# RA 1395 - Authorization to Permit Embarked Aviation in His Majesty's / MOD Ships

**Rationale**

►◄ *Embarked aviation requires the integration of two complex ►and independently managed◄ systems - Ship*[►1◄] *and Air System ►- each governed by separate Duty Holder (DH) constructs. To ensure safe operations, the scope and boundaries of embarked aviation has to be clearly defined and formally authorized. Without formal Authorization and coordination, there is a Risk of misaligned Responsibilities, inadequate Safety Assurance, and unsafe operations arising from incompatible or unassessed Ship / Air System combinations - potentially increasing the Risk to Life (RtL). This RA mandates the use of the Ship Air-Release (SA-Release) process to authorize specific Ship and Air System combinations. This ensures that embarked aviation is underpinned by appropriate Safety documentation, operational limitations, enabling safe and assured integration.◄*

**Contents**



**Regulation 1395(1)**

## Embarked Aviation in His Majesty's / MOD Ships

1395(1) Permission to conduct embarked aviation in aviation-capable[2] His Majesty's (HM) / MOD Ship Classes **shall** be Authorized.

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## Embarked Aviation in His Majesty's / MOD Ships

1. Where the requirement for a Ship and Air System to conduct embarked aviation exists, the combination **should** be Authorized through a SA-Release.

2. Where, by exception:

   a. Circumstances of operational need or short term and unlikely to be repeated requirements, make it impractical for the SA-Release process to be followed in full. In such situations, the Ship Operating DH (ODH)[►3◄]/ Accountable Person (AP)[►4◄] and Aviation DH (ADH)[►5◄]/ Accountable Manager (Military Flying) AM(MF)[►6◄] **should** Authorize specified Ship / Air System combinations to conduct embarked aviation outside of established orders only after dynamic, pan Defence Lines of Development (DLoD) assessments of the associated Risks are conducted and prescribing specific Assurance and mitigation. In these circumstances, the processes required to generate a SA-Release **should** be followed as far as reasonably practicable.

   b. Situations of very short notice where operational circumstances are such that it is impractical for the Ship ODH and ADH to grant Authorization, the Ship's Delivery DH (DDH)[3] or the Operational Commander[7] **should** only Authorize specified Ship / Air System combinations to conduct embarked aviation outside of established orders after dynamic Risk Assessments are conducted and the prescribing of specific Assurance and mitigation. In such circumstances the Ship DDH / Operational Commander **should** inform the ADH / AM(MF), the

[1] As defined in the DSA03-DMR-Shipping Regulatory Terms and definitions for DSA 02-DMR Defence Maritime Regulations.
[2] Defined as those which can be categorized as Applicability Level A, B or C in Defence Standard 00-133 Part 1.
[3] As defined in JSP 815 – Defence Safety Management System, Element 5.
[4] ►Refer to DSA02-DMR: Defence Maritime Regulations – Regulation 204: Accountable Person.
[5] Refer to RA 1020 – Aviation Duty Holder – Roles and Responsibilities.
[6] Refer to RA 1028 – Contractor Flying Approved Organization Scheme.◄
[7] Embarked aviation activity involving operational tasking (eg Search and Rescue Operations) will not necessarily be conducted in an 'Operational Theatre' but requires use of the Air System by an Operational Commander in a manner described in RA 1020(1): Role and Responsibilities of the ADH. The Ship's Commanding Officer (CO) or DDH Authorizes aviation activity from their Ship and may be the Operational Commander, or the role of Operational Commander may be performed by a third party; in either circumstance, the Ship's CO or DDH remains responsible for immediate RtL to personnel on the Ship.

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Ship Platform Authority (PA), the Ship ODH and Navy Command Headquarters (NCHQ) Naval Aviation Division (NAvn) as soon as reasonably practicable.

3. The Release To Service (RTS)[8] or appropriate Military Permit To Fly (MPTF)[9, 10] of an Air System **should** generically permit the Air System to operate in a maritime role and conduct embarked operations to HM / MOD Ships.

4. A SA-Release is not required for short term and / or non-enduring nature Crossdeck Operations. Such activity **should** be conducted in accordance with (iaw) BRd 766[11]. The Ship DH►[12]◄ and ADH / AM(MF) ►◄ **should** remain Accountable for the safe operation of the Ship / Air System and that RA 1026[13] still applies in the case of HM / MOD ships. NCHQ NAvn advice **should** determine if the activity may be considered appropriate to be conducted iaw MPP-02[14] or whether a specific clearance is required. In such circumstances the Ship DH and ADH / AM(MF) ►◄ **should** ensure, as a minimum that the associated procedures detailed in BRd 766 are followed.

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## Embarked Aviation in His Majesty's / MOD Ships

**SA-Release**

5. The SA-Release will be generated iaw RA 1395(2) and Authorized by the Royal Navy RTS Authority (RN RTSA) for Air Systems required to embark in HM / MOD Ships. The SA-Release process provides a clearance for a Ship Class to conduct embarked aviation with a specified Air System Type / Mark iaw established orders as directed in RA 2309(18)[15]. This process is illustrated at Annex A Figure 1, and must be read in conjunction with RA 1029[16].

6. Once Authorized, the SA-Release will remain valid throughout the lifetime of the Ship-Air System combination unless amended or withdrawn.

