Optical Phenomena – An Engaging Online Learning Module

A demonstration of a jointly developed online learning module

Fabienne Werder (EUMETCAL / MeteoSwiss)

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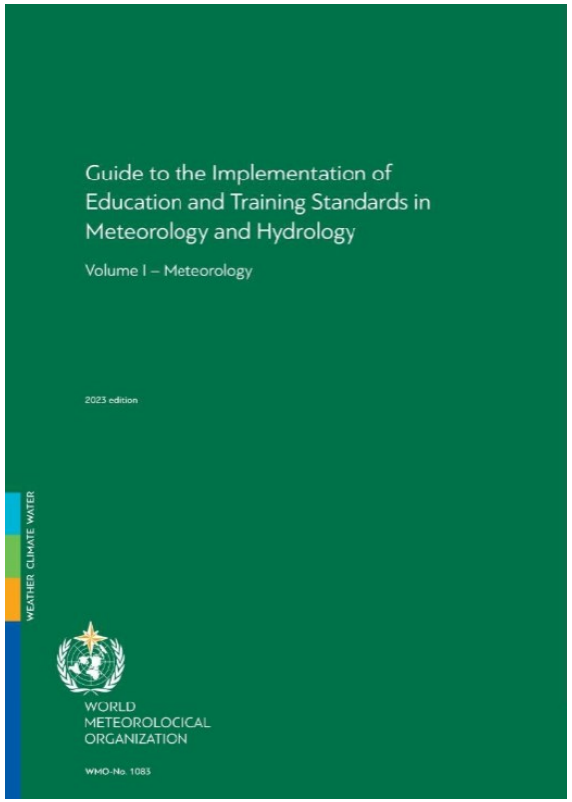
Why optical phenomena?

BIP-M



Fascinating topic

Social Media

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How can we engage the learners?

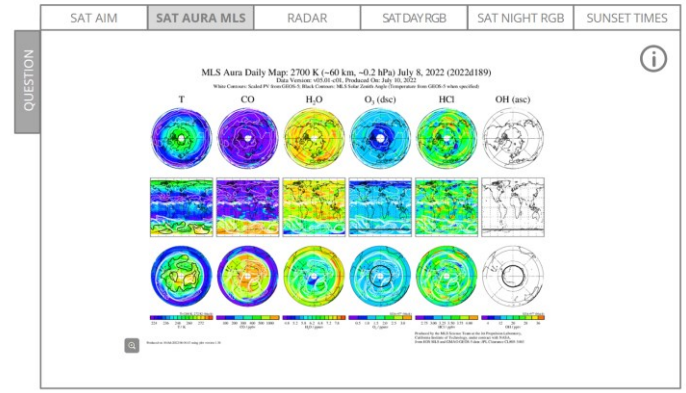
POLAR STRATOSPHERIC CLOUDS **NOCTILUCENT CLOUDS** QUIZ

It is the 9th of July 2022 and you are at work. Today you are responsible for social media during your shift. You have seen an amazing tweet about noctilucent clouds that you would love to share.

However, before sharing it, you want to make sure that the image is really from last night.

That's why you decide to look at the meteorological observational data from the past night and see whether the relevant meteorological parameters allowed the formation of NLC.

POLAR STRATOSPHERIC CLOUDS **NOCTILUCENT CLOUDS** QUIZ



A MEANINGFUL SITUATION

A STIMULUS OR URGENCY TO ACT

CONSEQUENCES OF USER ACTIONS & GUIDANCE

A PHYSICAL RESPONSE OR GUESTURE IN RESPONSE TO THE CHALLENGE

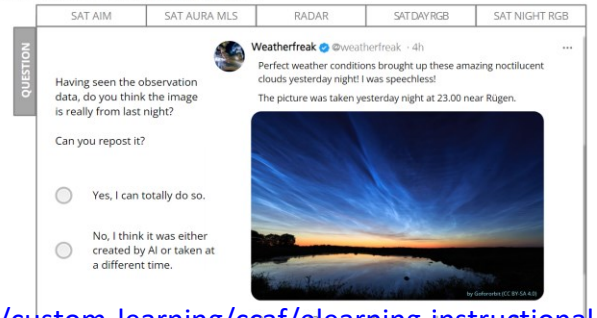
It is fine to repost the photo as you have analysed the situation well and the conditions were indeed favourable.

As you cannot be sure of the location and the time, it is good that you did not include this in your text.

However, you did add the name of the photographer or person who made the original post to your retweet, which is correct.

Now let's wrap up the topic of noctilucent clouds so that you are fully prepared for the next similar situation!

POLAR STRATOSPHERIC CLOUDS **NOCTILUCENT CLOUDS** QUIZ



From https://www.alleninteractions.com/services/custom-learning/ccaf/elearning-instructional-design

Optical phenomena

Polar stratospheric clouds and noctilucent clouds

Learn about polar stratospheric clouds and noctilucent clouds and the meteorological conditions that make them appear.

