Source: Google Earth.

⁶⁶ Ibid.

Figure F.60.3
Al Anad Air Force Base⁶⁷



Figure 6.X.4
Air Force Base relational to Factory



II. Technical analysis of physical evidence

3. Technical analysis of imagery of fragmentation recovered from the explosions at the factory (figures F.60.5 and F.60.6) demonstrates that the explosive device was almost certainly fitted with a Paveway⁶⁸ laser guidance unit.⁶⁹ Such units are designed to be paired with Mark 82 high explosive (HE) aircraft bombs;

Figure F.60.5
Guidance fin and component from a Paveway laser guidance system



Figure F.60.6
Paveway laser guidance fin



4. The water bottling plant was almost certainly destroyed by a Mark 82 HE aircraft bomb fitted with a Paveway laser guidance system, resulting in extensive damage; and

5. The only party to the conflict with the known capability to deliver the Mark 82 HE aircraft bomb with the GBU-12 PAVEWAY II guidance unit is the Saudi Arabia-led coalition.

⁶⁷ 13°10'53.13" N 44°45'46.42" E.

⁶⁸ It was not possible to determine from just the fin whether it was a GBU-12 Paveway II (US manufactured) or Paveway IV (UK manufactured) laser guidance unit.

⁶⁹ The Enhanced GBU-12 (EGBU-12) has a dual mode laser guided and GPS inertial navigation system. The Panel cannot determine if this was fitted to this bomb from the available evidence.

6. The Panel finds that the factory that was the intended target of the air strikes. The Panel is not convinced that IHL principles relating to distinction and proportionality were met. The Yemen Armed Forces had entered and searched the factory on two occasions within the two weeks that preceded the air strikes, and had not, according to witnesses, made any claim or confiscated any material or arrested any person that could have demonstrated that the factory or its workers were making an effective contribution to military action.⁷⁰

7. The Panel finds that the Saudi Arabia-led coalition took certain precautions measures to successfully avoid civilian fatalities, in that it conducted its air strikes at night when the factory was not operational. It is also relevant that the first air strikes did not impact on the sleeping quarters of the workers, thus enabling them to seek protection from the effects of the strikes.

⁷⁰ Panel interviews with four persons who interacted with the Yemen Armed Forces.

CONFIDENTIAL ANNEX NOT FOR PUBLIC DISSEMINATION

Annex 61: Case studies and other information on UAE detentions

Annex 62: IHL and HR violations relating to detentions by UAE military forces

I. Terminology

1. In this annex, the terms “arrest”, “detention”, and “detainee” are used to describe the act of depriving an individual of his liberty, the consequential deprivation of liberty, and those subjected to the deprivation of liberty, respectively, without prejudice to the lawfulness of those acts and irrespective of whether detainees are subjected to internment¹ or criminal detention.² The Panel received information from former and current detainees, but because of veritable threats against detainees and their families, the Panel will refrain from providing more information on their current situation. The Panel defines the terms arbitrary arrest and detention,³ torture,⁴ enforced disappearance,⁵ and sexual violence⁶ in accordance with international law and jurisprudence.

2. In this annex, unless otherwise stated, the term Yemeni forces refers only to the Security Belt in Aden, Hadrami Elite Force, and the Shabwani Elite Force.

II. Legal justification for UAE involvement

3. The primary legal justification for the UAE’s involvement in the armed conflict in Yemen is based on the invitation issued by the legitimate Government of Yemen.⁷ The UAE’s obligations are analyzed herein under both IHL and IHRL regimes, as both are binding on the UAE in respect of its obligations in Yemen.⁸ Under IHL and/or

¹ The term ‘internment’ refers to detention for security reasons in situations of armed conflict, i.e. the non-criminal detention of a person based on the serious threat that his or her activity poses to the security of the detaining authority in relation to an armed conflict. See [Commentary to Common Article 3](#).

² Detention related to a criminal process. The Panel is only investigating those detentions linked to the conflict in Yemen and where IHL and/or IHRL violations can be established.

³ The Panel considers an arrest, and consequent detention to be arbitrary when, inter alia; 1) it is clearly impossible to invoke any legal basis justifying the deprivation of liberty; and 2) when the total or partial non-observance of the international norms relating to the right to a fair trial is of such gravity as to give the deprivation of liberty an arbitrary character. See Working Group on Arbitrary Detention, Report, [A/HRC/16/47](#) of 19 January 2011, paragraph 8.

⁴ Article 1 of the [Convention against Torture and Other Cruel Inhuman or Degrading Treatment or Punishment](#) (CAT).

⁵ The Panel considers that enforced disappearances occur when; 1) persons are arrested, detained or abducted against their will or otherwise deprived of their liberty; 2) followed by a refusal to disclose the fate or whereabouts of the persons concerned; or 3) a refusal to acknowledge the deprivation of their liberty; and 4) which places such persons outside the protection of the law. See the Declaration on the Protection of All Persons from Enforced Disappearance ([A/Res/47/133](#)).

⁶ Sexual violence includes any act of a sexual nature, which is committed on a person under circumstances which are coercive. See International Criminal Tribunal for Rwanda, [Prosecutor v. Jean-Paul Akayesu](#), Case No. ICTR-96-4, Judgment (Trial Chamber), 2 September 1998, para. 688, (3).

⁷ [S/2015/217](#).

⁸ The UAE is a party to the [Geneva Conventions of 1949](#) (10 May 1972) and the [Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts](#) (Protocol II), 8 June 1977 (Additional Protocol II) (09 March 1983). The UAE has not ratified the [International Covenant on Civil and Political Rights](#) (ICCPR), but is a party to, inter alia, CAT (19 July 2012) and the [Convention on the Rights of the Child](#) (CRC) (03 January 1997). The UAE is bound by provisions of the ICCPR, in so far as it reflects existing customary international law, and the [Universal Declaration of Human Rights](#). The UAE military forces are bound by the State’s human rights obligations in times of armed conflict and “in respect of acts done by a State in the

IHRL and norms, the following are prohibited at all times: arbitrary arrest and deprivation of liberty of individuals, non-adherence to certain due process rights, violence to life and person, torture and ill treatment, sexual violence, outrages upon personal dignity, and threats to commit the above acts, and enforced disappearances.⁹ The following paragraphs outline the Panel's main findings and conclusions, based on its independent investigations.

III. UAE detention sites in Yemen

4. The UAE denies maintaining detention facilities in Yemen.¹⁰ It informed the Panel that all detainees are kept in "facilities and prisons under the authority of the legitimate Government".¹¹ In 2016 and 2017, the Panel investigated violations relating to eighteen detainees held in detention facilities administered and supervised exclusively by the UAE (see table 62.1).

Table 62.1

Summary of UAE detentions investigated (2016 - 2017)

Serial	Date	Bureiqa UAE base	al-Rayyan UAE base	Shabwah Belhaf port
1	Number of detentions investigated 2016 ¹²	0	6	0
2	Number of detentions investigated 2017	7	3	1

5. The persons documented in the above sites fell within the exclusive jurisdiction of the UAE military forces, while at the detention site.¹³ Yemeni official sources informed the Panel that the

exercise of its jurisdiction outside its own territory". See [Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion](#), I.C.J. Reports 2004, pp. 178-181, paras. 106 – 113 and [Case Concerning Armed Activities on the Territory of the Congo \(Democratic Republic of Congo v. Uganda\)](#), Judgment of 19 December 2005, para. 216.

⁹ The relevant provisions can be found, inter alia, in Geneva Conventions Common Article 3 and Additional Protocol II articles 4 and 5 and the CAT. See also ICRC Customary IHL rules, inter alia, rules 90, 93, 98, 99, 100, 105, 117, 118, 123, 125 and 126 for an elaboration of relevant IHL principles. See also Chatham House and ICRC, Expert meeting on procedural safeguards for security detention in non-international armed conflict, December 2009.

¹⁰ Previously UAE held that "... the UAE, as a part of the Arab Coalition (sic), does not administer or supervise any prisons in Yemen... This is within the jurisdiction of the Yemeni legitimate authorities. The Coalition forces provide training to Yemeni cadres in accordance with the best legal practices...". <https://www.thenational.ae/world/foreign-ministry-denies-existence-of-uae-run-secret-prisons-in-yemen-1.92640>, 23 June 2017.

¹¹ UAE letter to Panel 2017/578 of 8 November 2017.

¹² Paras. 133 and 134, [S/2016/81](#).

¹³ Three detainees witnessed/ or was informed by UAE officials of a "western presence" in Bureiqa. United States troops are reported to be present in al-Rayyan detention site. See <https://www.apnews.com/4925f7f0fa654853bd6f2f57174179fe>. The Panel requested confirmation from the United States on presence of its forces in al-Rayyan; their involvement in UAE-related detentions; and knowledge of detention-related abuses. The United States informed the Panel that it was "unable to share additional information with the Panel at this time." Email dated 13 December 2017.

Government of Yemen does not have any authority over them once they are under UAE custody.¹⁴

6. The Panel identified the location of the detention facility inside the Bureiqa UAE base, based on drawings and descriptions provided by six detainees (annex 61). Satellite imagery shows, what is now being identified as, solitary cells being built in 12 April 2016. The Bureiqa base was under the exclusive control of UAE forces in April 2016 and thus, they alone were responsible for the construction of this site. Imagery on 7 November 2017 shows a further expansion of the base (annex 61). The location of the UAE detention facility in al-Rayyan was identified by AP.¹⁵

IV. Joint arrest activities between UAE and Yemeni forces

7. The UAE informed the Panel that all arrests are undertaken exclusively by Yemen security forces, and that the UAE does not arrest any civilians.¹⁶ The Panel has documented three incidents where UAE and Yemeni forces conducted joint arrest operations. In two operations in Shabwah and Mukalla, UAE air assets were deployed during the arrest operation and in the other, in Mukalla, UAE forces acted as observers. These detainees were then directly transferred to UAE custody.

8. The Panel finds that while the UAE has engaged in joint arrest operations with Yemeni forces that resulted in the UAE taking individuals into its custody, in most cases investigated by the Panel, the UAE military forces received detainees whom the Yemeni Forces had arrested.

V. Transfer of detainees between UAE and Yemeni forces

9. In the incidents investigated, the Hadrami Elite Forces, the Director of General Security of Aden, the Security Belt in Aden, and Shabwani Elite Forces transferred detainees, whom they had arrested, to UAE custody (for individuals responsible for these forces see annex 65). Eye-witnesses informed the Panel that UAE forces also removed detainees out of Yemeni custody from Bir Ahmed I. Other transfers documented include three detainees transferred from the UAE site in Bureiqa to Bir Ahmed I. An identified UAE official also transferred detainees

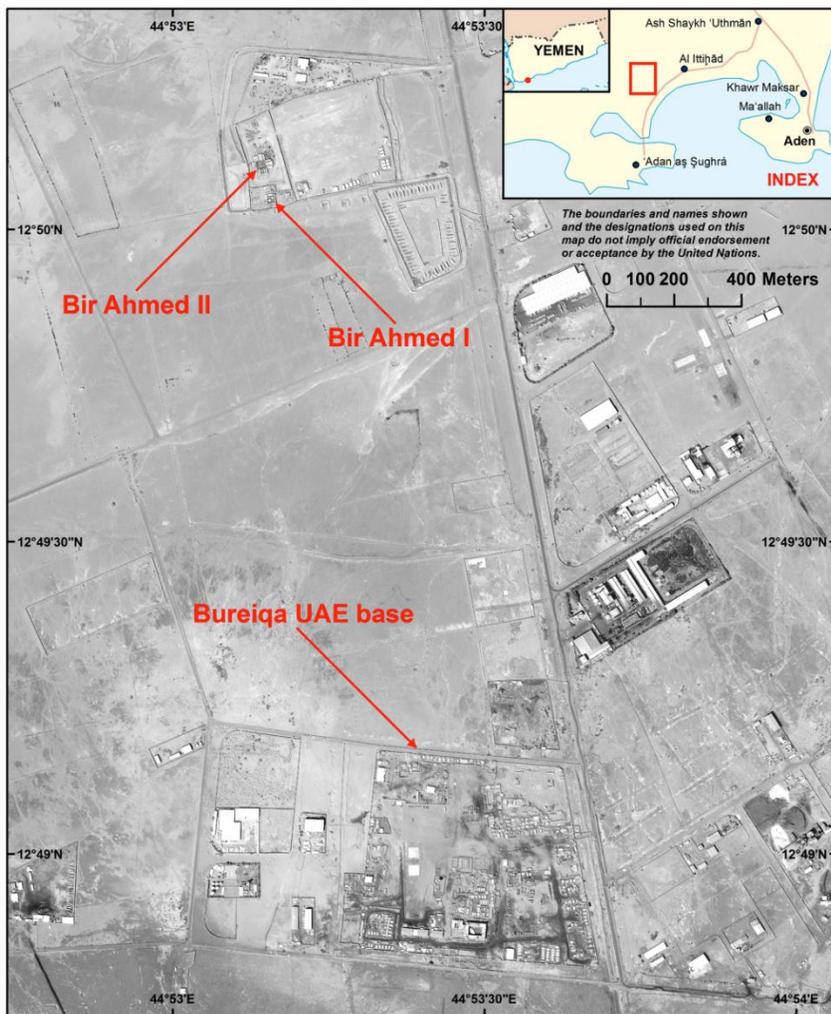
¹⁴ In addition to confidential Panel sources, the following documents also refer to UAE detentions; 1) letter dated 31/07/ 2017 sent to HRW by the 2nd Military Regional Command, which states that “Some of the assertions (on abuses associated with detentions) are biased, intended to slander Coalition forces and especially the United Arab Emirates. Everyone knows the honorable role played by this country... as well as the ethical treatment of prisoners where much is done to facilitate communication with their families”, (emphasis added); 2) a previous iteration of the above letter, signed by Brigadier General Farag Salemeen al-Bahsani, Commander of the 2nd Military Regional Command. This letter states that allegations on abuses in detention were made to tarnish the reputation of the UAE, but that al-Bahsani “confirm(s) that they (UAE) have dealt with detainees in a civil and humane manner” including by facilitating communications between the detainees and their families and by allowing one detainee to visit his mother’s funeral; and 3) Report of group of human rights activists in Hadramawt who visited “secret detention facilities” in July 2017 concluded that “They (sic) are around 175 detained at al-Rayyan that are being held for terrorism charges. The area that they are being held in (al-Rayyan) it is an old location that is not in the possession of the government (unofficial Panel translation).” Open sources include <https://www.hrw.org/news/2017/06/22/yemen-uae-backs-abusive-local-forces> (HRW), <https://www.apnews.com/4925f7f0fa654853bd6f2f57174179fe> (AP), and <http://www.echr.org.uk/news/details-secret-prisons-yemen-under-supervision-uae> (SAM Organization for Rights and Liberties).

