

AIS Masterclass: The Data Backbone of Aviation

The Concept

Aeronautical Information Services (AIS) ensures the continuous flow of data necessary for the safety, regularity, economy, and efficiency of global Air Traffic Management (ATM).



Regulatory Application

AIS data is the foundational backbone for modern digital navigation protocols:

RNAV
(Area Navigation)

PBN
(Performance-Based Navigation)

SATVOICE
(Satellite Comms)

DGCA EXAM ALERT

High Probability: What is the primary role of AIS?

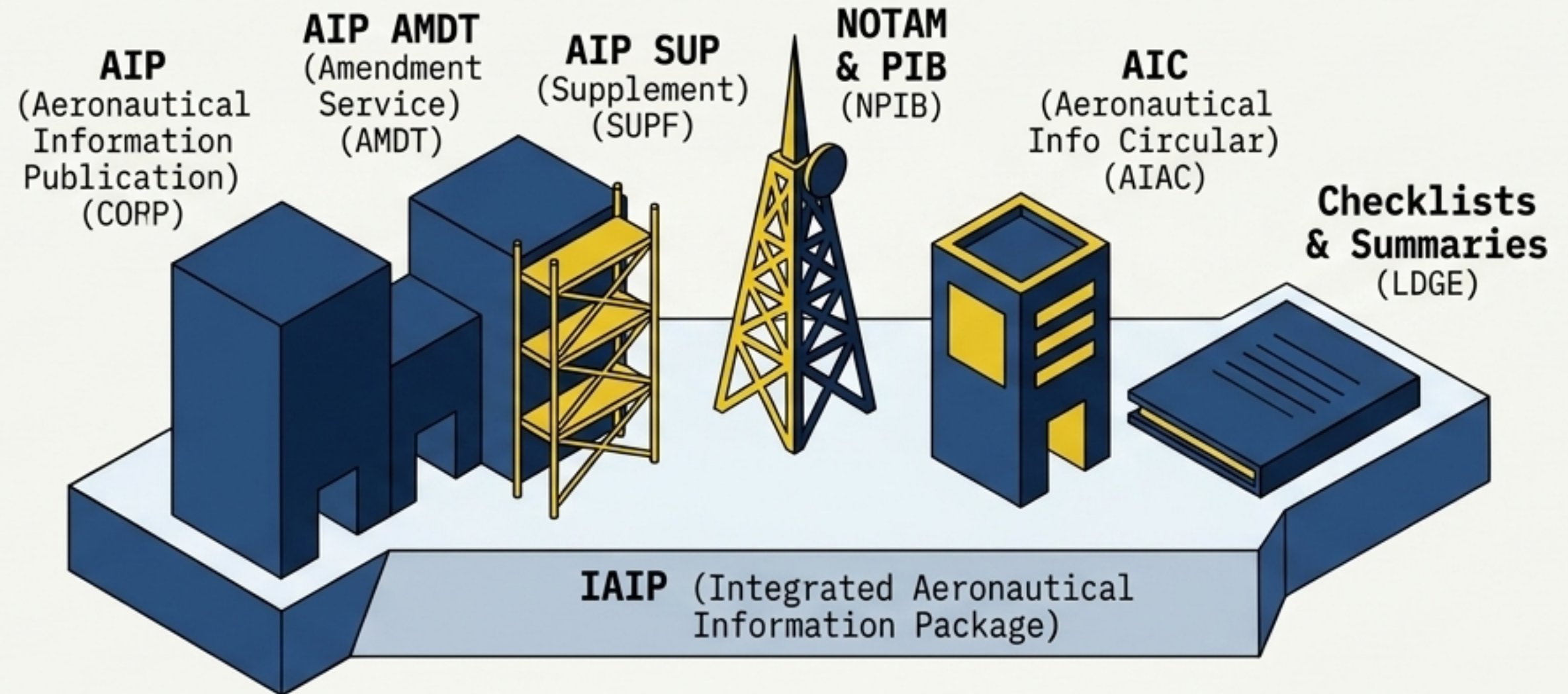
Answer: To ensure the flow of information necessary for the safety, regularity, economy and efficiency of international air navigation.

(Ref: ICAO Annex 15)

The IAIP Ecosystem: The 6 Pillars of Data

Concept:

The IAIP is the complete suite of required aeronautical publication publications. It consists of exactly 6 elements.



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High Probability (Q4/Q23/Q24): Each contracting state shall provide an AIS in its territory and shall include the preparation and origination of...

