NPA/25/26

Title of Proposal: 3000 Series

RA(s) or Manual Chapter(s): RA 3227 – Methods of Identification

Organizations and / or business sectors affected: StratCom, 1Gp, 2Gp, JAC, Royal Navy

RFC Serial No: MAA/RFC/2023/252

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N/A	N/A	N/A	N/A

Cross-references to Other Documents or Relevant Sources

Other MRP Amendments: N/A

Service Inquiry Recommendations: N/A

AAIB Recommendations: N/A

Other Investigation Recommendations: N/A

Any Other Document: N/A

Feedback Notes for the Regulated Community

The Regulated Community are invited to offer feedback about the proposed amendment in the following areas:

- Air or Flight Safety impact
- Operational impact
- Errors or omissions
- Timescale for implementation
- Cost of implementation
- Amendment to internal processes/orders

- Resourcing the outcome of change
- (Contract amendments because of the change)

The format for feedback is available within a single Excel Template file on both internal and external MAA websites; it is important to use this format to ensure that your responses are considered and answered correctly.

Summary of Proposed Amendment

Objective: Update RA 3227 – Methods of Identification, with focus on an expanded Rationale, and inclusion of Mode S as a method of Identification.

Changes made: Following stakeholder engagement, RA 3227 was updated to include a more coherent Rationale, the addition of Mode S as a method of identification, and make other minor updates. The Guidance Material also included further detail regarding Mode S and the Turn Method.

Impact Assessment: Nil.

Consultation Period Ends: 16 September 2025

The consultation period for this proposed amendment ends on the stated date. Please send your feedback, using the Response Form, via email to DSA-MAA-MRPEnquiries@mod.gov.uk

MAA Approval

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RA 3227 – Methods of Identification

Rationale

In order to provide a surveillance service, Controllers need to identify the subject Air System. ►Without defined methods of identification, Controllers will be unable to provide an effective surveillance service, increasing the Risk to Life. This RA requires Controllers to select and implement an appropriate method of Identification to facilitate an effective surveillance service which will ensure the Air System remains safe by tracking and managing Air Systems accurately, enhancing Safety and efficient management of Air Traffic Services, as well as helping to mitigate associated Risks such as Mid-Air-Collison.◄

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Regulation 3227(1)

Methods of Identification

3227(1) Controllers **shall** identify Air Systems prior to providing an Air System with a surveillance service.

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Methods of Identification

1. Controllers **should** identify Air Systems using one of the following methods:

a. **Turn Method.** A turn for identification does not constitute a surveillance service. However, when turning ►an◄ Air System for this purpose, Controllers **should** take into consideration:

(1) Airspace restrictions.

(2) The terrain in the Air System's reported, estimated or observed position.

(3) Other radar returns (including permanent echoes, clutter, etc).

(4) Surveillance coverage.

b. Where possible, turns **should** be used as initial positioning turns to save time and fuel.

c. In using the turn method, a Controller **should** ascertain the Air System's Heading. Following a period of Track observation, **should** correlate the observed movement of a particular radar return with one or more changes of Heading of at least 30°, as instructed by them, by another Controller, or as reported by the pilot. Where only approximate position information is available a minimum of two turns of not less than 30° **should** be used. During this procedure, a Controller seeking to identify an Air System **should** ►verify that the movements of not more than one radar return correspond with those of the Air System.◄

(1) ►◄

(2) ►◄

(3) ►◄

(4) ►◄

d. **Turn Method Using Direction Finding (DF).** A Controller **should** observe a turn of not less than 30° together with relevant DF indications and a period of Track observation. Range information derived from DME, TACAN or similar equipment **should** be used to assist identification when it is available.

e. **Position Report Method.** This method of identification **should** consist of a period of Track observation, associated with Heading and position information within known radar cover. ►It is◄ based on one or more of the following, ►by correlating a particular radar return with a position report from the pilot that the Air System is:◄

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(1) ►◄

(2) Over an exact reporting point which **should** be displayed on the radar map.

(3) At a particular distance, not exceeding 30 nm, on a particular radial from a collocated VOR / DME or TACAN. The source facility **should** be displayed on the radar map.

(4) Over a notified visual reporting point or prominent geographical feature approved for the purpose and displayed on the radar map, provided that the flight is operating with visual reference to the surface and at a Height of 3000 ft or less above the surface.

f. **By a DF Fix.** This method **should** be reinforced by an alternative method if there is any doubt about the identification because of:

(1) The close proximity of other radar returns.