¹⁵ <https://www.apnews.com/4925f7f0fa654853bd6f2f57174179fe>. At 14°40'9.92"N 49°22'28.49"E. The UAE informed the Panel that “Riyan (sic) Airport is used (by the UAE) in providing the local authorities in Hadramaut (sic) with the necessary support to control the security situation...in coordination with...the governor”. UAE letter to Panel 2017/578 of 8 November 2017.

¹⁶ UAE letter to Panel 2017/578 of 8 November 2017.

from Bir Ahmed I to Bir Ahmed II on 12 November 2017 (figure 62.2).

Figure 62.1
Relative locations of Bir Ahmed site I and II and the UAE Bureiqa site¹⁷



10. The lack of transparency for these transfers, combined with official denials of the presence of individual detainees and/or detention sites at certain locations, create an environment conducive for enforced disappearances. For example, families said that they were aware of detainees being present in some sites, for example, al-Rayyan UAE base or Bureiqa UAE base, based on information received from former detainees or Yemeni officials who were involved in the transfers, but the UAE had not, to date, provided identification information on detainees held in these detention sites to families.¹⁸ The Panel also met with fourteen families who were informed that their

¹⁷ Image: Panel of Experts. Bir Ahmed I was described by detainees, while Bir Ahmed II was located using satellite imagery, based on descriptions provided by detainees and open source images.

¹⁸ Interviews with multiple family members who directly engaged with the Saudi Arabia-led coalition forces in Aden and Mukalla on seeking information on the fate of their loved ones. Initially, these forces were cooperative with families (for example, in Mukalla, in December 2016, coalition forces requested families to provide detainee lists), but later, they refused to engage, according to these families.

disappeared relatives were in UAE administered or controlled prisons.¹⁹

11. The Panel finds that there is no evidence that the UAE and/or Yemeni forces are taking the appropriate precautions required under international law, when engaging in the transfer of control of detainees into each other's authority and custody to prevent detention related abuses, including enforced disappearances.²⁰ For example, the Panel has identified torture and ill treatment of the same detainees by both the UAE and Yemen forces (see annex 61).

VI. UAE military forces' control and influence over Yemeni forces

12. The Governments of Yemen and the UAE state that the Security Belt, Aden, and the Elite Forces are under the exclusive authority of the Government of Yemen.²¹

13. This is denied by official Yemeni sources, who informed the Panel that the Government of Yemen does not have complete operational control over these forces and their leadership. These forces carry out operations independently of the Government, and are, sometimes, tasked by the UAE forces themselves.²² The Panel was also informed by official Yemeni sources that:

(a) Salaries of the Security Belt, for example, are paid directly by the UAE to the Security Belt forces, and the salary paid exceeds significantly from what is paid to regular forces operating under the Government of Yemen (see annex 65);

(b) Government of Yemen does not have information on all names and other details of detainees arrested by the above Yemeni forces, and handed to UAE custody; and²³

(c) There have been clashes between some of these Yemeni forces, and those under the control of the legitimate government demonstrating the Government of Yemen's inability to exert full operational control over them.²⁴

14. The Panel has identified the Elite Forces and Security Belt as proxy forces of the Saudi Arabia-led coalition.

15. Despite the level of control exercised by the UAE over the Security Belt and Elite Forces, there is no demonstrable evidence that the UAE has acted to prevent violations by the Yemeni forces. For example, the Panel

¹⁹ Information provided to the families by other former detainees or security personnel. One detainee was witnessed by a relative entering the Bureiqa UAE base, his whereabouts are since unknown.

²⁰ See paras. 708 and 714 of the [Commentary to Common Article 3](#) on obligations relating to *non-refoulement* when detainees are transferred to the custody of one State by another State. There is clearly an information exchange between the Yemeni forces and the UAE officials interrogating the detainees as demonstrated by the questions asked by detainees by both entities.

²¹ Panel meeting with Ministry of Interior, Aden, 2 October 2017. UAE letter to Panel 2017/578 of 8 November 2017. [S/2017/81](#), para 134. Both the UAE and the Government of Yemen's official positions are that the UAE provides, inter alia, training and other logistical support to these forces. <http://arabfhr.org/2017/06/27/yemeni-human-rights-minister-denies-secret-prisons-in-aden-southern-yemen/?lang=en>.

²² Yemeni official sources, including those dealing with security.

²³ Ibid. Thus far, the Government of Yemen has not responded to any Panel requests for information on UAE detentions.

²⁴ See UAE-backed fighters take Aden airport from Hadi forces, *Middle East Eye*, May 31, 2017 at <http://www.middleeasteye.net/news/uae-backed-fighters-yemen-take-over-aden-airport-ally-hadi-report-1568338746>

investigated a case where a detainee was physically abused by the Security Belt, immediately prior to the transfer of that detainee to the UAE, and finds it is unlikely that the UAE military forces assuming custody would have failed to notice the abuse. Given, however, that the UAE military forces then physically abused the same detainee, the Panel can only conclude that there is collusion between the forces on measures adopted to collect information from detainees. This pattern of detainee abuse by multiple authorities was also observed with other detainees transferred to the UAE from the custody of the Director of General Security, Aden (see annex 61).

16. The fact that the UAE military forces themselves engage in violations with impunity (see paragraph 19) creates an environment conducive to violations. It then enables the Yemeni forces operating with the UAE, also to engage in the same violations with enhanced impunity. See appendix A for levels of influence exerted by the Saudi Arabia-led coalition on Yemeni forces.

VII. Legal authority for the UAE detentions in Yemen

17. The Panel has asked, but not yet received, from Saudi Arabia, the UAE or Yemen, relevant information on the relevant legal authority under which the UAE engage in arrests and deprivation of liberty in Yemen. The invitation to GCC countries intervening in the Yemeni conflict, presented by the Government of Yemen is broad,²⁵ but, in the absence of a response from the Government of Yemen for a clarification, it is not for the Panel to conclude that this invitation provides the relevant legal authority for UAE to detain individuals, especially given that the Government consistently fails to acknowledge UAE detentions or detention sites maintained by the UAE.²⁶

18. Similarly, in the absence of a response by the Government of Yemen on the relevant position in its domestic law or on the existence of a bilateral/multilateral agreement on the same, the Panel is not able to conclude that the relevant legal basis can be found in those instruments.²⁷ The UN Security Council resolutions on Yemen do not provide the requisite legal authority. There are no standard operating procedures regulating the arrest and transfer of detainees and their conditions of detention in respect to UAE detentions.

19. Thus, the Panel finds that the legal authority under which the UAE engages in arrests and detentions in Yemen is unclear, as neither country would provide the relevant clarification. The Panel finds that this is presumably because neither UAE nor Yemen acknowledges UAE detentions in Yemen, and to provide a clarification on UAE authority would invariably necessitate an acknowledgement of UAE detentions.

VIII. UAE violations of IHL and HR of detainees

²⁵ S/2015/217.

²⁶ One may argue that the transfer of detainees, arrested by individuals and entities said to be under the “de jure control” of the Government of Yemen, to UAE custody, may constitute an implicit authorization on the part of the Government of Yemen for UAE to detain these individuals. It is not for the Panel to infer implicit authority especially given the low-level of control the Government of Yemen exercises over these Forces.

²⁷ It is unclear if Common Article 3 to the Geneva Conventions or APII alone provides a basis for detention. See ICRC, “[Internment in Armed Conflict: Basic Rules and Challenges, Opinion Paper](#)”, November 2014, p.8. It is recognized that in a non-international armed conflict additional authority may be required as a legal basis for foreign forces to detain individuals. This may include authorizations under a Chapter VII Security Council resolution, domestic legislation, or an international agreement between the detaining State and host State. See also ICRC, “[Strengthening international humanitarian law: protecting persons deprived of their liberty: Concluding report](#)”, [32IC/15/19.1](#), October 2015.

20. Detainees informed the Panel of the following violations at the Bureiqa detention site:²⁸
- (a) Torture, including beatings, electrocution, constrained suspension, imprisonment in a metal cell ('the cage') in the sun and sexual violence (annex 61).²⁹ UAE soldiers and officials inflicted these abuses to obtain information or to punish individuals;
 - (b) Denial of appropriate medical treatment, including for torture and prevailing medical conditions;³⁰
 - (c) Enforced disappearance. The detainees investigated by the Panel were at the Bureiqa detention site from a few days to over six months. With a few exceptions, families were unaware of their whereabouts. A significant majority of detainees were not allowed to communicate with their families;
 - (d) The families of detainees, their legal representatives, or the representatives of international organizations, including the ICRC, have not had access to detainees;³¹ and
 - (e) While there were regular interrogations of detainees, including the allocation of case officers for each detainee, detainees had no access an impartial body to challenge their detention.
21. The Panel finds that the UAE military forces have engaged in violations of IHL and IHRL when it engaged in arbitrary arrest and detention,³² torture, ill treatment, enforced disappearances and threats to commit the above acts, and other violations of fundamental guarantees of detainees.³³

IX. Acts of intimidation and threats by UAE forces and other groups

22. There is widespread intimidation practiced by the UAE and their local collaborators to maintain secrecy of these detentions and associated abuses. The Panel considers that the following documented acts of intimidation are extremely grave in that they deprive families the right to know the fate of their relatives, prevent any accountability

²⁸ In accordance with Panel methodology, all the information in this section (and this annex) was provided by, at minimum, two sources. For this section, the sources were either eye-witnesses or victims.

²⁹ Five detainees witnessed torture and sexual violence being committed against other detainees and, at least, four, interviewed by the Panel, stated that they were tortured. Medical records verified the occurrence of torture in two cases, but circumstances of other detainees did not allow for medical verification.

³⁰ Two detainees. Yet, another detainee was provided medical treatment, for torture that occurred immediately before he entered the Bureiqa base, as the UAE concluded that his arrest and detention was ill conceived and there was no reason for him to be detained. Yet, the detainee was not released.

³¹ Source: families and detainees.

³² For example, in one case, an individual was arrested, taken to al-Rayyan and was shown a list and asked to identify a specific unknown individual in that list as responsible for a recent security incident, and when he refused to do so, he was detained for several months. In another unrelated case, an individual, whose relative had recently been imprisoned in al-Rayyan, was requested to come to the base, asked to identify an individual on the list as AQAP, and he identified the individual despite knowing full well that he was not linked to AQAP. The Panel was informed he identified the individual to prevent being detained himself.