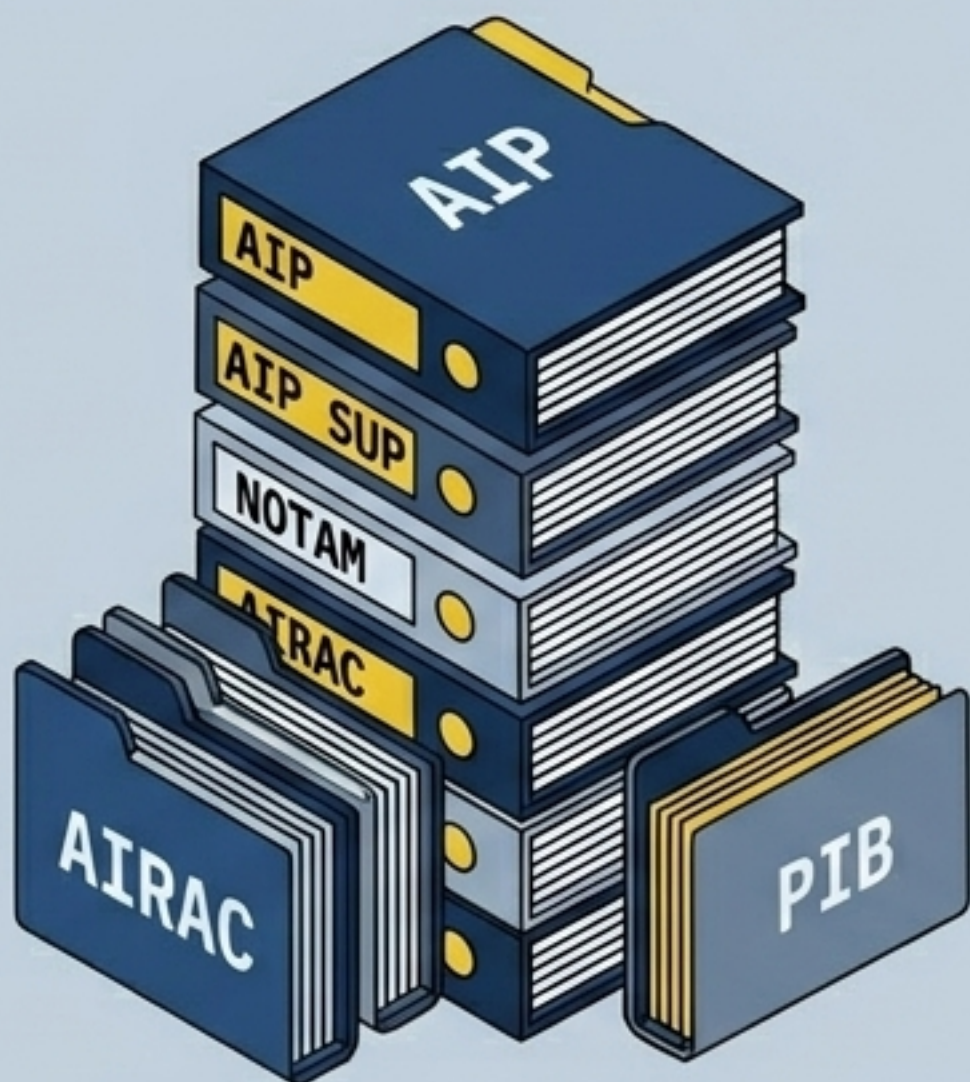
Answer: The Integrated Aeronautical Information Package (IAIP).

Do not select options that only list 'AIP and NOTAMs'.

The Indian Authority Matrix: AAI vs. DGCA

Concept: The State delegates AIS publishing duties, splitting them between operational data and administrative data.

Airports Authority of India (AAI)



Provides **ALL** operational AIS publications.

DGCA



Publishes **ONLY** Aeronautical Information Circulars (AIC) dealing with legislation, administrative, or advisory matters.