START

Challenge

POLAR STRATOSPHERIC CLOUDS NOCTILUCENT CLOUDS QUIZ

It is the 26th of February 2022 and you are on duty today when Sheila, the manager of a film production, calls your met service. With her team, she is producing a documentary movie in the surroundings of Hamburg and wants to know if there is a chance that they can see polar stratospheric clouds during the next nigh

As you are responsible f
you will look int
right after

5 minutes to test the module and see if you can make Sheila happy ☺

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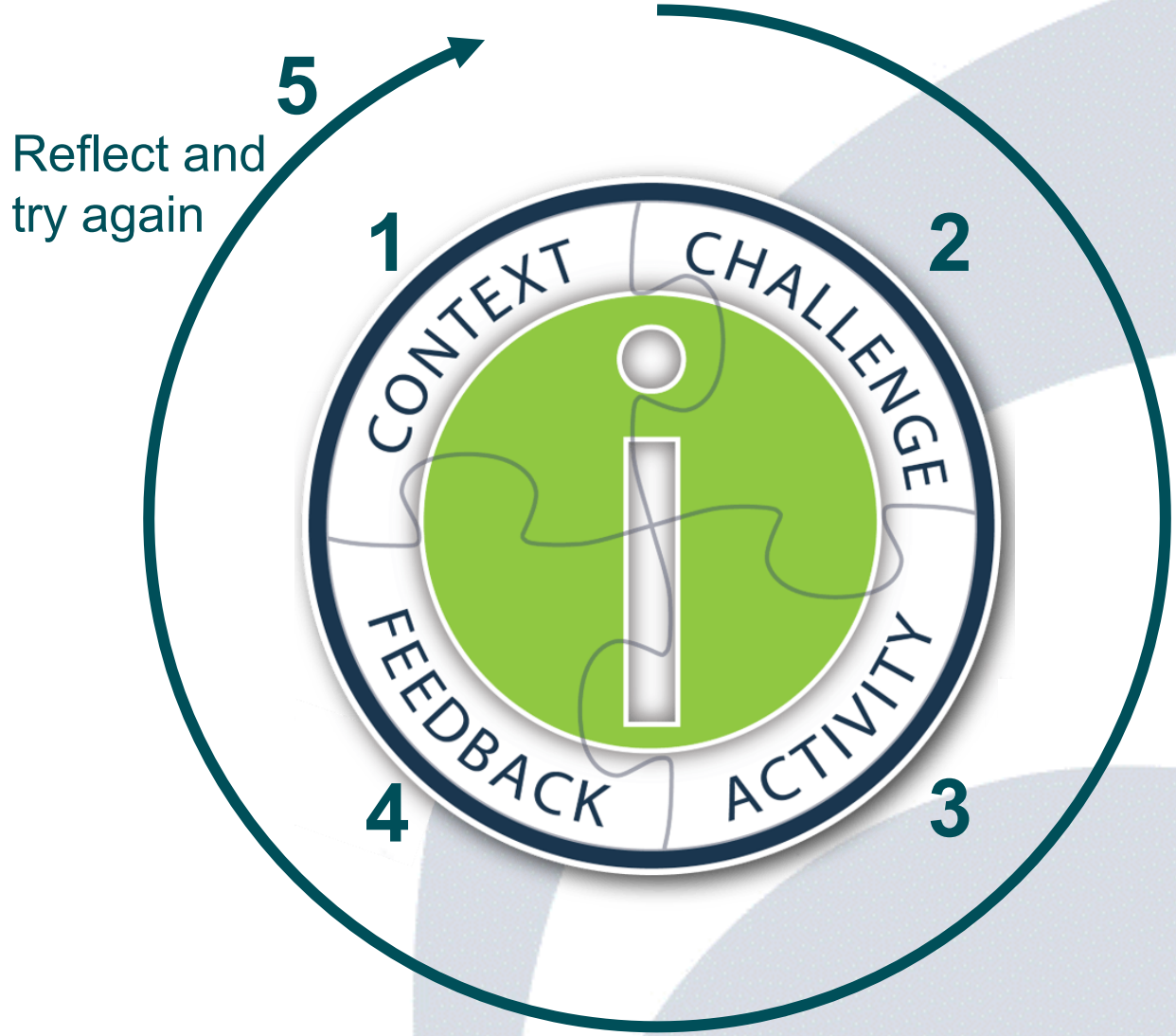
https://360.articulate.com/review/content/6b46d1e7-8160-41a2-9324-e82fed2896c6/review

Challenge

https://360.articulate.com/review/content/6b46d1e7-8160-41a2-9324-e82fed2896c6/review

- Do you think that they can see polar stratospheric clouds?
- What is the approximate 50 hPa temperature for the Hamburg area?
- When does the sun rise at the specific date that Sheila asks for?

How can we engage the learners?



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Module on the EUMETCAL Portal

https://eumetcal.eu/en/ui#/catalog/course/c13dea61-67f7-46f4-b1bf-172edadaea48

Sources

- CCAF Design Model by Allen Interactions: https://www.alleninteractions.com/services/custom-learning/ccaf/elearning-instructional-design
- WMO Guide to the Implementation of Education and Training Standards in Meteorology and Hydrology; Volume I – Meteorology (2023 Edition) https://library.wmo.int/viewer/35676?medianame=wmo_1083_en_#page=1&viewer=picture&o=bookmark&n=0&q=

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