**Authorization to Permit HM / MOD Ships and Air Systems to Conduct Embarked Aviation Outside of Established Orders**

7. An abridged route is detailed in Annex A, Figure 2 for conducting specific, short notice urgent or short term operations and unlikely to be repeated requirements that do not fall within the existing clearances and orders. Clearance in such circumstances is achieved through the Ship ODH and ADH / AM(MF) conducting dynamic, pan DLoD assessments of individual Ship and Air System Risks to ensure procedural Safety mitigations can be implemented as required for any given operational requirement. Such Assurance and operation specific direction will be used to mitigate specific Ship shortfalls (such as limited Ship's Company experience and / or training shortfalls; equipment deficiencies; etc) or aviation shortfalls (such as crew currency; Aircraft deficiencies; specific climatic conditions; etc). Such abridged Authorizations will be temporary in nature. For scheduled deployments, operational planners would be expected to ensure that all SA-Releases for expected combinations of Ships and Air Systems are in place following the SA-Release process in Annex A, Figure 1.

8. The complexity and depth of these Ship ODH and ADH / AM(MF) assessments will be tailored dependent upon the specific operation, including such elements as the duration and level of integration. Consideration will be given to collating evidence from these assessments for any future formal SA-Release.

9. In all circumstances where the Ship and / or Air Systems do not meet the requirements defined in the established orders, these assessments are required before operations commence, to ensure both Ship ODH and ADH / AM(MF) fully

[8] Refer to RA 1300 – Release To Service.
[9] Refer to RA 5880 – Military Permit To Fly (Development) (MRP Part 21 Subpart P).
[10] Refer to RA 1305 – Military Permit To Fly (In-Service), (Special Case Flying) and (Single Task).
[11] Refer to BRd 766 – Embarked Aviation Orders.
[12] ►The term Ship DH encompasses Senior DH (SDH), ODH and DDH; interpret accordingly; the different levels are referred to separately where specifically required. Defined in DSA03-DMR-Shipping Regulatory Terms and definitions for DSA02-DMR Defence Maritime Regulations.◄
[13] Refer to RA 1026 – Aerodrome Operator and Aerodrome Supervisor (Recreational Flying) Roles and Responsibilities.
[14] 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).
[15] Refer to RA 2309(18): Embarked Aviation Operations.
[16] Refer to RA 1029 – Ship Air-Release - Roles and Responsibilities.

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understand the RtL associated with their respective platforms. Although in such circumstances formal independent RN RTSA Authorization may not be achievable in the time available, both Ship ODH and ADH / AM(MF) must consider seeking Subject Matter Expert (SME) advice from relevant departments within Defence Equipment & Support (DE&S), Front Line Commands, Ship PA, NCHQ NAvn and RTSAs[17] / Sponsor[18].

**Embarkation of Non-MOD Air Systems**

10. Where the requirement for Foreign Air Systems[19] to conduct embarked aviation is enduring, then the issue of a SA-Release will be required. In such circumstances, where no UK ADH / AM(MF) ►◄ and / or Type Airworthiness Authority (TAA)[20] exist, the requirement sponsor is responsible for providing information on the Air System[21] iaw RA 1395(2) paragraph 15.

**Embarkation in Non-HM / MOD Ships**

11. UK Military registered Air System embarkations in non-HM / MOD Ships are outside of this Regulation, however in order to manage RtL, ADHs / AM(MF)s will follow the principles of SA-Release when planning embarkations, utilizing the guidance within this RA, BRd 766 and MPP-02. Further advice will be sought from NCHQ NAvn and the RN RTSA.

**Risk to Life boundary demarcation**

12. The Ship DH / AP is Accountable for the RtL of an individual aboard a ship, that is due to embark on an Air System, until they are taken under the supervision of the Aircraft's crew or pass under the Aircraft's main rotor (whichever occurs ►latest◄), at which point the ADH / AM(MF) becomes Accountable for the RtL that the Air System poses to them. Additionally, the ADH / AM(MF) would be Accountable for the RtL of an individual embarked on an Air System until they are taken under the supervision of the Flight Deck Crew or pass from underneath the Aircraft's main rotor (whichever occurs first) after which Accountability passes to the Ship DH / AP. If rotors (or engines for Fixed Wing Air Systems) are not turning then the transition point is on entry / exit to / from the Aircraft.

**Regulation 1395(2)**

## Ship Air-Release

1395(2) The RN RTSA **shall** review pan DLoD evidence and if satisfied authorize an SA-Release.

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## Ship Air-Release

13. The SA-Release **should** be an integrated, limitations based document with all associated Safety information, operating limits and constraints included in the appropriate part and underpinned by the following considerations:

a. The SA-Release **should** be supported by evidence from all DLoDs[22] based on:

(1) An Equipment DLoD based SA-Release Recommendation produced by the Ship PA and the TAA; RA 1395(3) refers.

(2) Non-Equipment DLoD assessments drawn from the Ship DH / AP and ADH / AM(MF) as appropriate.

[17] For Military Registered Civilian-Owned and Civilian Operated Air Systems, the Sponsor fulfils the role of Air System RTSA.
[18] Refer to RA 1019 – Sponsor of Military Registered Civilian-Owned and Civilian Operated Air Systems - Air Safety Responsibilities.
[19] Refer to RA 1029(4): Foreign Air System Sponsor ►◄.
[20] Where the Air System is ►not 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 Arrangements for Special Case Flying Air Systems. Dependant on the agreed delegation of TAw responsibilities TAM may be read in place of TAA as appropriate throughout this RA.
[21] For example, flight performance, hazardous materials, lost-link protocol of ►Uncrewed◄ Air Systems (►UAS◄), Electro-magnetic Compatibility (EMC) vulnerability etc.
[22] For UK Military Registered Air Systems see also RA 1205 – Air System Safety Cases; For HM / MOD Ships see DSA02-DMR – Defence Maritime Regulations for Health, Safety and Environmental Protection.

