RA 1029 - Ship Air-Release - Roles and Responsibilities

Rationale

Operating embarked aviation requires the integration of two complex independent systems, Ship and Air System, which are operated through separate Ship Duty Holder (DH) \(\) / Accountable Person (AP) \(\) and Aviation DH (ADH) / Accountable Manager (Military Flying) (AM(MF)) constructs. With stakeholder engagement required across a pan Defence group, it is essential that the specific roles and responsibilities of these stakeholders are clearly defined and understood. The safe conduct of this embarked activity requires that the Risk to Life (RtL) associated with operating Air Systems from Ships are understood and that the scope and boundaries of such operations are clearly defined. The Ship Air-Release (SA-Release) is the document that authorizes a specified Class of His Majesty's (HM) / MOD Ship¹ and Air System Type / Mark to conduct embarked aviation activity. The SA-Release process requires reciprocal understanding between each of these stakeholders and enduring engagement to ensure the continued Safety of embarked aviation activity in HM / MOD Ships.

Contents

1029(1): Aviation Duty Holder / Accountable Manager (Military Flying) and Ship Duty Holder ►/ Accountable Person ◄: Roles and Responsibilities

1029(2): Ship Platform Authority: Roles and Responsibilities

1029(3): Air System Type Airworthiness: Roles and Responsibilities

1029(4): Foreign Air System Sponsor: Roles and Responsibilities

1029(5): Royal Navy Release to Service Authority: Roles and Responsibilities

1029(6): Ship Air-Release - Stakeholder Engagement

► 1029(7): Remotely Piloted Air System Trial Sponsor: Roles and Responsibilities ◄

Regulation 1029(1)

Aviation Duty Holder / Accountable Manager (Military Flying) and Ship Duty Holder ►/ Accountable Person ◄: Roles and Responsibilities

1029(1)

For Ship / Air System combinations conducting embarked aviation in HM / MOD Ships, ADH / AM(MF) and Ship DH ►/ AP < shall identify and establish ownership for the RtL associated with the integration of their respective platforms.

Acceptable Means of Compliance 1029(1)

Aviation Duty Holder / Accountable Manager (Military Flying) and Ship Duty Holder ►/ Accountable Person ◄: Roles and Responsibilities

- 1. For Ship / Air System combinations conducting embarked aviation activity in HM / MOD Ships, Ship DH ►/ AP ◄ and ADH / AM(MF) **should** ensure that:
 - a. The Safety Cases for the Ship and Air System demonstrate that the platforms can be safely operated together for the proposed embarked aviation activities.
 - b. The RtL posed by the integration of the Ship and the Air System have been identified and their ownership determined and documented through engagement in accordance with (iaw) the requirements of RA 1029(6).
 - c. Any equipment hazards within ► Ship Aviation Safety and Environmental Report or ◄ Ship / Air System Type Airworthiness Safety Assessments which are mitigated by Defence Lines of Development (DLoD) for which the Ship DH ► / AP ◄ and ADH / AM(MF) are responsible, have been formally acknowledged

¹ As defined in the Defence Maritime Regulator (DMR) Master Glossary of Terms.

Acceptable Means of Compliance 1029(1)

by them to the Ship Platform Authority (PA)² and the Air System Type Airworthiness Authority (TAA)³.

- d. Any change to the Ship / Air System intended usage which might require an amendment to the SA-Release ▶ should ◀ be communicated to the Ship PA, TAA³ and Royal Navy Release To Service Authority (RN RTSA) at the earliest opportunity.
- 2. The development and use of SA-Releases and / or clearances achieved through Operational or MPP-02⁴ routes, **should** comply with the orders set out in BRd 766⁵. Navy Command Headquarters Naval Aviation Division (NCHQ NAvn) as the embarked aviation Subject Matter Expert, **should** be a participant in routine SA-Releases but in the case of ▶ expedious ◄ releases, where processes might be shortened, DHs need to continue to ensure NCHQ NAvn engagement.

