

ICAO/FAA Airport Certification Workshop

INSPECTING TRAFFIC AND WIND INDICATORS

**Caribbean Region
Sint Maarten
June 11-15, 2012**

INSPECTING TRAFFIC AND WIND INDICATORS

OBJECTIVES

Using and in accordance with reference documents and the course text, identify criteria for inspecting

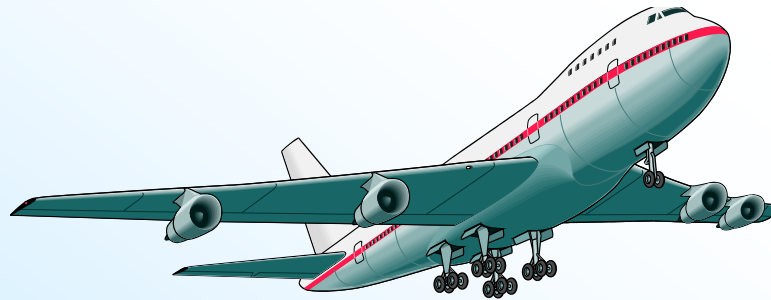
- ✓ wind cones**
- ✓ segmented circles and traffic pattern indicators.**

Aerodrome Requirements

- Provide and maintain a wind cone
- For each runway available for air carrier use, a supplemental wind cone must be installed
 - ✦ At the end of the runway, or
 - ✦ At least at one point visible to the pilot on final approach and prior to takeoff

Aerodrome Requirements

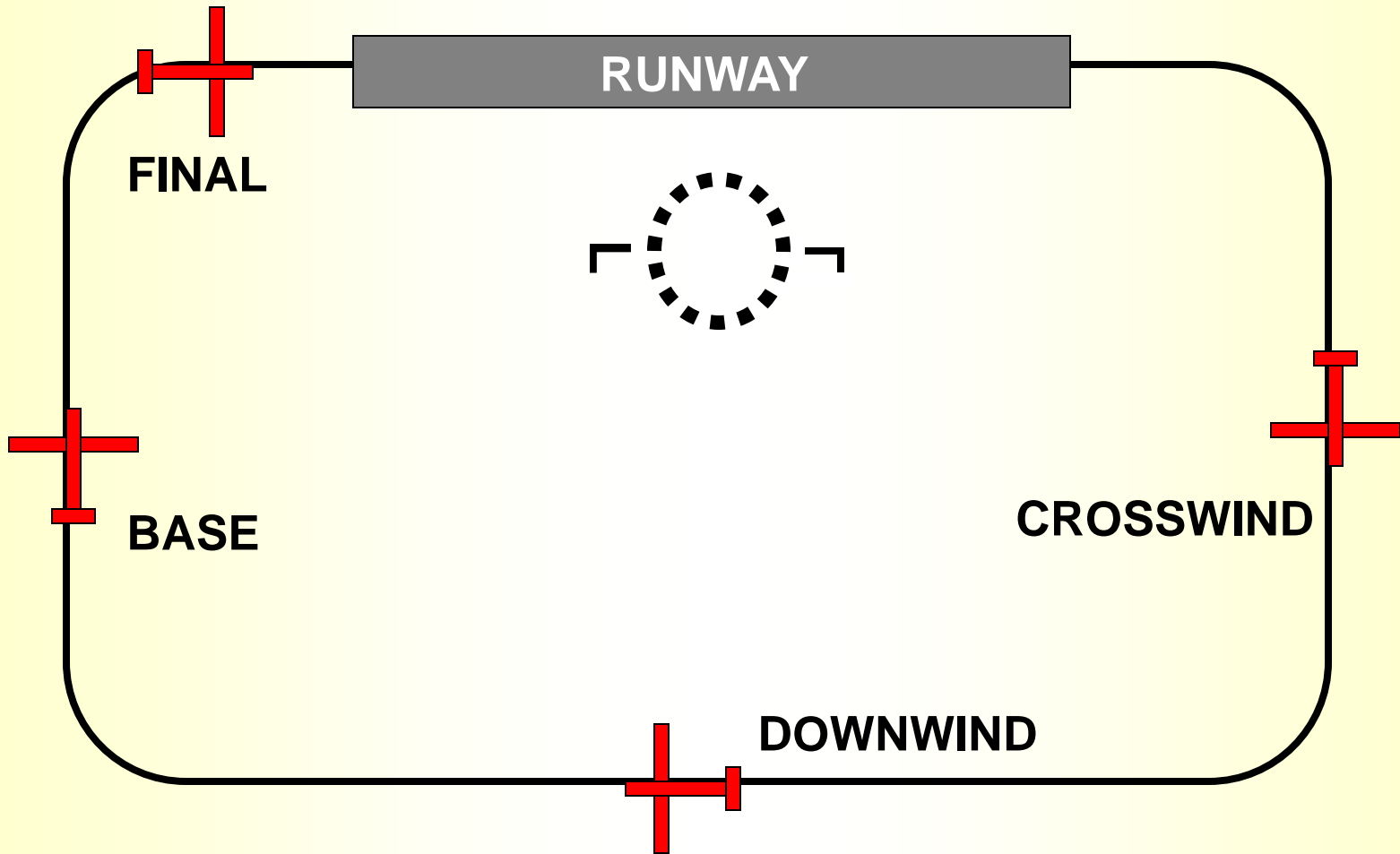
- Wind direction indicators, including supplemental indicators, must be lighted if the airport is open for air carrier operations at night