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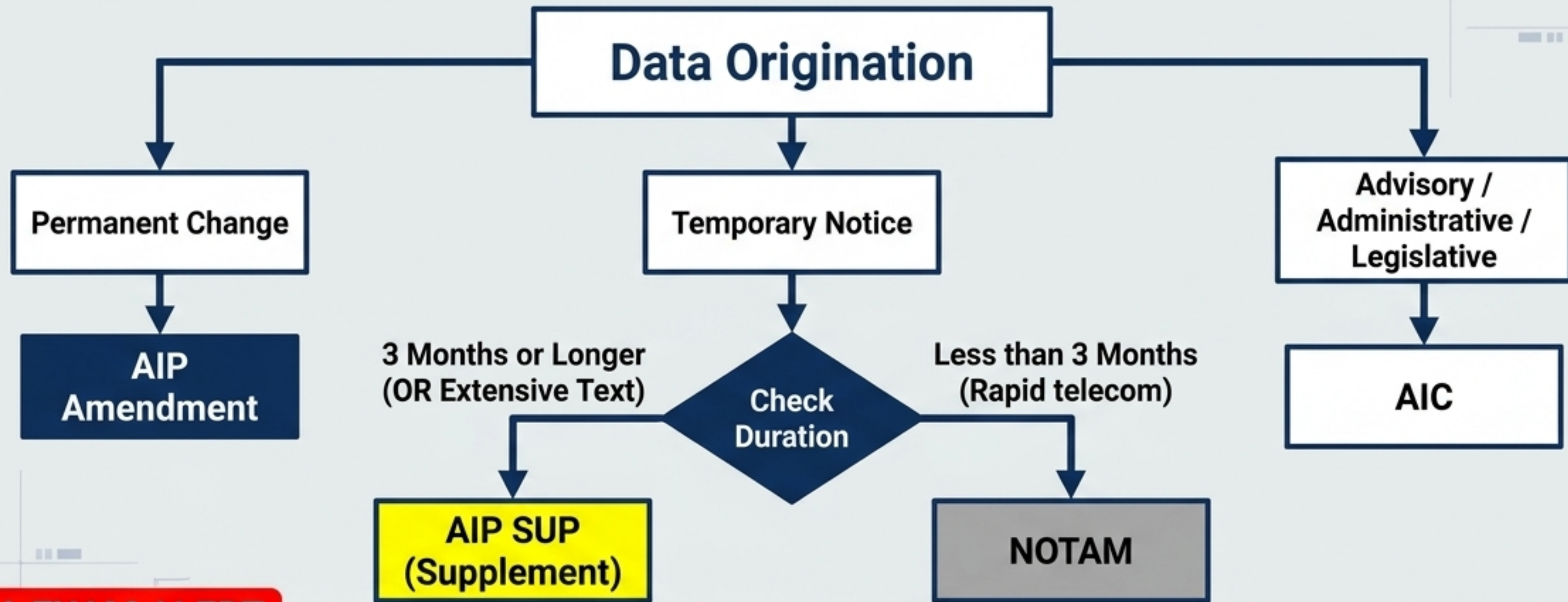
High Probability: Aeronautical Information service (excluding publication of AIC) shall be provided by...

Answer: Airports Authority of India (AAI).

Remember: DGCA handles AIC!

AIS Publication Selection Matrix

Concept: Data is routed based on **permanence, duration, and content length.**



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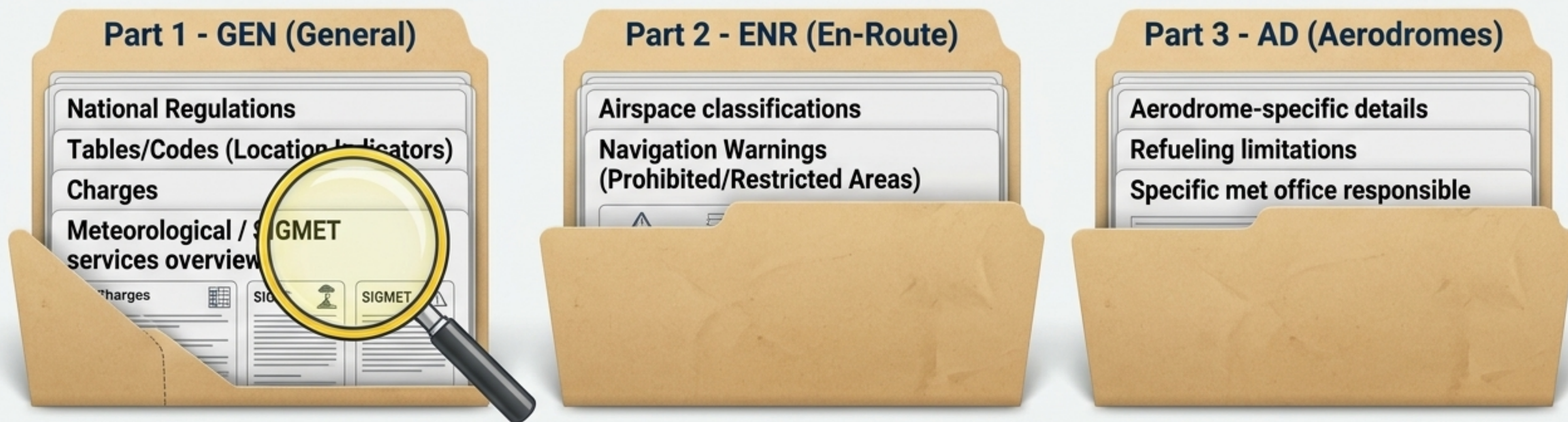
High Probability (Q13): The closure of a runway for a year, because of maintenance, will be published...