Guidance Material 1029(1)

Aviation Duty Holder / Accountable Manager (Military Flying) and Ship Duty Holder ►/ Accountable Person ◄: Roles and Responsibilities

- 3. This Regulation is complementary to RA 1395⁶, the Ship DH ►/ AP
 responsibilities set out in DSA02-DMR Regulations², and the ADH / AM(MF)
 responsibilities in RA 1020⁷, RA 1024⁸ and RA 1205⁹.
- 4. For embarked aviation activity in HM / MOD Ships the ADH / AM(MF), as a 'Ship-Facing ADH / AM(MF)', will assess the RtL posed to the Ship by their Air System and communicate these to the Ship DH ►/ AP < Chain. Likewise, the Ship DH ►/ AP < will communicate RtL posed to the Air System by the Ship, noting that the Ship's Commanding Officer (CO) and Delivery DH are responsible for approving aviation activity from their Ship and, as an Aerodrome Operator iaw RA 1026¹⁰, is also ADH / AM(MF)-Facing to ensure that the Ship remains a safe environment in which the Air System can operate.
- 5. The Ship DH ► / AP ◄ and ADH / AM(MF) constructs are 'DH / Accountable Manager (AM)-Facing' to each other and are required to be cognisant of additional implications of conducting embarked aviation operations in the maritime environment to their respective Safety Management Systems.

Regulation 1029(2)

Ship Platform Authority: Roles and Responsibilities

1029(2) The Ship PA for aviation capable HM / MOD Ships **shall** be responsible for ▶ensuring for all that the Equipment Contribution supports a safe aviation capability by providing Safety and environmental protection Assurance of the design, system and equipment integration and through-life support. ◀

² Refer to DSA02-DMR – Defence Maritime Regulations for Health, Safety and Environmental Protection Introduction and Goal.

³ Where the Air System is ▶non-UK MOD-owned, Type Airworthiness (TAw) management ◄ regulatory responsibility by either the TAA or Type Airworthiness Manager (TAM) needs to be agreed within the Sponsor's approved model ▶ ◄; refer to RA 1162 – Air Safety Governance Arrangements for Civilian Operated (Development) and (In-Service) Air Systems, or refer to RA 1163 – Air Safety Governance for Special Case Flying Air Systems. Dependant on the agreed split of TAw responsibilities TAM may be read in place of TAA as appropriate throughout this RA.

⁴ ► For crewed aviation, refer ◀ to MPP-02: ► Volume I ◀ − Helicopter Operations from Ships Other Than Aircraft Carriers (HOSTAC); ► Volume II − Multinational Through-Deck and Aircraft Carrier Crossdeck Operations (MTACCOPS). ◀

⁵ Refer to BRd 766 – Embarked Aviation Orders.

⁶ Refer to RA 1395 – Authorization to Permit Embarked Aviation in His Majesty's / MOD Ships.

⁷ Refer to RA 1020 – Aviation Duty Holder ▶ ◀ - Roles and Responsibilities.

⁸ Refer to RA 1024 - Accountable Manager (Military Flying).

⁹ Refer to RA 1205 – Air System Safety Cases.

¹⁰ Refer to RA 1026 – Aerodrome Operator and Aerodrome ► Supervisor (Recreational Flying) Roles and Responsibilities. <</p>

Acceptable Means of Compliance 1029(2)

Ship Platform Authority: Roles and Responsibilities

- Ship PAs in their ADH / AM(MF)-Facing capacity¹¹ **should**: 6.
 - Hold a Letter of Air Safety Notification¹². a.
 - Ensure that adequate resource, including sufficient Suitably Qualified and Experienced Persons (SQEP) with appropriate Air Safety training^{5, 13, 14}, is apportioned to fulfil Air Safety related responsibilities.
 - Ensure that the aviation arrangements in all aviation capable Ships for which they are responsible conform to the following requirements through-life:
 - They meet the design requirements specified in ▶ Defence Standard 00-133¹⁵ ◀ 16.
 - All equipment risk is reduced As Low As Reasonably Practicable (ALARP)², culminating in the issue of Naval Authority Certification ► 17.4.
 - The design, construction, Modification and Maintenance of aviation arrangements in their Ships are conducted by organizations with appropriate expertise and experience.
- 7. ▶ Ship PAs **should** obtain a Certificate of Safety Aviation (CS-A) or MOD Ship Safety Certificate (Aviation) (MSSC(Aviation)) through demonstration of equipment Safety of their platform to support aviation iaw DSA.03-DMR. ◀
- To support the production of a SA-Release Recommendation, Ship PAs should provide evidence to demonstrate the suitability of their platform (Equipment DLoD) for embarking aviation as defined in BRd 7665.
- The Ship PA **should** inform the Ship DH ►/ AP ◄, ADH / AM(MF), TAA, and the RN RTSA, of Modifications to the Ship or changes to the Ship's intended usage which might require the SA-Release to be amended.
- This Regulation should be complementary to the Ship PA responsibilities set out in DSA02-DMR2, Regulation Number 208.