Aerodrome Requirements

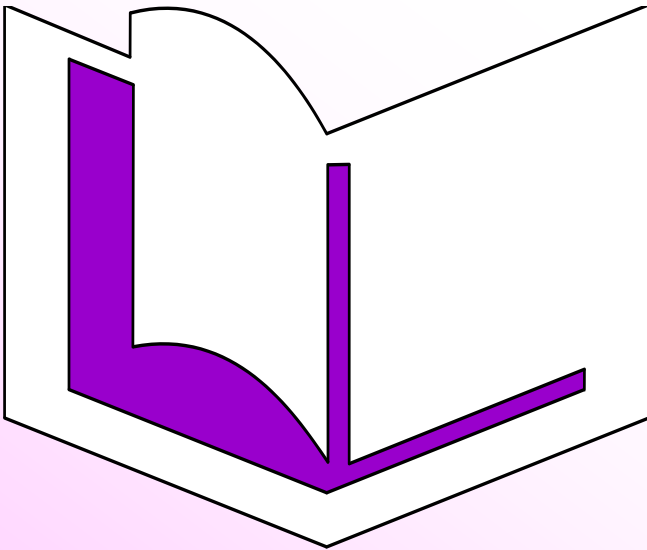
- Applies to airports serving air carriers when no ATCT is operating
- If such an airport has a right hand traffic pattern, install around the wind cone a
 - ➔ Segmented circle
 - ➔ Landing strip indicator
 - ➔ Traffic pattern indicator

RIGHT HAND TRAFFIC PATTERN



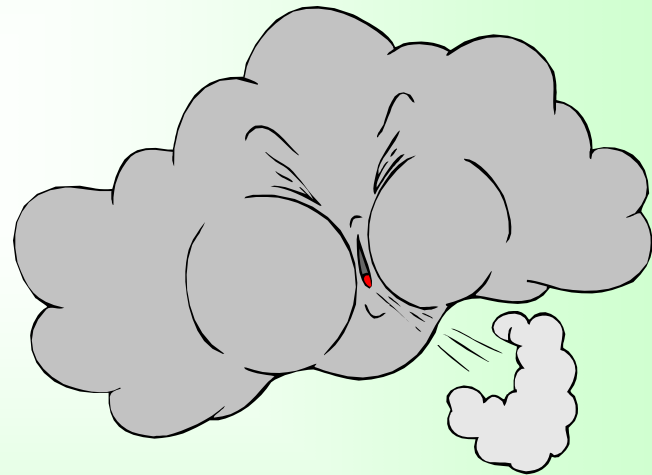
SECTION 139.323(c)