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b. The SA-Release **should** specify the subject Ship Class and Air System Type / Mark combination.

c. The 'as flown' standard of the subject Air System Type / Mark **should** be defined as suitable for the proposed aviation activities at sea.

d. The 'as operated' Configuration of the Ship platform (associated with aviation arrangements, equipment and crewing) **should** be defined and is suitable for the proposed aviation activities.

e. The identified RtL associated with integration and operation of the subject Ship / Air System combination, across all DLoDs, **should** be demonstrated to be As Low As Reasonably Practicable and Tolerable, and owned by the Ship DH / AP or ADH / AM(MF). Procedural Safety mitigations, including those identified in the Ship Safety Assessment and Air System Type Airworthiness Safety Assessment (TASA) **should** be included in a ADH / AM(MF) SA-Release Safety Statement and supported by a claim-argument-evidence based Safety Case[23] which **should** be reflected in the SA-Release.

14. The content of the SA-Release **should**:

a. Be maintained by the RN RTSA; supported by the Ship DH / AP, Ship PA, ADH / AM(MF), TAA[20], Air System RTSA[17], and Sponsor[18] as appropriate.

b. Include an Audit trail of amendments.

c. Be subject to a formal review on a routine basis[24].

15. For non-UK Military Registered Air Systems where no UK ADH / AM(MF) and / or TAA exists, the Foreign Air System Sponsor[16] **should** be responsible for:

a. Providing the Air System Equipment DLoD Safety evidence associated with the production of a SA-Release Recommendation to DE&S following the principles in RA 1395(3). The requirement sponsor **should not** be responsible for managing Type or Continuing Airworthiness as this remains the Responsibility of the civil Air System Type Certificate / Supplementary Type Certificate[25] holder, Continuing Airworthiness Manager or AP within the Foreign Air System operating authority.

b. Providing the non-Equipment DLoD Safety evidence associated with the production of a SA-Release to the RN RTSA. The requirement sponsor **should not** be responsible for managing 1st party RtL of the Air System as this remains the Responsibility of the civil Air System Air Operator Certificate[24] holder (or equivalent) or AP within the Foreign Air System operating authority.

16. This RA **should** be read in conjunction with RA 1029[16].

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## Ship Air-Release

17. Annex A, Figure 1 illustrates the SA-Release process and the relationship between the organizations responsible for producing the outputs which enable the production and Approval of a SA-Release. Fundamental to this is that the RtL for aviation operations with HM / MOD Ships remains clearly defined between the Ship DH / AP and ADH / AM(MF). The ADH / AM(MF) remains Accountable for the inherent RtL to all parties associated with their Air System, noting that the Ship DH / AP is Accountable for the RtL that the Ship poses to the Air System and that the Air System poses to the Ship's Company specifically. DH-Facing Organizations will support the ADH / AM(MF) with delegations defined as appropriate for delivery of safe equipment. The development and Approval of the SA-Release is therefore a crucial element in managing the interface between these DHs.

18. The SA-Release is complementary to the existing Authorization processes for Ships (DSA02-DMR) and Air Systems (eg RA 1300 Series or appropriate MPTF) and

[23] Refer to BRd 766 – Embarked Aviation Orders 1029 Annex 1029(5)C.
[24] Refer to BRd 766 – Embarked Aviation Orders 1029 - Roles and Responsibilities: Ship Air-Release – Stakeholder Roles Responsibilities and Deliverables.
[25] As defined in European Union Aviation Safety Agency and UK Civil Aviation Authority Regulation.

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will not countermand the limitations or requirements of these processes (ie if any doubt exists, then the most restrictive limitation will be applied).

19. The SA-Release will take account of design differences of individual Ships within a Ship Class that impact aviation. Ships within the subject Ship Class, iaw the requirements of DSA03-DMR[26], must hold Naval Authority Certification[27] and subsequently hold a Ship Management Certificate.

20. The maturity of Non-Equipment DLoDs relevant to safe integration of the Ship and Air System will be assessed and demonstrated to the RN RTSA by the Ship DH / AP and ADH / AM(MF). The output of these assessments will be summarised in a ADH / AM(MF) SA-Release Safety Statement supported by a pan DLoD claim-argument-evidence assessment and Command Safety and Environmental Summary. The RN RTSA will issue the SA-Release once the Ship DH / AP and ADH / AM(MF) have finalised their respective Safety Statements.

21. To facilitate operation of the Air System on the Ship it might be necessary to Authorize operation of certain aspects of the integrated Ship / Air System combination in advance of others (eg for the conduct of Ship-Air trial activity[28]). In such cases, the SA-Release process will proceed incrementally through the imposition of Ship-Air Special Releases iaw RA 1395(4).

22. Generation of a SA-Release can be detailed and include representation from a large number of stakeholders. In order to manage this process further guidance is available in NCHQ Mid-Level Orders[24], stakeholders can follow these additional requirements, noting that on most occasions a SA-Release will involve a minimum of one NCHQ DH. When a new ship or Air System enters service, extensive planning will be required to conduct First of Class Flying Trials or First of Type Flying Trials respectively[28]. The purpose of the Ship-Air Working Group (S-AWG), however, is not a function of Project Management, but rather as the vehicle to achieving regulatory compliance.

**Regulation 1395(3)**

## Ship Air-Release Recommendation

1395(3) The Ship PA and TAA **shall** jointly prepare the SA-Release Recommendation for each Ship / Air System combination to the satisfaction of the RN RTSA.

