

FIGHTING THE INTERNAL BATTLE



A FOST BEST PRACTICE GUIDE TO BDR C2

Foreword

This document, which aims to improve Command and Control of Battle Damage Repair, is based on the experience of my HODs, past and present, and the best practices observed during State 1 CBRNDC OST serials. Getting Command and Control right will not solve all the problems witnessed at OST and it cannot be emphasized too highly the absolute importance of thorough system, equipment and drill knowledge amongst the whole of your ship's company.

Good Command and Control, however, is central to success in the difficult area of Battle Damage Repair. The advice laid out here should provide BDR command teams with a starting point for focussing your preparations for OST, and a set of reference notes for developing your teams afterwards. Although focussed on archiving effective performance during OST, it is applicably on a continual basis to assist in maintaining effective Operational Capability in your platform beyond OST. This document is supported by the 'Fighting the Internal Battle' training video, which is attached to this document.

Overall, if properly studied and implemented, it should lead to a marked improvement in the standard of Battle Damage Repair in your ship.

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INTRODUCTION

Of the various disciplines exercised during Operational Sea Training (OST), the Command and Control (C2) of Battle Damage Repair (BDR) within the overlay of a dynamic warfare environment is probably the most testing. There are a number of reasons for this:

- a. Historically, the sophistication of equipment for C2 of BDR has fallen far behind the Command Systems now used in the external Warfare environments. However, recent Classes (LPD, LSD and T45) have made gains in this area with technology feed leading to improvements for CVF/FSC.
- b. Internal communications methods can be unreliable, adding to the confusion.
- c. Until very recently there has been little career course training for key members of the BDR Command Team.
- d. By definition, the BDR environment will be a difficult one in which to operate, as the damage not only affects the ship structure and systems but also almost certainly impedes C2 efforts.
- e. It is difficult to fully exercise these skills outside OST periods as sufficient staff is rarely available to generate an intensive damage scenario.

Aim

For this booklet, BDR is defined as the range of activities undertaken by a Ship's Staff that aim to restore maximum fighting capability after a ship receives damage in action. This includes actions to fight fires and floods, deal with casualties and effect repairs to machinery, systems and weapons. Some of these activities also occur in peacetime and indeed some of the techniques herein may be useful in these events. However, this booklet is centred on damage after action and draws extensively on the best practices observed by FOST staff and aims to couch BDR C2 guidance in a broader warfare context. It is based on DD/FF practice but is not ship-type specific and does not cover lower level drills and procedures, which are extensively documented elsewhere, notably in BRd2170. Instead the focus is on the BDR command team, and their avenues to success at the various command nodes.

All sections of the main text are recommended as essential reading for all command team members as success in the BDR environment is more likely if all team members have a good knowledge of the challenges facing their colleagues. While the more detailed instructions contained in the Annexes are aimed at specific elements of the command structure, they too are of much value to others involved at the higher level of BDR C2.

THE HIGHER LEVEL COMMAND PROCESS

THE COMMAND AIM

The Command Aim is derived from the pre-eminent principle of war as expressed in British Defence Doctrine (JWP 0-01) - identification and maintenance of the aim. Generally speaking, there are two categories a Command Aim can be referred to. : "Fight"; or "Survive" (as in SHEFFIELD, COVENTRY, or ARDENT in their latter stages). Within the "Fight" category, the BDR priorities should be system and incident focused, directed at restoring capability in support of the Command Aim. The CO should set the Command Aim to bind together the efforts in all Warfare environments, be they external (ASW, AAW, ASuW) or internal (BDR).

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The CO must endeavour to encapsulate his aim in a single clearly focused sentence; examples are shown in the table.. This should then be transmitted through the C2 chain in two ways: direct to CA in the CO-CA discussions, for onward transmission to IBC; and also by the CO, or PWO, via main broadcast during SITREPs to the ship's company. Although only one sentence, the Command Aim should contain enough information to make incident and equipment priorities readily apparent to members of the Ship's Company. The widespread knowledge of the Command Aim will allow a greater use of "command by veto", improving leadership efficiency, avoiding overload and leads command nodes and troops on the ground to independent capability based decisions in accordance with the Command Aim whenever it is mandatory..

Working down the command chain, CA has the key role of translating the Command Aim into more detailed BDR instructions: to do this he must be told precisely what the CO is trying to achieve, that is, the reasoning behind the aim. Working up the chain, the Command Aim allows CA to focus his damage briefs to the CO each time a key capability is lost or becomes degraded, including the right balance of operational implications or restrictions, reversionary modes and

any impact on ship posture, ASMD and so on.

The IBC should use the Command Aim to focus his HQ1 command Huddles. The outstations, especially the FRPPs and the Weapon Section Base (WSB), should use it for pre-briefing and initial incident management. It is vitally important that BDR command team members know and understand the aim. If they do, then in the event of a breakdown of BDR C2 comms in the early stages of battle damage, there is a good chance that an outstation, or individual will nevertheless correctly prioritise its efforts in accordance with the Command Aim.

THE COMBAT CYCLE

During battle, the ship needs to be thought of as a system, in which processes occur to allow the Commanding Officer to fight her. Different processes occur in the warfare and BDR areas, but there is a common thread running through them which one can describe as the *Combat Cycle*. This starts with the gathering and transmission of information from sources outside the ship, and from outstations within the ship. This information is then co-ordinated and fused, usually into a picture - the key examples are the Command System (CS), the CBRNDC Incident Board in HQ1 and the Command State Boards in the Ops room and at the WSB. The picture is validated and then used to make assessments and, ultimately, command decisions - made on the basis of the CO's aim. These decisions are promulgated, through effective communication lines (e.g. external radio circuits, Command Open Line, CBRNDC Bleep phones or Main Broadcast) to leaders at the relevant outstations at or close to the Scenes-of-Action - be it a Fire, Flood, Weapon Control desk or whatever - and implemented by teams or individuals. Success at the scene of action will be a function of the strength of leadership and teamwork, which in turn relies heavily upon good individual knowledge of drills, procedures and systems (including reversionary modes of operation).

COMMAND AIM – EXAMPLES

Sprint to regain sector by 1200 and provide air defence to RFA CARDIGAN BAY, **speed required 26 knots**

To remain on the gunline providing fire support until 1500 while defending ourselves against FBA attacks, **speed required 24 knots**

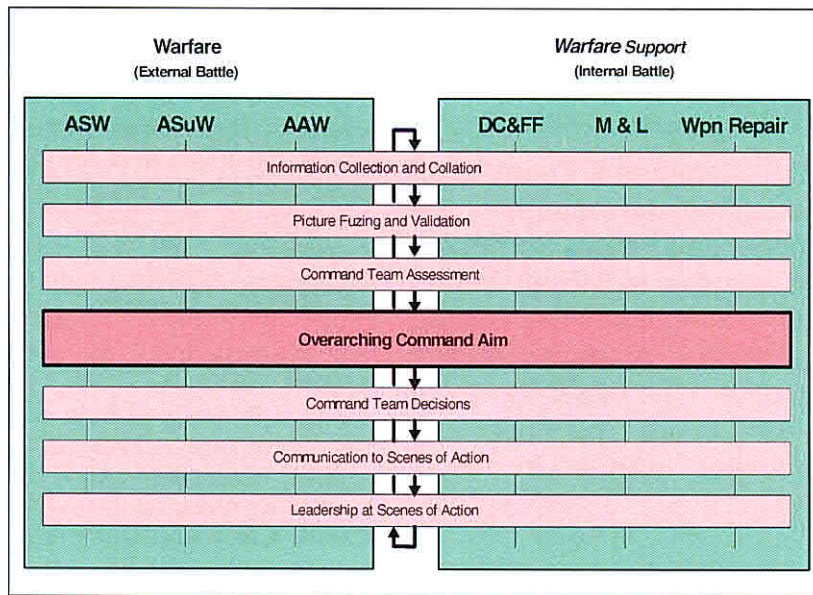
To regain contact with the submarine and prosecute it to destruction before the RAS at 1700, **speed required 18 knots**

To remain in the AOA until dusk tomorrow, conduct a Company airlift to Red beach and provide an effective afloat HQ, **speed required 10 knots**

To make best speed to RV with FORT VICTORIA to cross-deck special forces by 1400 and replenish fuel, **speed required 28 knots**

To repair CIWS, get clear of the missile engagement zone before 0945 and carry out casevac to ARGUS, **speed required 18 knots**

It is important to note that this process or cycle holds good not only for warfare environments - AAW, ASW and ASuW - but also the BDR environment (including damage control and fire fighting, propulsion, systems restoration and weapons and sensors repair), and other key support areas such as medical and operational logistics. Similarly, many well worn warfare lessons are equally relevant to the execution of BDR.