³³ See Article 4 and 5 of AP II and CA 3. ICRC, "Strengthening international humanitarian law: protecting persons deprived of their liberty: Concluding report", [32IC/15/19.1](#), October 2015. Jelena Pejic, Internment in armed conflict and other situations of violence, [87 \(835\) IRRC](#), June 2005.

for the violations, and facilitate denials of continued violations:

- (a) A detainee was threatened with sexual abuse if he informed anyone of the detention and consequent abuses suffered at the hands of the UAE;
- (b) Another former detainee was warned not to discuss his detention with the UAE, but when he did, he was immediately rearrested and remains in UAE custody;³⁴
- (c) The Panel observed widespread fear during its discussions with former detainees, families of detainees, and activists that there will be repercussions on those who speak of the UAE detentions, in Mukalla and Aden. In both Mukalla and Aden, protestors who demonstrated against these detentions were, on two occasions, subjected to verbal harassment and physical abuse.³⁵ They were sufficiently intimidated to discontinue their protests at the same locations; and
- (d) In one case, a letter sent to HRW by the UAE Ministry of Defence, following its findings on detentions in Mukalla, threatened the “prosecution” of those involved in reporting detention-related violations.³⁶

23. The Panel finds that UAE forces, the Yemeni Ministry of Defence, and other unidentified groups have engaged in intimidation and threats against detainees and those representing them.

X. Government of Yemen’s complicity in abuses

24. The Government of Yemen is instrumental in, and is facilitating, continued violations by UAE military forces, in Yemen, by:

- (a) The continued failure to acknowledge UAE detentions in Yemen,³⁷ even though forces under its supposed de jure control continues to engage in and facilitate such detentions and/or conduct joint arrest operations with the UAE;
- (b) The failure to clarify the legal authority under which the UAE military forces, as an international force, continue to arrest and detain individuals in Yemen;
- (c) The failure to assert jurisdiction and to control abuses in detention sites maintained by the UAE;
- (d) The non-payment of salaries to its forces, which is essential in establishing its de facto authority over those forces, and by allowing the Saudi Arabia led-coalition to directly pay salaries or incentives to

³⁴ Specific details are omitted to protect detainee.

³⁵ Panel meetings with the protestors.

³⁶ Documents with Panel. See footnote 14. Following the release of HRW report on UAE detentions, the lead researcher’s passport was circulated in the media stating that she was a Qatari affiliate. <http://m.sahafah.net/show2924701.html>. Even if this is not attributed to the UAE by the Panel, this demonstrates undue interference and lack of protection afforded to those reporting on violations.

³⁷ The Minister of Human Rights stated that “reports...about secret prisons in the south are baseless”. <http://arabfhr.org/2017/06/27/yemeni-human-rights-minister-denies-secret-prisons-in-aden-southern-yemen/?lang=en>. The spokesman of the Aden police “acknowledged that the UAE played a positive and supportive role for many prisoners who were released by the security services in Aden and Hadramawt, pointing out that the role of the UAE “was limited to providing support to the Department of Aden security...” <http://arabfhr.org/2017/06/27/yemeni-human-rights-minister-denies-secret-prisons-in-aden-southern-yemen/?lang=en>.

some of these forces operating with the UAE; and

(e) The failure to conduct a credible inquiry into its own forces alleged to have committed violations;³⁸ failure to conduct an inquiry into the UAE's conduct and curtail its conduct in so far as it relates to abusive practices; and failure to ensure safeguards when engaging in detainee transfers between the UAE and forces under its supposed de jure control.

25. The Government of Yemen has, during several meetings with the Panel, sought to distance itself from the legal responsibility accruing on the Government of Yemen for acts and omissions committed by the Saudi Arabia-led coalition in Yemen.³⁹ Yet, the Panel finds that:

(a) The Government of Yemen continues to be responsible for any internationally wrongful acts committed by the Saudi Arabia-led coalition and individual members of the Saudi Arabia-led coalition in Yemen;

(b) Saudi Arabia-led coalition member States are present and operating in Yemen, at the invitation of, and with the consent of, the Government of Yemen. The Government has full discretion to revoke or limit this consent, or to clarify the boundaries of its consent, to further the compliance of these forces with IHL and IHRL;⁴⁰ and

(c) The Government of Yemen is responsible for the consequent treatment and wellbeing of all detainees, especially those who have been transferred to UAE by forces under its de jure control.⁴¹

XI. Involvement of other States

26. As far as the Panel is aware, the UAE, in carrying out these operations, is working as a part of the Saudi Arabia-led coalition.⁴² Thus, the following member States, especially, have responsibilities under Common Article 1 of the Geneva Conventions, that requires all parties to "ensure respect" for IHL: Bahrain, Djibouti, Jordan,

³⁸ According to the media, the Government of Yemen established a Commission, in June 2017, to "consider the allegations of violations of human rights in liberated areas and propose possible responses to those allegations and establish a mechanism to address and resolve any future problems in this regard." This Commission's findings are not yet public. <http://arabfhr.org/2017/06/27/yemeni-human-rights-minister-denies-secret-prisons-in-aden-southern-yemen/?lang=en>.

³⁹ Meetings with Yemeni officials.

⁴⁰ See Common Article 1 of the Geneva Conventions on the Government of Yemen's obligations. For consent related matters see *Democratic Republic of Congo v Uganda*.

⁴¹ The Government of Yemen can absolve itself of its responsibility of internationally wrongful acts, if UAE forces in Yemen are classified as an occupying force (See *Democratic Republic of Congo v Uganda*). Although the President of Yemen did allege that the UAE is acting as an occupying force in Yemen, this was not repeated. <http://www.middleeasteye.net/news/exclusive-yemeni-president-says-emiratis-acting-occupiers-1965874493>.

⁴² The UAE justified its presence in Yemen to the invitation made by President Hadi. UAE letter to Panel of 8 November 2017. The Panel notes that the United States provides that "the UAE deployed forces in Yemen to counter the spread of AQAP and ISIS in Yemen at the same time as it partnered with the Saudi-led Islamic Military Alliance to Fight Terrorism... UAE forces remained in Yemen to support local forces in counterterrorism operations." See <https://www.state.gov/j/ct/rls/crt/2016/272232.htm>. The Panel continues to welcome any clarifications provided by the UAE on the legal basis under which it maintains detention sites, in Yemen.

Kuwait, Malaysia, Morocco, Saudi Arabia, Senegal and Sudan.⁴³

27. To the extent, that the UAE detentions are being undertaken to gather information on AQAP or ISIS or other terrorist groups, partners of the UAE should take proactive steps to inquire and ensure that the information that it receives on the basis of partnership agreements or otherwise, is not obtained by torture, not only because such information is unreliable, but also because it violates these member States international obligations.⁴⁴ These member States also have a special responsibility under Common Article 1 of the Geneva Conventions to ensure respect for IHL. The United States and Europol⁴⁵ work with the UAE on countering terrorism, with the United States actively engaged with the UAE in Yemen.⁴⁶

XII. Conclusions

28. The Panel finds that:

- (a) It is unlikely that UAE military forces in Yemen are conducting arrest and detention operations without the knowledge of the Governments of the UAE and Yemen;
- (b) The lack of public acknowledgement of the UAE's engagement in detention, by both governments, contribute to violations occurring with impunity by both UAE forces and its Yemeni collaborators. For the Yemeni forces, this denial guarantees the ability to operate without any foreseeable consequences for illegal conduct;
- (c) That this and other information available in the public domain on UAE detentions should be sufficient for the Governments of Yemen and UAE to reconsider their respective public positions that the UAE does not maintain any detention facilities in Yemen; to comply with their obligations under international law to call for an immediate investigation on the involvement of their armed forces and state organs in these violations; and to take appropriate action as required under domestic and international law to prevent further abuses;⁴⁷ and
- (d) Those who are in command and control of the UAE forces that engage in detention-related abuses in Yemen certainly fall within the designation criteria under paragraphs 17 and 18 of resolution 2140 (2014).

⁴³ For the list of States identified as partners in the Saudi Arabia-led coalition, see <http://www.spa.gov.sa/1682071>.

⁴⁴ For example, obligations under CAT.

⁴⁵ <https://www.state.gov/j/ct/rls/crt/2016/272232.htm>. The UAE has a strategic cooperation agreement on countering serious crime and terrorism for exchange of information and expertise between UAE and Europol.

⁴⁶ <https://www.uae-embassy.org/about-uae/foreign-policy/uae-counterterrorism>, <http://www.hedayahcenter.org/media-details/49/news/51/latest-news/829/uae-maintains-robust-counter-terrorism-stance--us-state-department-country-reports-on-terrorism-for-2016>.

⁴⁷ The Panel notes that in this respect, that the JIAT informed the Panel that it did not have the necessary mandate to investigate UAE detention related violations. Meeting in June 2017 in Saudi Arabia.

Appendix A to Annex 62: Summary information on individuals and entities that engaged with the UAE on detentions

<i>Ser</i>	<i>Entity</i>	<i>Name of Leader</i>	<i>Area of Responsibility</i>	<i>Image⁴⁸</i>	<i>Relationship with the UAE</i>
1	Security Belt, Aden	Brigadier General Wadha Omar Abdulaziz Commander of Security Belt	Aden		<ul style="list-style-type: none"> The transfer of detainees. UAE pays salaries to Security Belt forces. UAE supports training, intelligence and logistics. <p>Analysis:</p> <ul style="list-style-type: none"> Collaborative relationship that goes beyond training, intelligence sharing and logistical support.
2	Aden Police Force	Major General Shallal Ali Shaye, Director of General Security Aden	Aden		<ul style="list-style-type: none"> The transfer of detainees. UAE provides logistical support and provision of other resources to Aden Police. <p>Analysis:</p> <ul style="list-style-type: none"> Collaborative relationship. Unknown if his work with the UAE on detainee transfers is undertaken in his personal capacity or on behalf of the Government of Yemen.
3	Shabwani Elite Forces	Lieutenant Colonel Mohammed al-Buhar al-Qumayshi Commander Shabwani Elite Forces	Shabwah		<ul style="list-style-type: none"> Engaged in joint UAE arrest operations. The transfer of detainees. <p>Analysis:</p> <ul style="list-style-type: none"> There is a collaborative relationship between the UAE and the Shabwani Elite Forces on arrest and detentions.
4	Hadrami Elite Forces		Hadramawt		<ul style="list-style-type: none"> Joint UAE arrest operations Transfer of detainees. UAE provides training, intelligence and other logistical support. <p>Analysis:</p> <ul style="list-style-type: none"> Collaborative relationship that goes beyond training, intelligence sharing and logistical support.
5	20 th Military Camp	Imam al-Nubi, Former commander 20 th Military Camp	Aden		<ul style="list-style-type: none"> UAE facilitated the release of detainee from al-Nubi. <p>Analysis:</p> <ul style="list-style-type: none"> There is no collaborative relationship between UAE and al-Nubi on detentions. Operated with relative independence from UAE.

⁴⁸ Images from @demolinari at <https://twitter.com/search?q=demolinari%20andsrc=typd>.

CONFIDENTIAL ANNEX NOT FOR PUBLIC DISSEMINATION

Annex 63: Detentions by ‘PSO’, ‘NSB’, and other Houthi officials

Case studies on the indiscriminate use of explosive ordnance against civilian populated areas in Yemen and Saudi Arabia (2017)

I. Violations by Houthi-Saleh Forces

1. In 2017, the Panel received information on 163 reported¹ cases of the indiscriminate use of explosive ordnance (EO) against civilian populated areas in Ta'izz and Ma'rib, Yemen, and one case in Riyadh, Saudi Arabia, that are attributable to Houthi-Saleh forces. The Panel investigated ten potential indiscriminate attacks.² Full case studies for three incidents are included as shown in table 64.1, and case study summaries for six incidents are included in table 64.2. These incidents demonstrate that parties to the conflict continue to engage in the apparent indiscriminate use of EO in proximity to the civilian population.

2. The Panel arrived at its conclusions and findings, in respect of its findings, based on its own independent investigations and information available in the public domain. If the Houthi-Saleh political or military leadership can provide verifiable information on the military objectives sought to be achieved that may counter the Panel's conclusions and findings, then the Panel stands ready to review them.

3. The Houthi-Saleh political and military leadership has not responded to Panel requests for information.

Table 64.1

Full case studies of the indiscriminate use of EO against civilian populated areas

<i>Appx</i>	<i>Date</i>	<i>Location</i>	<i>Incident and target</i>	<i>Type of explosive ordnance</i>	<i>Civilian casualties</i>
A	29 May 2017	Al-Nour, Ta'izz	Civilian neighbourhood	▪ 120mm high explosive (HE) mortar bomb	1 dead 7 injured
B	6 Sept 2017	Al-Rawda, Ma'rib	Civilian neighbourhood	▪ 120mm HE mortar bomb	3 injured
C	11 Nov 2017	Riyadh, Saudi Arabia	Civilian airport	▪ Short-range ballistic missile	0
D	2 Nov 2017	Onsowa, Ta'izz	Civilian neighbourhood	▪ 120mm HE mortar bomb	5 dead 2 injured

4. In the ten incidents investigated by the Panel it finds that:

(a) The damage observed in the available imagery is consistent with the type of damage caused by land service ammunition (for example, motor bombs and artillery shells);

(b) In some cases, although the Panel was unable to exactly identify the type of explosive ordnance based on the available information, the Panel is almost certain that the explosions were not due to gas explosions, the initiation of improvised explosive devices (IED), the initiation of

¹ These cases were documented and verified by Panel sources. The Panel can share further information with the Committee, with the consent of its sources.

