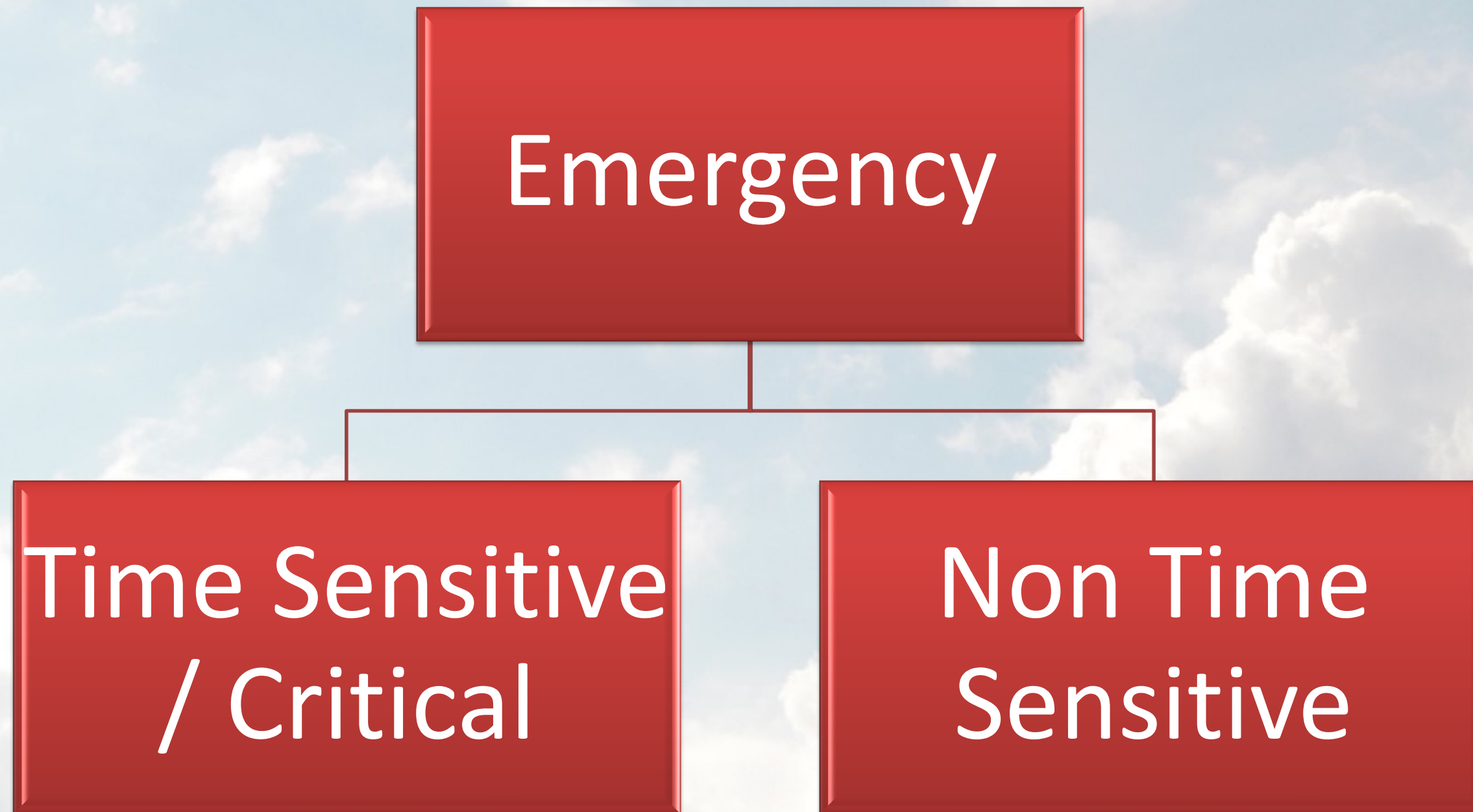


Workshop: Emergency Handling

HOSTED BY CHRIS KIDD, MATT LANE AND STEVE SLATER

Diagnosis

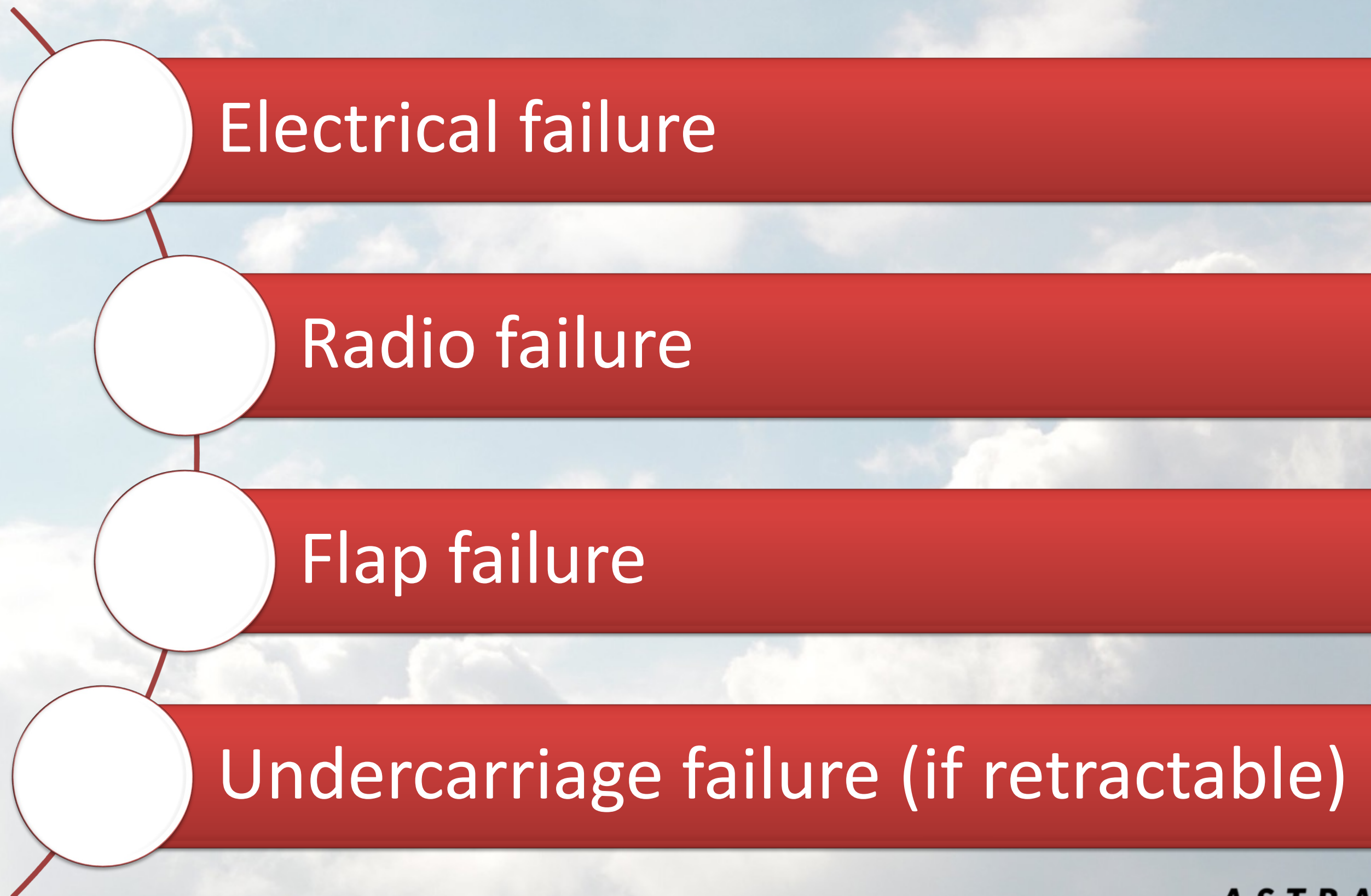


Time Sensitive Emergencies

Time Sensitive Emergencies

- Engine Failure
- Engine Mechanical Failure
- Engine Fire
- Fire in the cockpit
- Smoke and Fumes
- Fuel leak

Non Time Sensitive Emergencies



Checklist Example

ENGINE FAILURE

Carburettor heat HOT

Glide 60 kts and Trim

Select a field and plan the descent

Check reason for failure:

1. Fuel selector ON
2. Mixture RICH
3. Throttle Set 1 inch open
4. Magnetos BOTH
5. Primer Locked
6. Mayday call then CRASH / EFATO CHECKS

CRASH / EFATO CHECKS

1. Throttle Closed
2. Mixture ICO
3. Fuel selector OFF
4. Magnetos OFF
5. Doors Unlatch
6. Harness Secure
7. Mayday call
8. Battery master/alternator switch
(After flaps selected) OFF

Emergency of the Day



What to do?

