

TRAINING AND OUTREACH MATTERS

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Summary and Purpose of Document

This document proposes some issues related to the space weather training and outreach. It emphasized the need to transfer the space weather knowledge to the users which include those non-space-weather people. Some proposals are also addressed to encourage the training and outreach for space weather and space weather operation.

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ACTION PROPOSED

The Inter-Programme Coordination Team is invited to discuss some issues related to the space weather training and outreach:

- (1) Target, structures and materials of the training website
- (2) Issues making people space weather awareness
- (3) Proposed actions for training and outreach

DISCUSSION

1. INTRODUCTION

1.1 Background

Although it is well-known in space weather community that space weather could affect the the modern technological society, on the whole, for many people, the term "space weather" just means the sunspots and the amazing and beautiful aurora. With the increasing vulnerability to Space Weather, our society should be better informed about space weather. So much attention needs to be paid to training and outreach in the near-future ICTSW plans.

1.2 Recent developments

The establishment of the space weather product portal in WMO provides easy access to the space weather products of different providers. For professional users, it's good and clear, but for general non-space-weather readers or many people, it may be less attractive. The collected training materials and references need to be reorganized and posted on the portal.

2. ISSUES: the WMO space weather training website

The present document summarises the status of the WMO space weather training website and proposals to encourage training and outreach. The web-based training and education is easily to be implemented for different people for different uses.

2.1 Target

We need discuss and emphasize the target of the space weather training website. Different people maybe need different education information and resources. In general, the training website is used to help the general people and space weather community to understand space weather:

1. What is space weather?
 2. How do people know space weather?
 3. How is space weather related to traditional weather?
 4. How is space weather different from weather?
 5. Why is space weather important?
 6. What does the training website include?
 7. What are space weather operational activities?
 8. What kind of the space weather products are posted in the website?
 9. How does space weather impact the society?
 10. How do people know about Space Weather?
 11. How to get the information from the training website?
-etc.

The construction of the training website should be focused on the "what and how", how to read the space weather products of (the WMO website), how to get access to the products for requirements.

2.2 Proposed Structure of the training website

The training website should provide an easy structure for different people for different demands. The website may include two parts: one is the light part in which there are short description on some topics, and another one is heavy part in which there are a bunch of links with providing more information on the interested topics. The structure of this website may be proposed as following:

- **Space Weather Knowledge: Basics**
 - **Introduction to space weather**
 - **Space weather and human activities**
 - ◇ **Aviation**
 - ◇ **Power and Pipe**
 - ◇ **Satellite**
 - ◇ **Health**
 - **Space weather scales and indices**
 - **Space Weather glossary**
- **Space Weather Knowledge: Helping you understand**
 - **Read the space weather products**
 - **How to forecast the space weather**
- **Space Weather Knowledge: Helping you searching**
 - **The resource of WMO space weather website?**
- **Space Weather Knowledge: Special topics**
 - **Severe space weather events in history**
 - **Key**
 - ◇ **The sun**
 - ◇ **Solar Wind**
 - ◇ **Interplanetary**
 - ◇ **Magnetosphere**
 - ◇ **Ionosphere**
 - ◇ **Thermosphere**
 - ◇ **Upper atmosphere**
 - ◇ **.....**
- **Quickly access to the products**
- **External source guide**

Before posting training materials, the ICTSW team should clarify what type of material should be posted and finalize the definition of the structure and contents. Some comments on the portal are:

1. Adding a guidance (a clickable structure picture) on how to use training materials on the portal.
2. Adding non-link information for light part of training website
3. Posting links for heavy part of the website

3. PROPOSALS FOR TRAINING AND OUTREACH

1. **‘Training and outreach workshop’** for those non-space-weather WMO members
2. **‘Space weather day’** for general people or for public
3. **‘Capability building workshop’** for those space weather forecasters
4. **‘The enterprise (and/or practice) forum for space weather user** for space weather providers and customers