Answer: In NOTAM and AIP, inclusive Supplement.

(A year-long closure = long duration \geq 3 months \rightarrow requires an AIP SUP).

AIP Anatomy: Deciphering GEN, ENR, and AD

The AIP satisfies international requirements for the exchange of aeronautical information of a lasting character. It has exactly **three parts**.



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High Probability (Q1/Q10/Q21): Detailed description of meteorological info provided at the aerodrome and the responsible met office is in which part?

Answer: AD (Aerodromes).

Warning: SIGMET services overall are in GEN. **Note:** 'MET' is NOT an actual AIP part!

AIP Supplements (AIP SUP): The Yellow Pages

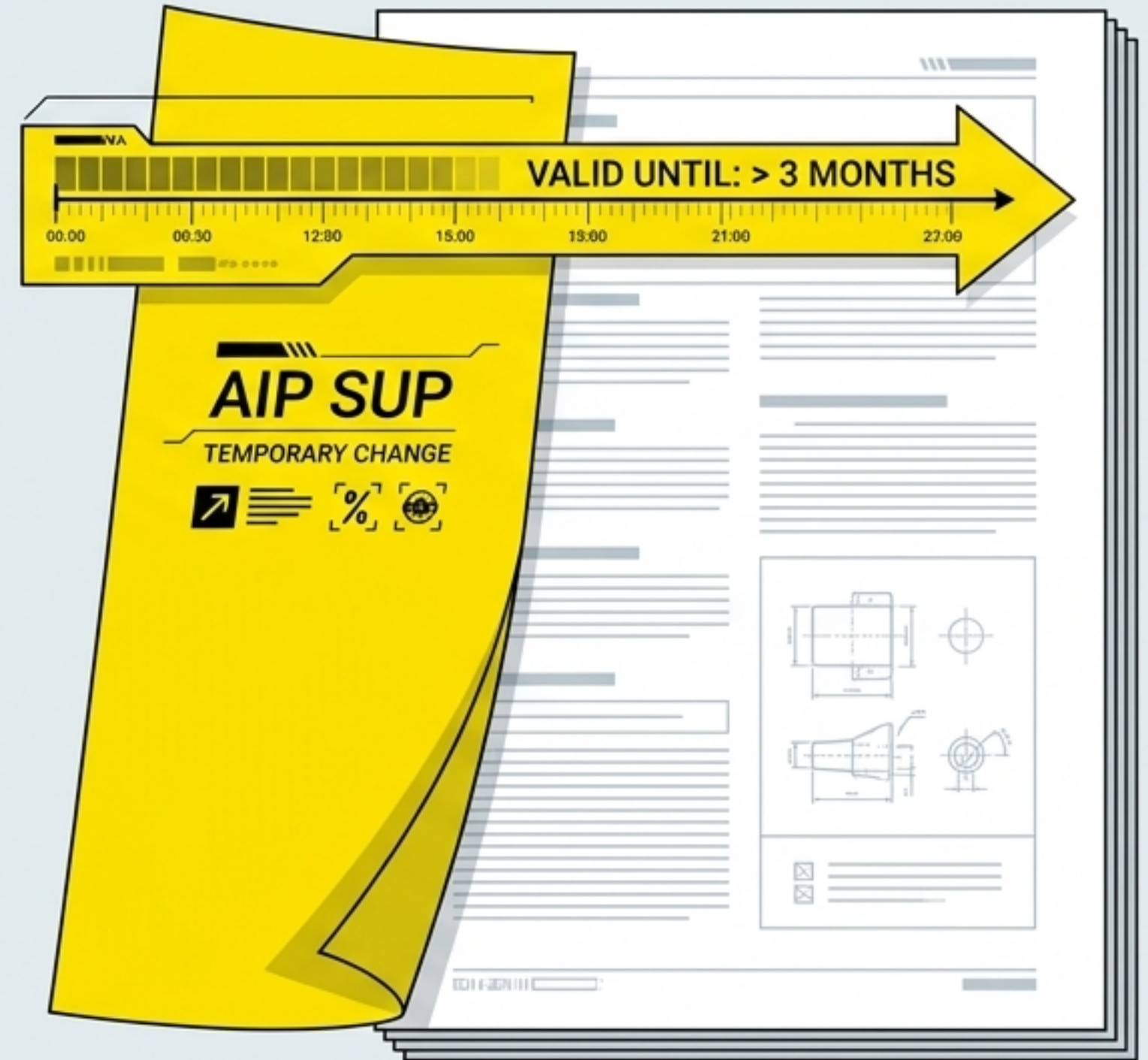
Regulatory Application

- **Duration:** Three months or longer.
- **Content:** Extensive text/graphics that would clog the NOTAM system.
- **Placement:** Kept as the first item in the AIP parts.
- **Formatting:** Conspicuous color, preferably **yellow**.
- **Checklist:** A checklist of valid AIP Supplements must be issued at intervals of not more than one month.