The Combat Cycle

For example, those providing action information are involved in an important combat activity. Just as with the CO and PWO, the IBC and CA cannot properly fight the BDR "actions" without a valid damage picture. When C2 communications breakdown, a good leader at the scene-of-action using his initiative on the basis of knowledge of the Command Aim will often save the day. Good drill and system knowledge is critical and needs to be developed, and honed before action commences. Also, when seen in this context, the purpose of Mini-SOCs and Blanket Searches becomes even clearer, i.e. to assist in the building of the damage picture for the BDR command teams, and thus allow them to direct the BDR effort.

In short, the ship's warfare and BDR teams will be engaged in broadly similar activities to combat external and internal threats, and achieve the CO's aim. Furthermore, they all need to be thought of as war-fighters.

The one common thread which must bind and focus all their activities is the Command Aim.

Of course the reality of the combat cycle is more complex: for instance, the cycle is continually running, and even as decisions are being made, more information will be flowing into

the command teams. The cycle also runs to a different timescale in each environment: passive anti-submarine

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warfare in hours, anti-ship missile defence in seconds, small fires in minutes and full flood repairs in days. Furthermore the ship's tasking may change at any time. A key command task is therefore to review aims, priorities and progress on a regular basis. The Command Aim must continually be tested against the task (is it the best way to achieve it?) and the ship's state (can we achieve it?). Priorities set in individual areas must

also be reviewed against the changing picture to ensure the best progress towards the Command Aim.

As well as the variation in tempo of spheres of action within the ship, there is an overall ship tempo which must also be considered. Peaks are fairly easy to identify, usually occurring when attacks and BDR are in progress concurrently. In contrast, troughs or lulls must also be recognized and exploited fully. As in combat, lulls -

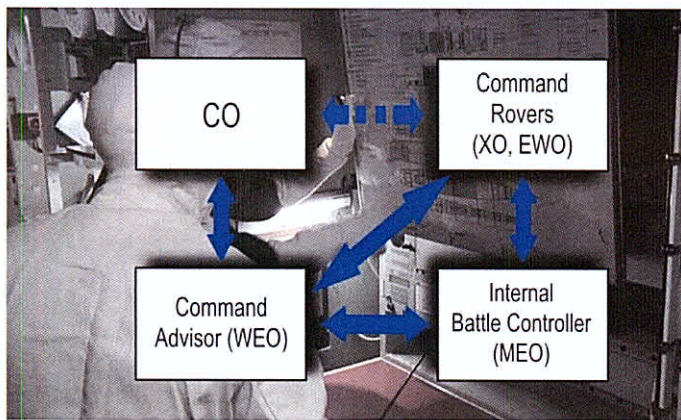
operational pauses - occur during warfare and CBRNDC exercises during OST and are built into the serial timings. A common ailment is the observed tendency for ships' companies to relax: this is quite natural, but also quite wrong. When the command assess that the raid is over, or the submarine destroyed, it is up to the command teams, be they warfare or BDR, to set a different course. The aim should be to achieve a fast *re-group*, cleaning up the material state and the command team pictures, and getting the ship again "Stood To". The post-action adrenaline loss, and likelihood of a degree of shock, is such that check off lists including mini-SOCs, covering the main aspects of warfare and BDR, will undoubtedly assist this reconfiguration.

The lull is also the natural time to replenish: the ship with fuel or stores and the crew with snacks or a meal; but it is important to consider both internal and external warfare pictures before planning these functions. All too often the pipe is made for "Action Messing" with the ship full of smoke and no power available to galley equipment, or the call to RAS stations removes key personnel from BDR tasks.

KEY PERSONNEL

THE COMMAND TEAM

At the top of the BDR Command Team is of course the CO whose principal input into the BDR effort is a concise, up-to-date Command Aim. Supporting him are the two Engineering HODs, WEO and MEO, analogous in the fighting of the internal battle to the Warfare Officers fighting the external battle. They fulfil the roles of Command Advisor (CA) in the Ops Room and Internal Battle Controller (IBC) in HQ1 respectively.



The BDR Command Team (Internal Battle)

Their functions are to:

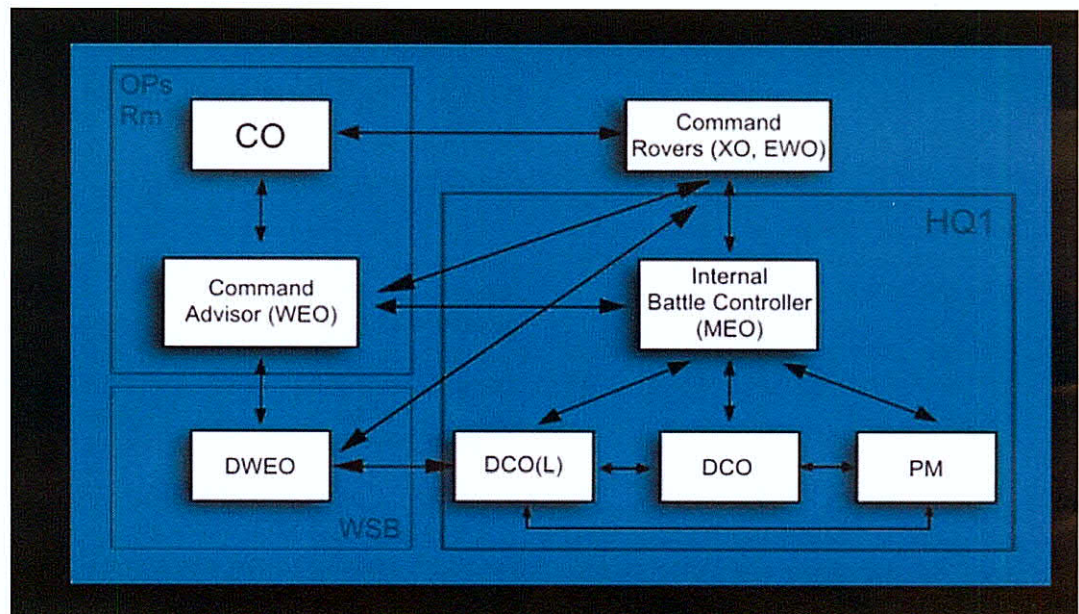
- Continuously monitor the damage picture and assess the implications.
- Maintain a close liaison with each other, keeping each other aware of the internal and external picture.
- Provide a concise and continuous assessment to the CO (filtering out the irrelevant and unnecessary).
- Set and review agreed priorities for BDR teams which will maximize achievement of the Command Aim.
- Disseminate these priorities fully to the lowest level.
- Discuss and agree requests for manpower re-allocation seeking command approval as required.

Their liaison is achieved using a "Hot Line", IBC has multiple communication systems available to him, dependant on ship, but they will include Interphone, Intercom, Group Lines and Emergency Links. The CA/IBC link is the IBC's only link to the Command and so both must be familiar with all systems in the event of Battle Damage as this link is vital to the success of the management of the battle damage repair effort. Techniques applicable to this link and SOPs are discussed later in this article.

Command Advisor (WEO). CA's position in the Ops Room is a node on the DC information network, not only to receive information, but also for the input of DC and FF information which may be fed to the Ops Room from other areas such as the Bridge, flight deck or weapon crews. CA mans Command Open Line to monitor the external battle and the tactical situation, and to pass high priority information quickly to the CO and the warfare team.

CA's briefings to the CO must be appropriately timed within the tactical situation and the format of the brief should be agreed beforehand with the CO. Items should be briefed in overall ship priority order using a portable briefing board and must include: all the areas of Weapon Systems, DC and FF, Propulsion, Systems and electrical Damage. It should include fallback or reversionary modes of operation of damaged key equipment. **The CA will advise on courses of action, any recommended change to the Command Aim and the setting of agreed Overall Repair Priorities.** CA should be empowered to make Command Decisions under delegated authority from the CO for elements of the internal battle. The extent of this delegation should be discussed and agreed in advance with the CO.

The CA is supported by an assistant, a junior engineer officer or a senior rating, who must have good knowledge



of whole ship mechanical and electrical systems in addition to weapon and sensors. The assistant will manage the battle picture and maintain the Command Stateboard, also

providing direction to the WSB in accordance with CA's aims and policy.

Internal Battle Coordinator (MEO)

The IBC coordinates the effort in HQ1 to achieve cohesive progress towards the Command Aim and maintains awareness in the HQ1 team of priority weapon incidents.