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## Ship Air-Release Recommendation

23. The SA-Release Recommendation is the evidenced equipment-based argument supporting the SA-Release; all operating requirements, limitations, warnings and cautions **should** be in a format consistent with the SA-Release structure or prepared to the satisfaction of the RN RTSA and the S-AWG. Content is likely to vary dependent upon the type of clearance being required.

24. The Ship PA and TAA **should** certify that the SA-Release Recommendation:

a. Demonstrates that both the Ship and Air System equipment are acceptably safe to conduct embarked aviation.

b. Provides an acceptably safe Ship / Air System operating envelope for subsequent Approval and Authorization.

25. The Ship PA and TAA **should** submit the SA-Release Recommendation and supporting evidence to the S-AWG for consideration and copy to the Defence Safety Authority, for the Military Aviation Authority (MAA) Head of Regulation and Certification, Head of the DMR and the RN RTSA. ►◄ The SA-Release Recommendation **should** include as key components the outcome of:

a. The Military Air System Certification Process[29].

b. The Certification process for aviation capable HM / MOD Ships[26].

[26] Refer to DSA03-DMR – Naval Authority Rules for Certification of MOD Shipping.
[27] Including a valid Certificate of Safety (Aviation), MOD Ship Safety Certificate, or MOD Boat Safety Certificate.
[28] ►Refer to Defence Standard 00-133 – Aviation Arrangements in Surface Ships, Part 4 – Acceptance of Aviation Arrangements.◄
[29] Refer to RA 5810 – Military Type Certificate (MRP Part 21 Subpart B).

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c. Updated drafts of the relevant BRd 766 chapters for the Ship, Air System and Ship / Air combination.

d. Equipment Hazards identified within Ship / Air System Safety Assessments which are mitigated by DLoDs for which the DHs / APs are responsible.

e. The reviewed BRd 766 chapters that identifies any elements that cannot be substantiated by supporting evidence or are generated through DLoDs for which the DHs are responsible.

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## Ship Air-Release Recommendation

26. The Ship PA and TAA will prepare the SA-Release Recommendation, co-ordinating its development through Working Groups considering each Ship / Air System combination iaw the requirements of RA 1029(2)[30] and RA 1029(3)[31].

27. The SA-Release Recommendation will include the content of the proposed SA-Release bar any amendments deemed necessary by the RN RTSA. It will articulate:

a. The suitability of the Air System to operate with the Ship and its associated equipment safely in the maritime environment. This will be supported by evidence from the Air System TASA and subordinate TASAs where appropriate.

b. The suitability of the Ship to operate safely with the Air System and its associated equipment. This will be supported by evidence from the Ship Aviation Safety Report and from subordinate Safety Assessments where appropriate.

c. That an acceptably safe Ship-Air System operating envelope has been established for the detailed Ship / Air System combination. Although derived from the Ship and Air System Safety Cases (ASSC), the development of the Ship-Air System operating envelope, including the imposition of limitations, will be supported by appropriate evidence, for example Instrumented Flying Trials and Independent Test and Evaluation evidence, or evidence derived from analysis of previously conducted trials.

28. The SA-Release Recommendation will include specific operating procedures but may also reference other related operating procedures (Standard Operating Procedures (SOP), Emergency Operating Procedures, etc) or other orders developed from the DLoD / Safety Assessments and trials evidence.

**Regulation 1395(4)**

## Ship-Air Special Releases

1395(4) When the SA-Release evidence requirements of RA 1395(2) cannot be fully met, a Ship-Air Special Release **shall** be raised by the Ship PA and TAA to permit Ship Classes and Air System Type / Marks to conduct embarked aviation.

**Acceptable Means of Compliance 1395(4)**

## Ship-Air Special Releases

29. A Ship-Air Release with Limited Evidence (SA-RLE)[32], as Authorized by the RN RTSA, **should**:

a. Be identified when a fully substantiated Ship and / or ASSC is not available to support a full SA-Release, but on the balance of available evidence, clearance is judged safe and within the declared Safety Target. This can include Test and Evaluation activity.

b. Be reviewed at a periodicity not exceeding 12 months.

c. Have a maximum life of 5 years.

[30] Refer to RA 1029(2): Ship Platform Authority ►◄.
[31] Refer to RA 1029(3): Air System Type Airworthiness ►◄.
[32] Equivalent to a RTS Clearance with Limited Evidence.

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30. A Ship-Air Operational Emergency Release (SA-OER) **should** be raised when the RtL is considered too high for normal day-to-day operations. A SA-OER, as Authorized by the RN RTSA, **should**:

a. Be identified when the embarked aviation activity associated with a specified Ship / Air System combination is deemed outside the declared Safety Target. A SA-OER is not applicable to Air Systems under the Responsibility of an AM(MF).

b. Be jointly enabled at Ship ODH and ADH level for a defined activity or period.

c. Be reviewed at a periodicity not exceeding 12 months.

**Guidance Material 1395(4)**

## Ship-Air Special Releases

**General**

31. Where a Special Release is used to permit a Ship / Air System combination to conduct embarked aviation activity in lieu of a full SA-Release, a SA-OER and SA-RLE can only become a fully Authorized SA-Release with the provision of suitable additional evidence.

32. For trials activity this Regulation must be read in conjunction with RA 2370[33].

33. Special Releases may also be used to introduce a new operating capability (eg Helicopter In-Flight Re-fuelling), changes in limitations (eg Ship Helicopter Operating Limits (SHOL)), or adding subordinate equipment (eg Air Launched Weapon), to an existing Release document. Where a Special Release is used in this manner, the Acceptable Means of Compliance and Guidance Material contained within paragraphs 29 to 32 above will remain applicable.