² The Panel selected these 18 cases based on the availability of technical evidence, imagery, witnesses, medical records, GPS coordinates, and the ability of Panel investigators to reach the area. Yet, in only 10 did technical evidence confirm the use of explosive ordnance.

unexploded ordnance (UXO) or the initiation of abandoned explosive ordnance (AXO). The locations of the explosions were in areas of conflict and within the range of weapons from known enemy positions of the military forces participating in the conflict;

(c) In all the cases investigated, there was no demonstrable evidence that the civilians in, or near these objects, who are prima facie immune from attack, had lost their civilian protection;

(d) Even if in some of the cases that follow, the Houthi-Saleh fighters, or the Abu al-Abbas group (for incident in appendix D), have targeted legitimate military objectives, the Panel finds that it is highly unlikely that IHL principles of proportionality, and precautions in attack were respected in these incidents; and

(e) The cumulative effect on civilians and the civilian object demonstrates that even if precautionary measures were taken, they were largely inadequate and ineffective.

5. The Panel also concludes that:

(a) In the absence of any verifiable information from Houthi-Saleh forces, the evidence gathered strongly demonstrates that Houthi-Saleh forces engaged in the indiscriminate use of EO in densely populated civilian areas, in violation of the principles of IHL;³

(b) In their use of SRBM, Houthi-Saleh forces failed to take account of the inherently indiscriminate nature of the weapon in that:

(i) SRBM are specifically designed to be area weapons, as precision accuracy cannot be guaranteed;

(ii) Since the blast and fragmentation danger areas are primarily based on the size and design of the explosive warhead, this missile's likely impact on civilians was foreseeable, especially when directed at civilian populated areas; and

(iii) As such weapons have a known Circular Error Probability (CEP)⁴ of up to 1,000m, they should not be used against targets within 1,000m of the civilian population.

6. The Panel stands ready to provide the Committee with further information if requested, but in the interest of brevity, provides only summaries of the cases in table 64.2 below.

Table 64.2

Summary case studies of the indiscriminate use of EO against civilian targets

³ Customary international law, which binds Houthi-Saleh forces, requires parties to conflicts to distinguish between civilians and combatants. The International Court of Justice (ICJ) has held that "indiscriminate shelling is in itself a grave violation of humanitarian law" Case Concerning Armed Activities on the Territory of the Congo (Democratic Republic of Congo v. Uganda), Judgment of 19 December 2005, para. 208.

⁴ The CEP is a measure of a weapon system's precision. It is defined as the radius of a circle, centered on the mean, whose boundary is expected to include the landing points of 50% of the missiles fired.

<i>Ser</i>	<i>Date</i>	<i>Location</i>	<i>Incident and target</i>	<i>Type of explosive ordnance</i>	<i>Civilian casualties</i>
E	18 Jan 2017	Al-Nour, Ta'izz	Residential area	120mm HE mortar bomb	9 dead 8 injured
F	21 May 2017	Al-Jahmila, Ta'izz	Residential area	HE EO TBC	2 dead
G	21 May 2017	Tha'baat, Ta'izz	Residential area	HE EO TBC	3 dead 3 injured
H	21 May 2017	Al-Hamaira, Ta'izz	Commercial area	HE EO TBC	2 dead 5 injured
I	30 Jun 2017	Al-Jumhuri, Ta'izz	Residential area	106mm RCL ⁵	1 dead 9 injured
J	21 Sep 2017	Senei, Ta'izz	Residential area	RPG-7 variant	0

7. IHL requires military commanders and those responsible for planning and executing decisions regarding attacks to take all feasible precautions to avoid, and in any event to minimize, incidental loss of civilian life, injury to civilians and damage to civilian objects.⁶ Unless Houthi-Saleh military or political forces provide evidence to the contrary, the Panel finds that there is compelling evidence that the commanders of the forces involved failed to take all feasible precautions to avoid or to minimize, incidental loss of civilian life, injury to civilians and damage to civilian objects.

8. The Panel also documented the use of indiscriminate use of EO against civilian houses. The Panel received 161 reported cases where Houthi-Saleh forces have allegedly used explosive ordnance to intentionally damage or destroy houses (figures 64.1 and 64.2).

Figure 64.1

Example of damage to house in Ta'izz caused by indiscriminate use of EO



Figure 64.1

Example of damage to house in Ta'izz caused by indiscriminate use of EO



9. The indiscriminate use of explosive ordnance against civilian locations in Yemen and Saudi Arabia committed by the Houthi-Saleh forces, falls within paragraph 17 and/or paragraph 18 of resolution 2140 (2014). Member States should consider the continued occurrences of widespread civilian casualties, including children, because of the indiscriminate use of EO is a veritable threat to peace, security, and stability in Yemen.

⁵ Recoilless Rifle.

⁶ See Article 13(1) of Additional Protocol II to the Geneva Conventions and CIHLR 15 - 22.

10. Given that this regular and routine occurrence of use of EO cannot occur without at least the continued acquiescence of its leadership, the Security Council should consider expanding the narrative summary of the reasons for the listing of Abdulmalik al-Houthi (YEi.004) to reflect the threats to peace, security, and stability associated with this indiscriminate use of EO. In this context, the Council should also consider:

(a) The threats issued by the leadership of the Houthi-Saleh forces, including the chairman of the supreme revolutionary committee, Mohammad Ali al Houthi, who threatened further attacks on oil installations in Saudi Arabia, and commercial ships carrying oil, as reprisals, which are *prima facie* civilian objects immune from attack.⁷ Saleh al Samad, head of the supreme political council, also referred to targeting of “capitals” of countries as reprisals;⁸ and

(b) The political office also reportedly issued a statement that “*All airports, ports, border crossings and areas of any importance to Saudi Arabia and the UAE will be a direct target of our weapons, which is a legitimate right*”.⁹ These statements do not distinguish between civilian objects and military objectives. Intentionally launching attacks against civilians and civilian objects violates IHL.¹⁰ As far as the Panel is aware, these statements were not denounced by Abdulmalik al-Houthi (YEi.004).¹¹

11. The Panel finds:

(a) That after such a prolonged period of conflict, Abdulmalik al-Houthi (YEi.004) would be aware of the ballistic performance of the weapons systems used by their forces and their target effects. Yet, as the Panel reported in S/2017/81, and has identified in this report, multiple incidents of the indiscriminate use of EO against the civilian population of Ta’izz and Ma’rib have continued during 2017. These incidents attributable to the Houthi-Saleh forces, are violations of IHL and constitute a threat to peace, security and stability of Yemen;

(b) That in respect of the missiles fired at Saudi Arabia, even if one allows for the possibility that Abdulmalik al-Houthi (YEi.004) did not consent to each individual missile strike against Saudi Arabia, he is responsible for a policy adopted by the Houthi-Saleh leadership that allows for the continued use of these missiles against Saudi Arabia; and

(c) Given the foreseeable political and military repercussions, it is inconceivable that the missile launched on 4 November 2017 at King Khalid International Airport, could have taken place without the knowledge and prior consent of Abdulmalik al-Houthi (YEi.004). The Panel finds that this missile strike violated IHL and constituted a threat to peace, security and stability of Yemen.

II. Violations by anti-Houthi forces (including the Abu al-Abbas group)

⁷ https://www.facebook.com/permalink.php?story_fbid=163853657542656&id=149354595659229.

⁸ <http://www.ansarollah.com/archives/124112>.

⁹ <https://www.alaraby.co.uk/english/news/2017/11/8/houthis-threaten-to-attack-uae-and-saudi-airports>.

¹⁰ Common Article 3 to the Geneva Convention, CIHLR 1- 10.

¹¹ In at least one televised speech al-Houthi is reported to have stated that “*his ballistic missiles were capable of reaching the United Arab Emirates’ capital of Abu Dhabi and anywhere inside Saudi Arabia... If the Saudi regime and with a green light from the US attack Hodeidah then we have to take steps that we haven’t taken before*”. See <http://www.arabnews.com/node/1161156/middle-east>.

12. Anti-Houthi forces also violate IHL when it establishes military installations in densely populated civilian areas as they are exposing civilians to the dangers arising out of conflict.¹² If done intentionally and systematically, then it is likely that civilians and civilian objects are being used as shields to avoid attack, which is in violation of IHL.¹³ In four incidents in which EO detonated within the civilian population, anti-Houthi forces had established their checkpoints in densely residential areas within 700m of the impact points. The Panel has also investigated one case of use of explosive ordnance where, based on technical evidence, it appears that a 120mm high explosive mortar bomb was fired from an area under the control of anti-Houthi forces, probably areas under the control of Abu al-Abbas.¹⁴ On 2 November 2017, this mortar bomb detonated in al-Onsowa neighbourhood, Ta'izz, killing five children and injuring two others, highly likely by Abu al-Abbas group (appendix D).

¹² See for example, CIHLR Rules 22 and 23.

¹³ See for example, CIHLR 97.

¹⁴ al-Onsowa, 2 November 2017.

Appendix A to Annex 64: Mortar bomb strike on civilian area, al-Nour, Ta'izz, (29 May 2017)

1. At approximately 23:00 hours on 29 May 2017, one 120mm HE mortar bomb detonated in al-Nour, Ta'izz, killing one civilian and injuring seven others, including four children.
2. Analysis of imagery of fragmentation (figures A.64.1 and A.64.2) recovered from the explosion indicates that the explosive ordnance used was a 120mm HE mortar bomb. All parties to the conflict have access to this type of weapon and ammunition.¹⁵
3. Given that the nearest anti-Houthi forces checkpoint was approximately 500m from the house and anti-Houthi forces control the area, it is highly likely that the perpetrators were Houthi-Saleh forces.

Figure A.64.1
Post explosion - Tail fragment



Figure A.64.2
Post explosion - Tail fragment



4. This civilian, neighbourhood has now been hit over three times since the beginning of the conflict.

¹⁵ Similar in design to the round shown here: <http://www.armaco.bg/en/product/mortar-bombs-c19/120mm-mortar-rounds-p474>. The Panel does not, however, suspect this company of any involvement in the conflict. It is for illustrative purposes only.

Appendix B to Annex 64: Mortar strike on a residential building, al-Rawda, Ma'rib, (6 September 2017)
(c)

1. At approximately 12:00 hours on 6 September 2017, one 120mm HE mortar bomb detonated in a residential building in al-Rawda, Ma'rib, injuring three children.
2. Analysis of imagery of fragmentation (figures B.64.1 and B.64.2) recovered from the explosion indicates that the explosive ordnance used was a 120mm HE mortar bomb. All parties to the conflict have access to this type of weapon and ammunition.

Figure B.64.1
120mm HE mortar bomb fragment



Figure 2.B.64
Impact point



3. The building is in a neighbourhood controlled by the Government of Yemen. The closest government establishment is a police station located approximately 700m from the impact point. The Panel finds, based on the evidence, it is highly likely that the perpetrators were Houthi-Saleh forces.

Appendix C to Annex 64: SRBM missile on King Khalid International Airport, Riyadh, Saudi Arabia (4 November 2017)

1. At 20:07 hours (local time) on 4 November 2017 a short-range ballistic missile (SRBM) was launched against King Khaled International Airport (KKIA) in Riyadh.¹⁶
2. The Panel finds it almost certain that Houthi-Saleh forces were responsible for launching the attack based on:
 - (a) Media reports quoting Houthi-Saleh officials, who stated that their target was KKIA;¹⁷
 - (b) No denial in the public domain by the Houthi-Saleh forces;
 - (c) Technical analysis of the SRBM (see annex 36); and
 - (d) The flight path of the SRBM.¹⁸
3. The Panel finds it almost certain that Houthi-Saleh forces targeted the KKIA, which is a civilian airport, with some military equipment and installations. While the Houthi-Saleh forces insisted after the missile launch that the target was the military installations within the airport, the Panel notes that the Houthi-Saleh commanders should have reasonable grounds to know the weapons unpredictable effects when directed at a civilian establishment.
4. The Panel finds that SRBM is not capable of precision targeting at the 1,065km range this missile travelled as it has a Circular Error Probability of 750m to 1,000m. SRBM are specifically designed to be area weapons, as precision accuracy cannot be guaranteed. Since the blast and fragmentation danger areas are primarily based on the size and design of the explosive warhead, this missile's likely impact on civilians was foreseeable, especially when directed at civilian populated areas.¹⁹
5. Consequently, the commanders who authorized the launch of the missile were reckless and failed to take into consideration, or wilfully disregarded, the fact that a disproportionately number of civilians and civilian objects could be affected by targeting KKIA.