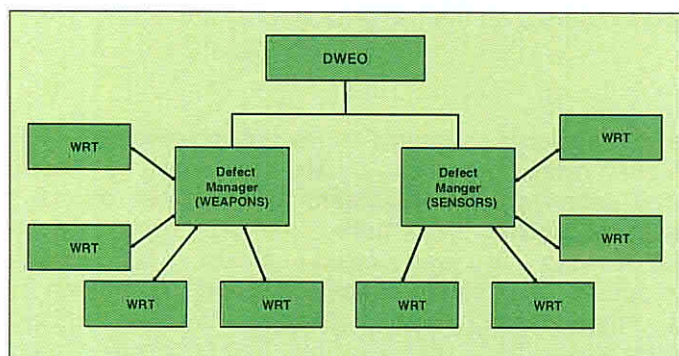
He uses the 'Command Huddle' as a technique for assessing the overall BDR priorities and focussing his team of directors. With the Damage Control Officer (DCO), he also directs the Command Rovers (XO/EWO) towards the most urgent incidents: normally those of highest overall ship priority (WE, ME or DC&FF) but also sometimes those where most confusion lie.

DIRECTORS

The next element of the command team are those who will actually direct and co-ordinate the BDR activity. The "Directors" of internal warfare are the DWEO in the WSB and the Propulsion Manager, Damage Control Officer (Electrical) (DCO(L)) and DCO, all in HQ1. Their aim is to achieve an effective recovery from the damage by acting in accordance with the priorities and instructions given to them by CA and IBC, ensuring that these priorities are the focus of activity at the scenes of incidents.

The tasks of these directors overlap in several areas and therefore it is essential that they communicate with each other. This is achieved by effective inter-desk liaison within HQ1, often using a 'chit' system, and the 'green line' between the WSB and HQ1 L desk.

DWEO. The I/C of the WSB is the DWEO. He co-ordinates

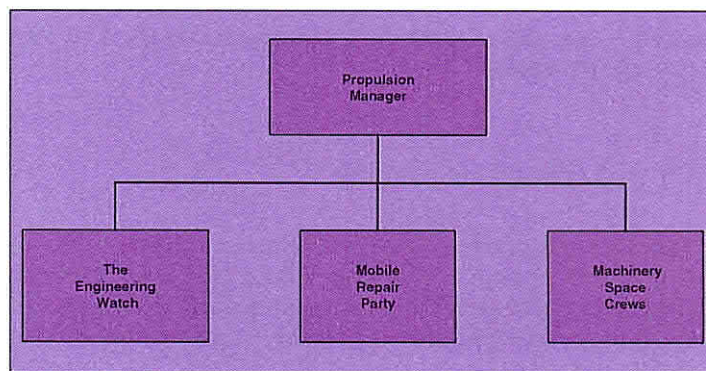


Weapon Section Base

and directs the weapon repair teams, made up of WE senior ratings, dispersed at strategic locations throughout the ship. To assist him he will have a small team in the WSB, normally

including both WO2ETs who act as Defect Managers (DM). The WSB task is to build and validate the weapon and sensor damage picture and pass it to the CA in the Ops Room, with appropriate assessments. The WSB is on the CBRN communications path to monitor fires and floods and allow it to organize efforts to assist establishment of fire and flood boundaries. It also continuously monitors the "Command Open Line" by speaker in order to keep abreast of the tactical situation. DWEO has a "Hot Line" to the Command Advisor position in the Ops Room. Detailed advice for the WSB is at Annex A.

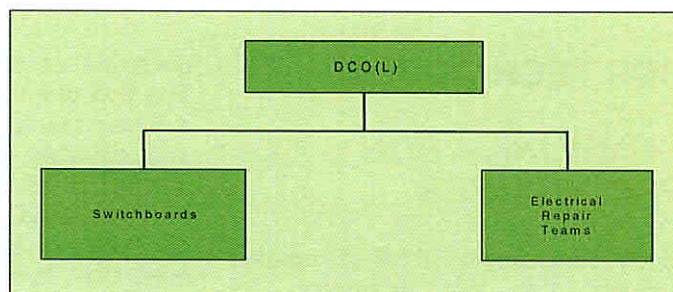
Propulsion Manager. The Propulsion Manager (PM) is located in HQ1 and must maximize propulsion to the command by overseeing the actions of watchkeepers and machinery space crews and directing the actions of the Mobile Repair Party. He has broadcast comms with the machinery spaces and a dedicated line to the Mobile Repair Party which is deployed as required by the PM to assist in machinery space incidents and any other incidents where their specialist skills can be brought to bear. He must ensure machinery space fire and flood information is plotted on the main incident board in HQ1 as this



Propulsion Management

information needs to reach all command nodes. Detailed advice for ME action crews is at Annex B.

DCO(L). The DCO(L) is responsible for the integrity of the Power Generation and Distribution System and converted supplies. His team must quickly build an accurate picture of damage to electrical services and the effect on key systems.



Electrical Damage

DCO(L) then directs the electrical and switchboard teams in their repair efforts using the dedicated communications

net to the switchboards and the electrical repair teams. DCO(L) has a key liaison function, both to the WSB via the 'green line' and inter-desk within HQ1. Liaison with the PM and DCO regarding steering gear is especially important and often a weak area.

DCO. The DCO provides an assessment for IBC of the overall damage picture in the ship. He co-ordinates the efforts of the FRPPs. The damage picture is maintained using the main incident board and its associated operator (IBO), who is linked to the incident boards at all the command nodes (Both FRPPs, Ops Room, WSB and AHQ).

DCO is also directly responsible for the management of essential services in support of the DC effort (Firemain, ventilation, eductors etc) and he will need to liaise with DCO(L) and PM to achieve this. DCO directs the actions of the FRPPs in a management and co-ordination task, identifying and prioritising incidents and maximizing the use of his personnel and material resources, or identifying when resources must be re-allocated. His priorities may lie in dealing with incidents, or in incident boundary management, or in containing incidents to allow other BDR tasks to be carried out. Detailed advice for the FRPPs is given at Annex C.

COMMAND ROVERS

The final members of the BDR Command Team are the Command Rovers. XO and EWO fulfil the Command Roving function, providing essential support to CA, IBC and DCO in providing an expert audit of the overall BDR picture and a command level physical link between the command nodes and the scenes of action. They bring to bear a high level of leadership and decision making at the scenes of action which can overcome communication difficulties or differences in interpretation.

His tasks include:

- Roving as directed by key members of the BDR Command Team to act as his 'eyes and ears'.
- Extracting the maximum information from each damage scene.

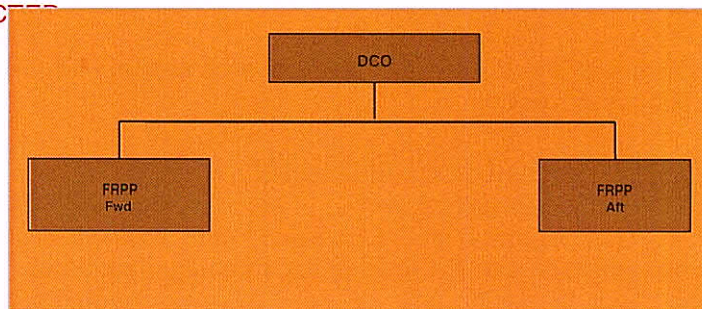
BDR TECHNIQUES

COMMUNICATION PROCEDURES

Much confusion in BDR is created through the misinterpretation of common terms, and the failure to recognize that busy internal communications circuits and lines require exactly the same kind of voice

discipline as used on radio circuits. The flow of information often relies on a junior rating, of limited experience and possibly in a state of shock, finding a number of defects or incidents and then reporting them accurately to the appropriate outstation. It is not difficult to see that the scope for error is immense during this fast moving initial phase. A mistaken incident or incomplete report can cause incidents to be incorrectly prioritised with potentially catastrophic

effects on the fighting efficiency of the ship. The process is further complicated by the sheer volume of information, which needs to be assimilated amidst the chaotic environment following a weapon hit. Fires, floods, smoke, savage manoeuvring, high pressure system leaks and noise all combine to add confusion and provides a breeding ground for poor communication and flawed decisions. This is often seen as a weak area at OST and requires



DC/FF Incident

- Assessing whether a damage scene is under control and inform the responsible command nodes if action is required..
- Checking the quality of information flow between all Command Nodes (Ops Room, Bridge, WSB, HQ1, FRPPs, MHQ) and eliminating confusion.
- Keeping abreast of the tactical picture and the Command Aim and disseminating this information, maintaining impetus and morale about the ship.
- Contributing to the Command Huddle in HQ1 when possible.

Detailed advice for command rovers is at Annex D.

BRIDGE



Although not members of the BDR command team, the bridge personnel have a key function in the BDR effort. Detailed advice for the bridge team is at Annex E.

RESTRICTED

considerable forethought, practice and critical self-analysis by BDR command team members.