Guidance **Material** 1029(2)

Ship Platform Authority: Roles and Responsibilities

- The Ship PA or delegated Air Safety representative(s) will have completed relevant and recognized Air Safety training^{5, 13, 14} and will demonstrate awareness of:
 - ► ✓ Military Aviation Authority (MAA) Regulatory Publications.
 - b. Aspects of Air System design which have an interface with the subject Ship.
- The Ship PA will jointly establish, with the TAA, formal Equipment DLoD Working Groups (WG). Demarcation of Equipment DLoD responsibilities will be defined through provision of a joint Ship / Air System Interface Control Document (ICD).
- BRd 766⁵ provides more detailed processes to be followed in the generation of SA-Releases.

^{11▶} Refer to RA 1032 – Aviation Duty Holder-Facing Organizations and Accountable Manager (Military Flying)-Facing Organizations -Roles and Responsibilities.

¹² Refer to RA 1003 – Delegation of Airworthiness Authority and Notification of Air Safety Responsibility.

Refer to RA 1440 – Air Safety Training.
 Refer to BRd 767 – Naval Aviation Orders.

¹⁵ ► Refer to Def Stan 00-133 – Aviation Arrangements in Surface Ships.

¹⁶ For further info, as RA 1920 explains the requirements for legacy equipment not detailed in Defence Standard 00-133, ◀ refer to RA 1920 – Aviation Arrangements in His Majesty's / MOD Ships – Equipment Standards.

^{17 ►} http://www.bmtdsl.r.mil.uk/NAS/Default.aspx. As per DSA.03-DMR, the Naval Authority and Technology Group issue the Naval Authority Certification on behalf of the DMR as a Duly Authorized Organization.

Regulation 1029(3)

Air System Type Airworthiness: Roles and Responsibilities

1029(3) For Air Systems required to conduct embarked aviation ►
in HM / MOD Ships, the TAA **shall** be responsible for providing equipment which is safe and suitable to conduct such aviation activities.

Acceptable Means of Compliance 1029(3)

Air System Type Airworthiness: Roles and Responsibilities

- 14. Dependant upon the Sponsor's¹8 agreed model for TAw management and the split of responsibilities, the TAA³, ▶¹9◀ in their Ship DH-Facing ▶/ AP-Facing ◀ capacity **should**:
 - a. Ensure that adequate resource, including sufficient SQEP with appropriate Ship Safety training^{5, ▶ ◀ 14}, is apportioned to fulfil roles which support the SA-Release process.
 - b. Through their delegated Airworthiness and Air Safety chains, ensure that the Air Systems for which they are responsible conform to the following requirements through-life:
 - (1) The TAw of the Air System is considered safe and suitable for the proposed embarked aviation activities at sea.
 - (2) All Air System equipment risks associated with embarked aviation operations in HM / MOD Ships are reduced ALARP.
- 15. To support the production of a SA-Release Recommendation for their Air System, the TAA **should** provide evidence to demonstrate the suitability of their platform (Equipment DLoD) for embarked aviation at sea as defined in BRd 766⁵.
- 16. The TAA **should** inform the Ship DH ►/ AP ◄, Ship PA, ADH / AM(MF) and the RN RTSA, of Modifications to the Air System or to its intended usage which might require the SA-Release to be amended.

Guidance Material 1029(3)

Air System Type Airworthiness: Roles and Responsibilities

- 17. The TAA or delegated representative(s) will have completed relevant and recognized Ship Safety training^{5, •, 14} and will demonstrate awareness of:
 - DSA03-DMR²⁰.
 - b. DSA02-DMR².
 - c. Aspects of Ships' aviation arrangements design which have an interface with the subject Air System.
- 18. The TAA will jointly establish, with the Ship PA formal Equipment DLoD WG. Demarcation of Equipment DLoD responsibilities will be defined through provision of a joint Ship / Air System ICD.
- 19. BRd 766⁵ provides more detailed processes to be followed in the generation of SA-Releases.