¹⁶ 24°57'29.5272"N, 46°42'2.8044"E.

¹⁷ <https://www.sabanews.net/ar/news478520.htm>.

¹⁸ "The General Authority of Civil Aviation said some remnants of the missile landed inside the airport perimeter". <http://www.arabnews.com/node/1188336/saudi-arabia>. Another remnant landed in a civilian house in a populated area in Riyadh.

¹⁹ Over 40 airlines operate from KKIA and according to the latest statistics (2015) over 20 million passengers used the airport in 2015. The airport is 35km from the densely-populated city of Riyadh. <https://www.riyadh-airport.com>.

Appendix D to Annex 64: Mortar strike on al-Onsowa, Ta'izz (2 November 2017)

1. On 2 November 2017, a 120mm high explosive mortar bomb detonated in al-Onsowa neighbourhood, Ta'izz, killing five children and injuring two others.
2. Analysis of imagery of fragmentation (figures D.64.1 and D.64.2) recovered from the explosion indicates that the explosive ordnance used was a 120mm high explosive mortar bomb. All parties to the conflict have access to this type of weapon and ammunition.

Figure D.64.1
120mm HE mortar bomb tail unit



Figure D.64.1
120mm HE mortar bomb tail unit



3. The distinctive fragmentation pattern (figure D.64.3) provides evidence as to the direction the mortar bomb was fired from. The Panel finds that the firing point was to the South East of the impact point (overview at figure D.64.4).

Figure D.64.3
82mm HE mortar bomb tail unit²⁰



Figure D.65.4
Target area overview²¹

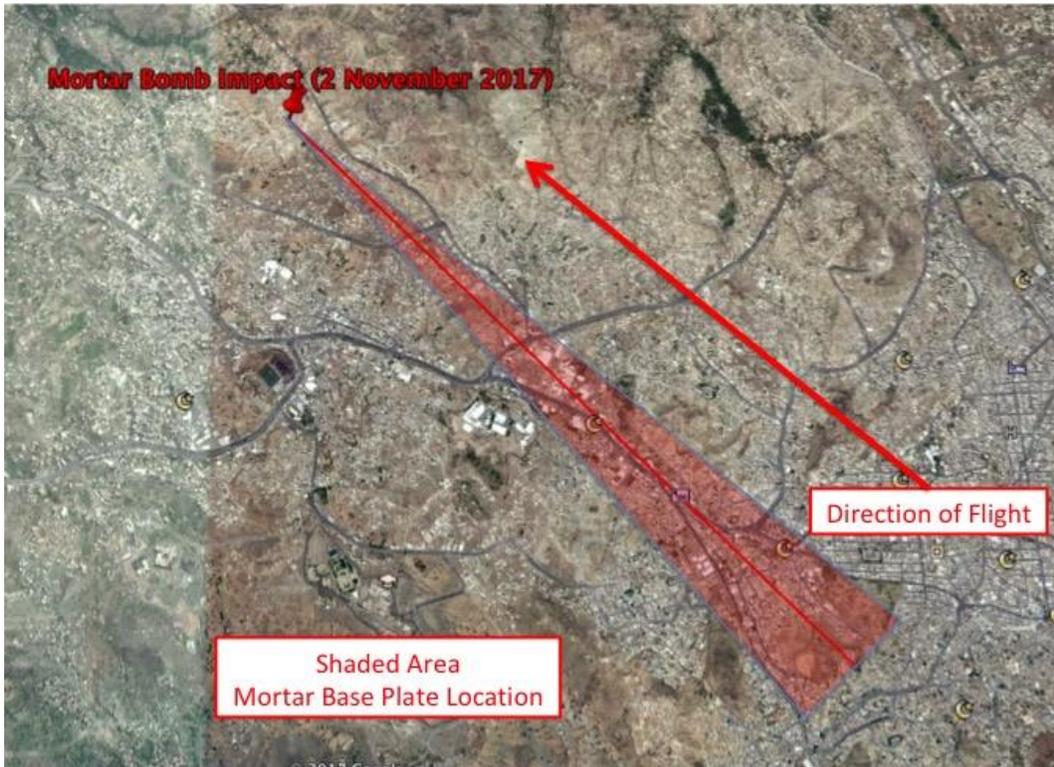


4. Abu al-Abbas forces are the only armed group operating in the area where the mortar firing point was located (see figure D.65.5).

²⁰ The top of the image is North.

²¹ Ibid.

Figure D.65.5
Mortar base plate location²²



²² The Mortar Base Plate is the term used to describe the geo-position of the mortar from where the rounds originated.

Appendix E to Annex 64: Imagery supporting findings for case studies E to J - 9

Table E.64.1

Imagery supporting findings for case studies E to J²³

<i>Case</i>	<i>Date</i>	<i>Location</i>	<i>Image</i>	<i>Type of explosive ordnance</i>	<i>Civilian casualties</i>
E	18 Jan 2017	al-Nour, Ta'izz		▪ 120mm HE mortar bomb	9 dead 8 injured
F	21 May 2017	Jamila		▪ HE based on crater and fragmentation splatter	2 dead
G	21 May 2017	Thabaat, Ta'izz		▪ HE based on crater and fragmentation splatter	3 dead 3 injured
H	21 May 2017	al-Himaira, Ta'izz		▪ HE based on crater and fragmentation splatter	2 dead 5 injured
I	30 Jun 2017	al-Jumhuri, Ta'izz		▪ RCL tail unit	1 dead 9 injured
J	21 Sep 2017	Senei, Ta'izz		▪ RPG tail unit	-

²³ Imagery for this annex was provided by residents, human rights investigators and other confidential sources who were in the area or who visited the area in its immediate aftermath. This imagery can be made available to the Committee for further examination.

Annex 65: IHL and HR violations relating to detentions by Yemeni military and security forces in Yemen

I. Terminology

1. In this annex, the terms “arrest”, “detention”, and “detainee” are used to describe the act of depriving an individual of his liberty, the consequential deprivation of liberty and those subjected to the deprivation of liberty, respectively, without prejudice to the lawfulness of those acts and irrespective of whether detainees are subjected to internment¹ or criminal detention.² The Panel received information from both former and current detainees, but because of veritable threats against detainees and their families, the Panel will refrain from providing more information on their current situation. The Panel defines the terms arbitrary arrest and detention, torture, enforced disappearance, and secret detentions, in accordance with international law and jurisprudence and, where such is unavailable, in line with standards adopted by UN treaty bodies. See annex 62 for an elaboration of these terms.

II. Yemeni military and security forces associated with violations

2. This annex contains information with respect to individuals and leaders who have committed or who hold command responsibility over individuals and entities that have committed violations of IHL and IHRL. These violations include arbitrary arrest and detention, failure to respect due process, torture, ill treatment, enforced disappearance, and arbitrary deprivation of life (table 65.1). The Government of Yemen identifies these individuals and entities as organs of the State (table 65.2 and 65.3).³

Table 65.1
Violations summary⁴

<i>Serial Organization / individual</i>	<i>No of individuals investigated⁵</i>	<i>Arbitrary arrest /detention</i>	<i>/Enforced disappearance</i>	<i>Deaths</i>	<i>Ill Torture</i>	<i>treatment</i>	<i>Denial of medical assistance</i>	<i>of/Detainee transfers with UAE</i>
1 Shallal Ali Shaye	5	✓	✓		✓	✓	✓	✓
2 Abdul Ghani Shaalan	7		✓	✓		✓	✓	
3 Ali Abdullah Taher	2		✓					
4 Ghassan al-Aqrabi	100+		✓			✓	✓	✓
5 Imam al-Nubi	5	✓	✓	✓	✓	✓		
6 Security Belt in Aden	6	✓	✓		✓	✓		✓
7 Security Belt in Lahij	7	✓	✓	✓				

¹ The term ‘internment’ refers to detention for security reasons in situations of armed conflict, i.e. the non-criminal detention of a person based on the serious threat that his or her activity poses to the security of the detaining authority in relation to an armed conflict. See [Commentary to Common Article 3](#).

² This means detention related to a criminal process. The Panel is only concerned those detentions linked to the conflict in Yemen and where IHL and HR violations can be established.

³ Meeting with Ministry of Interior, 2 October 2017. The conduct of any State organ is considered an act of that State under international law. See Article 4 of [Articles on State Responsibility](#).

⁴ 1, 4, 6, 8 and 9, in their joint operations with the UAE, highly likely operated outside the Government of Yemen’s command and control.

⁵ Some of the same individuals are affected by more than one listed perpetrator.

<i>Serial Organization / individual</i>	<i>No of individuals investigated⁵</i>	<i>Arbitrary arrest / detention</i>	<i>/Enforced disappearance</i>	<i>Deaths</i>	<i>Torture</i>	<i>Ill treatment</i>	<i>Denial of medical assistance</i>	<i>of Detainee transfers with UAE</i>
8 Shabwani Elite Forces	2	✓	✓					✓
9 Hadrami Elite Forces	3	✓	✓					✓

Table 65.2
Summary of entities investigated (2017)

<i>Location</i>	<i>Entity</i>	<i>Leader</i>	<i>De jure responsibility</i>	<i>De facto responsibility</i>
Aden	Security Belt	Brigadier General Wadha Omar Abdulaziz	Government of Yemen	UAE
Lahij	Security Belt	Colonel Hader al-Shukatry	Government of Yemen	UAE
Hadramawt	Elite forces	TBC.	Government of Yemen	UAE
Shabwah	Elite forces	Lieutenant Colonel Mohammed Salem al-Buhar al-Qomaishi	Government of Yemen	UAE

Table 65.3
Summary of individuals investigated (2017)

<i>Location</i>	<i>Individual</i>	<i>Role</i>	<i>De jure responsibility</i>	<i>De facto responsibility</i>
Aden	Major General Shallal Ali Shaye	Director of General Security, Aden	Government of Yemen	Unknown if his work with UAE in detainee transfers are undertaken in his personal capacity or clandestinely on behalf of the Government of Yemen.
Aden	Ghassan al-Aqrabi	Supervisor of Bir Ahmed I and II	Unknown. ⁶	UAE and Security Belt, Aden.
Aden	Ayman Tariq	Manager of Bir Ahmed I	Unknown. ⁷	UAE and Security Belt, Aden.
Aden	Imam al-Nubi ⁸	Former Commander of Camp 20	Government of Yemen. ⁹	NA
Marib	Brigadier General Ali Abdullah Taher	Former Director of Security, Marib	Government of Yemen	Investigations continue.
Marib	Colonel Abdul Ghani Shaalan	Special Forces Commander, Marib	Government of Yemen	Investigations continue.

A. Major General Shallal Ali Shaye

3. The Government of Yemen continues to consider Major General Shallal Ali Shaye, the Director of General Security in Aden, as an official of the Government of Yemen. He falls under the responsibility of the Ministry of Interior. He continues to receive orders directly from President Hadi. Shallal Ali Shaye supervises:

⁶ It is possible that no entity would claim de jure responsibility as Bir Ahmed I was a secret detention site in that authorities, until late October 2017, denied its existence to families, and those in that facility were forcefully disappeared until their relocation to Bir Ahmed II.

⁷ Ibid.

⁸ Imam Ahmed Muhammed Abdu al-Salwy.

⁹ Camp 20 was under the oversight of the Security Belt and the Director of General Security, Aden.

- (a) Aden Police¹⁰ and
- (b) Security Belt of Aden.¹¹

4. While Major General Shallal Ali Shaye maybe under de jure command and control of the Government of Yemen, he also continues to work simultaneously with the UAE on detentions. For example,

- (a) At least four individuals detained at a house under his control in at-Tawahi were subsequently transferred to the UAE, where they were subjected to enforced disappearance for a prolonged period;¹² and
- (b) Major General Shallal Ali Shaye facilitated the release of other detainees from the custody of the UAE.¹³

5. Arbitrary arrests and deprivations of liberty, torture, enforced disappearance and other due process violations also occur in a house under the control of Major General Shallal Ali Shaye in At-Tawahi.¹⁴ Those detained in this house were kept between 12 to 72 hours and were then transferred elsewhere, including to Bir Ahmed I and the UAE detention site in Bureiqa.

6. The Panel finds that the deprivations of liberty in the house under his control occur outside the legal framework of arrests and detentions established by the Yemeni legal system.

7. The Panel continues to investigate the role and influence of the UAE on the Aden Police outside its interaction with Major General Shallal Ali Shaye.¹⁵

B. Security Belt of Aden

8. The Security Belt in Aden was established by President Hadi. The Government of Yemen considers the Security Belt as an organ of the State under the responsibility of the Ministry of Interior.¹⁶ The Security Belt of

¹⁰ The Aden Police receive their salaries from the Government of Yemen, although as at October 2017, they had not received them for 8 months. Panel meeting with the Deputy Police Chief of Aden on 2 October 2017.