The important principle is to encourage your people to treat internal circuits as radio circuits, and to follow the **KITE** mnemonic when fighting the BDR war - **Keep It To Essentials**. The second important principle, borrowed from warfare, is that BDR language need to be clearly defined and understood. The remainder of this section aims to suggest some definitions of BDR language.

Incident Reports. After a Loud Vocal Alarm is raised, the first leader at the scene make an incident report back to the Command Node, (FRPP/ZCP) to include what is the incident, where is it, what's being done, what's needed and whether they are winning. A recommended format for a subsequent 5 Point Brief from the Command Node to HQ1 is described at Annex F.; The status of an incident should be qualified as follows:

a. **"Minor"** - relatively small scale incident, whose solution is containable within local BDR resources. **Doesn't affect Command Aim or any Command Priority.**

b. **"Significant"** - larger scale incident, which has the potential to affect key ship's fighting and survival systems, but which is presently containable within local BDR resources. **May affect Command Aim or any Command Priority.**

c. **"Critical"** - major incident which already prejudices the survival of the ship or her key fighting systems. **Affect Command Aim or any Command Priority.**

Defining the status is initially the role of the local BDR team leader, who should take this decision bearing in mind the Command Aim. For instance, if the Command Aim is to provide urgent goal keeping air

defence to an HVU, then an incident (fire, flood, smoke, power loss, equipment damage) which affects Vertical Launch Sea Wolf could be "Significant" or "Critical". The status will allow those higher up the Command chain, notably DCO and IBC, to prioritize resource allocation.

When reported from FRPP level to HQ1, these reports may be qualified with an indication of whether extra assistance will be required. If none is requested then it will be assumed that the incident is containable within local resources.

Flash Procedure. Flash reports are designed to gain urgent attention of the Command Team. As such they must be used sparingly. The following occasions are usually the only ones where a Flash report will be appropriate:

- ICR of a "Critical" or "Significant" incident.
- Sitrep of a "Critical" or "Significant" incident, especially where the situation is deteriorating.
- Change in the Command Aim, or broad incident priorities.
- Key system or equipment restored or brought back on line.

Command Discussions.

Discussions between higher and lower nodes of the BDR command team, whether face-to-face or on one-to-one comms, need to follow KITE principles. A useful Warfare model for structuring these discussions is "Narrative, Assessment, Intentions, Requests":

- "Narrative" - very short description of critical and significant incidents.
- "Assessment" - actual and potential impact of incidents on Command Aim and overall ship survivability.
- "Intentions" - OIC's plan, with reasoning and likelihood of success.

- "Requests" - call for further assistance if necessary, usually internal manpower but other examples might be ship manoeuvre, ship speed reduction, external equipment assistance.

In the BDR situation, this structure is ideal for use by: IBC to CA; DCO to OIC FRPP; CA to DWEO; HQ1 Director to IBC.

Chit system. A chit system should be used to improve interdesk



liaison in HQ1. The "5 Point Brief" format recommended for ICRs is also ideal for chits. Chits may be made up as a tailored form, but the standard blank 'Post-It' can be just as effective and has the advantage of being self-adhesive. Multiple colours can help differentiate between directors.

STANDARD OPERATING PROCEDURES

Although some BDR tasks have Standard Operating Procedures (SOPs) (for example firefighting and machinery breakdown drills), few SOPs are laid down for C2 in the BDR environment. C2 SOPs are used widely in the external warfare environment as they allow regular practice to develop instinctive reactions which are less likely to become degraded by the confusion of battle. Although success in BDR still depends heavily on the key players having a high level of skill, experience, system and ship knowledge, SOPs can make a significant improvement and can be used by anyone. SOPs can be employed in a number of BDR areas: pre and post hit routines (Brace, crash stop vent);

communications and message handling; briefing; and initial actions at the scene of incidents. SOPs should be laid down in 'aides memoire' to allow effective training and to help overcome battle shock. Some communication SOPs have already been described and more specific example are shown below.

Establishing the Extent of Damage.

Mini-SOCs and blanket searches are the SOPs used to ensure that the extent of damage is accurately established. Coupled with the incident format discussed earlier, these should lead to an improved standard of picture compilation. There are 2 key areas, which must be included in this process and are frequently weak:

a. Damage Boundary.

Precise determination of incident boundaries is vital to the follow-on C2 process. For a fire or flood, high value compartment boundaries should be established first. For an equipment defect, the exact boundaries of the damage are required, or the report will be almost worthless. This includes: whether the equipment is repairable; which power supplies are unavailable and whether faults are in cables or breakers; what functionality still remains and what reversionary modes are available. If the exact nature of the defect is not known, then a report of, "investigating, sitrep at minute xx" is much more useful than no report.

b. **Implications.** Once the damage boundary is established, the task of assessing the implications is straightforward, using the Command Aim and an awareness of the threat state. From these, the significance of the incident should be readily apparent.

equipment on line after the repair is complete. C2 nodes should therefore be given an absolute timing in the form of ETBOL. ETBOLs should always be used on Command Stateboards and are always

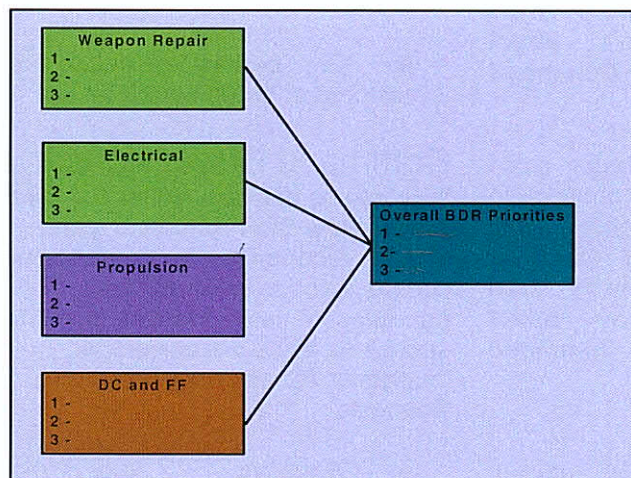
Discussions on the link clearly need to be timed to dovetail with the cycle for command huddles in HQ1 and CO-CA briefs. IBC's report should therefore include "Intend next huddle in x minutes", which should prevent CA

Z	Ship damaged
Z+(2 to 3)	CA/IBC major weapon / sensor propulsion / system losses, major fires / floods; big picture only - can the ship still fight or is the aim to survive? Initial advice and prioritization on the raw incident data available
Z+(4 to 5)	CA debrief CO (big picture); discuss any revision to Command Aim and agree BDR Initial Command Priorities
Z+7	CA/IBC: fallout from CA's brief - changes to Command Aim, BDR priorities
Z+(7to 10)	HQ1 command Huddle (2-3 Mins)
O/C	IBC / CA update: fallout from Command Huddle, CA update IBC. Agree Command Priorities. (DCO to Pipe Command Priorities)
Z + 15	Full command brief in the Ops Room

expressed as an absolute time, i.e. 1145, or minute 45, never as the repair duration. If it is difficult to provide an ETBOL, then either a best guess should be given or, if still investigating, then a time to next

'bleeping' IBC mid-huddle. The approximate timings in the table are suggested, but are no means guaranteed for all eventualities:

This cycle can be repeated as required.



The Rule of "3s"

sitrep.

CA/IBC-Link. The CA/IBC link is the vehicle for the principal BDR command discussion. As such, the "Narrative, Assessment, Intentions, Requests" format should be used. The first part of the assessment section must be whether the Command Aim is still tenable, and priorities should flow from this.

Command Huddles

The command Huddle is an assessment tool used in HQ1 by IBC and his key players or directors. Its purpose is to determine whether the Command Aim can be sustained, to assign incident priorities in support of it and focus the management of these priorities. The Huddle should begin with a statement by IBC of the Command Aim and

CA's top 3 weapon repair priorities, with location and actions required, if any, from DCO(L) and / or DCO in support of their rectification. Each desk then gives a short brief summarizing the desk picture in priority order and offering estimated repair times. The Directors always start with a statement whether the Command Aim is achievable or not, followed by the status of the Blanked

Estimated Time Back On Line (ETBOL).

Estimated Times to Repair (ETTRs) are always given as a first estimate by those conducting repairs, but the ETTR does not include the time to bring the FEB 2012 (Original)

Searches . This is then followed by a summary from IBC confirming (or otherwise) the desk priorities and stating the overall ship priorities and a reminder of the Command Aim. The target time for a Huddle is 2-3 minutes: 30 seconds for each director (and XO if present) and 30 seconds for IBC to introduce and conclude.