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High Probability (Q2/Q5): A checklist of AIP supplements currently in force shall be issued at intervals of:

Answer: Not more than one month.



NOTAM Origination: When & When NOT to Publish

NOTAMs are distributed via telecommunication for rapid, essential updates of **short duration**.

ACCEPT: VALID NOTAM TRIGGERS

N (New)

R (Replacement)

C (Cancellation)

Trigger NOTAM (Reminder for upcoming AIP SUP)

- ✓ Short duration changes
- ✓ Rapid, immediate updates
- ✓ Nav aid frequency changes

REJECT: WHAT NOT TO NOTAM

- ✗ Routine maintenance on aprons not affecting safe movement.
- ✗ Partial failure of lighting not directly affecting operations.
- ✗ Lack of apron marshalling.
- ✗ Unserviceable destination signs.

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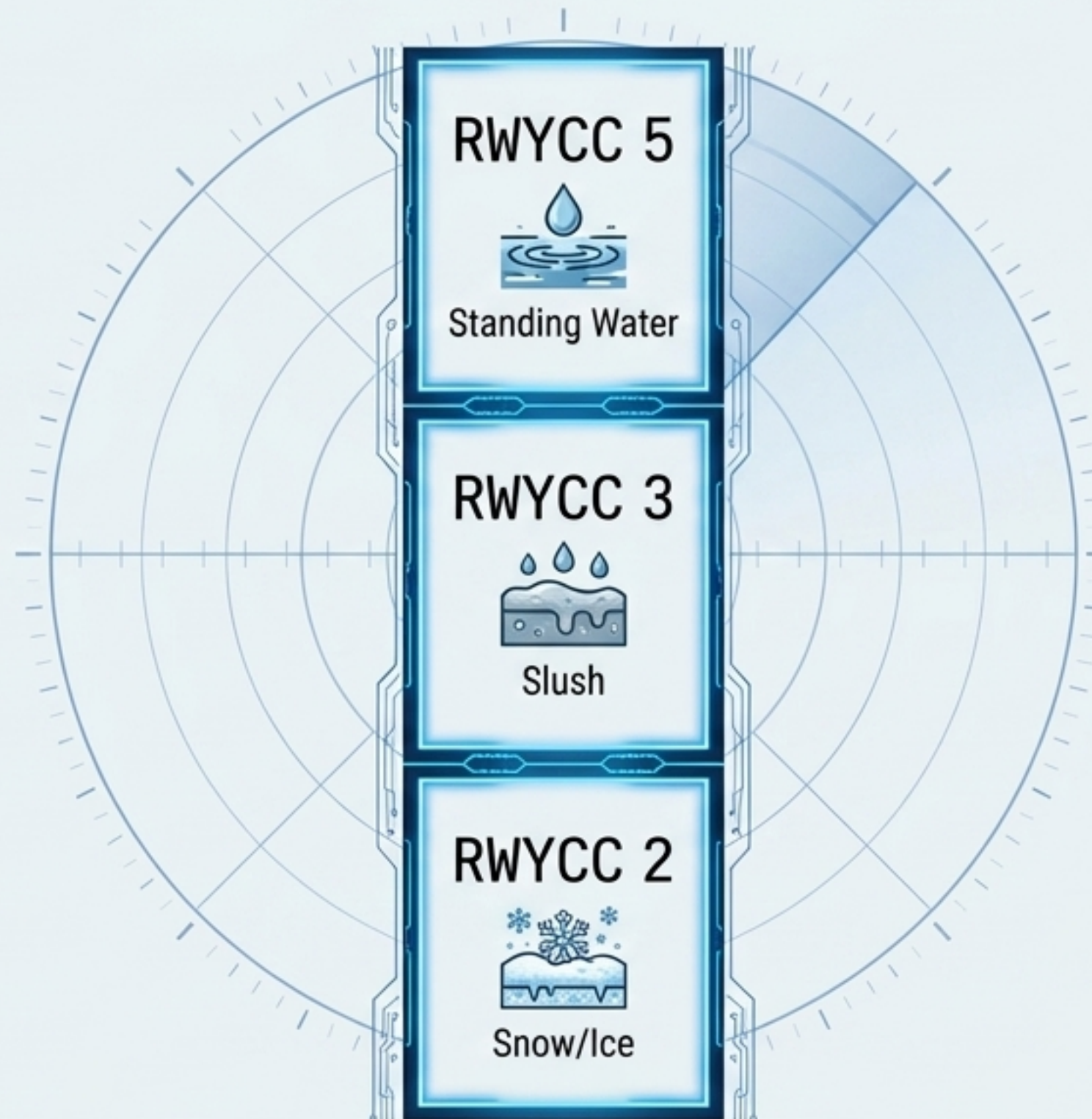
High Probability (Q8): Change in frequency or location of navigational aids on short notice is notified through:

Answer: NOTAMs. (Because it requires immediate, short-notice telecom distribution).