Regulation 1029(4)

Foreign Air System Sponsor: Roles and Responsibilities

A SA-Release **shall** be required for planned embarkations or enduring operations of Air Systems in HM / MOD Ships. An appropriate Foreign Air System²¹ Sponsor (FASS) **shall** be nominated to liase with the relevant ► Foreign Air System operating authority ◄ 6.

¹⁸ Refer to RA 1019 – Sponsor of Military Registered Civilian-Owned and Civilian Operated Air Systems - Air Safety Responsibilities.

¹⁹ ► Refer to RA 1015 – Type Airworthiness Management – Roles and Responsibilities. ◀

²⁰ Refer to DSA03-DMR – Naval Authority Rules for Certification of MOD Shipping; which is hosted on the Naval Authority System.

²¹ The term "Foreign Air System" applies to civilian registered Air Systems and non-UK military registered Air Systems.

Acceptable Means of Compliance 1029(4)

Foreign Air System Sponsor: Roles and Responsibilities

- 20. The FASS **should** be ▶a nominated individual, ◀ with appropriate knowledge of ▶Air System and Ship ◀ Duty Holding and RtL management principles.
- 21. ►RA 1029, RA 1395, Embarked Aviation Order (EAO) 1029²² and EAO 1395²³ **should** be followed, however the amount of Assurance required **should** be ►proportional to the length and complexity of the embarkation.
- 22. The FASS **should** satisfy themselves, across all DLoDs, that the ▶Foreign Air System ◀ is safe to operate from the Ship (the ▶Foreign Air System operating authority ◀ is not required to sign the SA-Release documentation).
- 23. The FASS does not own the Safety Case or RtL for the Air System however, they **should** be responsible for:
 - a. Assuring the RN RTSA that there has been a full exchange of pertinent Ship-Air Integration (SAI) Hazards and, when residual Risks ▶ exist with ◄ the Air System, the ▶ Foreign Air System operating authority ◄ acknowledge and ▶ endorses them ◄ appropriately.
 - b. Providing sufficient information on Air System integration Hazards, operating limitations and procedures, to ensure that the Ship ▶DH < can fulfil their responsibility iaw RA 1029(1).
 - c. Providing the ► Foreign Air System operating authority ◀ with information on Ship design factors and operating procedures. As a minimum this **should** include the Ship chapter of the BRd 766⁵ and the extant CS-A ► and MSSC(Aviation) ◀ as detailed on the Naval Authority System.
 - d. Acting as the Ship DH-Facing Organization ►/ Ship AP-Facing Organization ◄, to assure the ►RN RTSA ◄ Ship DH ►/ AP ◄ that the ►Foreign Air System operating authority ◄ is a competent organization capable of safely operating from the Ship, within the scope of the defined aviation activities.
- 24. The FASS **should** gather enough evidence to make the following top level claim:
 - a. 'The ► Foreign Air System operating authority ◀ has assured me that the embarking organization is safe and competent to operate from the Ship, having understood all SAI Hazards, operating limitations and procedures.'
- 25. For Air Systems with ►MMP-02⁴ < clearances, exchanges of pertinent SAI Hazards and information can be assumed to have taken place. Air Systems with equipment or capabilities not considered by ►MMP-02⁴ <, or intend to operate outside the ►MMP-02⁴ < envelope, **should** be specifically analyzed.

Guidance Material 1029(4)

Foreign Air System Sponsor: Roles and Responsibilities

- 26. The FASS may be assisted by a UK Technical Advisor, such as a Delivery Team (DT) serving similar Air System types, or with established links to the Foreign Aircraft engineering authority. These duties will need to be clearly defined and appropriately resourced.
- 27. When providing ▶the Foreign Air System operating authority ◀ with Ship design factors and operating procedures, consideration may also be given to Electro-Magnetic Compatibility (EMC), motion limits, airwake modelling and the relevant Ship Aviation Safety Case Report.
- 28. At the discretion of the FASS; a flight clearance issued by the US military Naval Air Systems Command (NAVAIR) Airworthiness & Cybersafe Office (NACO previously known as NAVAIR 4.0P), may be used as part of the minimum requirement

²² Refer to BRd 766 – EAO1029 – Roles and Responsibilities: Ship Air-Release – Stakeholder Roles Responsibilities and Deliverables.