IBC should give a 1-2 minute warning for the Huddle, allowing his directors to chase updates and assess their priorities. The Huddle should only be disturbed by other HQ1 for 'Flash' messages. XO should participate in the Huddle if present, interrupting to correct briefs if required and giving an update after the 3 directors have completed their briefs. If not, DCO/IBC should direct XO and EWO in accordance with the last Huddle.

The 'rule of threes' is a useful management SOP for IBC during OST exercises and is shown in the diagram below. Each director presents his top 3 incidents in what he sees as the priority order. IBC can quickly assess whether these priorities are correct and, using the Command Aim, can start to consider the overall top 3 BDR priorities for the ship. Immediately following the Command Huddle, IBC & CA update each other and discussed and agreed the overall Ship Command Priorities. These are then promulgated to all outstations.

Relocation. All command nodes need an SOP for evacuation and relocation if driven out by smoke or other damage.

Due consideration must be given to the alternate location of the node that is to be evacuated, what facilities are there, what needs to be taken, is it portable and the procedures for re-establishing the picture when relocated.

THE BDR COMBAT TIMELINE

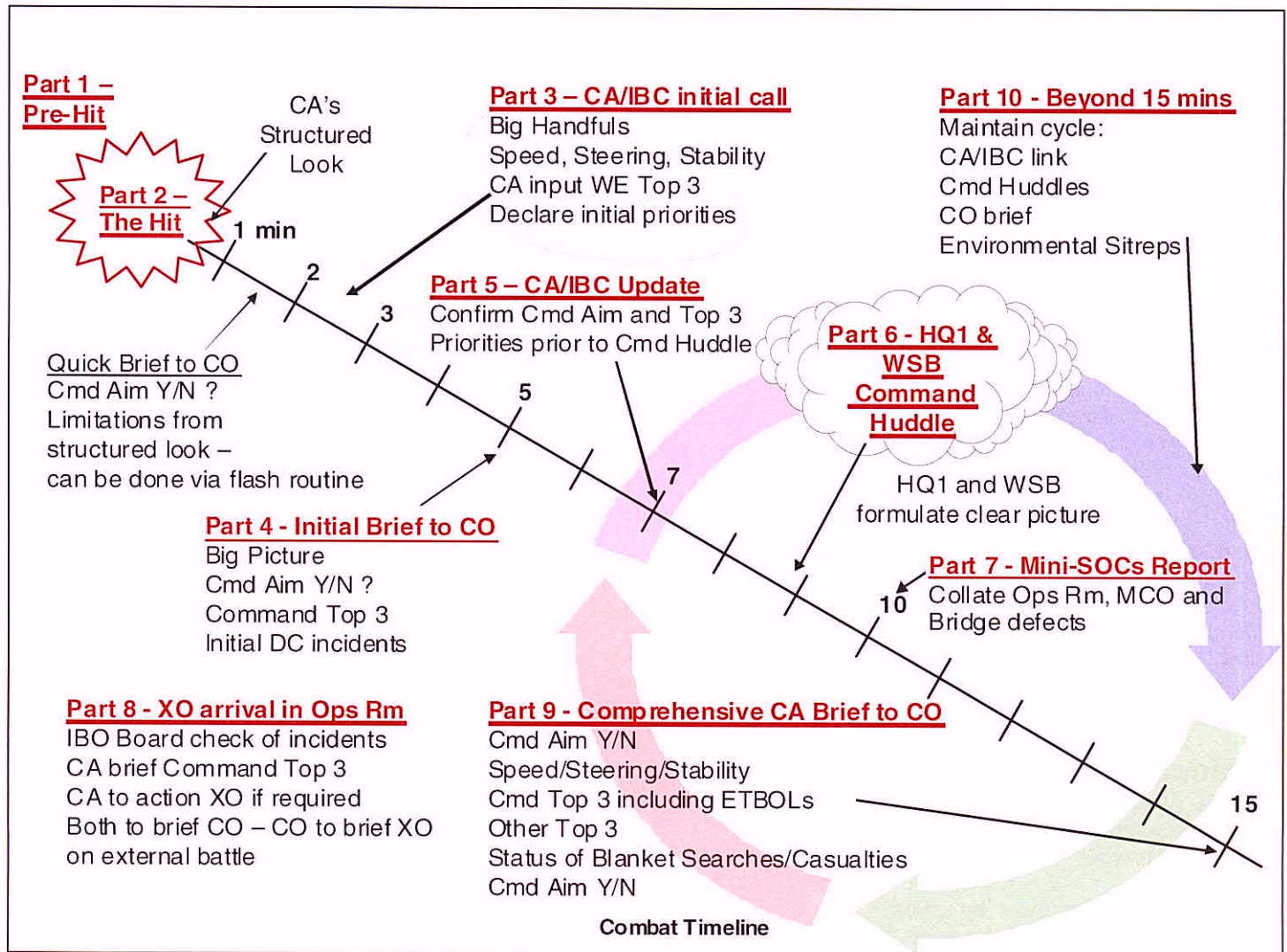
The following describes the basic C2 procedure to build a validated picture of the internal battle within 15 min of an incident (hit or other

ordination of activities in the internal and external battle. Maintenance of a battle rhythm is key to success and this should be discussed at CA TTTs.

posture and techniques, Command Stateboards etc.

Part 2 The Hit:

- Test Communications with IBC.



causes). The times are guidelines which are usually not met in the early stages of Operational Sea Training, however most of the RN and foreign units are able to archive it at the end of their training period at FOST. The BDR Timeline is divided into parts and is designed primary for State 1 environments. In case of a State 3 incident recent practice at FOST showed that the procedure can easily be adopted and implemented into such scenarios.

It is vitally important that the ship works as a team to ensure co-

Part 1 Pre-Hit:

- Agreeing and check status of stateboards at the outset.
- Setting of the Command Aim and priority environment.
- Passing of tactical picture (Opintel) to CA and on to IBC. Threat and key equipments.
- Management of defects once at State 1. Drive outstations to adopt State 1

- CA 'Structured Look' – CA observes key indicators for any loss in capability.
- Use of Flash routines for loss of critical equipment.
- CA can inform CO via brief or flash routine, key capability loss issues within two minutes.
- Ensure CA exchanges information from structured look with CA Assistant (CAA) and CAA passes WE losses from WSB to CA.

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- IBO runs through DC incidents and records on CA briefing board.

Part 3 CA/IBC Initial Call – Big Handfuls:

- Using Minimum Effective Comms (MECs) with a format to cover Speed, Steering and Stability and major DC incidents.
- CA Feedback to IBC from Structured Look. Opportunity for CA to provide early direction.

Part 4 Initial Brief to CO – Big Handfuls:

The brief itself:

Presentation of the information is through the CA briefing board placed in view for CO and, if possible, PWOs.

Format: can or cannot meet Command Aim/Ship's Top 3 defects/other defects within Top 3s (maybe) – finish with confirmation of ability to meet Command Aim. Critically, format is agreed beforehand.

Part 5 – Pre-Command Huddle:

Ahead of the first Command Huddle, CA/IBC must once again talk, agreeing and confirming the Command Aim and Ship's Top 3 issues plus any ETBOLs (Estimated Time Back On Line) if now available, based on CO's intent. Discussion should then relate to other Top 3 issues within DC, ME, L and WE beyond the Command Top 3, with the aim of building up the information on the CA Briefing Board.

Part 6 – Command Huddle:

Conducted in HQ1 and in WSB to formulate a clear picture and establish key priorities. This gives time for CA to stand back and

gather further information and inform CO on any Top 3 developments.

Part 7 – Mini-SOCs (Standard Operator Checks):

Mini-SOCs conducted in Ops Rm, MCO and Bridge. Reports collated by the Ops Rm Manager (ORM) and presented to CAA who should have received all reports by the 10 minute point with the recording forms themselves making it to the WSB by no later than 20 minutes after the initial hit. Rigorous assessment of defects by operators/Command Advisors Assistant is key to success.

Part 8 – XO's Arrival in OpsRoom:

Format of discussion between XO and CA:

- Run down the IBO board – CA lead with XO agreeing/updating as required using MECs.
- Top 3 issues in the ship from CA.
- CA's actions for XO on departure.
- If tempo allows, both to brief CO. CO to cover whether he believes the Command Aim or priority environment will change in the near future.

Part 9 – Post Command Huddle:

(15 mins) – Comprehensive brief to CO. CA should deliver a comprehensive brief to the CO with the critical elements below. It is also at this point that CA is best placed to contribute to the Environmental Sitrep. CA's contribution must be capability focussed with ETBOLs if available.