SNOWTAM & The Runway Condition Code (RWYCC)

SNOWTAM Concept

A special series NOTAM for surface conditions (snow, ice, slush, frost, standing water). →



Regulatory Application

Responsibility: The Aerodrome Operator assesses and prepares the report; the Flight Crew uses it.

Coverage: Reported for each one third of the operational runway assessed.

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High Probability (Q27/Q28): Runway Condition Code (RWYCC) is reported for:

Answer: For each one third portion of the operational runway to indicate the presence of water, snow, ice, slush or frost.

ASHTAM: Volcanic Activity Reporting

Concept: Operationally significant changes in volcanic activity require immediate, standardized notification.



Regulatory Application

- Information concerning an operationally significant change in volcanic activity, a volcanic eruption, and/or a volcanic ash cloud is reported by means of an ASHTAM.
- Must be issued in a specific, standardized ASHTAM format to ensure immediate global recognition.

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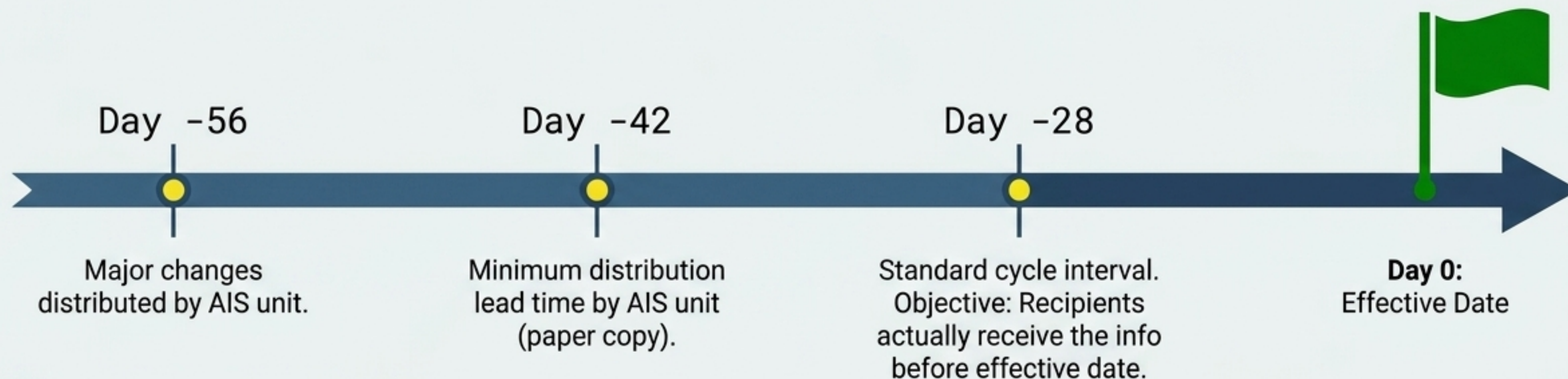
High Probability (Q12/Q15): Select the acronym corresponding to a special NOTAM series notifying an important change due to volcano activity, eruption or ash cloud:

Answer: ASHTAM.

(Distractors in the exam like GVATAM or NAVTAM are fake).

AIRAC: Advance Scheduled Notifications

Concept: AIRAC (Aeronautical Information Regulation and Control) provides advance notification based on common effective dates for significant procedural changes.



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High Probability (Q14/Q16): The system notifying in advance the circumstances requiring important changes based on common effective dates is identified by the acronym:

Answer: AIRAC.

Aeronautical Information Circulars (AIC)

Concept: Used for information that does not qualify for an AIP or NOTAM.