**SA-OER**

34. A SA-OER will only be used to permit aviation activities related to a specified Ship / Air System combination under the following circumstances:

a. In conditions of actual or potential hostile enemy action.

b. In the evaluation of options needed for contingency planning.

c. In other conditions of operational imperative, to include training for actual, or planned, operations, when enabled by the Ship ODH and ADH. The RN RTSA will be informed of all such activity, and the Aviation ODH will consider seeking Air System RTSA advice prior to use of the SA-OER.

**Regulation 1395(5)**

## Ship Air-Release – ►Uncrewed◄ Air Systems

1395(5) Embarked operation of ►UAS◄ in HM / MOD Ships[34] **shall** be Authorized.

**Acceptable Means of Compliance 1395(5)**

## Ship Air-Release – ►Uncrewed◄ Air Systems

35. Where the requirement for an ►UAS◄[35] to be operated from a HM / MOD Ship exists, the combination **should** be Authorized through an appropriate SA-Release process (with the exception of ►UAS◄ categorized in the A1 Open sub-category). The level of Authorization required is dependent on the Risk associated with the following categories and sub-categories:

a. **►UAS◄ categorized in the Open A2, Open A3, Specific S1 sub-categories, and S2 sub-category with a Maximum Take-Off Weight (MTOW) below 25 kg (despite operating Beyond Visual Line of Sight).** The Ship DH / AP and ►UAS◄ Responsible Officer (RO) / ►UAS◄ Accountable Manager (AM) / ADH / AM(MF) **should** complete a pan DLoD assessment of individual Ship / Class and Air System Risks to ensure procedural Safety mitigations can

[33] Refer to RA 2370 – Test and Evaluation.
[34] Due to the flexibility offered by ►UAS◄, this Regulation applies to all HM / MOD ships including those not considered aviation capable, boats and submarines.
[35] Refer to RA 1600 series – ►Uncrewed◄ Air Systems.

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be implemented as required for any given operational requirement[36]. This assessment **should** be conducted in consultation with the Ship PA and TAA[37], prior to discussion with the RN Delegated RTSA (DRTSA), who decide if the tailored route illustrated at Annex A Figure 3 is applicable.

b. ►UAS◄ **categorized in the Specific S2 sub-category with a MTOW of 25 kg or above.** The Ship DH / AP and ►UAS◄ RO / ►UAS◄ AM / ADH / AM(MF) **should** complete a preliminary assessment of Risk[36]. This assessment **should** be conducted in consultation with the Ship PA and TAA[37], prior to discussion with the RN DRTSA, who decide on the extent of SA-Release required and whether the accelerated route illustrated at Annex A Figure 4 / 5 is applicable.

c. ►UAS◄ **categorized in the Certified Category.** The Ship DH / AP and ADH / AM(MF) **should** conduct a full SA-Release iaw RA 1395(2).

36. Prior to being operated, all ►UAS◄ **should** have received a Letter of Endorsed Categorization from the MAA iaw RA 1600. Where RA 1600 does not apply[35], such as Civilian Operated ►UAS◄ operating iaw the Air Navigation Order, the organizations operating ►UAS◄ **should** demonstrate equivalence with respect to the RA 1600 Categorization requirements by complying with paragraph 35.

37. Unless conducting Crossdeck Operations or operating under a Trial Instruction all Air Systems **should** be within the Scope of the ship's certificate[26, 38], this applies to all HM / MOD ships including those not previously considered aviation capable, boats and submarines.

38. When carrying out the tailored route illustrated at Annex A Figure 3 or accelerated route illustrated at Annex A Figure 4 / 5, as a minimum the Ship DH / AP and ►UAS◄ RO / ►UAS◄ AM / ADH / AM(MF) **should** consider the following in the Risk Assessment:

a. ►UAS◄ / Vessel Electromagnetic Frequency (EMF)[39].

b. Take-off and landing location and method.

c. Scatter data[40].

d. Battery charging and stowage.

e. Fuel storage and transportation.

f. Inter-Communications as applicable between the Remote Pilot and:

(1) Flight Deck Officer.

(2) Command.

(3) Air Systems Controller.

(4) Principle Warfare Officer.

(5) Deck Crew.

g. Firefighting.

h. Radiation Hazards.

i. Ship Motion.

j. Ship / Helicopter Operating Limits.

k. Air Flow effect on ►UAS.

l. UAS Command Unit◄ Location.

[36] Refer to JSP 892: Risk Management.
[37] Open Category and Specific S1 sub-category ►UAS◄ do not require a TAA, whereas Specific S2 sub-category and Certified Category ►UAS◄ require a TAA. Refer to the RA 1600 Series.
[38] Refer to RA 1920 – Aviation Arrangements in His Majesty's / MOD Ships – Equipment Standards.
[39] Note, if no EMF assessment has been carried out consideration **should** be given to mitigating actions (ie sector blanking of the ships radar etc). Refer to BRd 2924 – EMF Hazards in the Royal Navy.
[40] ►Refer to Defence Standard 00-133 – Aviation Arrangements in Surface Ships, Part 3 – Aviation Arrangements in Surface Ships - Design, Construction and Provision (Flight Deck).◄

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m. Securing and movement / handling of ►UAS.◄

n. Concurrent operations.

o. Impact of ►UAS Command Unit◄ equipment on other ►UAS◄ and crewed operations[41].

p. Maintenance / Equipment stowage and activity areas.

39. The Ship DH / AP and ►UAS◄ RO / ►UAS◄ AM / ADH / AM(MF) **should** generate a set of SOPs to operate the Air System and Ship combination for this SA-Release.