Critical Elements:

- Command Aim Achievable – Yes/No.
- Speed/Stability/Steering.
- Recommend Command Top 3 (with supporting capability information and ETBOLs).
- Other incidents of note (allows Command to change Top 3 if necessary).
- Status of Blanket Searches /Status of Mini-SOCs.
- Status of Casualties (4-digit number relating to T1 / T2 / T3 / T4 eg 2110 and including Battle Stress). If Casualty Form has arrived in Ops Rm this can be given to CO to confirm actual names.
- Command Aim Achievable – Yes/No.

CA lead with XO agreeing/updating as required.

Notes:

1. Speed, Steering and Stability reported using traffic light system.
2. If Command Aim is not achievable then this needs a supporting statement, for example: "Command Aim not achievable based on Speed, maximum speed available 18 knots, awaiting ETBOL. Steering and Stability 'Green'."

Part 10 – Beyond the 15 minute point:

Maintain the cycle of Command CA/IBC interaction, Command Huddles and Environmental Sitreps (CA to input internal issues affecting the external battle).

- CA to increase his understanding of resilience within the platform:
- Casualties.

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- Broader WE defects and impacts.
- Broader ME defects and implications. Shafts in local, loss of fire pumps.
- At some point give CO this brief, possibly at Incident Board.
- Movement of manpower.
- Smoke clearance giving consideration to visual signature and helo ops.
- Release of manpower (deep mag, gunbay, AW mag, COT, Action Messing Team).
- CA to have understanding of Directors' delegations, in particular their ability to release equipment in the face of defects, for example, 2050/ UAT crashes, which both lead to a complete loss of capability. In the case of the MD, can he release the system to clear P2 faults?

* This chapter is based on Lieutenant Commander Andy Wildin's article "WINNING THE BATTLE – DEVELOPING AND DELIVERING COMMAND ADVICE". RNE Winter 2010.

ANNEX A TO FIGHTING THE INTERNAL BATTLE

WSB

References:

- A. BRd2170.
- B. BR300.
- C. JSP 862.
- D. FOST WE Form N-3-31.
WE Department at State 1

ORGANISING AND LEADING THE WEAPON SECTION BASE:

The Weapon Repair Organisation is led by the DWEO, normally located in the designated Weapon Section Base (WSB). His main roles are to:

- a. Present CA with an accurate and continuously updated picture of the Weapon and Sensor damage within the ship either via the CA's Assistant, or for urgent information, directly to CA.
- b. Direct and co-ordinate the weapon repair effort in line with Priorities set for him by CA and in support of the Command aim.
- c. Provide continuous advice to CA wrt ETBOLs for equipment defects and reversionary modes of operation or post damage options which may be available either via the CA's Assistant, or for urgent information, directly to CA.
- d. Undertake the duties of CBRN Protection Officer if CBRN hazards are more important than weapon repair activities.

If the repair organisation is to be effective an accurate defect picture must be established immediately. There are two facets to this. Operators must conduct accurate Mini-SOCs as quickly as possible with the results reported to CA and DWEO on paper. Weapon Repair Team (WRT) personnel at outstations must provide clear and accurate details of all defects,

performance degradation and loss of supplies or essential services. This is achieved through comprehensive Blanket Searches and 5 Point Briefs. Furthermore, there needs to be effective liaison between operators and maintainers and WRTs must appreciate the urgency of repairing each piece of equipment.

In order to run the Weapon Repair organisation effectively the *material items and routines* listed should be established, validated and their use practised.

Weapon Repair "Bible". The bible should contain as much information on weapons and sensors as is practical. Recommended contents are contained in FOST Form WE A-3-30:

State 1 Preparations Check Off List. The list should contain all actions that need to be taken by the WE department before State 1 is achieved and can actually form one of the sections in the 'bible'. Items for consideration in the State 1 preparations list are detailed at the References. When closing up at State 1 one of the WO2 (ET)s should check through the list and ensure all actions are complete before reporting that the WE department is at State 1. Guidance on what preparations are required are detailed in the References.

Manpower Control Board. This should have sufficient information for the manpower controller to muster all WRT personnel, record contact details, track the regular reporting of whereabouts, track the status of Blanket Searches and monitor location of personnel effecting weapon repair. *Reports to manpower controller should be made by outstations on the following occasions:*

- a. On closing up.
- b. At regular intervals when closed up, normally every 20 minutes.
- c. When leaving the normal State 1 position.
- d. When Blanket Search is completed.

- e. When undertaking Battle Damage Repair, stating when you are going and report when arrived.

WSB Equipment State Board. The WE Equipment Board is to be used by the Command Advisor's Assistant to collate the WE BDR picture with the WSB and present that picture, with the intended repair priorities to the Command Advisor. He may then direct or amend the priorities in line with Command intentions. An example WE Equipment Board is at Reference B, Fig 2-4. It is to be regularly maintained by the WSB Operator and Command Advisor Assistant focusing on the Whole Ship Top 3 Priorities.

Weapons and Sensors State Board. The board(s) should be run by the WO2 (ET)s and used in conjunction with the Command State Board to keep an accurate picture of the material state of the department at action.

Incident Board. This board is to be permanently manned by an IBO. He should adopt the 'Flash' procedure to alert WSB personnel of all fires and floods within the ship. DWEO and WO2 (ET)s should constantly monitor the board so that they are aware of possible dangers to WE equipment/compartment/magazines and personnel. The board should also be consulted prior to sending any personnel away from their action station so that a safe route can be planned.

Electrical Desk Liaison. Good 'L' desk liaison is vital for a successful Weapon Repair Organisation. An established communications line must be available between the 'L' desk and the WSB. Communications must be a two way operation with both parties informing each other of known power supply losses as soon as practically possible after damage has been sustained.

WSB personnel should be aware that the Command Aim will invariably be focussed on the 'Fight' function and therefore emergency cable runs to weapon equipment

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should be given priority over everything else. Consideration must be given to dressing cable runners in BA where appropriate. In the event of loss of EDCs, consideration should be given to prioritisation of breakers, bearing in mind the current carrying capacity of emergency cable runs.

Railex Card Holders. Railex card holders (MOD form 607) and cards are recommended to monitor defect repair. It is suggested that at least 3 cardholders are used and are marked up as "Top 3", "Weapons" and "Sensors". Additional holders may be used if found necessary, eg for electrical defects. Cards should be marked such that they contain relevant information and may be plasticised so that they can be re-used. An example is given at Annex C.

Within each priority, cards should be individually prioritised ie the highest priority defect placed in the top slot of the Railex card holder. ETBOLs must be used and closely monitored by WO(2)s to ensure they do not slip and are updated accordingly. SITREP times should only be used where a repair time is genuinely not known or able to be predicted. Pre-printed cards can be made up to show the effects of losing a switchboard or EDC.

The Railex system should be run and updated by the Defect Managers (WO(2)s) and DWEO should position himself so that he can monitor all WSB boards including the Railex cards. He should ensure Command priority and threat warning changes are implemented and that the Railex system agrees with the Command Stateboard (CSB).

Alternative WSB. At least one alternative Weapon Section Base should be available. It should be large enough to accommodate all WSB personnel and the necessary state boards. It should have communications to WRT and CA and adequate emergency lighting. Moving the WSB to it's alternative location should be an organised evolution rather than a mad rush to get out of a smoke filled

compartment. DWEO and WO2 (ET)s should ensure all personnel (each with an EEBD) are safely evacuated from the compartment, and as much portable equipment as possible is taken with them. Upon arrival at the alternative location, the team should quickly settle down, establish comms and consolidate their position.

More detailed information regarding the layout, equipment and routines to be employed within a Weapon Section Base is available in FOST Information Sheet WE N-3-31.

Weapon Repair Team. All maintainers should have a sound system knowledge of their own sections including where services and supplies are fed from. Any practical repairs carried out should be man enough for the task and be able to withstand pressures/voltages/currents etc. In FOST DCXs some repairs/temporary cable runs will be connected and tested.

COMMAND HUDDLE AIDES-MEMOIRE	
Who	What
I/C	Re-iterate the Command Aim
IBO	DC incidents in priority order and how they effect WE equipment or compartments.
Manpower	State/whereabouts of manpower, progress of Blanket Searches, who has not reported in.
Logistics	Sustainability/Stores issues.
L-Desk	In priority order, electrical losses which effect WE equipment and how they are being progressed.
Weapons	Weapon defects in the WE Top 3, Top 3 Weapon defects - 5 Point Brief format. (If you have capacity to brief more than T3 do so).
Sensors	Sensor defects in the WE Top 3 Top 3 Sensor defects - 5 Point Brief format. (If you have capacity to brief more than T3 do so).
I/C	Summary, focus and DIRECTION . Re-iterate the Command Aim and if it can be met.
All	Re-establish comms.
Command State Board Operator	Align Picture with Ops Room.
I/C	Confirm Top 3 with Command Advisor.