²³ Refer to BRd 766 – EAO1395 – Authorization to Permit Embarked Aviation in HM/MOD Ships.

Guidance Material 1029(4)

to provide Assurance to the Ship DH ►/ AP <, providing a MAA Recognition²⁴ of NACO is extant and its scope includes use of the NACO Flight Release outputs. Defining the total minimum requirement for Assurance remains the responsibility of FASS.

Regulation 1029(5)

Royal Navy Release to Service Authority: Roles and Responsibilities

1029(5) The RN RTSA shall authorize, issue, and maintain the through-life integrity of the SA-Release, on behalf of Senior Duty Holders (SDH), and AM(MF), for their respective Ship / Air System combinations.

Acceptable Means of Compliance 1029(5)

Royal Navy Release to Service Authority: Roles and Responsibilities

- 29. The RN RTSA should:
 - Authorize and issue an initial SA-Release and subsequent SA-Release amendments.
 - Provide ▶independent ◀ Assurance that all relevant Equipment DLoD related RtL apparent at the point of SA-Release issue and subsequent amendments have been identified and addressed by the appropriate Ship DH ►/ AP or ADH / AM(MF).
 - Provide independent Assurance that all ▶other ☐ DLoDs are at an appropriate level of maturity such that their effects upon the Equipment DLoD can be verified, both prior to initial issue of a SA-Release and subsequently when there are Modifications (see Paragraphs ▶10 and ▶17) to the Ship, Air System or their intended usage which affect the issued SA-Release.
 - Include within their Air Safety Management System, procedures that describe how changes to the SA-Release ▶should ✓ be managed.
 - Be engaged with the Ship DH's ►/ AP's < and ADH's / AM(MF)'s respective Ship and Air System Safety Case governance structure and provide Assurance to the SDH that the integrity of the SA-Release is maintained.

Guidance Material 1029(5)

Royal Navy Release to Service Authority: Roles and Responsibilities

- 30. ▶

 ■ The RN RTSA acts as the SA-Release issuing authority on behalf of the SDH.
- 31. Delegation of any aspect of responsibility to a Delegated Release To Service Authority (DRTSA) must be conducted iaw RA 102125.
- The RN RTSA will be responsible for the upkeep of the SA-Release documentation which may be amended to reflect any changes to the design, the operation of, or the conditions in which the Ship / Air System combination are used. The responsibility for considering the possible effect of these changes on the Ship and Air System Safety Assessments, and subsequent Safety Cases, remains with the appropriate Ship DH ►/ AP ◄, Ship PA, ADH / AM(MF), or TAA.
- Engagement with Safety Case governance structures will include Assurance that an embarked aviation requirement is adequately articulated within the Ship DH's ► / AP's Command Safety & Environmental Summary² and the ADH's / AM(MF)'s Safety Statement respectively.

²⁴ Certificate of Recognition of United States Department of the Navy (NAVAIR 4.0P) in the field of Airworthiness Assurance by the MAA, dated 24 Oct 18.

²⁵ Refer to RA 1021 – Release To Service Authorities - Roles and Responsibilities.

Regulation 1029(6)

Ship Air-Release - Stakeholder Engagement

1029(6) Engagement between the Ship DH ►/ AP ◄, Ship PA, ADH / AM(MF), TAA and other required stakeholders **shall** be formally established, managed effectively and documented.