- ★ ACs contain methods and procedures for the installation, lighting and maintenance of traffic and wind indicators



PURPOSE OF WIND INDICATORS

- ◆ Visual display of
 - ✓ Wind direction
 - ✓ Wind speed



TYPES OF WIND INDICATORS

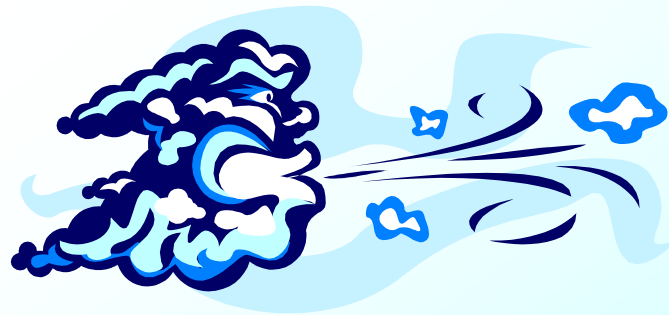
- Recommended
 - ✓ Wind sock

- Not recommended
 - ✓ Tetrahedron
 - ✓ Wind tee



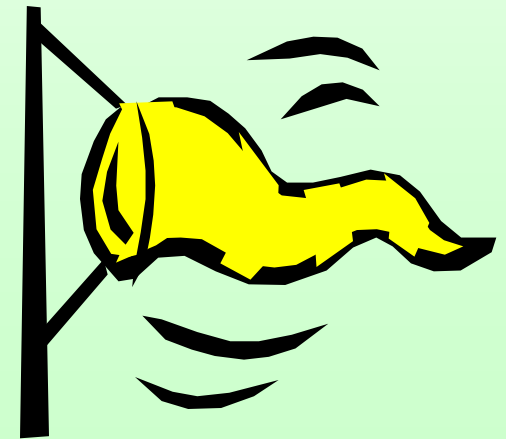
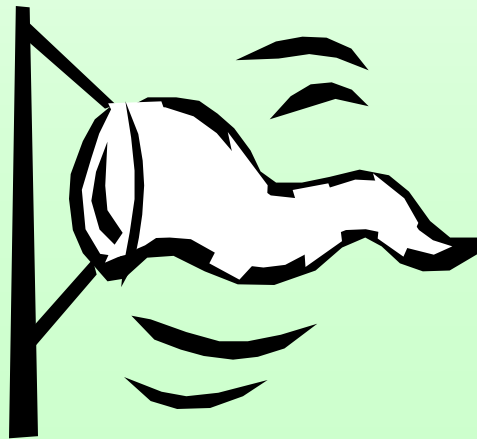
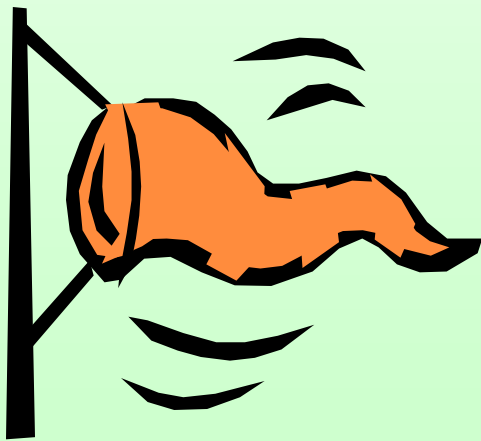
WIND SOCK OPERATION

- ✿ Rotate freely around a vertical shaft
- ✿ In wind speeds of 3 knots or more, must indicate true wind direction $\pm 5^\circ$
- ✿ When fully extended, indicate approximately 15 knots of wind