¹¹ Confidential official sources. The Security Belt forces receive salaries from the UAE. Panel meeting with Brigadier General Wadha Omar Abdulaziz on 2 October 2017.

¹² Sources: detainees and family members. Three of the detainees were interrogated on the basis they were supportive/members of AQAP.

¹³ Sources: detainee and family members.

¹⁴ Detainees and their families. One detainee informed the Panel that UAE soldiers also participated in interrogations at this house. The Panel continues to investigate. Media reports on detention-related abuses undertaken by Shallal Ali Shaye include <http://hournews.net/news.php?id=79051>, <https://www.hunaaden.com/news41410.html>, <https://theyemen.net/-/ وفاةمعتقل في سجن سرى لشلال- /شذيع بعد>.

¹⁵ Aden police state that the UAE had played a positive and supportive role for many prisoners who were released by the security services in Aden and Hadramawt. The UAE provided the “Department of Aden security, cars and vehicles, and the rehabilitation and furnishing of police stations.” See also <http://www.emirates247.com/news/emirates/uae-offers-further-support-to-aden-police-2017-08-09-1.657318>.

¹⁶ Meeting with Ministry of Interior and the Panel on 2 October 2017.

Aden work closely with the UAE in respect of deprivations of liberty. For example:

- (a) There were multiple detainees transferred between UAE and the Security Belt custody;¹⁷
- (b) The Security Belt facilitated the arrest and release of detainees in UAE custody;¹⁸
- (c) In Bir Ahmed I, while it is said to be under the control of the Security Belt, UAE officers exerted significant amount of control, for example by removing detainees from the site (figure X.1);
- (d) In one incident investigated the same detainee was tortured by the Security Belt, then handed over to the UAE, where the UAE continued to torture him, demanding the same information.

9. Yemeni official sources (military and civilian) informed the Panel that the Security Belt in Aden is not under the de facto control of the Government of Yemen, but the UAE. The salaries of the Security Belt are paid by the UAE. One military source informed the Panel that while an officer of General Staff rank level receives around YER 30,000 (US\$120) every 2 – 3 months as salary from the Government, the basic salary for a soldier in the Security Belt is SAR 3,500 (US\$934) per month from the UAE. Thus, official confidential sources state that the Government is therefore unable to exercise operational control over these forces.

C. Ghassan al-Aqrabi and Ayman Tariq

10. The Panel finds that Ghassan Abdul Aziz al-Aqrabi and Ayman Tariq¹⁹ were responsible for the continued arbitrary deprivation of liberty of over 100 detainees who were in Bir Ahmed I, which was established around August 2016 (figure 65.1 and 65.2).

11. These persons were detained without access to their families or legal representation. They had no access to any entity, judicial or administrative, to challenge their detention. They were not provided reasons for their continued detention, and all individuals investigated by the Panel had previously been subjected to detention-related abuses and torture by identified authorities (annex 61).²⁰

Figure 65.1

Bir Ahmed detention location (21 July 2016)²¹

Figure 65.2

Bir Ahmed detention location (07 November 2017)²²

¹⁷ In all cases documented by the Panel in Aden, the Security Belt was identified as the entity that arrested individuals, whether those individuals were then transferred to Major General Shallal Ali Shaye's custody, to the UAE, or the Mansoor Central Prison.

¹⁸ In Aden, the Panel did not document any joint arrest operations with UAE. It has, to date, not found any individuals released by the UAE directly, without the Security Belt's participation.

¹⁹ The rationale for their selection as detention facility administrators seems to be that the detention facility is established within an area under the control of the al-Aqrabi family. The Panel continues to investigate the activities of this family.

²⁰ Information withheld to protect detainees.

²¹ Source: Imagery obtained by the Panel. Detainees and families of detainees assisted the Panel to identify the location.

²² Source: Imagery obtained by the Panel. Those visiting the detention center assisted the Panel to identify the location. It is also based on information provided by the detainees of a new detention site being built next to Bir Ahmed I and confirmed by satellite imagery.



12. In October 2017, the detainees commenced a hunger strike calling for their release or referral to a judicial process. On 12 November 2017, they were transferred to Bir Ahmed II, a detention site funded by UAE, located close to Bir Ahmed I (figure 65.1), also said to be administered and supervised by Ghassan al-Aqrabi. On 13 November 2017, their case files were handed to the Attorney General of Yemen, Ahmed al-Awash. In December 2017, some detainees had access to their families and some others were released around the last week of December 2017.

Figure 65.3

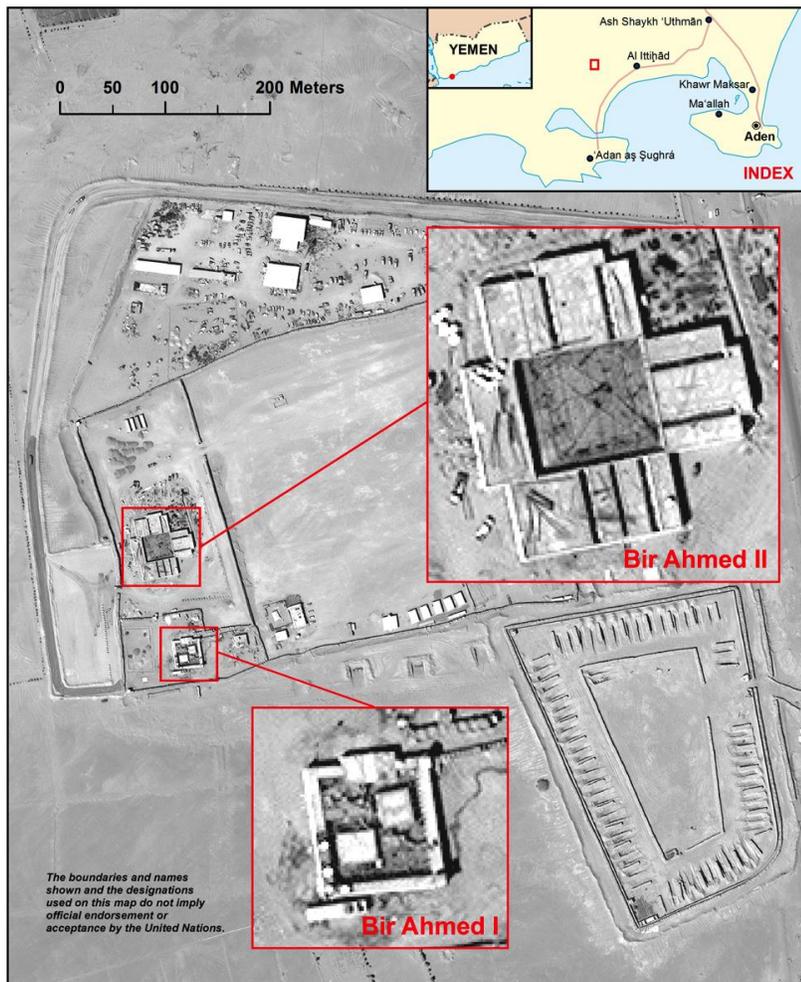
Visit of Attorney General and Major General Shallal Ali Shaye to Bir Ahmed II²³



13. The Panel cannot confirm that all detainees in Bir Ahmed I were transferred to Bir Ahmed II given that the identities of the detainees in Bir Ahmed I were not made available by the detaining authorities and the Government of Yemen.

²³ <https://twitter.com/demolinari/status/930092238117380096>. The Attorney General is third from right. Brigadier General Wadha Omar is behind the Attorney General to the left. Major General Shallal Ali Shaye is second from right.

Figure 65.4
Bir Ahmed I and Bir Ahmed II²⁴



Location source: Panel of Experts for Yemen, United Nations Security Council Sanction Committee
 Prepared by Geospatial Information Section, ICTD, DFS, United Nations, December 2017.
 Imagery source: WV1 acquisition date 2017-11-07 (C) DigitalGlobe

D. Security Belt of Lahij

14. The Government of Yemen considers the Security Belt as an instrument of the State under the responsibility of the Ministry of Interior.²⁵ In detention related investigations, the Panel has not yet identified any detainee transfers between the UAE and the Security Belt in Lahij.

15. The Panel finds that in 2017, the Security Belt in Lahij was responsible for the death of a 16-year-old, enforced disappearance of another individual, and four extra-judicial executions. The Security Belt in Lahij was also involved in the death of a 14-year-old child whose younger brother was alleged to be an AQAP affiliate. For Colonel Hader al-Shukhaty is the Commander of the Security Belt in Lahij (see annex 6)

²⁴ Source: Imagery obtained by the Panel. 7 November 2017.

²⁵ Meeting with Ministry of Interior and the Panel on 2 October 2017. The Security Belt in Lahij is under the supervision of Saleh al-Subaihi, Director of General Security, Lahij. Official confidential UAE sources.

Figure 65.5
Colonel Hader al-Shukhaty²⁶



E. Colonel Abu Mohammad Abdul Ghani Shaalan²⁷

15. The Special Forces Commander is a formal position of the Government of Yemen, established prior to the conflict and is under the operational command and control of the Government of Yemen.

16. The Panel investigated the involvement of Colonel Abu Mohammad Abdul Ghani Shaalan, the Special Forces Commander of Ma'rib and his forces, in an incident relating to the death of a 15-year old child and injuries to an 11-year old child.²⁸ These incidents occurred when the Special Forces attempted to disperse a demonstration in Ma'rib, in October 2017, for which prior security approval was obtained.²⁹ A clash broke out between the protesters and the Special Forces following the death of the 15-year-old.³⁰ The Special Forces refused access of the families to the injured child in the hospital for a week, refused to release the body of the dead child for a prolonged period, and forcefully disappeared five individuals for prolonged periods, four of whom were subsequently released. The release of the other is pending tribal negotiations.³¹

²⁷ Originally from Hajjah Governorate. https://web.facebook.com/-محمدي-العقيد-عبدالغني-شعلان-قائد-قوات-الامن-الخاصة-مأرب-1836740393277690/?_rdc=1and_rdr.

²⁸ Eye-witnesses identified Shaalan at the site of the incident.

²⁹ Document with Panel.

³⁰ The events surrounding the death of the child is unclear. It is possible that the child resisted arrest. It is also clear that there was an armed exchange as one officer died and another was seriously injured (medical sources).

³¹ Information as at 10 December 2017. The Panel was informed of other serious detention related abuses undertaken by the Special Forces in Ma'rib, which are not documented here to protect individuals.

Figure 65.6
Colonel Abu Mohammad Abdul Ghani Shaalan³²



F. Brigadier General Ali Abdullah Taher

17. Ali Abdullah Taher was the Director for General Security in Ma'rib. This is an official post under the control of the Government of Yemen. During his tenure, he was directly involved in one incident where he demanded a "suitable exchange" for the release of a detainee in his custody, Mustafa Hussain al-Mutawakel.³³ No other reasons were provided for the refusal to release al-Mutawakel.

18. Mostafa Huseain al-Mutawakel was at the time of his arrest the President for the General Authority for Investment of Yemen and a Professor at the University of Sana'a. He was arrested on 27 April 2017 at Bab-al-Falej checkpoint in Ma'rib.³⁴ The checkpoint is under the control of security forces loyal to the Government of Yemen. Al-Mutawakel was travelling from Sayun to Sana'a on board a civilian bus. His family is unaware of his whereabouts since his arrest.³⁵ There is no evidence that al-Mutawakel had lost his civilian status or protection at the time of arrest (see annex 66). IHL allows civilians to be detained if they pose an imminent security threat and then, only for as long as that threat is existent. Any attempt to detain a civilian until a suitable prisoner exchange can take place may also amount to hostage taking.

18. The Panel documented another arrest and detention at Bab-al-Falej checkpoint, where the detainee was also forcefully disappeared after the detention, but was subsequently released following tribal negotiations. There were no reasons provided for his arrest other than that he was related to a prominent family aligned with the Houthis.

³² Image: https://web.facebook.com/-محبي-العقيد-عبدالغني-شعلان-قائد-قوات-الأمن-الخاصة-مأرب-1836740393277690/?_rdc=1and_rdr.

³³ The name is divulged with the consent of the family.

³⁴ At approximately 15°21'25.48"N, 45°19'45.12E.

³⁵ In the latter half of 2017, the Panel was informed by official sources that Mustafa Hussain al-Mutawakel had been transferred to an as yet unidentified detention facility in Saudi Arabia. The Panel continues to investigate.

Figure 65.7
Ali Abdullah Taher³⁶



³⁶ Image: https://web.facebook.com/-الخاصة-مأرب-عبدالغني-شعلان-قائد-قوات-الأمن-الخاصة-مأرب-محمدي-العقيد-عبدالغني-شعلان-قائد-قوات-الأمن-الخاصة-مأرب-1836740393277690/?_rdc=1and_rdr.