Acceptable Means of Compliance 1029(6)

Ship Air-Release - Stakeholder Engagement

- 34. The Ship DH ►/AP◄, Ship PA, ADH / AM(MF), TAA and other stakeholders who provide an input to the production of a SA-Release **should** engage throughout the SA-Release process to ensure that pan-DLoD factors which affect the Safety of integrating the Ship / Air System combination are managed with responsibility for RtL established and owned by the appropriate DH / AM(MF). The following **should** be considered the minimum:
 - a. Ship Air Release Steering Group (SA-Release Steering Group)²⁶.
 - b. Ship-Air WG²⁷.
 - c. Ship-Air Equipment WG (Ship-Air EWG)28.
- 35. This engagement **should** be formally directed by the respective ADH / AM(MF) and Ship DH ►/ AP ◀ and detailed within their respective Safety Management Systems. Routine management of this engagement **should** be conducted by the Ship DH ►/ AP ◀, Ship PA, ADH / AM(MF), and TAA.
- 36. Where responsibility for Ship-Air engagement is delegated to an appropriate empowered representative, the Ship DH ►/ AP ◄, Ship PA, ADH / AM(MF), or TAA **should** ensure that the delegated representative is SQEP.

Guidance Material 1029(6)

Ship Air-Release - Stakeholder Engagement

37. Engagement between the Ship DH ►/ AP ◄, Ship PA, ADH / AM(MF), TAA, NCHQ NAvn, the RN RTSA and other organizations involved in the SA-Release process is essential in ensuring the safe integration of an Air System and Ship. This engagement will commence as early as practicable once the embarked aviation requirement has been established. With the exception of the following minimum requirements, the scale of stakeholder engagement may be tailored to meet the complexity of the subject Ship / Air System.

SA-Release Steering Group

38. The function of the SA-Release Steering Group ►will ◀ determine the priority for the SA-Release effort, thereby directing the formation of the Ship-Air WG. Further details on the SA-Release Steering Group can be found in BRd 766 Annex 1029(5)A.

Ship-Air WG

39. The function of a Ship-Air WG ▶will ◀ provide a means by which both Ship DH ▶/ AP ◀ and ADH / AM(MF) chains have the opportunity to manage Safety related Ship-Air issues. The Ship-Air WG will direct the formation of Ship-Air EWGs, thus informing SA-Release recommendation effort. Further details on the SA-Release Steering Group can be found in BRd 766 Annex 1029(5)B.

Ship-Air EWG

40. This is a subordinate forum to the Ship-Air WG which considers the integration of a particular Ship Class and Air System across the Equipment DLoD only. This WG is likely to deliver the majority of evidence necessary to generate the Equipment DLoD focussed SA-Release recommendation. Further details on the SA-Release Steering Group can be found in BRd 766 Annex 1029(5)D.

²⁶ Refer to BRd 766 Annex 1029(5)A.

²⁷ Refer to BRd 766 Annex 1029(5)B.

²⁸ Refer to BRd 766 Annex 1029(5)D.

Regulation 1029(7)

► Remotely Piloted Air System Trial Sponsor: Roles and Responsibilities

1029(7)

An appropriate Remotely Piloted Air Systems (RPAS) Trial Sponsor (RPASTS) **shall** be nominated to coordinate the SA-Release activity for trial activity of RPAS in HM / MOD Ships⁶.

Acceptable Means of Compliance 1029(7)

Remotely Piloted Air System Trial Sponsor: Roles and Responsibilities

- 41. For Open Category and Specific S1 sub-category RPAS, the RPASTS **should** be the RPAS Responsible Officer / RPAS Accountable Manager. For Specific S2 subcategory and Certified Category RPAS, the RPASTS **should** be the ADH / AM(MF).
- 42. RA 1029, RA 1395, EAO 1029²² and EAO 1395²³ **should** be followed, however the amount of Assurance required **should** be proportional to the length, complexity and level of Risk of the trial.
- 43. The RPASTS **should** satisfy themselves, across all required DLoDs, that the organization operating the RPAS is safe to operate from the Ship.
- **44.** For non-TAA supported RPAS²⁹, the RPASTS **should** ensure the organization operating the RPAS provides evidence, to the RN RTSA, to demonstrate the suitability of their RPAS (Equipment DLoD) for embarked aviation at sea as defined in BRd 766⁵.

Guidance Material 1029(7)

Remotely Piloted Air System Trial Sponsor: Roles and Responsibilities

45. The RPASTS may be assisted by a Test and Evaluation (T&E) unit. These duties will need to be clearly defined and appropriately resourced. ◀

²⁹ ▶ Open Category and Specific S1 sub-category RPAS do not require a TAA, whereas Specific S2 sub-category and Certified Category RPAS require a TAA. Refer to the RA 1600 Series. ◀