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## Ship Air-Release – ►Uncrewed◄ Air Systems

40. The extent of SA-Release Assurance required may range from a simple documented agreement between DHs to completion of the full SA-Release process, depending on the Risk encountered during the embarked take-off and landing cycle (including movements, securing, start up, shut down, etc). The aggravating and mitigating factors in RA 1600 for ►UAS◄ categorization may not be the primary indicators of Risk in this phase of operation.

41. To aid in SA-Release Assurance, an ►UAS◄ to Platform Guidance Tool is available on the MAA DefNet Maritime Aviation Website (internal to MOD only)[42].

[41] Refer to 2024DIN04-284 – Guidance on Conducting Surface Fleet Development Trials.
[42] In DefNet search using “MAA Maritime Aviation Certification”.

## Annex A

## Ship / Air System Combinations – Authorization Process

*Figure 1 – Ship-Air Release*

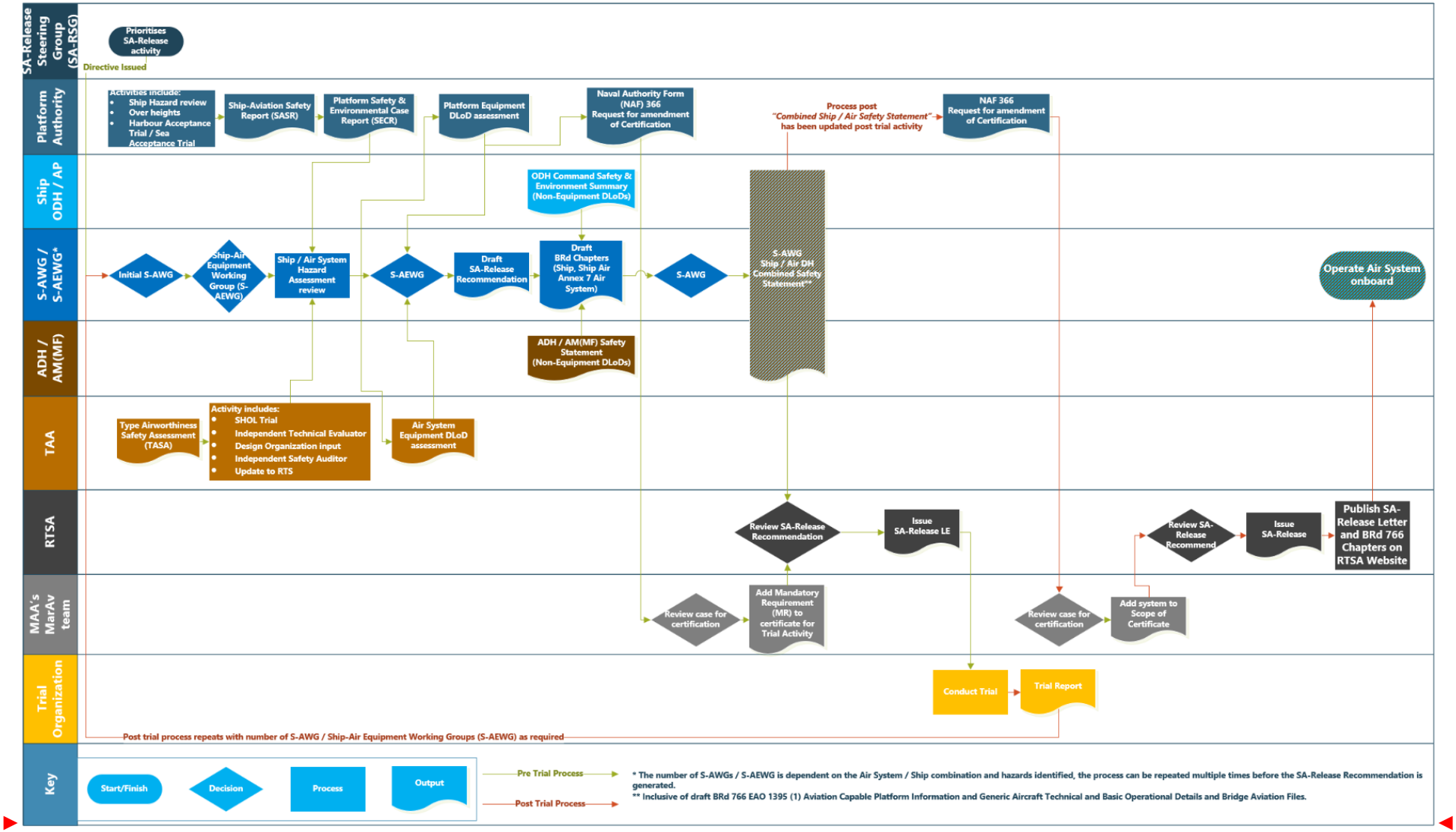

*Figure 2 – Non-Routine Force Generation directed Authorization of Ship and Air System Combinations*