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Annex 66: Case study on relating to detentions by the Government of Yemen

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Annex 67: Assassination of a patient and attacks against medical personnel at Revolution Hospital, Ta'izz (24 March - 5 April 2017)

Houthi-Saleh recruitment of children

1. The Panel conducted investigations aiming to identify individuals and networks operating in Yemen that engage in child recruitment.¹ In Houthi-Saleh controlled areas, there are local networks of former and current fighters and Houthi-Saleh loyalists that continue to recruit children. The Panel has identified two individuals who recruited a total of five children; four subsequently returned to their families and one returned to fighting. Details are contained in confidential annex 69. Of the two recruiters, one was a fighter forced to retire due to injury, the other is a current fighter. The Panel finds that there is a systematic network of recruitment within the Houthi-Saleh forces. Recruiters are deployed to their own residential areas, as they are known to the local population, which enhances the recruitment process.

2. These five cases represent only a fraction of children who have been recruited into Houthi-Saleh forces, sent to the front lines, and then being injured, maimed, or killed in the conflict.² The Panel finds that there is prevailing impunity associated with child recruitment. For example, in one incident documented by the Panel, the officers of the '14th October' Police Station in Sana'a initially refused to record a complaint of the abduction of children removed from the parents' custody without their consent, because the children had been recruited (i.e. they were not missing).

3. On 19 October 2017, Hassan Mohamed Zaid, the Sana'a based minister for youth and sports, and the head of the al-Haq party, called for the closure of schools with students being sent to battle-fronts. He stated on social media:

"What if school study stops one year and all the youths and their teachers go for military service?

Is not this going to feed the fronts with hundreds of thousands for decisive battle?

High school students used to be forced to stop study for one year waiting for documents.

What is the difference then?"

5. He added: "*Wouldn't we be able to reinforce the ranks with hundreds of thousands (of fighters) and win the battle?*", and then criticized those who complained about his proposal stating that: "*People close the schools under the pretext of a strike and when we think about how to take advantage of this situation, they take offence*".³ The Panel notes that on 21 October 2017, after widespread public criticism, he changed his statement to say that he originally referred to university students.

6. On 6 November 2017, the Saudi Arabia-led coalition issued a statement listing Hassan Mohamed Zaid as one of the forty men "*responsible for planning, executing and supporting various terrorist activities by the Houthi*

¹ In this annex, individuals are considered to be children when they were under 18 years of age at the time of their recruitment. The "Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict", to which Yemen is a party (2 March 2007), states that armed groups that are distinct from the armed forces of a State should not, under any circumstances, recruit persons under the age of 18 years. See Article 4(1).

² See S/2017/821. The United Nations verified 517 cases of the recruitment in Aden, Abyan, Amran, Sana'a and Ta'izz. 359 verified cases of recruitment and use were attributed to the Houthis and affiliated forces. Other perpetrators included the anti-Houthi forces, Ansar al-Sharia, AQAP and the Yemeni Armed Forces.

³ <https://www.theguardian.com/world/2017/oct/20/yemen-minister-send-our-children-to-war>. All relevant tweets are with the Panel.

terrorist group".⁴ It is not clear what 'terrorist activities' were undertaken by the said individual. The Panel continues to investigate.

⁴ <https://english.alarabiya.net/en/News/gulf/2017/11/06/Saudi-Arabia-announces-millions-of-dollars-in-bounty-for-40-wanted-in-Yemen-.html>.

Figure X.1

Original tweet by the minister for youth and sports, 19 October 2017



حسن زيد

October 19 at 11:17pm · 🌐

ماذا لو توقفت الدراسة عام وتوجه الشباب كلهم ومعهم استأذنتهم
 للتجنيد؟
 ان نتمكن من رفد الجبهات بمئات الآلاف ونحسم المعركة؟
 لقد كان طلاب الثانوية يجبروا على ترك الدراسة عام كامل انتظار
 للوثائق
 فما هو الفرق ؟

7. The fact that a minister in the Houthi-Saleh forces openly advocated for the closure of schools and recruitment of children/students is particularly problematic in a context where students, parents, and teachers alike, are feeling the effects of the economic crisis, are struggling to continue education of children, and are resisting proactive child recruitment networks in their villages. This type of statement, from a person in authority, may be construed as implicit authority and encouragement for the continuing Houthi-Saleh recruitment and use of children in conflict. The Panel finds that this type of incitement is a threat to the peace, security, and stability in Yemen.

8. The Panel finds that the following also contributes to increased recruitment of children:

- (a) The non-payment of salaries results in children being compelled to search for economic alternatives on behalf of their families. The only well-paid employment opportunities for children are with the Houthi-Saleh forces (the children are paid approximately 15,000 – 20,000 Yemeni Riyal (60 – 80 US\$));
- (b) The disruption to education means that children often have little to do, this making them vulnerable to street level recruitment;
- (c) Parents cannot offer financial or lifestyle alternatives to induce the children to return to families after they have been recruited;
- (d) As families continue to live in areas controlled by the Houthi-Saleh forces, they are afraid to speak out against the recruitment, thus allowing recruitment to continue unchallenged; and
- (e) For parents with financial means, the airport closure and visa restrictions means that these parents cannot send or take the children out of the country for their own protection.

9. There are also parents whom willingly, or are forced to, allow their children to be recruited because of financial considerations or loyalty to the cause.⁵

⁵ Multiple human rights activists.

10. The Panel finds that Houthi-Saleh leadership also incurs command responsibility for these continuing violations,⁶ and underscores that in current prevailing circumstances of regular and widespread recruitment and use, such recruitment and use of children in conflict is, at minimum, a war crime.⁷

⁶ Under customary IHL, commanders and other superiors are criminally responsible for war crimes committed by their subordinates if they knew, or had reason to know, that the subordinates were about to commit or were committing such crimes and did not take all necessary and reasonable measures in their power to prevent their commission, or if such crimes had been committed, to punish the persons responsible. See, for example, ICRC Customary IHL Rule 153. The Panel highlights that not only military personnel but also civilians can be liable for war crimes based on command responsibility.

⁷ See Statute of the International Criminal Court Article 8 (e) (vii). See also ICRC Customary IHL Rules 136 and 137.

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Annex 69: Confidential case studies of Houthi-Saleh recruitment of children

Annex 70: IHL violations relating to Sana'a airport closure

I. Introduction

1. The Saudi Arabia-led coalition closed Sana'a airport to all commercial traffic on 9 August 2016. On 6 November 2017, the Saudi Arabia-led coalition announced that it would temporarily close "all Yemeni ground, air, and sea ports... while taking into consideration the continuation of the entry and exit of humanitarian supplies and crews"¹ On 23 November 2017 the Saudi Arabia-led coalition announced the opening of the airport to UN flights and by 29 November 2017, ICRC, MSF and UN flights had resumed operations into the airport.

2. Yet, the airport has continued to be inaccessible to commercial flights since August 2016. This has created significant humanitarian issues for those who are chronically ill, who cannot leave the country to seek medical treatment by alternative routes, and whose access to medical care has been affected by the conflict;² and for those with protection concerns or who are fleeing persecution and cannot travel via other means.

II. IHL and HR violations relating to patients seeking medical care abroad

3. According to the Sana'a based ministry of health, as at August 2017 approximately 10,000 Yemenis are estimated to have died from health conditions for which they were seeking medical treatment abroad.³ The Panel was provided details on two cases where patients have died, where the closure of the airport potentially contributed to their inability to obtain timely medical treatment.⁴

4. Because of the conflict, many patients in need of immediate medical treatment do not have access to the requisite medical assistance within Yemen, which may necessitate seeking treatment abroad. For example, the conflict has resulted in:

- (a) Limited medical resources due to the non-payment of salaries and lack of hospital operational funds;
- (b) Closure or destruction of hospitals;
- (c) Attacks against hospitals and health care workers;
- (d) Prioritized treatment for fighters and war wounded in some hospitals; and
- (e) Lack of medical supplies, equipment, and specialists.

¹ <http://www.spa.gov.sa/viewfullstory.php?lang=en&newsid=1684682#1684682>.

² A person's medical condition or access to treatment may be said to be affected by the conflict when, for example, a medical facility on which their treatment depends has been destroyed, when they do not have access to medical personnel or facilities on which they depend owing to the conflict, or where they do not have access to medicines vital for their ongoing treatment for reasons related to the conflict. See [Commentary to the Common Article 3 of the Geneva Conventions](#).

³ See <https://www.nrc.no/news/2017/august/yemen-airport-closure-killed-more-people-than-airstrikes/>.

⁴ Confidential sources.

5. On one occasion, a team of doctors was cleared by the Saudi Arabia-led coalition to arrive at Sana'a International Airport to treat the former President of Yemen,⁵ but this option is not available for others seeking medical treatment unavailable in Yemen. Thus, the options for civilians seeking treatment aboard are currently as follows:

- (a) Leave through Sayun, which takes 24 hours by public transport from Sana'a, or by private transport at a cost of approximately US\$ 200;⁶
- (b) Leave through Aden, which takes 12 hours by public transport from Sana'a, or by private transport at a cost of USD approximately US\$ 280 – 350;⁷ or
- (c) Leave by boat, often using human smuggling and trafficking routes.

6. The fact that many countries have recently imposed stringent visa restrictions on Yemenis also compounds the difficulties for patients seeking medical treatment abroad.

7. Common Article 3 of the Geneva Convention - which is binding on Saudi Arabia and the other Saudi-Arabia-led coalition member States authorizing and enforcing the air blockade over Sana'a - provides that civilians and other persons who do not take part in hostilities, who are sick or wounded shall, in all circumstances be protected and cared for. This protection given to the wounded and the sick is meaningless without access to requisite medical assistance, including medical supplies and medical personnel. Article 7 of Additional Protocol II further strengthens that right of the wounded and sick.

8. Under IHRL the obligation to ensure the right to health of individuals is also binding on Saudi Arabia-led coalition member States.⁸ States are legally bound under IHRL to ensure that their policies create an enabling environment for available and accessible health care for all in the shortest possible time,⁹ including allowing patients have access healthcare in other countries.¹⁰

9. The Saudi Arabia-led coalition has not exercised its discretion to impose restrictions and conditions on travel through the Sana'a International Airport, as may be required by military necessity,¹¹ while also

⁵ <https://uk.reuters.com/article/uk-yemen-security-saleh/yemens-ex-president-saleh-stable-after-russian-medics-operate-idUKKBN1CJ0FS>.

⁶ Sources organizing "medical tourist" visits.

⁷ Ibid.

⁸ See for example, the Universal Declaration of Human Rights, Article 25; International Covenant on Civil and Political Rights (ICCPR), Articles 6 and 12; and International Covenant on Economic, Social and Cultural Rights (ICESCR), Article 12.

⁹ World Health Organization (WHO), Right to Health: Crossing barriers to access health in the occupied Palestinian territory, 2014 - 2015. See also Additional Protocol II, Article 7(2), and ICRC Study on Customary International Humanitarian Law (2005), Rule 110.

¹⁰ Committee on Economic, Cultural, and Social Rights, General Comment No. 14, The right to the highest attainable standard of health (article 12 of the International Covenant on Economic, Social and Cultural Rights), 11 August 2000, UN Doc. E/C.12/2000/4. "To comply with their international obligations in relation to article 12, States parties have to respect the enjoyment of the right to health in other countries, and to prevent third parties from violating the right in other countries..."

¹¹ The Saudi Arabia-led coalition spokesperson stated that "closing Sana'a airport and limiting it to relief efforts came as a precaution to ensure the safety of all inbound commercial and cargo flights, due to the Huthi (sic) armed militia's attempts to smuggle arms into the country. As a result, we have assigned

allowing those requiring immediate treatment abroad the opportunity to do so. Instead it has exercised a blanket ban since August 2016 on travel to obtain medical services, except for the temporary lifting of the ban on selected medical flights immediately following the Sana'a Funeral Hall air strike and, more recently, for the flight carrying medical personnel that treated former president Ali Abdullah Saleh (YEi.003).

10. In this context, the Panel concludes that the complete and unconditional closure of Sana'a International Airport to those genuinely seeking immediate medical treatment abroad, particularly those who do not have any other meaningful alternatives, is an infringement of Common Article 3. The WHO has held that denying access to medical care in some circumstances could constitute a war crime.¹²

11. Although the Saudi Arabia-led coalition appears to justify the measures taken in respect of the Sana'a International Airport by referring to resolution 2216 (2015),¹³ there is no provision in that resolution that supports a complete blockade on commercial flights into Sana'a International Airport. Additionally, the Saudi Arabia-led coalition is not currently complying with paragraph 17 of resolution 2216 (2015) on its reporting requirements. Since the resolution came into effect, the Saudi Arabia-led coalition has only issued one report to the Committee, which related to ten inspections.¹⁴

III. Conclusion

12. The Panel does not dispute that the Saudi Arabia-led coalition may take such legitimate measures it deems appropriate, as required under military necessity, to control air traffic into geographical areas controlled by the Houthi forces. Yet, the Panel finds that:

- (a) The Saudi Arabia-led coalition has not demonstrated the military necessity for the closure of the airport to persons genuinely seeking immediate medical treatment abroad, particularly when there are no real alternative travel routes; and

airports in liberated, and safe cities as alternatives at the request of the Yemeni government. Thus, these precautionary measures should not be stigmatized as cause of suffering for Yemeni people". He added, "should airport management and security be conducted properly, insuring the safety of all inbound flights and stopping arms smuggling, Joint Forces Command is prepared to restore normal flight activity".