WIND SOCK SPECIFICATIONS

- ◆ White, yellow or orange to contrast with surroundings
- ◆ Primary wind socks - 8 or 12 feet long
- ◆ Supplemental wind socks - 5 to 9 feet long



WIND SOCK SPECIFICATIONS

- ◆ Support pole must be
 - ✓ Perfectly vertical
 - ✓ Capable of supporting the wind sock in wind speeds up to 75 knots
 - ✓ Frangible and cause minimum damage if struck by aircraft

WIND SOCK SPECIFICATIONS

- ◆ Lighting must
 - ✓ Provide minimum 2 foot-candles illumination
 - ✓ Provide no glare that would interfere with aircraft or ATCT operations
 - ✓ For supplemental indicators, be visible to aircraft from 1/2 mile away

WIND SOCK SPECIFICATIONS

- ◆ Primary wind indicators should
 - ✓ Be centrally located with respect to runways
 - ✓ Not violate any airport surfaces such as RSAs, OFZs or Part 77 surfaces

WIND SOCK SPECIFICATIONS

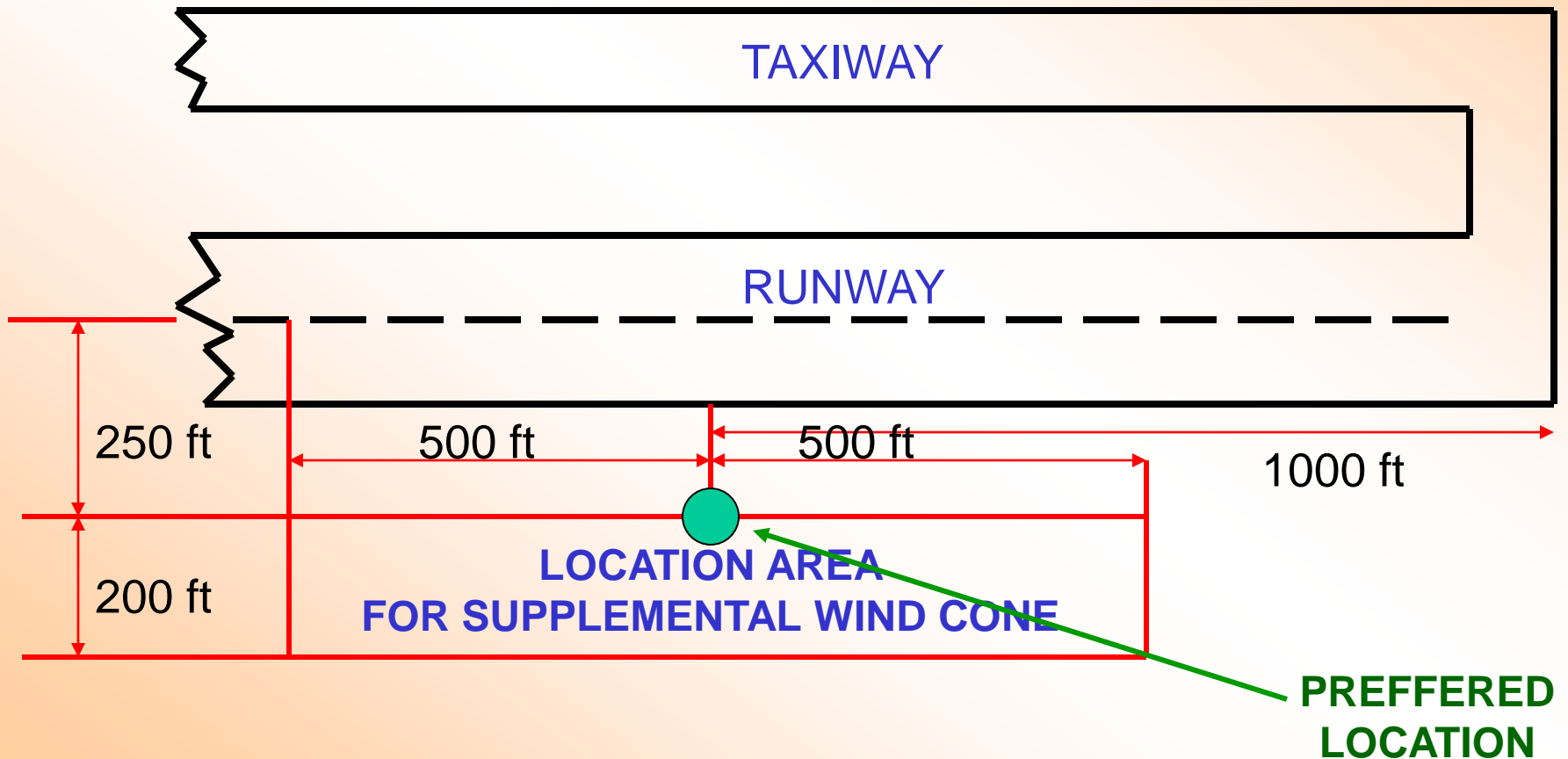
- ◆ Supplemental wind indicators should
 - ✓ Be a low mass type
 - ✓ Be no more than 10 feet high
 - ✓ Not penetrate the OFZ
 - ✓ Provide wind information for a specific runway end