Regulatory Application

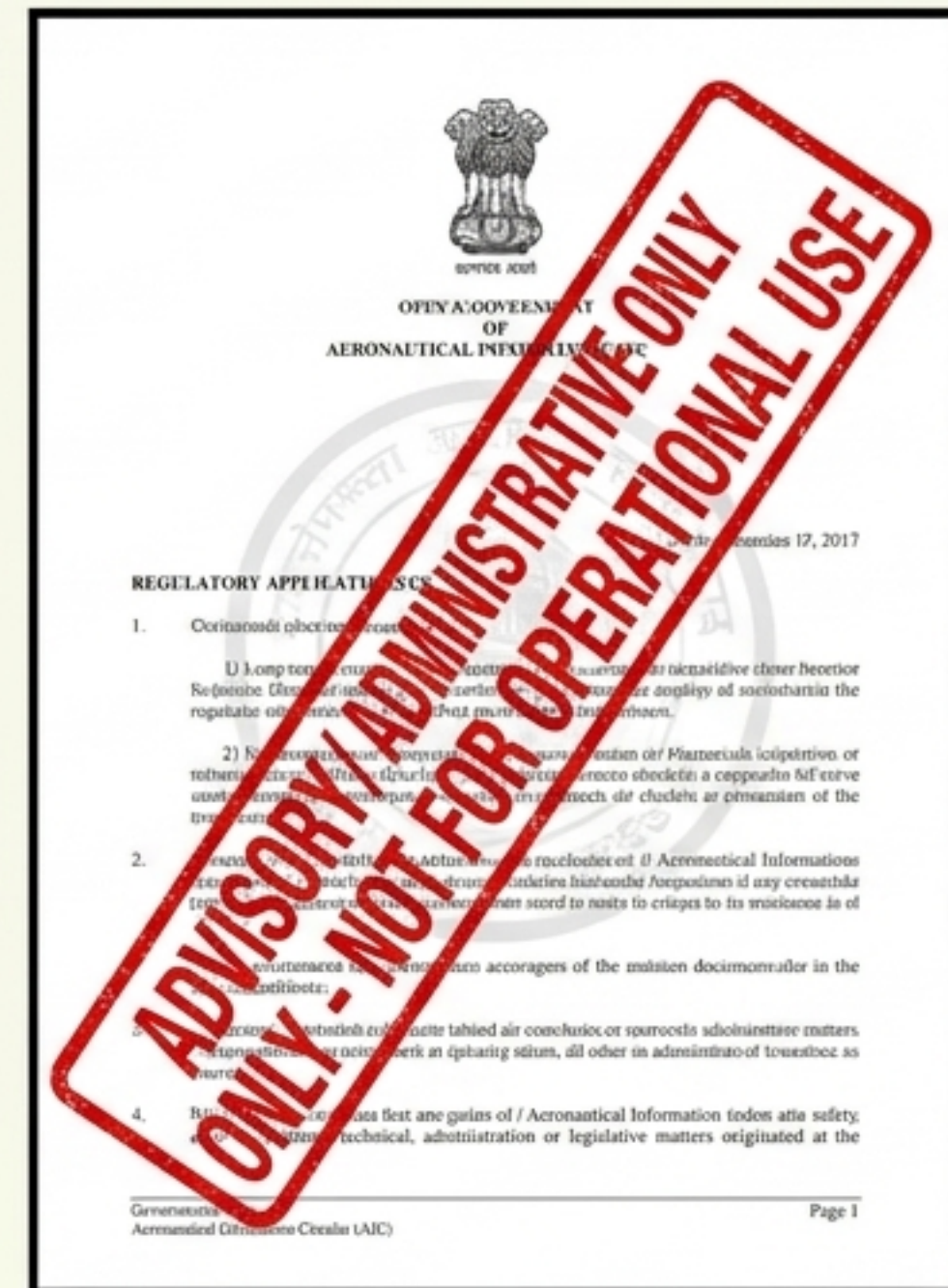
- Originated when necessary to promulgate:
 - 1) Long-term forecasts of major legislative/regulatory changes.
 - 2) Explanatory or advisory nature affecting flight safety.
 - 3) Technical, legislative, or purely administrative matters.
- **Checklist:** A checklist of AICs currently in force must be issued at least once a year.