(2) Inaccurate reporting from Air System's at high level or some distance from navigational facilities.

g. **Departing Air System Method.** An Air System can be identified, by observing the radar response of a pre-notified departing Air System. Identification **should** take place within 1 nm of the end of the Runway in use at the departure Aerodrome. Particular care **should** be taken to avoid confusion with Air System overflying, carrying out a low approach, or departing from an adjacent Runway or with Air System holding overhead the Aerodrome.

h. **Secondary Surveillance Radar (SSR) Data.** When using SSR[1] data to identify an Air System, one of the following methods **should** be employed:

(1) Observing the pilot's compliance with the instruction to select a discrete four digit code;

(2) Recognizing a validated four digit code previously assigned to an Air System callsign. When code / callsign conversion procedures are in use and the code / callsign pairing can be confirmed, the callsign displayed in the data block may be used to establish and maintain identity;

(3) Observing an IDENT feature when it has been requested. Caution **should** be exercised when employing this method because simultaneous requests for transmissions within the same area may result in misidentification. Air System displaying the conspicuity code 7000 **should not** be identified by this method.

i. **SSR Mode 2 / Radar Responsive Beacon (RRB) Data**. For RRB data, the use of 'Chirp Single / Code / Retain' **should** be used. However, Controllers **should** guard against the Risk of mis-identification, which might result from simultaneous RRB identification instructions from adjacent ships to different Air Systems in close proximity.

j. When using Mode 2 for identification, the Controller **should** clearly recognize the designated four digit Mode 2 Code individually assigned to the Air System. If any doubt exists due to garbling etc, an alternative method of identification **should** be used.

k. ►**Mode S**. Direct Recognition of the Mode S Air System identification on the situation display may be used to establish surveillance identification, subject to either:

(1) Correlation of the Mode S Air System Identification with the Air System identification entered in the Flight Plan and displayed to Controllers on flight progress strips; or

(2) Correlation of the Mode S Air System identification with the Air

[1] Throughout this RA, any reference to SSR is equally applicable to Wide Area Multilateration and Automatic Dependant Surveillance Broadcast.

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System's callsign used in a directed RTF transmission to the Controller. However, Controllers **should** exercise particular caution when there are Air System with similar callsigns on the frequency. Controllers **should** utilize an alternative method if they have any doubt about the surveillance identification.

l. Whenever it is observed on the situation display that the down-linked Mode S Air System identification is different from that expected from the Air System, the pilot will be requested to confirm and, if necessary, re- enter the Air System identification.

m. If the discrepancy continues to exist following confirmation by the pilot that the correct Mode S Air System identification has been set, the Controller **should** take the following minimum actions:

(1) Inform the pilot of the persistent discrepancy;

(2) Assign a discrete Mode A code; and

(3) Notify the erroneous Mode S Air System identification Feature transmitted by the Air System to the next control position or unit.

n. Transfer of identification using the Mode S Air System identification Feature relies on both units having appropriate Mode S surveillance capability; therefore, it **should** only be conducted in accordance with (iaw) locally agreed arrangements and specified in Battlespace Management Orders.◄

2. When providing a surveillance service to an Air System, Controllers operating at SSR equipped units **should** allocate that flight with a discrete code iaw the SSR assignment plan. Unless otherwise directed by an Air Traffic Control unit, Mode C will be selected in conjunction with Mode 3 / A. Controllers **should** therefore verify the accuracy of the Mode C readout when assigning discrete codes to Air Systems.

3. Identification **should** be maintained for the period the Air System is in receipt of a surveillance service. ►◄ The pilot **should** be informed whenever identification is lost and subsequently re-established.

4. **Failure to Locate an Air System.** If a surveillance Controller is unable to locate a primary radar return or SSR response which relates to the pilot's reported position:

a. **The Air System is outside radar cover.** In which case the pilot **should** be instructed to climb to a higher level, call later, or call another nominated radar agency.

b. **The Air System return is obscured by clutter or is presenting a poor aspect to the radar aerial.** If available, an alternative radar can be selected, or the pilot **should** be instructed to change Heading or call another nominated radar agency.

c. **The pilot's reported position is incorrect.** A further position check **should** be requested. If the situation is still unresolved, the pilot **should** be instructed to obtain a fix from the UK Emergency Fixer Service and to pass the notified position to the Controller.

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5. ►**Mode S**. There are two levels of Mode S; Elementary and Enhanced. Elementary Mode S provides selective interrogation of an Air System, and the Air System identification Down-Linked Airborne Parameter (DAP). Enhanced Mode S enables further DAPs from an Air System's flight management system (including selected Altitude, indicated air speed, ground speed, magnetic Heading, Rate of Climb / Decent).

6. **Turn Method**. Caution needs to be exercised when employing this method in areas where changes of Air System Heading are commonly made as a navigational routine. The type and characteristics of the surveillance equipment (eg, raw or processed radar, rate of scan, beam width, range scale of display) need to be factored when deciding the amount of turn and the period of observation required to prove identification. Controllers will ensure that the manoeuvre(s) will not carry the radar

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return outside radar display coverage, through clutter, or into airspace, which is the subject of specific clearance.◄