WIND SOCK SPECIFICATIONS

- ◆ Supplemental wind indicators should
 - ✓ Be located 500' - 1500' from the runway end
 - ✓ Be on the left side of landing aircraft unless special circumstances exist
 - ✓ Be no closer than 250' from the runway CL

NOTE: Preferred location is 1000' from the end and 250' left of CL

LOCATION OF SUPPLEMENTAL WIND SOCK



SEGMENTED CIRCLE AIRPORT MARKER SYSTEM

- ◆ A system of pilot aids and air traffic control devices
- ◆ Must be highly visible and conspicuous to the pilot
- ◆ Lighting not required

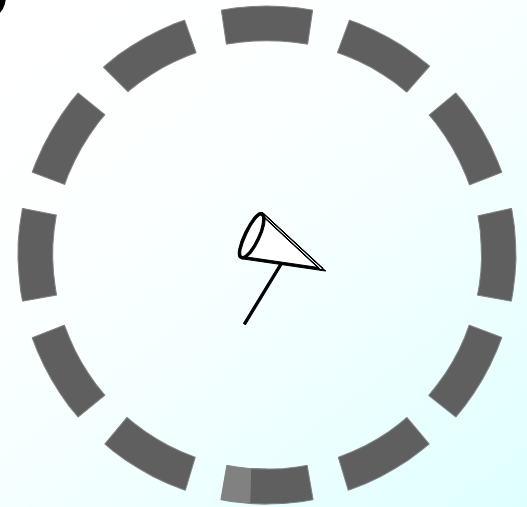
SEGMENTED CIRCLE AIRPORT MARKER SYSTEM

- ◆ May consist of
 - ➔ Segmented circle*
 - ➔ Landing strip indicator*
 - ➔ Traffic pattern indicator*
 - ➔ Closed field signal
 - ➔ Wind direction indicator
 - ➔ Landing direction indicator (wind tee)
 - ➔ Right turn indicator

* Required
by Part 139

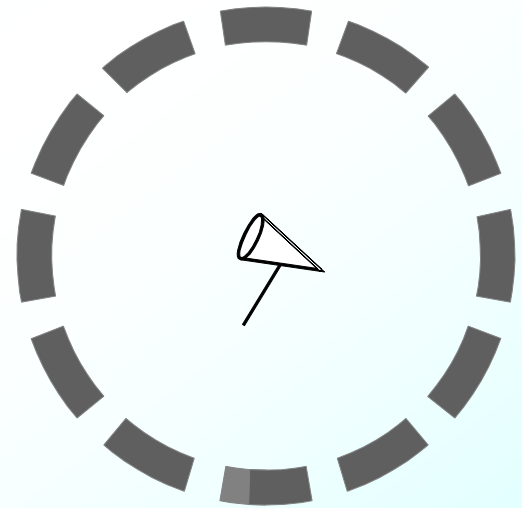
SEGMENTED CIRCLE

- ✿ Aids the pilot in locating obscure airports
- ✿ Indicates where traffic and wind indicators are located