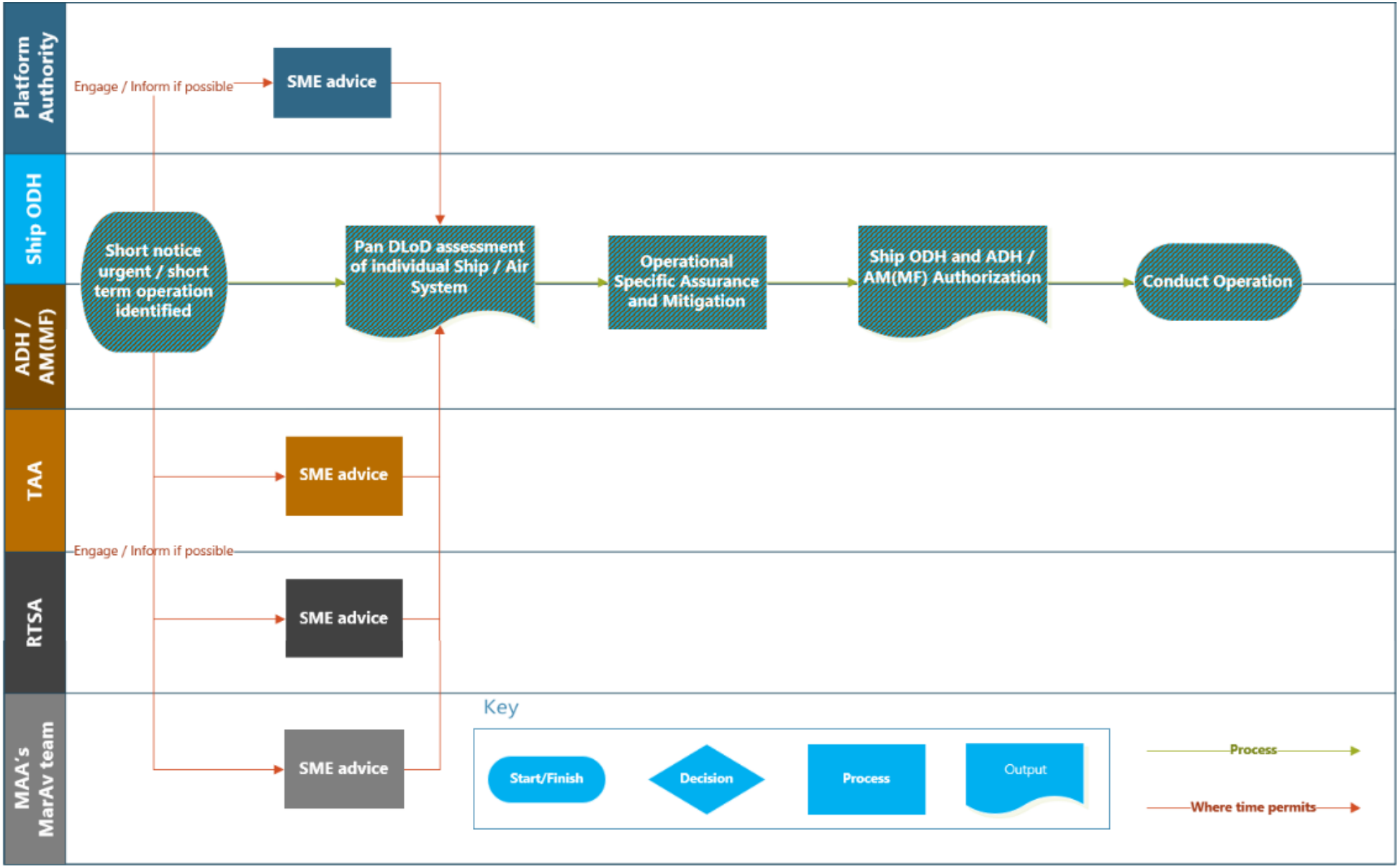

*Figure 3 – ►UAS◄ Tailored Authorization of Ship and Air System Combinations*

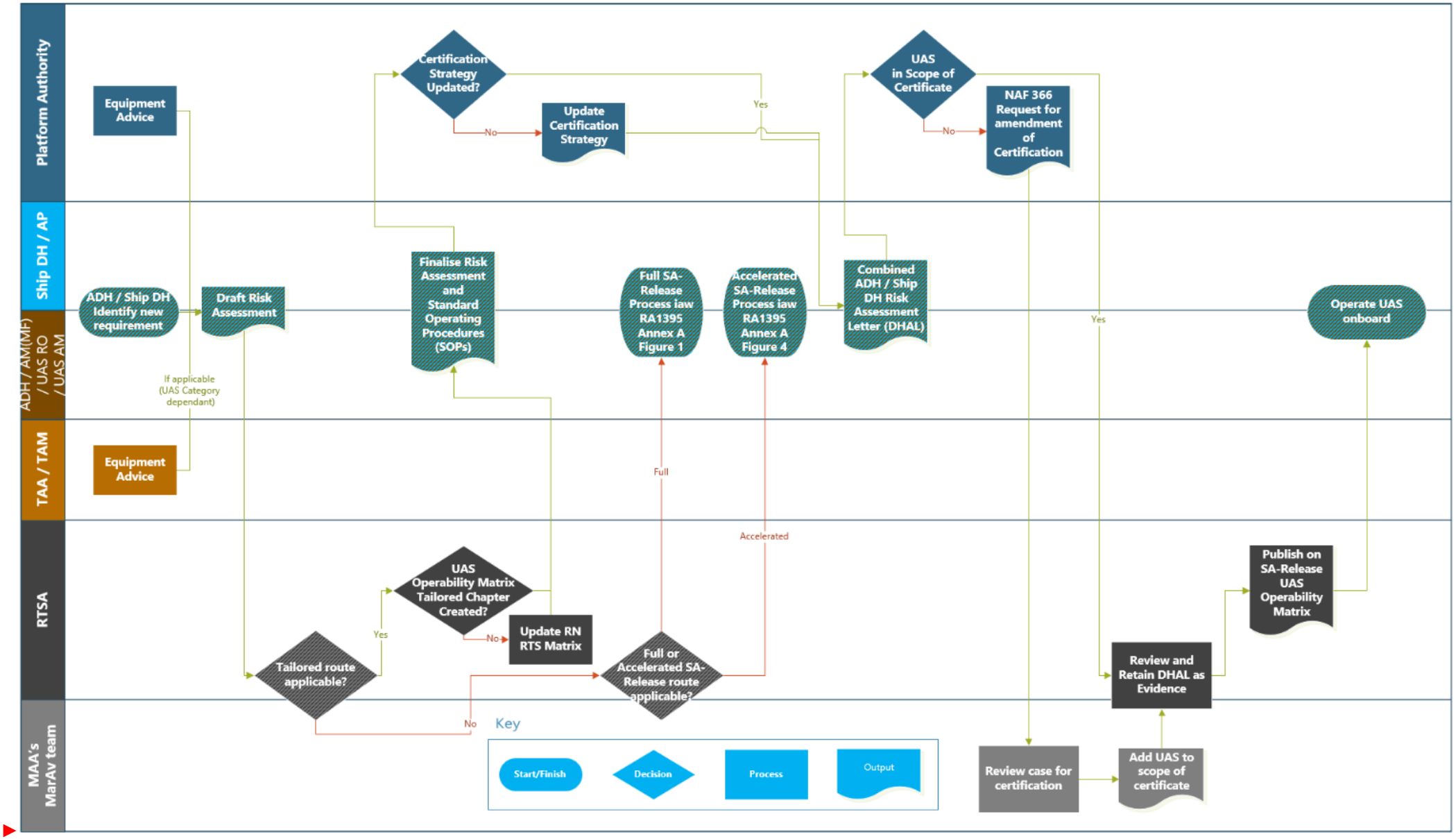

*Figure 4 – ►UAS◄ Accelerated