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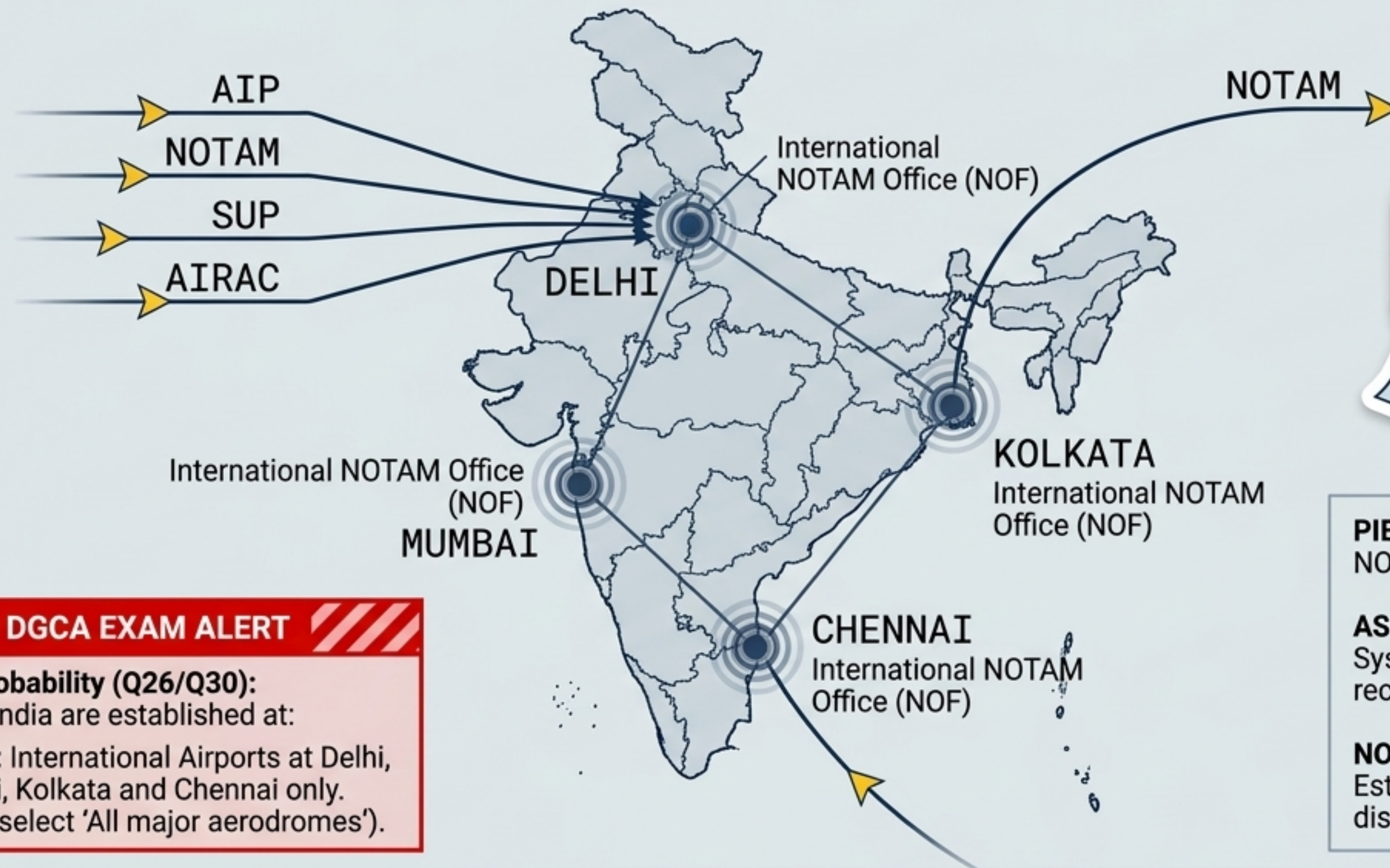
High Probability (Q20): A notice containing information concerning flight safety, air navigation, technical, administration or legislative matters originated at the AIS is called:

Answer: Aeronautical Information Circular (AIC).



Pre-Flight Integration: PIB & The 4 NOFs

Concept: All AIS data must be recapitulated for the flight crew prior to departure in plain language.



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High Probability (Q26/Q30):
NOF in India are established at:

Answer: International Airports at Delhi, Mumbai, Kolkata and Chennai only.
(Do not select 'All major aerodromes').

PIB: A recapitulation of current NOTAM and urgent info.

ASBS: Automatic Self Briefing System provides automated receiving/storing of briefing data.

NOF (International NOTAM Office): Established to originate and distribute NOTAMs.

The Captain's Cheat Sheet: Critical AIS Timelines

Subject	Value/Timeline	
Long Duration (AIP SUP)	≥ 3 Months	
AIP SUP Checklist Issued	≤ 1 Month	
AIC Checklist Issued	\geq Once a year	
AIRAC Cycle Interval	28 Days	
AIRAC Paper Distribution Lead Time	42 Days	42 Days
AIRAC Major Change Distribution	56 Days	56 Days
NOTAM Numbering Restarts	0001 at 0000 UTC on 1st January	
AIP India AMDT Month	April	April
AIP India SUP Checklist Month	January	January



DGCA EXAM ALERT

High Probability: A checklist of valid NOTAM shall be issued over the AFS at intervals of...
Answer: Not more than one month. (Memorize the monthly checklist rule for both NOTAMs and SUPs!)