WRT Personnel should ensure they carry adequate tools and carry or

have access to a supply of fuses/spare cable. Cross training of key personnel should be considered to ensure al equipment can be run up and first line fault finding can be carried out in the event of loss of the maintainer. Guidance on the conduct of Blanket Search and reporting procedures are at Reference D.

The Command Huddle. The Command Huddle is a key element in the control and management of the WE BDR effort within the WSB. It must be structured and timely. I/C must call for them with a 2 minutes notice FLASH call in the WSB; run a clock so that people are aware of when it is to happen. Let outstations know when it is taking place and that FLASH calls only are to be made into the WSB; ensure you have established the means by which FLASH calls can be recognised i.e. 1 long bleep from CA, a buzzer procedure on Interphones.

The Command Huddle must always follow the same procedure with personnel briefing in a routine order. Briefs must be focused on how the defects/incidents they are reporting affect the Command Aim. An example is detailed below.

ANNEX B TO FIGHTING THE INTERNAL BATTLE

COMMAND ROVER TASKS

Reference: BRd2170(Vol 1)

The Rover has the function of clarifying the picture for all Key nodes in the BDR effort; Ops Rm, HQ1, FRPPs and WSB and Bridge?. He needs to ensure that the focus of all BDR effort is on resolving the Whole Ship Top 3; co-ordination is the keyword. Establishing a route or routine of visiting outstations will aid this.

'...ensure that the focus of all BDR effort is on resolving the Whole Ship top 3'

As a Rover you must get as close as possible to the incident, right down to the incident manager, to see exactly what the extent of damage is and what actions are being taken. The following information will be needed in HQ1:

FIRES:

At the incident scene/FRPP/ZCP/Section Base with the I/C;

- Where is the seat.
- What type of fire (oil based/carbonaceous etc).
- Who is attacking it (which FRPP team).
- How long before re-entry (if applicable).
- Where are the smoke boundaries established (and are they correct).
- Where has boundary cooling been established.
- What other incidents are there in the section.
- When are reliefs due in.
- Check the incident board reflects what you have seen.

FLOODS:

At the incident scene/FRPP/ZCP/Section Base with the I/C

- Where is the damage (ships side, deckhead or deck).
- What is the damage (splinter holes, fractured pipes etc).
- What is the level of the water and is it rising or falling or steady.
- Has initial leak stopping taken place.
- Are pumping requirements in place.
- Where are the flood boundaries established (are they correct).
- Check that the incident board reflects what you have seen.

As well as the above you should also be aware of the following peripheral information;

- How much lighting is out and in which sections.
- How many casualties are there and are any of them key personnel.
- Are Incident Managers, FRPPs/Section Bases coping, do they need spare manpower.

There is an awful lot to take in and good use of pocket size deck plans and aides-memoire are essential. So, the picture has been collated what do we do with it? Periodically go to the OPS Room speak to the CA, check his incident board is correct and get an update on the threat warnings, Command Priorities and Command Aim. From there head back to HQ1 where the information will be eagerly awaited. On arrival in HQ1 the Rover must make his/her known. 'XO IN HQ1' and go straight to the incident board to brief the IBC/DCO ensuring that the IBO plots the information. If the arrival in HQ1 coincides with a Command Huddle then listen in and input the information at the end. The Command Huddle will invariably dictate where you will be sent next. If however things are going well and there is no requirement to visit specific

incidents then get around the ship bolstering morale and checking the detailed information is reaching HQ1.

When visiting the WSB the Rovers should ensure that the DC picture is accurate to ensure they know what impact it will have on their repair plans to the ships warfighting equipment. [In many cases WE equipment will be the Top 3 Whole Ship BDR priorities. Therefore the Rovers need to take away from the WSB where its activity is focused and ensure that the DC effort is co-ordinated in support of this.



Rovers must visit the Ops Room

ANNEX C TO FIGHTING THE INTERNAL BATTLE

FRPP

Reference: BRd2170(Vol 1)

Section Bases and FRPPs are pivotal to the success of BDR, and the I/C must ensure that his/her team are completely at ease with their individual responsibilities, and that all equipment and documentation is maintained to a high standard. To maximise the efficiency of a Section Base or FRPP we must start with the basics and work up. First and foremost, are manning levels correct and in accordance with the quarter bill? This is crucial as the right balance of expertise is essential. From here we need to make sure that the right documentation is available and each I/C should look at the following as being 'standard fit':

- a. *Manning check list.*
- b. *Comprehensive check list for State 1 preparations.*
- c. *Complete set of agreed kill cards (duplicate of HQ1).*
- d. *Comprehensive set of smoke clearance plans.*
- e. *Set of electrical underground maps.*
- f. *Comprehensive set of aides memoire.*
- g. *FRPP locker layout (BR2170(3)) inside a plastic sheet and stuck to reverse of door.*
- h. *Clear and accurate set of closing down cards.*
- i. *Briefing cards for DC patrols.*
- j. *Dispersal plans for FRPP team members.*
- k. *Briefing cards for boundary coolers.*

Leading an FRPP is a dynamic and responsible position. It is from here that the initial raw information is fed up through the lines of communication so that HQ1 are able to effectively manage the whole ship BDR effort. The leader should be

directing operations at the Section Base/FRPP ensuring that the 2I/C is providing the right type, and flow of information and, by roving between the section incidents and the FRPP, feeding the IBO and the FRPP Leader the relevant information, such as; where the incident is, what it is (fire/flood), where the smoke/flooding boundaries are established; who the sentries are at smoke boundaries and what initial actions have been completed.

The FRPP Leader should quality control the information being received and question any that is doubtful. He should also look at the broader view; does the compartment have a fixed system if so is it available and can I use it, not forgetting to seek authorisation from HQ1. What is the condition of the firemain, is there enough pressure to achieve my needs, do I need to operate fixed/routine eductors, if so once again seek authorisation from HQ1.

Having gone through this thought process do not forget the most important factor, what is the Command Aim, priorities and threat warnings. These, particularly the Command Aim, will drive the way you approach incidents within your section. For example, if the aim is to provide close in air defence for the HVU then SEAWOLF will be a high priority, if electrical supplies are lost to the SEAWOLF system and there is a fire between it and the cable running party, then your priority will be to contain that fire before making a re-entry to enable the 'L' party to run emergency cabling.

The current Command Aim and Command Priorities should be passed down to section level by HQ1 on completion of Command huddles, and should always be known by the Section/FRPP Leader so that he/she can effectively manage the section effort.

I/Cs of FRPPs must remain acutely aware of the location and repair effort involved with the restoration of Weapon and / or Sensor equipment within their section particularly those which are Command Priorities. They must ensure that they safeguard that repair activity and offer assistance where required, especially where electrical restorations and/or cable runs are required or where personnel involved in the repair effort require breathing apparatus and the support of BA controllers.

Finally, do not forget post incident management.

This can be broken down into three areas, smoke clearance, regrouping and re-stowing/ replenishing of equipment. The clearance of smoke must be thought of early and the plan discussed with and authorised by HQ1. The bottom line is the smoke route must be known and sentries, if applicable, placed so as to protect personnel. Regrouping, making sure that all the team are accounted for, provided with drinks, particularly Fire fighting teams, and are re-dispersed and that all equipment is thoroughly checked, BA cylinders re-charged and everything ready for immediate use.

ANNEX D TO FIGHTING THE INTERNAL BATTLE

MMS CREWS

ORGANISING AND LEADING MMS ACTION CREWS, SWBDS AND THE MOBILE REPAIR PARTY

MMS Action Crews. Action crews are responsible to the Action EOOW. Each MMS should have a minimum of 2 personnel, ideally 1SR plus 1. The Controlling MMS should be run by a MEOOW1 qualified person and the GTR/FER by an MEOOW2 qualified person. Action crews must be capable of operating all systems (also in reversionary modes where applicable) and ideally have a good knowledge of the other spaces. On closing up they will conduct State 1 preparations and when ordered to, they will conduct blanket searches. The information they pass to the SCC/MCR is fundamental to correct follow-on actions being taken in the SCC/MCR, provision of correct level of support (personnel and material) and the prioritisation of incidents by PM and IBC. Quality information is essential if the EOOW is not to have to ask too many extra questions. Action crews will benefit from on-site 'Table Top' discussions on how they will conduct their business and what the PM needs.