<http://www.spa.gov.sa/viewfullstory.php?lang=en&newsid=1655689#1655689>.

¹² World Health Organization (WHO), Right to health: Crossing barriers to access health in the occupied Palestinian territory, 2014-2015. United Nations Office of the High Commissioner of Human Rights (OHCHR), Freedom of Movement: Human rights situation in the Occupied Palestinian Territory, including East Jerusalem, Report of the Secretary-General to the United Nations Human Rights Council, February 2016. OHCHR and WHO examined the issue on the right of patients to receive treatment abroad when it considered the right of Palestinians to cross the Rafah border crossing between the Gaza Strip and Egypt to seek medical treatment. The OHCHR has held that "Any exception (to freedom of movement) must comply with international law, which means that restrictions are justified only for imperative reasons of security and only in response to a specific security threat".

¹³ <http://www.spa.gov.sa/viewfullstory.php?lang=en&newsid=1655689#1655689>. The Saudi Arabia-led coalition spokesperson stated in August 2017 that "the coalition command had and is still working to its best efforts to ensure the safe arrival of all commercial, cargo and relief flights to all Yemeni airports in Sana'a, Aden, Al Hudaydah, Seiyun, Mukalla and Socotra through issuing proper flight permits for all incoming requests, and assigning Bisha National Airport for air traffic management in accordance with UNSCR 2216".

¹⁴ [A/AC.56/2015/COMM.28 \(KSA ref no UN/SC/378\)](http://www.un.org/News/Press/docs/2015/06/150612.ac56.com28.ksa.html) dated 12 June 2015.

(b) That it is the responsibility of the member States of the Saudi Arabia-led coalition, and not the United Nations, to ensure that the Saudi Arabia-led coalition member States comply with their obligations under IHL and IHRL.

13. The Panel notes that the Saudi Arabia-led coalition has offered to open the airport under the supervision of the United Nations;¹⁵ an offer not taken up by the United Nations.¹⁶

III. IHL violations relating to persons seeking protection abroad

14. The Panel investigated five situations relating to six individuals who wished to leave Yemen, on the basis that there were immediate threats against their life and liberty in Houthi-Saleh controlled areas. These individuals had all been subjected to arrest, detention, abuse, and/or persecution and other human rights violations by Houthi-Saleh forces/officials, but feared for their physical safety in Government controlled territory.

14. UNHAS flights do not transport civilians fleeing persecution,¹⁷ compelling individuals fleeing Houthi-Saleh controlled territory to travel through the South of the country. The risk of arrest and subsequent disappearance in the south and in Ma'rib, which are increasingly being reported in the south, compounds fear that individuals traveling between the north and the south can be targeted in those areas because of their family names, family history, or tribal affiliations.

¹⁵ <https://www.nytimes.com/2017/08/10/world/middleeast/saudi-arabia-yemen-houthi-rebels-sana-airport.html> and <http://www.spa.gov.sa/viewfullstory.php?lang=en&newsid=1655689#1655689>.

¹⁶ The UN stated that “the parties to the conflict have the responsibility to ensure the protection of civilians and their access to humanitarian relief, including through the use of airspace and airport”. See <https://www.reuters.com/article/us-yemen-security-airport/u-n-signals-not-responsible-for-controlling-yemens-main-airport-idUSKBN1AR22Y>.

¹⁷ UN sources.

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Annex 71: Obstructions to the delivery of humanitarian aid

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Annex 72: Obstructions to humanitarian access and the distribution of humanitarian assistance (2017)

Annex 73: Full list of abbreviations¹

a/c	Aircraft
AED	Arab Emirati Dinar
AES	Arms and Ammunition Search
a.k.a	Also Known As
AGM	Air-to-Ground Missile
AIO	Iran Aircraft Industries Organization
AIS	Automatic Identification System (maritime)
AK	<i>Avtomatik Kalishnikov</i> (assault rifle)
AP	Amended Protocol
APKWS	Advanced Precision Kill Weapon System
AQ	Al-Qaida
AQAP	Al-Qaida in the Arabian Peninsula
ASL	Above Sea Level
ATGM	Anti-Tank Guided Missile
ATGW	Anti-Tank Guided Weapon
ATO	Air Tasking Order
AUAV	Armed Unmanned Aerial Vehicle
AXO	Abandoned Explosive Ordnance
BAT	British American Tobacco
BCP	Border Crossing/Control Point
BMP	Best Maritime Practices
CA	Common Article (to Geneva Conventions of 1949)
CAGE	Commercial and Government Entity (Code)
CBD	Commercial Bank of Dubai
CBY	Central Bank of Yemen
CEP	Circular Error Probability
CFD	Computational Fluid Dynamics
CHA	Coalition Holding Area
CIFOR	Civil Forum for Asset Recovery
CIHL	Customary International Humanitarian Law
CIHLR	Customary IHL Study Rules (ICRC)
CMF	Combined Maritime Force
CN	Peoples' Republic of China
CP	Checkpoint
CRC	Convention on the Rights of Children
DADP	Di-Acetone Di-Peroxide
DC	Direct Current
DIO	Defence Industries Organization (Iran)
DoB	Date of Birth
DPRK	Democratic People's Republic of North Korea

¹ Including footnotes and annexes.

DRC	Danish Refugee Council
DWT	Dead Weight Tonnage (Tonnes)
E	East
EGBU	Enhanced Guidance Bomb Unit
EO	Explosive Ordnance
ER	Extended Range
ER-SRBM	Extended Range Short Range Ballistic Missile
ESH	Explosive Storehouses
EUC	End Use Certificates
F	Foreign Investor Stake / Fuel
FAE	Fuel Air Explosion
FFR	Free Flight Rocket
FFV	Fuel Filling Valve (SCUD)
FFDV	Fuel Filling and Drainage Valve
FOB	Free On Board
F of I	Figure of Insensitiveness
FR	France
FS	French Ship
FV	Fishing Vessel
FZC	Free Zone Company
g	Gravity (9.81m/s)
GBP	Great Britain Pounds (sterling)
GBU	Guidance Bomb Unit
GC	Geneva Conventions
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GE	Germany
GGE	Group of Governmental Experts (GGE)
GIS	Geographical Information System
GLC	Global Logistics Cluster
GPC	General People's Congress
GPS	Global Positioning System
GT	Gross Tonnage
GWT	Gross Weight Tonnage
H	Height
HE	High Explosive
HEAT	High Explosive Anti-Tank
HESA	Iran Aircraft Manufacturing Industries
HMTD	Hexa-Methylene Triperoxide Diamine
HRW	Human Rights Watch
HSV	High Speed Vessel
IAIO	Iranian Aircraft Industries Organization (HESA)
ICC	International Criminal Court
ICJ	International Court of Justice
ICRC	International Committee of the Red Cross

ICU	Intensive Care Unit
IDP	Internally Displaced Person(s)
IED	Improvised Explosive Device
IHL	International Humanitarian Law
IHRL	International Human Rights Law
IMC	International Medical Corps
IMO	International Maritime Organization
IMS	Inertial Measurement System
INS	Inertial Navigation System
IPO	Initial Public Offering
IR	Iran
IRFNA	Inhibited Red Fuming Nitric Acid
IRGC	Iranian Revolutionary Guards Corps
ISIL	Islamic State in Iraq and the Levant (<i>Daesh</i>)
ISTAR	Intelligence, Surveillance, Targeting and Reconnaissance
IT	Italy
JIAT	Joint Investigation and Assessment Team (Saudi Arabia-led coalition)
KE	Kinetic Energy
KIIC	Kamaran Industry and Investment Company
KKIA	King Khaled International Airport
km	Kilometre(s)
KR	Republic of Korea
L	Litres Length
LAWS	Lethal Autonomous Weapons System
LC	Letters of Credit
Li-Ion	Lithium Ion
LLC	Limited Liability Company
LLI	Lloyds List Intelligence
LNG	Liquefied Nitrogen Gas
LTTE	Liberation Tigers of Tamil Eelam
m	Metres
m ³	Cubic Metres
MARAD	Maritime Administration (US Department of Transport)
MCCB	Moulded Case Circuit Breaker
MEKP	Methyl Ethyl Ketone Peroxide
MG	Machine Gun
mm	Millimetre(s)
‘MoPIC’	ministry of planning and international cooperation
MOU	Memorandum of Understanding
MRBM	Medium Range Ballistic Missile
MSA	Mine Safety Appliances Limited (USA)
MSN	Manufacturer’s Serial Number
MSR	Main Supply Route
MT	Mega-Tonne(s) / Merchant Tanker
MV	Merchant Vessel
MWMS	Moveable Weapon Mount System
N	North / Newton(s)

NATO	North Atlantic Treaty Organization
NBD	National Bank of Dubai
NEQ(C)	Net Explosive Quantity (Content)
NFP	National Focal Point
NGO	Non-Governmental organization
NK	Not Known
NL	Netherlands
nm	Nautical Mile
NO	Norway
NRC	Norwegian Refugee Council
NSB	National Security Bureau
'NSB'	Sana'a based national security bureau
NSN	NATO Stock Number
O	Oxidiser
OCHA	Office for Coordination of Humanitarian Affairs (UN)
OFAC	Office of Foreign Assets Control (US Treasury)
OFV	Oxidiser Filling Valve (SCUD)
OFDV	Oxidiser Filling and Drainage Valve
P	Private Investor Stake
PDRY	People's Democratic Republic of Yemen
PBIED	Person-Borne IED ('suicide bomber')
PCB	Printed Circuit Board
PIL	Pacific International Lines Limited
POE	Panel of Experts
PRV	Pressure Relief Valve
PSO	Political Security Organization
'PSO'	Sana'a based political security organization
PWA	Port Waiting Anchorage
QAR	Qatari Riyal
QNB	Qatar National Bank
RCIED	Radio Controlled Improvised Explosive Device
RCL	Recoilless Rifle
RDX	Hexogen or Cyclotrimethylenetrinitramine
RPG	Rocket Propelled Grenade
RSADF	Royal Saudi Air Defence Forces
RSAF	Royal Saudi Air Force
RSN	Royal Saudi Navy
SAA	Small Arms Ammunition
SAM	Surface-to-Air Missile
SAR	Saudi Riyal
SEMG	Somalia and Eritrea Monitoring Group
SBI	Shahid Bagheri (Bakeri) Industries (Iran)
SBIG	Shahid Bagheri (Bakeri) Industrial Group (Iran)
SGBV	Sexual and Gender-Based Violence
SHIG	Shahid Hemat Industrial Group (Iran)
SLOC	Sea Lines of Communication
SMC	Security and military committee (Houthi-Saleh)

SOLAS	International Convention for the Safety of Life at Sea
SPC	supreme political council
SPM	Ships Protection Measures
SRBM	Short Range Ballistic Missile
SRC	supreme revolutionary council
STC	Southern Transitional Council
STCO	Shaher Trading Company Limited
SVIED	Suicide Vehicle IED
TAN	Tangent
TATP	Tri-Acetone Tri-Peroxide
TBC	To Be Confirmed
TCBM	Transparency and Confidence Building Measures
TCC	Trilateral Coordination Committee
TFTC	Terrorist Financing Target Centre
TNT	Tri-Nitro Toluene
TR	Turkey
UAE	United Arab Emirates
UAV	Unmanned Aerial Vehicle
UK	United Kingdom
UN	United Nations
UNCT	UN Country Team
UNESCO	UN Educational, Scientific and Cultural Organization
UNHAS	UN Humanitarian Air Service
UNHCR	UN High Commission for Refugees
UNICEF	United Nations Children's Fund
UNVIM	UN Verification and Inspection Mechanism
USA	United States of America
USAF	United States Air Force
USDA	United States Department of Agriculture
USN	United States Navy
USS	United States Ship
US\$	United States Dollar(s)
VHF	Very High Frequency
VLCC	Very Large Crude Carrier
UXO	Unexploded Ordnance
W	Width
WBIED	Water-Borne Improvised Explosive Device
WFP	World Food Programme
WSS	Weapon Storage Sites
YAF	Yemen Armed Forces
'YCA'	Sana'a based Yemen customs authority
YEITI	Yemen Extractive Industries Transparency Initiatives
YER	Yemeni Riyal
YPC	Yemen Petroleum Company