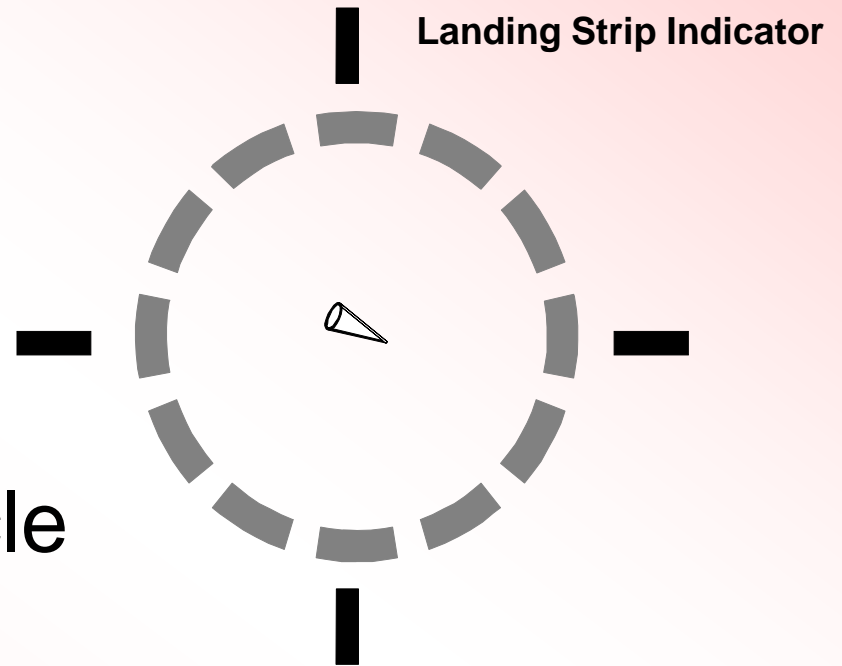
SEGMENTED CIRCLE

- ★ Installed in a position of maximum visibility
- ★ If possible, located around the primary wind cone



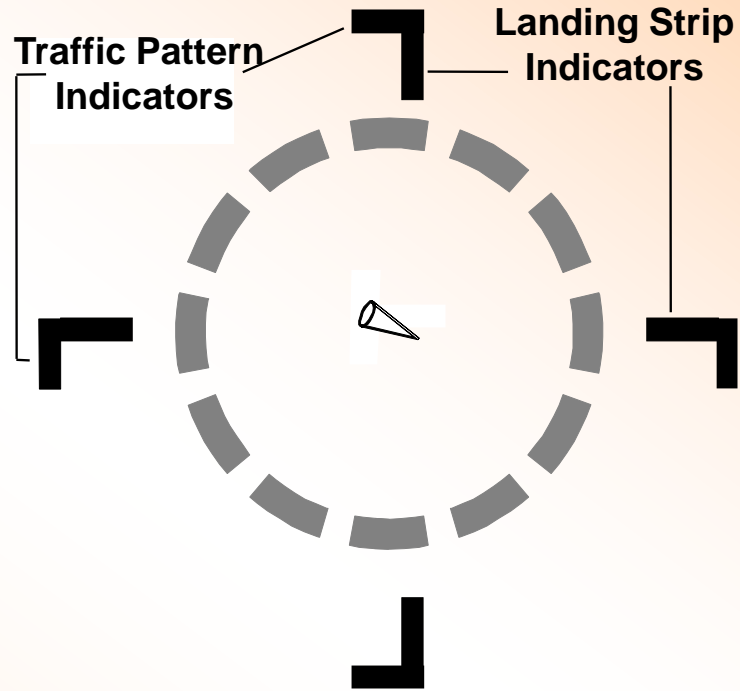
LANDING STRIP INDICATOR

- Necessary when a right-hand traffic pattern exists or is required
- Located outside the segmented circle
- Laid out parallel to the runway