Mobile Repair Party (MRP). The MRP will vary in strength depending on the ship class – generally a minimum of 2 CPOs (CMEM and Chippy), plus 2 can be achieved. However, MRP size will be balanced by the number of personnel that are allocated to the MMS action crews. The MRP must function under the control of the Propulsion Manager, a good line of communication is essential, be it dedicated 'bleep' phone or similar. Whilst the MRP will generally be used to provide

assistance to the MMS Action Crews, there will be appropriate tasks outside the MMSs that will call on their expertise be it hull/structure repair, system reconfiguration etc, or even calling for stores. The MRP needs to be effectively equipped at Action, from available sets of multi-fab suits and the RAMSET gun to BA, the DIVEX set and toolbags. They have a wide remit in terms of what they could be required to tackle, a good level of ship and system knowledge are essential along with being well versed in DC&FF (include GTCU module/DG Enclosure re-entry techniques) and a variety of hull and system repair techniques.

SWBDS and SECPs. The main distribution system should be operated from the secondary switchboards (for DDs/FFs but not T23s), manned by SOC holders. This reduces the manning in the SCC/MCR and ensures that any load transfers can be carried out using manual operation of breakers if necessary, without the need to close up additional personnel. (It should release one L SR to act as Controls 'rover' in T42/22). The switchboard operators should reconfigure as necessary keeping him informed of actions being taken. T23's in particular, should consider using their senior L rating in the SWBD to act in a roving role after the initial blanket searches to drive priority repairs/cable runs on the ground for DCO L.

ORGANISING AND LEADING THE SCC/MCR CREW

Action EOOW and SCC/MCR Personnel. The prime objective of the AMEOOW is to maintain/maximise propulsion power to the Command, he should also support and advise the PM as necessary. He should use the MMS Action crews to augment the information from within the SCC/MCR, sustain maximum power to the Command (equipments should not be shut

down prematurely), provide innovative means of restoring power, and try and provide the PM with accurate and appropriate information. He may often be the first to hear of machinery damage and must collate all information and demand a full picture before briefing PM or liaising with DCO(L). The SCC/MCR Action crew as a whole have the following tasks:

a. Take overall control of MMS Action crews in their State 1 preparations, retaining control of system reconfigurations.

b. Operate propulsion machinery to maximise power to the Command. Advise EOOW, by means of appropriate Emergency Telegraph Order, of machinery failure or imminent failure. He must not over-react but allow Command time to veto requests prior to taking appropriate breakdown reactions.

c. Monitor all available instrumentation to ensure any alarms/warnings are investigated promptly.

d. Operate auxiliary machinery from the SCC/MCR panel or instruct personnel in machinery spaces to start/stop equipment as necessary.

e. MEOOW2 to support the MEOOW by acknowledging incoming messages over Machinery Broadcast and passing them to the relevant part of HQ1/SCC.

ANNEX E TO FIGHTING THE INTERNAL BATTLE

BRIDGE

ORGANISING AND LEADING THE BRIDGE

After Damage

The Bridge is often in a unique position in being able to supply vital information on the type of damage and area of impact. This information should be obtained and then broadcast as soon as possible after 'Stand To', preferably on main broadcast if available, and backed up on the AHQ IBO comms line and COL.

'The Bridge is often in a unique position in being able to supply vital information on the type of damage and area of impact'

Immediate Actions

Following battle damage, Bridge initial reactions must concentrate on Ship safety. This will invariably mean dealing with any propulsion and steering defects first, the Action OOW MUST know instinctively the initial actions for Emergency Slow/Stop and the override drill, and steering failures.

If a propulsion defect and steering failure are indicated simultaneously, then NO should be ready to assist by dealing with one of the breakdowns on the OOW's behalf, or detail an appropriate person to help. The level of involvement from NO in these reactions will depend heavily on the navigational situation; in open water NO will be available immediately to take an active role, whereas if

navigating in constrained waters such as a swept channel, the needs of navigational safety will have to be taken into account and may prevent NO from direct involvement.

Whatever the case, rapid restoration of propulsion and steering in the highest control state available is essential, particularly when in confined waters, in order to achieve the Command Aim.

Next Steps

After any immediate actions, Mini-SOCs must be initiated if not already in progress. All items must be investigated thoroughly; QYF, wind indicators and log repeats are often checked inadequately. This requires working system knowledge from personnel conducting the checks.

Follow Up Action

Engineering defects should be monitored closely. After the immediate actions have been conducted, a concise brief on the problem and Estimated Time Back On Line (ETBOL) is to be obtained; for steering defects, a report on the status of power supplies to each motor and control system should be given.

A running tally of defects should be kept, eg on the OOW stateboard, including ETBOL, to allow the OOW to maintain the drive to restore machinery. There must be frequent liaison between Bridge and SCC/MCR to ensure momentum is not lost.

Remember the point of contact for all defect repair activity is the Command Advisor in the Ops Room; he runs the Internal Battle. If you are unsure of the priority of the defect or its progress, he is the first point of contact.

Subsequent Monitoring

Mini-SOCs need to be repeated at frequent intervals to identify

emergent defects and restored equipment.

BRIDGE FIRE REACTIONS

The Bridge fire is conducted during Operational Sea Training to test the response options of the bridge and CBRNDC organisation within a State 1 environment. The core purpose of this serial is two-fold and includes an assessment of Bridge reactions to a fire and confirm alternate C2 arrangements for the Bridge team within a State 1 environment. The driving factor for this activity should be the Bridge team's ambition to reclaim the Bridge and continue to support the external Battle.

The importance of the bridge to the Whole-Ship C2 is vital during heightened risk environments and should be the driving factor to recover the bridge. If possible, a CAA should be maintained on the fire, leaving the door open to foster a rapid response and recovery of bridge space. The LVA and Initial actions will set the tone of the incident to encourage a rapid and aggressive response is conducted with drive from the Navigator required to reclaim the lost bridge real estate. If the reactions are slow to deal with the incident, the CAA may be at risk and the door closed on the compartment. If this is the case, a full re-entry is to be conducted to extinguish the fire, deal with the incident and reclaim the bridge.

ANNEX F TO FIGHTING THE INTERNAL BATTLE DEFECT AND INCIDENT REPORTING

Reference: BRd2170(Vol 1)

In order to prioritize an incident or a defect in a combat situation, it is important that key nodes have vital information about the nature of the incident or defect and the impacts on capability.

To gain this information it is best practice to use a standardised format in all stages of incident and defect reporting. Commonly this format is referred to as the 5 Point Brief format. In the different disciplines of BDR there are different forms of 5 Point Briefs. ME and WE 5 Point Briefs are similar, however in the CBRNDC world, different information is needed for different incidents (fires or floods). The following tables give an overview and explanations of the different 5 Point Briefs.

a. CBRNDC Fire

Point	Title	Notes
1	Location	Clearly state the location marking and compartment name.
2	Type	State whether a carbonaceous, oil based or electrical fire.
3	Status	To contain as applicable the progress of CAA, door status, rigging of hoses and re-entry. Include if winning or losing.
4	Smoke Boundaries	Give both positive and negative report of established smoke boundaries to the incident. Also the state of doors and hatches.
5	Impact on OC	State what impact the incident has on access, actions or battle repairs to adjacent compartments.

b. CBRNDC Flood

Point	Title	Notes
1	Location	Clearly state the location marking and compartment name.
2	Type	State whether a slow, contaminated, free surface or free flood. Include water depth.
3	Status/(Tendency)	To contain as applicable the progress of first aid leak stopping, pumping deployed and secondary shoring. Include if winning or losing.
4	Flooding Boundaries	Give both positive and negative report of established flooding boundaries to the incident. Also the state of doors and hatches.
5	Impact on OC	State what impact the incident has on access, actions or battle repairs to adjacent compartments.

RESTRICTED

c. ME

Point	Title	Notes
1	Line No. and Equipment	Clearly state the line number as listed on Command State boards and which equipment is affected.
2	Nature of defect	Briefly describe the nature of the defect, eg 440v power supply loss to EDC, following WE equipment is affected.
3	What needs to be done?	Describe actions required to rectify or investigate the defect. If more personnel/stores/tools are required ensure this is reported.
4	Capability statement	Provide clear statement of what, if any, capability remains, or brief fallback or reversionary modes/configurations where applicable.
5	ETBOL/NTTR	Estimated Time Back Online or Next Time To Report must be provided in 4 figure format.

d. WE

Point	Title	Notes
1	Line No. and Equipment	Clearly state the line number as listed on Command State boards and which equipment is affected.
2	Nature of defect	Briefly describe the nature of the defect, eg 440v power supply loss, loss of radar transmitter.
3	What needs to be done?	Describe actions required to rectify or investigate the defect. If more personnel/stores/tools are required ensure this is reported.
4	Capability statement	Provide clear statement of what, if any, capability remains, or brief fallback or reversionary modes/configurations where applicable.
5	ETBOL/NTTR	Estimated Time Back Online or Next Time To Report must be provided in 4 figure format.