Authorization of Ship and Air System Combinations*

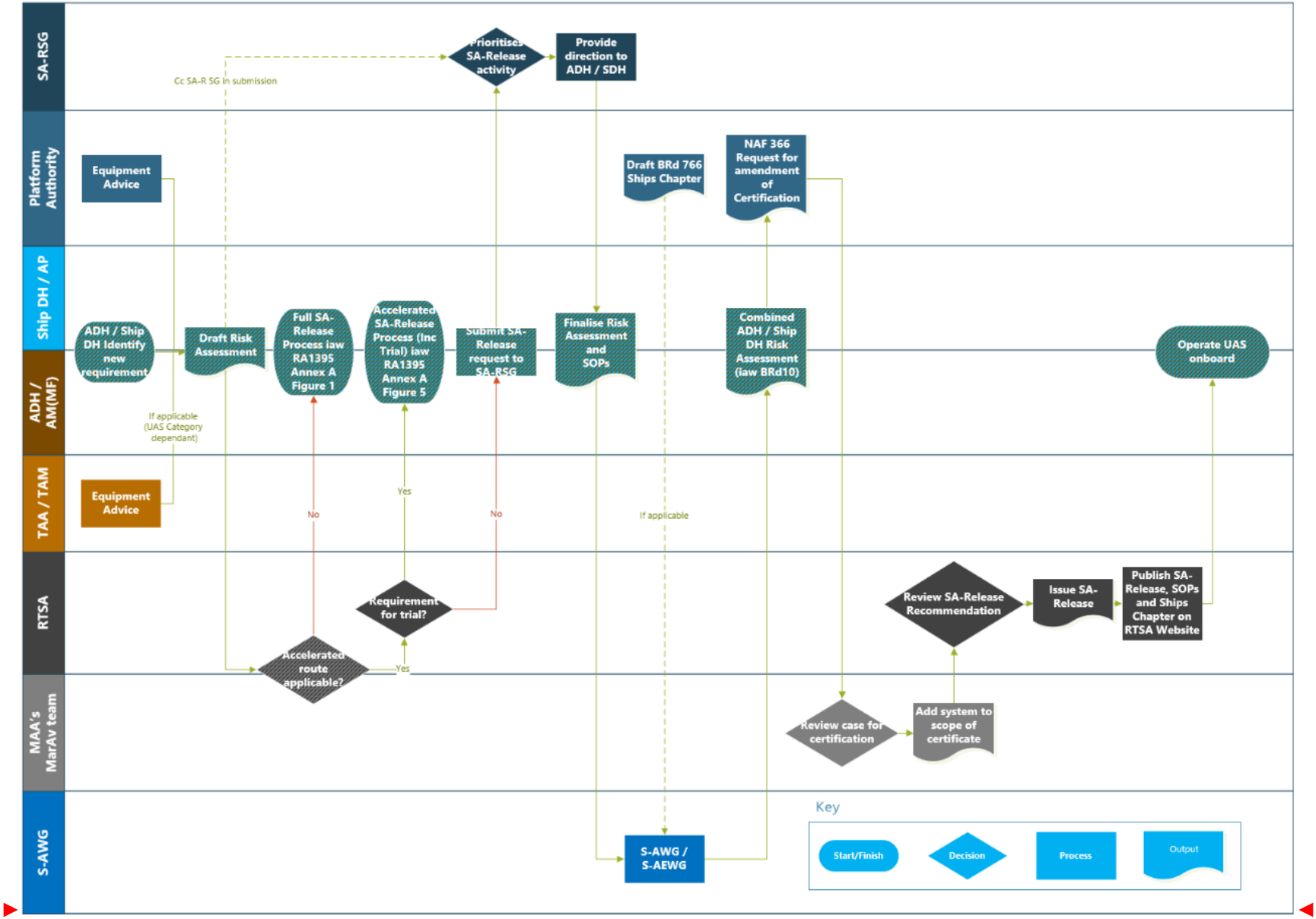

*Figure 5 – ►UAS◄ Accelerated Authorization of Ship and Air System Combinations (Inclusive of Trial)*