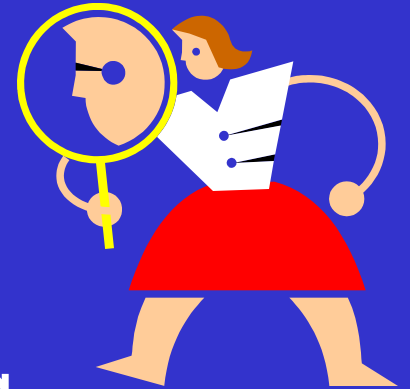
TRAFFIC PATTERN INDICATOR

- Used only on runways with right-hand traffic patterns



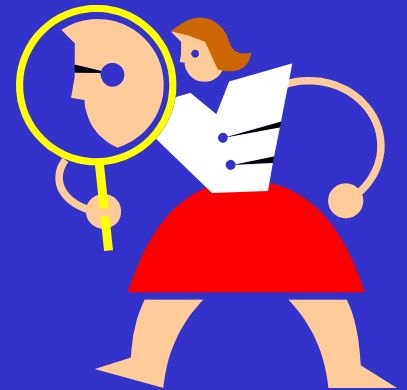
ACSI CHECKLIST FOR WIND INDICATORS

- ✓ Free rotation of wind sock
- ✓ Condition of wind sock
- ✓ Lights operational/not missing
- ✓ Sock color contrasts with surroundings
- ✓ Vertical (plumb) support

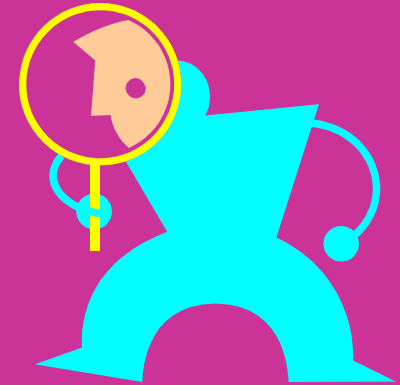


ACSI CHECKLIST FOR WIND INDICATORS

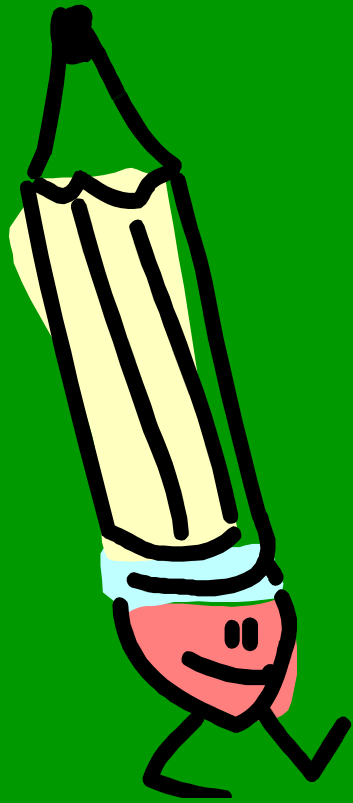
- ✓ Operational obstruction lighting if required
- ✓ Placement not in the OFZ or safety area unless approved by an airspace determination
- ✓ Accurate information in the ACM



ACSI CHECKLIST FOR TRAFFIC INDICATORS



- ✓ Indicators not obscured
- ✓ Ground inside circle is free of vegetation and treated to provide added contrast
- ✓ Conspicuous coloration
- ✓ Well maintained
- ✓ If required, landing strip and traffic pattern indicators correctly positioned



END-OF-LESSON QUESTIONS?