Aviate



Navigate



Communicate



Mayday or Pan call format

- Aircraft call sign
- Aircraft type
- Nature of emergency
- Intentions
- Position, Altitude, Heading
- Any other relevant information



The Topsy



DODAR

- **D** – Diagnose (what is the problem)
- **O** – Options (hold, divert, immediate landing etc.)
- **D** – Decide (which option)
- **A** – Act or Assign (carry out selected option and assign tasks)
- **R** – Review (can involve addition of new information, and/or the ongoing result(s) of selected option)

Engine Failure in Flight

- **Must** select glide attitude / speed (**Aviate**)
- **Must** complete memory items - shut down engine and get fuel turned off
- **Must** point aircraft in a suitable direction (**Navigate**)
- **Must** get mayday call out (**Communicate**)
- **If time / capacity**, brief passengers, check harnesses tight and locked and doors closed
- **If time / capacity**, review the situation. Has fire gone out? Do I need to get on ground quicker?

Emergency Handling Pitfalls

Emergency Handling Pitfalls

- 1 Handling Engine Malfunctions
- 2 When to Brief
- 3 Checks, perfect is the enemy of good
- 4 Know your flows
- 5 Resource Management

1. Handling Engine Malfunctions

Decision Tree

Engine Malfunction



Mech Failure

Prop stops
Oil Loss
Mech noise

No restart



Non-Mech Failure

Prop windmills
Rough running
RPM/MAP drop

Restart attempt?



FIRE

Flames
Smoke

No restart





2. When to Brief?



SAFETY

Passenger Safety Briefing	
S	<ul style="list-style-type: none">• Seat belts fastened for taxi, takeoff and landing• Shoulder harnesses fastened for takeoff and landing• Seat position adjusted and locked in place
A	<ul style="list-style-type: none">• Air vents/environmental controls: location and operation• Action in event of passenger discomfort
F	<ul style="list-style-type: none">• Fire extinguisher location and operation
E	<ul style="list-style-type: none">• Exit door security and how to open• Emergency evacuation plan• Emergency/survival kit location and contents
T	<ul style="list-style-type: none">• Traffic scanning/spotting/notification• Talking (sterile cockpit procedures)
Y	<ul style="list-style-type: none">• Your questions

Performance considerations *(nominate reject point if short field)*

Emergencies *(before lift off / with runway remaining / once in initial climb)*

Departure routing

Special Procedures / STOP Altitude Height *(consider surrounding airspace)*



3. Checks, perfect is the enemy of good

Powys: Learner pilot crash lands after plane door opens

🕒 11 March



AIRTEAMIMAGES.COM

| The Piper PA-28 Cherokee G-AVBT seen here in 2010

A learner pilot had to crash land an aircraft after a door popped open 10 minutes into a lesson, an investigation has found.



4. Know your flows



5. Resource Management



Any Questions?

Thanks for coming!

Contact us at : contact@astralaviation.com

Visit our website: www.astralaviationconsulting.com and follow us on social media



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A screenshot of the SkyWise website interface. The header features the 'SKYWISE' logo in white on a dark blue background, with the tagline 'Tailored news, notifications & alerts from the CAA' below it. A navigation bar contains four buttons: 'Subscribe', 'Download the app', 'View alerts', and 'Search alerts'. Below the navigation bar is a 'Home' link. The main content area has a heading 'Keep up to date with the latest CAA news and alerts with SkyWise.' and a paragraph of text: 'Aviation is a dynamic industry, and SkyWise allows you to stay up-to-date with news, safety alerts, consultations, rule changes, airspace amendments and more from the CAA. It replaces our previous information notices and keeps you up to date with information that isn't safety critical, with a more instant, tailored service.' The Civil Aviation Authority logo is visible in the top right corner of the screenshot.